**Product Description**

This Halcyon Classics ebook collection contains fifty science fiction short stories and novellas by more than forty different authors. Most of the stories in this collection were published during the heyday of popular science fiction magazines from the 1930s to the 1960s.

Included within this work are stories by H. Beam Piper, Murray Leinster, Randall Garrett, Robert Sheckley, Stanley Weinbaum, Alan Nourse, Raymond Z. Gallun, Robert Bloch, Marion Zimmer Bradley, and many others.

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The power of the old gods was certainly nothing for Mark and Edith—a modern, twentieth-century couple—to worry about. After all—everybody dies!

Twenty years had left no trace inside Sam Kee's little shop on Mott Street. There were the same dusty jars of ginseng root and tigers' whiskers, the same little bronze Buddhas, the same gim-cracks mixed with fine jade. Edith Williams gave a little murmur of pleasure as the door shut behind them.

"Mark," she said, "it hasn't changed! It doesn't look as if a thing had been sold since we were here on our honeymoon."

"It certainly doesn't," Dr. Mark Williams agreed, moving down the narrow aisle behind her. "If someone hadn't told us Sam Kee was dead, I'd believe we'd stepped back twenty years in time, like they do in those scientific stories young David reads."

"We must buy something," his wife said. "For a twentieth anniversary present for me. Perhaps a bell?"

From the shadowy depths of the shop a young man emerged, American in dress and manner despite the Oriental contours of his face and eyes.

"Good evening," he said. "May I show you something?"

"We think we want a bell," Dr. Williams chuckled. "But we aren't quite sure. You're Sam Kee's son?"

"Sam Kee, junior. My honored father passed to the halls of his ancestors five years ago. I could just say that he died—" black eyes twinkled—"but customers like the more flowery mode of speech. They think it's quaint."

"I think it's just nice, and not quaint at all," Edith Williams declared. "We're sorry your father is dead. We'd hoped to see him again. Twenty years ago when we were a very broke young couple on a honeymoon he sold us a wonderful rose-crystal necklace for half price."

"I'm sure he still made a profit." The black eyes twinkled again. "But if you'd like a bell, here are small temple bells, camel bells, dinner bells...."

But even as he spoke, Edith Williams' hand darted to something at the back of the shelf.

"A bell carved out of crystal!" she exclaimed. "And rose-crystal at that. What could be more perfect? A rose-crystal wedding present and a rose-crystal anniversary present!"

The young man half stretched out his hand.

"I don't think you want that," he said. "It's broken."

"Broken?" Edith Williams rubbed off the dust and held the lovely bell-shape of crystal, the size of a pear, to the light. "It looks perfect to me."

"I mean it is not complete." Something of the American had vanished from the young man. "It has no clapper. It will not ring."

"Why, that's right." Mark Williams took the bell. "The clapper's missing."

"We can have another clapper made," his wife declared. "That is, if the original can't be found?"

The young Chinese shook his head.

"The bell and the clapper were deliberately separated by my father twenty years ago." He hesitated, then added: "My father was afraid of this bell."

"Afraid of it?" Mark Williams raised his eyebrows. "The other hesitated again.

"It will probably sound like a story for tourists," he said. "But my father believed it. This bell was supposedly stolen from the temple of a sect of Buddhists somewhere in the mountains of China's interior. Just as many Occidentals believe that the Christian Judgement Day will be heralded by a blast on St. Peter's trumpet, so this small sect is said to believe that when a bell like this one is rung, a bell carved from a single piece of rose crystal, and
consecrated by ceremonies lasting ten years, any dead within sound of it will rise and live again."

"Heavenly!" Edith Williams cried. "And no pun intended. Mark, think what a help this bell will be in your
practise when we make it ring again!" To the Chinese she added, smiling: "I'm just teasing him. My husband is
really a very fine surgeon."

The other bowed his head.

"I must tell you," he said, "you will not be able to make it ring. Only the original clapper, carved from the same
block of rose crystal, will ring it. That is why my father separated them."

Again he hesitated.

"I have told you only half of what my father told me. He said that, though it defeats death, Death can not be
defeated. Robbed of his chosen victim, he takes another in his place. Thus when the bell was used in the temple of
its origin--let us say when a high priest or a chief had died--a slave or servant was placed handy for Death to take
when he had been forced to relinquish his grasp upon the important one."

He smiled, shook his head.

"There," he said. "A preposterous story. Now if you wish it, the bell is ten dollars. Plus, of course, sales tax."

"The story alone is worth more," Dr. Williams declared. "I think we'd better have it sent, hadn't we, Edith? It'll
be safer in the mail than in our suitcase."

"Sent?" His wife seemed to come out of some deep feminine meditation. "Oh, of course. And as for its not
ringing--I shall make it ring. I know I shall."

"If the story is true," Mark Williams murmured, "I hope not...."

* * * * *

The package came on a Saturday morning, when Mark Williams was catching up on the latest medical
publications in his untidy, book-lined study. He heard Edith unwrapping paper in the hall outside. Then she came in
with the rose-crystal bell in her hands.

"Mark, it's here!" she said. "Now to make it ring."

She plumped herself down beside his desk. He took the bell and reached for a silver pencil.

"Just for the sake of curiosity," he remarked, "and not because I believe that delightful sales talk we were given,
let's see if it will ring when I tap. It should, you know."

He tapped the lip of the bell. A muted thunk was the only response. Then he tried with a coin, a paper knife,
and the bottom of a glass. In each instance the resulting sound was nothing like a bell ringing.

"If you've finished, Mark," Edith said then, with feminine tolerance, "let me show you how it's done."

"Gladly," her husband agreed. She took the bell and turned away for a moment. Then she shook the bell
vigorously. A clear, sweet ringing shivered through the room--so thin and ethereal that small involuntary shivers
crawled up his spine.

"Good Lord!" he exclaimed. "How did you do that?"

"I just put the clapper back in place with some thread," Edith told him.

"The clapper?" He struck his forehead with his palm. "Don't tell me--the crystal necklace we bought twenty
years ago!"

"Of course." Her tone was composed. "As soon as young Sam Kee told us about his father's separating the
clapper and the bell, I remembered the central crystal pendant on my necklace. It is shaped like a bell clapper--we
mentioned it once.

"I guessed right away we had the missing clapper. But I didn't say so. I wanted to score on you, Mark--" she
smiled affectionately at him--"and because, you know, I had a queer feeling Sam Kee, junior, wouldn't let us have
the bell if he guessed we had the clapper."

"I don't think he would." Mark Williams picked up his pipe and rubbed the bowl with his thumb. "Yet he didn't
really believe that story he told us any more than we do."

"No, but his father did. And if old Sam Kee had told it to us--remember how wrinkled and wise he seemed?--I
do believe we'd have believed the story."

"You're probably right." Dr. Williams rang the bell and waited. The thin, sweet sound seemed to hang in the air
a long moment, then was gone.

"Nope," he said. "Nothing happened. Although, of course, that may be because there was no deceased around
to respond."

"I'm not sure I feel like joking about the story." A small frown gathered on Edith's forehead. "I had planned to
use the bell as a dinner bell and to tell the story to our guests. But now--I'm not sure."

Frowning, she stared at the bell until the ringing of the telephone in the hall brought her out of her abstraction.

"Sit still, I'll answer." She hurried out. Dr. Williams, turning the rose crystal bell over in his hand, could hear
the sudden tension in her voice as she answered. He was on his feet when she reentered.
"An emergency operation at the hospital," she sighed. "Nice young man--automobile accident. Fracture of the skull, Dr. Amos says. He wouldn't have disturbed you but you're the only brain man in town, with Dr. Hendryx away on vacation."

"I know." He was already in the hall, reaching for his hat. "Man's work is from sun to sun, but a doctor's work is never done," he misquoted.

"I'll drive you." Edith followed him out. "You sit back and relax for another ten minutes...."

Two hours later, as they drove homeward, the traffic was light, which was fortunate. More than once Mark, in a frowning abstraction, found himself on the left of the center line and had to pull back into his own lane.

He had lost patients before, but never without a feeling of personal defeat. Edith said he put too much of himself into every operation. Perhaps he did. And yet--No, there was every reason why the young man should have lived. Yet, just as Mark Williams had felt that he had been successful, the patient had died.

In twenty years of marriage, Edith Williams had learned to read his thoughts at times. Now she put a hand comfortably on his arm.

"These things happen, darling," she said. "You know that. A doctor can only do so much. Some of the job always remains in the hands of Nature. And she does play tricks at times."

"Yes, confound it, I know it," her husband growled. "But I resent losing that lad. There was no valid reason for it--unless there was some complication I overlooked." He shook his head, scowling. "I ordered an autopsy but--Yes, I'm going to do that autopsy myself. I'm going to turn back and do it now. I have to know!"

He pulled abruptly to the left to swing into a side road and turn. Edith Williams never saw the car that hit them. She heard the frantic blare of a horn and a scream of brakes, and in a frozen instant realized that there had been someone behind them, about to pass. Then the impact came, throwing her forward into the windshield and unconsciousness.

Edith Williams opened her eyes. Even before she realized that she was lying on the ground and that the figure bending over her was a State Trooper, she remembered the crash. Her head hurt but there was no confusion in her mind. Automatically, even as she tried to sit up, she accepted the fact that there had been a crash, help had come, and she must have been unconscious for several minutes at least.

"Hey, lady, take it easy!" the Trooper protested. "You had a bad bump. You got to lie still until the ambulance gets here. It'll be along in five minutes."

"Mark," Edith said, paying no attention. "My husband! Is he all right?"

"Now lady, please. He's being taken care of. You--"

But she was not listening. Holding to his arm she pulled herself to a sitting position. She saw their car on its side some yards away, other cars pulled up around them, a little knot of staring people. Saw them and dismissed them. Her gaze found her husband, lying on the ground a few feet away, a coat folded beneath his head.

Mark was dead. She had been a doctor's wife for twenty years, and before that a nurse. She knew death when she saw it.

"Mark." The word was spoken to herself, but the Trooper took it for a question.

"Yes, lady," he said. "He's dead. He was still breathing when I got here, but he died two, three minutes ago."

She got to her knees. Her only thought was to reach his side. She scrambled across the few feet of ground to him still on her knees and crouched beside him, fumbling for his pulse. There was none. There was nothing. Just a man who had been alive and now was dead.

Behind her she heard a voice raised. She turned. A large, disheveled man was standing beside the Trooper, talking loudly.

"Now listen, officer," he was saying, "I'm telling you again, it wasn't my fault. The guy pulled sharp left right in front of me. Not a thing I could do. It's a wonder we weren't all three of us killed. You can see by the marks on their car it wasn't my fault--"

Edith Williams closed her mind to the voice. She let Mark's hand lie in her lap as she fumbled in her bag, which was somehow still clutched in her fingers. She groped for a handkerchief to stem the tears which would not be held back. Something was in the way--something smooth and hard and cold. She drew it out and heard the thin, sweet tinkle of the crystal bell. She must have dropped it automatically into her bag as they were preparing to leave the house.

The hand in her lap moved. She gasped and bent forward as her husband's eyes opened.

"Mark!" she whispered. "Mark, darling!"

"Edith," Mark Williams said with an effort. "Sorry--damned careless of me. Thinking of the hospital...."

"You're alive!" she said. "You're alive! Oh, darling, darling, lie still, the ambulance will be here any second."
"Ambulance?" he protested. "I'm all right now. Help me--sit up."
"But Mark--"
"Just a bump on the head." He struggled to sit up. The State Trooper came over.
"Easy, buddy, easy," he said, his voice awed. "We thought you were gone. Now let's not lose you a second time." His mouth was tight.
"Hey, I'm sure glad you're all right!" the red-faced man said in a rush of words. "Whew, fellow, you had me all upset, even though it wasn't my fault. I mean, how's a guy gonna keep from hitting you when--when--"
"Catch him!" Mark Williams cried, but the Trooper was too late. The other man plunged forward to the ground and lay where he had fallen without quivering.

* * * * *
The clock in the hall struck two with muted strokes. Cautiously Edith Williams rose on her elbow and looked down at her husband's face. His eyes opened and looked back at her.
"You're awake," she said, unnecessarily.
"I woke up a few minutes ago," he answered. "I've been lying here--thinking."
"I'll get you another phenobarbital. Dr. Amos said for you to take them and sleep until tomorrow."
"I know. I'll take one presently. You know--hearing that clock just now reminded me of something."
"Yes?"
"Just before I came to this afternoon, after the crash, I had a strange impression of hearing a bell ring. It sounded so loud in my ears I opened my eyes to see where it was."
"A--bell?"
"Yes. Just auditory hallucination, of course."
"But Mark--"
"Yes?"
"A--a bell did ring. I mean, I had the crystal bell in my bag and it tinkled a little. Do you suppose--"
"Of course not." But though he spoke swiftly he did not sound convincing. "This was a loud bell. Like a great gong."
"But--I mean, Mark darling--a moment earlier you--had no pulse."
"No pulse?"
"And you weren't--breathing. Then the crystal bell tinkled and you--you...."
"Nonsense! I know what you're thinking and believe me--it's nonsense!"
"But Mark." She spoke carefully. "The driver of the other car. You had no sooner regained consciousness than he--"
"He had a fractured skull!" Dr. Williams interrupted sharply. "The ambulance intern diagnosed it. Skull fractures often fail to show themselves and then--bingo, you keel over. That's what happened. Now let's say no more about it."

"Of course." In the hall, the clock struck the quarter hour. "Shall I fix the phenobarbital now?"
"Yes--no. Is David home?"
She hesitated. "No, he hasn't got back yet."
"Has he phoned? He knows he's supposed to be in by midnight at the latest."
"No, he--hasn't phoned. But there's a school dance tonight."
"That's no excuse for not phoning. He has the old car, hasn't he?"
"Yes. You gave him the keys this morning, remember?"
"All the more reason he should phone." Dr. Williams lay silent a moment. "Two o'clock is too late for a 17-year-old boy to be out."
"I'll speak to him. He won't do it again. Now please, Mark, let me get you the phenobarbital. I'll stay up until David--"

* * * * *
The ringing phone, a clamor in the darkness, interrupted her. Mark Williams reached for it. The extension was beside his bed.
"Hello," he said. And then, although she could not hear the answering voice, she felt him stiffen. And she knew. As well as if she could hear the words she knew, with a mother's instinct for disaster.
"Yes," Dr. Williams said. "Yes ... I see ... I understand ... I'll come at once.... Thank you for calling."
He slid out of bed before she could stop him.
"An emergency call." He spoke quietly. "I have to go." He began to throw on his clothes.
"It's David," she said. "Isn't it?" She sat up. "Don't try to keep me from knowing. It's about David."
"Yes," he said. His voice was very tired. "David is hurt. I have to go to him. An accident."
"He's dead." She said it steadily. "David's dead, isn't he, Mark?"

He came over and sat beside her and put his arms around her.

"Edith," he said. "Edith--Yes, he's dead. Forty minutes ago. The car--went over a curve. They have him--at the County morgue. They want me to--identify him. Identify him. Edith! You see, the car caught fire!"

"I'm coming with you," she said. "I'm coming with you!"

* * * * *

The taxi waited in a pool of darkness between two street lights. The long, low building which was the County morgue, a blue lamp over its door, stood below the street level. A flight of concrete steps went down to it from the sidewalk. Ten minutes before, Dr. Mark Williams had gone down those steps. Now he climbed back up them, stiffly, wearily, like an old man.

Edith was waiting in the taxi, sitting forward on the edge of the seat, hands clenched. As he reached the last step she opened the door and stepped out.

"Mark," she asked shakily, "was it--"

"Yes, it's David." His voice was a monotone. "Our son. I've completed the formalities. For now the only thing we can do is go home."

"I'm going to him!" She tried to pass. He caught her wrist. Discretely the taxi driver pretended to doze.

"No, Edith! There's no need. You mustn't--see him!"

"He's my son!" she cried. "Let me go!"

"No! What have you got under your coat?"

"It's the bell, the rose-crystal bell!" she cried. "I'm going to ring it where David can hear!"

Defiantly she brought forth her hand, clutching the little bell. "It brought you back, Mark! Now it's going to bring back David!"

"Edith!" he said in horror. "You mustn't believe that's possible. You can't. Those were coincidences. Now let me have it."

"No! I'm going to ring it." Violently she tried to break out of his grip. "I want David back! I'm going to ring the bell!"

She got her hand free. The crystal bell rang in the quiet of the early morning with an eerie thinness, penetrating the silence like a silver knife.

"There!" Edith Williams panted. "I've rung it. I know you don't believe, but I do. It'll bring David back." She raised her voice. "David!" she called. "David, son! Can you hear me?"


"Not until David has come back.... David, David, can you hear me?" She rang the bell again, rang it until Dr. Williams seized it, then she let him take it.

"Edith, Edith," he groaned. "If only you had let me come alone...."

"Mark, listen!"

"What?"

"Listen!" she whispered with fierce urgency.

He was silent. And then fingers of horror drew themselves down his spine at the clear, youthful voice that came up to them from the darkness below.

"Mother?... Dad?... Where are you?"

"David!" Edith Williams breathed. "It's David! Let me go! I must go to him."

"No, Edith!" her husband whispered frantically, as the voice below called again.

"Dad?... Mother?... Are you up there? Wait for me."

"Let me go!" she sobbed. "David, we're here! We're up here, son!"

"Edith!" Mark Williams gasped. "If you've ever loved me, listen to me. You mustn't go down there. David--I had to identify him by his class ring and his wallet. He was burned--terribly burned!"

"I'm going to him!" She wrenched herself free and sped for the steps, up which now was coming a tall form, a shadow shrouded in the darkness.

Dr. Williams, horror knotting his stomach, leaped to stop her. But he slipped and fell headlong on the pavement, so that she was able to pant down the stairs to meet the upcoming figure.

"Oh, David," she sobbed, "David!"

"Hey, Mom!" The boy held her steady. "I'm sorry. I'm terribly sorry. But I didn't know what had happened until I got home and you weren't there and then one of the fellows from the fraternity called me. I realized they must have made a mistake, and you'd come here, and I called for a taxi and came out here. My taxi let me off at the entrance around the block, and I've been looking for you down there.... Poor Pete!"

"Pete?" she asked.
“Pete Friedburg. He was driving the old car. I lent him the keys and my driver's license. I shouldn't have—but he's older and he kept begging me...."

"Then--then it's Pete who was killed?" she gasped. "Pete who was--burned?"

"Yes, Pete. I feel terrible about lending him the car. But he was supposed to be a good driver. And then them calling you, you and Dad thinking it was me--"

"Then Mark was right. Of course he was right." She was laughing and sobbing now. "It's just a bell, a pretty little bell, that's all."

"Bell? I don't follow you, Mom."

"Never mind," Edith Williams gasped. "It's just a bell. It hasn't any powers over life and death. It doesn't bring back and it doesn't take away. But let's get back up to your father. He may be thinking that the bell--that the bell really worked."

They climbed the rest of the steps. Dr. Mark Williams still lay where he had fallen headlong on the pavement. The cab driver was bending over him, but there was nothing to be done. The crystal bell had been beneath him when he fell, and it had broken. One long, fine splinter of crystal was embedded in his heart.
The telescreen lit up promptly at eight a.m. Smiling Brad came on with his usual greeting. "Good morning—it's a beautiful day in Chicagee!"

Harry Collins rolled over and twitched off the receiver. "This I doubt," he muttered. He sat up and reached into the closet for his clothing.

Visitors—particularly feminine ones—were always exclaiming over the advantages of Harry's apartment. "So convenient," they would say. "Everything handy, right within reach. And think of all the extra steps you save!"

Of course most of them were just being polite and trying to cheer Harry up. They knew damned well that he wasn't living in one room through any choice of his own. The Housing Act was something you just couldn't get around; not in Chicagee these days. A bachelor was entitled to one room—no more and no less. And even though Harry was making a speedy buck at the agency, he couldn't hope to beat the regulations.

There was only one way to beat them and that was to get married. Marriage would automatically entitle him to two rooms—if he could find them someplace.

More than a few of his feminine visitors had hinted at just that, but Harry didn't respond. Marriage was no solution, the way he figured it. He knew that he couldn't hope to locate a two-room apartment any closer than eighty miles away. It was bad enough driving forty miles to and from work every morning and night without doubling the distance. If he did find a bigger place, that would mean a three-hour trip each way on one of the commutrains, and the commutrains were murder. The Black Hole of Calcutta, on wheels.

But then, everything was murder, Harry reflected, as he stepped from the toilet to the sink, from the sink to the stove, from the stove to the table.

Powdered eggs for breakfast. That was murder, too. But it was a fast, cheap meal, easy to prepare, and the ingredients didn't waste a lot of storage space. The only trouble was, he hated the way they tasted. Harry wished he had time to eat his breakfasts in a restaurant. He could afford the price, but he couldn't afford to wait in line more than a half-hour or so. His office schedule at the agency started promptly at ten-thirty. And he didn't get out until three-thirty; it was a long, hard five-hour day. Sometimes he wished he worked in the New Philly area, where a four-hour day was the rule. But he supposed that wouldn't mean any real saving in time, because he'd have to live further out. What was the population in New Philly now? Something like 63,000,000, wasn't it? Chicagee was much smaller—only 38,000,000, this year.

This year. Harry shook his head and took a gulp of the Instantea. Yes, this year the population was 38,000,000, and the boundaries of the community extended north to what used to be the old Milwaukee and south past Gary. What would it be like next year, and the year following?

Lately that question had begun to haunt Harry. He couldn't quite figure out why. After all, it was none of his business, really. He had a good job, security, a nice place just two hours from the Loop. He even drove his own car. What more could he ask?

And why did he have to start the day like this, with a blinding headache?

Harry finished his Instantea and considered the matter. Yes, it was beginning again, just as it had on almost every morning for the past month. He'd sit down at the table, eat his usual breakfast, and end up with a headache. Why?

It wasn't the food; for a while he'd deliberately varied his diet, but that didn't make any difference. And he'd had his usual monthly checkup not more than ten days ago, only to be assured there was nothing wrong with him. Still, the headaches persisted. Every morning, when he'd sit down and jerk his head to the left like this—

That was it. Jerking his head to the left. It always seemed to trigger the pain. But why? And where had he picked up this habit of jerking his head to the left?

Harry didn't know.

He glanced at his watch. It was almost nine, now. High time that he got started. He reached over to the interapartment video and dialled the garage downstairs.

"Bill," he said. "Can you bring my car around to Number Three?"

The tiny face in the hand-screen grinned sheepishly. "Mr. Collins, ain't it? Gee, I'm sorry, Mr. Collins. Night crew took on a new man, he must have futzed around with the lists, and I can't find your number."

Harry sighed. "It's one-eight-seven-three-dash-five," he said. "Light blue Pax, two-seater. Do you want the
"What license number, too?"
"No, just your parking number. I'll recognize it when I see it. But God only knows what level it's on. That night man really—"
"Never mind," Harry interrupted. "How soon?"
"Twenty minutes or so. Maybe half an hour."
"Half an hour? I'll be late. Hurry it up!"
Harry clicked the video and shook his head. Half an hour! Well, you had to expect these things if you wanted to be independent and do your own driving today. If he wanted to work his priority through the office, he could get his application honored on the I.C. Line within a month. But the I.C. was just another commuter train, and he couldn't take it. Standing and swaying for almost two hours, fighting the crowds, battling his way in and out of the sidewalk escalators. Besides, there was always the danger of being crushed. He'd seen an old man trampled to death on a Michigan Boulevard escalator-feeder, and he'd never forgotten it.

Being afraid was only a partial reason for his reluctance to change. The worst thing, for Harry, was the thought of all those people; the forced bodily contact, the awareness of smothered breathing, odors, and the crushing confinement of flesh against flesh. It was bad enough in the lines, or on the streets. The commuter train was just too much.

Yet, as a small boy, Harry could remember the day when he'd loved such trips. Sitting there looking out of the window as the scenery whirled past—that was always a thrill when you were a little kid. How long ago had that been? More than twenty years, wasn't it?

Now there weren't any seats, and no windows. Which was just as well, probably, because the scenery didn't whirl past any more, either. Instead, there was a stop at every station on the line, and a constant battle as people jockeyed for position to reach the exit-doors in time.

No, the car was better.

Harry reached for a container in the cabinet and poured out a couple of aspirin tablets. That ought to help the headache. At least until he got to the office. Then he could start with the daily quota of yellow jackets. Meanwhile, getting out on the street might help him, too. A shame there wasn't a window in this apartment, but then, what good would it do, really? All he could see through it would be the next apartment.

He shrugged and picked up his coat. Nine-thirty, time to go downstairs. Maybe the car would be located sooner than Bill had promised; after all, he had nine assistants, and not everybody went to work on this first daylight shift.

Harry walked down the hall and punched the elevator button. He looked at the indicator, watched the red band move towards the numeral of this floor, then sweep past it.

"Full up!" he muttered. "Oh, well."

He reached out and touched both sides of the corridor. That was another thing he disliked; these narrow corridors. Two people could scarcely squeeze past one another without touching. Of course, it did save space to build apartments this way, and space was at a premium. But Harry couldn't get used to it. Now he remembered some of the old buildings that were still around when he was a little boy—

The headache seemed to be getting worse instead of better. Harry looked at the indicator above the other elevator entrance. The red band was crawling upward, passing him to stop on 48. That was the top floor. Now it was moving down, down; stopping on 47, 46, 45, 44, 43, and—here it was!

"Stand back, please!" said the tape. Harry did his best to oblige, but there wasn't much room. A good two dozen of his upstairs neighbors jammed the compartment. Harry thought he recognized one or two of the men, but he couldn't be sure. There were so many people, so many faces. After a while it got so they all seemed to look alike. Yes, and breathed alike, and felt alike when you were squeezed up against them, and you were always being squeezed up against them, wherever you went. And you could smell them, and hear them wheeze and cough, and you went falling down with them into a bottomless pit where your head began to throb and throb and it was hard to move away from all that heat and pressure. It was hard enough just to keep from screaming—

Then the door opened and Harry was catapulted out into the lobby. The mob behind him pushed and clawed because they were in a hurry; they were always in a hurry these days, and if you got in their way they'd trample you down like that old man had been trampled down; there was no room for one man in a crowd any more.

Harry blinked and shook his head.

He gripped the edge of the wall and clung there in an effort to avoid being swept out of the lobby completely. His hands were sticky with perspiration. They slipped off as he slowly inched his way back through the crush of the mob.

"Wait for me!" he called. "Wait for me, I'm going down!" But his voice was lost in the maelstrom of sound just as his body was lost in the maelstrom of motion. Besides, an automatic elevator cannot hear. It is merely a mechanism that goes up and down, just like the other mechanisms that go in and out, or around and around, and you
get caught up in them the way a squirrel gets caught in a squirrel-cage and you race and race, and the best you can hope for is to keep up with the machinery.

The elevator door clanged shut before Harry could reach it. He waited for another car to arrive, and this time he stood aside as the crowd emerged, then darted in behind them.

The car descended to the first garage level, and Harry stood gulping gratefully in the comparative isolation. There weren't more than ten people accompanying him.

He emerged on the ramp, gave his number to the attendant, and waved at Bill in his office. Bill seemed to recognize him; at least he nodded, briefly. No sense trying to talk—not in this sullen subterranea, filled with the booming echo of exhausts, the despairing shriek of brakes. Headlights flickered in the darkness as cars whirled past, ascending and descending on the loading platforms. The signal systems winked from the walls, and tires screeched defiance to the warning bells.

Old-fashioned theologians, Harry remembered, used to argue whether there really was a Hell, and if so, had it been created by God or the Devil? Too bad they weren't around today to get an answer to their questions. There was a Hell, and it had been created by General Motors.

Harry's temples began to throb. Through blurred eyes, he saw the attendant beckoning him down the line to a platform marked Check-Out #3. He stood there with a cluster of others, waiting.

What was the matter with him today, anyway? First the headache, and now his feet were hurting. Standing around waiting, that's what did it. This eternal waiting. When he was a kid, the grownups were always complaining about the long seven-hour work days and how they cut into their leisure time. Well, maybe they had reason to gripe, but at least there was some leisure before work began or after it was through. Now that extra time was consumed in waiting. Standing in line, standing in crowds, wearing yourself out doing nothing.

Still, this time it wasn't really so bad. Within ten minutes the light blue Pax rolled up before him. Harry climbed in as the attendant slid out from behind the wheel and prepared to leave.

Then a fat man appeared, running along the ramp. He gestured wildly with a plump thumb. Harry nodded briefly, and the fat man hurled himself into the seat beside him and slammed the door.

They were off. Harry read the signals impatiently, waiting for the green Go. The moment he saw it he gunned his motor and got the car up to twenty-two and zipped away.

That's what he liked, that's what he always waited for. Of course it was dangerous, here in the tunnel system under the garage, but Harry always got a thrill out of speed. The Pax could do thirty-five or even forty, probably, on a theoretical open road. Still, twenty-two was enough to satisfy Harry.

He whizzed up the ramp, turned, headed for the street-level, then braked and waited for the signal to emerge.

Harsh sunlight pierced the smog and he felt his eyes watering. Now the street noises assailed his ears; the grinding of gears, the revving of motors. But at least the total volume was lower, and with the windows tightly closed against the acrid air, he could hear.

Turning to the fat man beside him he said, "Hello, Frazer. What's the urgency?"

"Got to get downtown before eleven," the fat man answered. "Board meeting today, but I forgot about it. Knew I wouldn't have time to wait for the car, and I was hoping I'd find someone who'd give me a lift. Lucky for me that you came along when you did."

Harry nodded but did not reply. At the moment he was trying to edge into the traffic beyond. It flowed, bumper to bumper, in a steady stream; a stream moving at the uniform and prescribed rate of fifteen miles per hour. He released his brakes and the Pax nosed forward until a truck sounded its horn in ominous warning. The noise hurt Harry's head; he winced and grimaced.

"What's the matter?" asked Frazer.

"Headache," Harry muttered. He menaced a Chevosto with his bumper. "Damn it, I thought they didn't allow those big four-passenger jobs on this arterial during rush hours!" Gradually he managed to turn until he was in the righthand lane. "There," he said. "We're off."

And so they were, for all of three minutes, with the speed set at fifteen on autopilot. Then a signal went into action somewhere up ahead, and the procession halted. Harry flicked his switch. As was customary, horns sounded indignantly on all sides—a mechanical protest against a mechanical obstruction. Harry winced again.

"Hangover?" Frazer asked, solicitously. "Try aspirystamine."

Harry shook his head. "No hangover. And I've already taken three, thanks. Nothing does any good. So I guess it's just up to you."

"Up to me?" Frazer was genuinely puzzled. "What can I do about your headaches?"

"You're on the Board of City Planners, aren't you?"

"That's right."

"Well, I've got a suggestion for you to give to them. Tell them to start planning to drop a couple of heavy
thermo-nucs on this area. Clean out twenty or thirty million people. We'd never miss 'em."

Frazer chuckled wryly. "I wish I had a buck for every time I've heard that suggestion."

"Ever stop to think why you hear it so often? It's because everybody feels the same way—we can't take being
hemmed in like this."

"Well, a bomb wouldn't help. You know that." Frazer pursed his lips. "Robertson figured out what would
happen, with the chain-reaction."

Harry glanced sideways at his companion as the car started forward once again. "I've always wondered about
that," he said. "Seriously, I mean. Is the story really true, or is it just some more of this government propaganda you
fellows like to hand out?"

Frazer sighed. "It's true, all right. There was a scientist named Robertson, and he did come up with the thermo-
nuc formula, way back in '75. Proved it, too. Use what he developed and the chain-reaction would never end. Scientists in other countries tested the theory and agreed; there was no collusion, it just worked out that way on a
practical basis. Hasn't been a war since—what more proof do you want?"

"Well, couldn't they just use some of the old-fashioned hydrogen bombs?"

"Be sensible, man! Once a war started, no nation could resist the temptation to go all-out. Fortunately, everyone
realizes that. So we have peace. Permanent peace."

"I'll take a good war anytime, in preference to this."

"Harry, you don't know what you're talking about. You aren't so young that you can't remember what it was like
in the old days. Everybody living in fear, waiting for the bombs to fall. People dying of disease and worried about
dying from radiation and fallout. All the international rivalries, the power-politics, the eternal pressures and constant
crises. Nobody in his right mind would want to go back to that. We've come a mighty long way in the last twenty
years or so."

Harry switched to autopilot and sat back. "Maybe that's the trouble," he said. "Maybe we've come too far, too
fast. I wasn't kidding about dropping those thermo-nucs, either. Something has to be done. We can't go on like this
indefinitely. Why doesn't the Board come up with an answer?"

Frazer shrugged his heavy shoulders. "You think we haven't tried, aren't trying now? We're aware of the
situation as well as you are—and then some. But there's no easy solution. The population just keeps growing, that's
all. No war to cut it down, contagious diseases at a minimum, average life-expectancy up to ninety years or better.
Naturally, this results in a problem. But a bomb won't help bring about any permanent solution. Besides, this isn't a
local matter, or even a national one. It's global. What do you think those summit meetings are all about?"

"What about birth control?" Harry asked. "Why don't they really get behind an emigration movement?"

"We can't limit procreation by law. You know that." Frazer peered out at the swarming streams on the sidewalk
levels. "It's more than a religious or a political question—it's a social one. People want kids. They can afford them.
Besides, the Housing Act is set up so that having kids is just about the only way you can ever get into larger living-
quarters."

"Couldn't they try reverse-psychology? I mean, grant priority to people who are willing to be sterilized?"

"They tried it, on a limited experimental scale, about three years ago out on the West Coast."

"I never heard anything about it."

"Damned right you didn't," Frazer replied, grimly. "They kept the whole project under wraps, and for a good
reason. The publicity might have wrecked the Administration."

"What happened?"

"What do you suppose happened? There were riots. Do you think a man and his wife and three kids, living in
three rooms, liked the idea of standing by and watching a sterilized couple enjoy a four-room place with lawn space?
Things got pretty ugly, let me tell you. There was a rumor going around that the country was in the hands of
homosexuals—the churches were up in arms—and if that wasn't bad enough, we had to face up to the primary
problem. There just wasn't, just isn't, enough space. Not in areas suitable for maintaining a population. Mountains
are still mountains and deserts are still deserts. Maybe we can put up housing in such regions, but who can live
there? Even with decentralization going full blast, people must live within reasonable access to their work. No, we're
just running out of room."

Again the car halted on signal. Over the blasting of the horns, Harry repeated his query about emigration.

Frazer shook his head, but made no attempt to reply until the horns had quieted and they were under way once
more.

"As for emigration, we're just getting some of our own medicine in return. About eighty years ago, we clamped
down and closed the door on immigrants; established a quota. Now the same quota is being used against us, and you
can't really blame other nations for it. They're facing worse population increases than we are. Look at the African
Federation, and what's happened there, in spite of all the wealth! And South America is even worse, in spite of all
the reclamation projects. Fifteen years ago, when they cleared out the Amazon Basin, they thought they'd have enough room for fifty years to come. And now look at it—two hundred million, that's the latest figure we've got."

"So what's the answer?" Harry asked.

"I don't know. If it wasn't for hydroponics and the Ag Culture controls, we'd be licked right now. As it is, we can still supply enough food, and the old supply-and-demand takes care of the economy as a whole. I have no recommendations for an overall solution, or even a regional one. My job, the Board's job, is regulating housing and traffic and transportation in Chicagee. That's about all you can expect us to handle."

Again they jolted to a stop and the horns howled all around them. Harry sat there until a muscle in the side of his jaw began to twitch. Suddenly he pounded on the horn with both fists.

"Shut up!" he yelled. "For the love of Heaven, shut up!"

Abruptly he slumped back. "Sorry," he mumbled. "It's my damned headache. I—I've got to get out of this."

"Job getting you down?"

"No. It's a good job. At least everybody tells me so. Twenty-five hours a week, three hundred bucks. The car. The room. The telescreen and liquor and yellowjackets. Plenty of time to kill. Unless it's the time that's killing me."

"But—what do you want?"

Harry stepped on the accelerator and they inched along. Now the street widened into eight traffic lanes and the big semis joined the procession on the edge of the downtown area.

"I want out," Harry said. "Out of this."

"Don't you ever visit the National Preserves?" Frazer asked.

"Sure I do. Fly up every vacation. Take a tame plane to a tame government resort and catch my quota of two tame fish. Great sport! If I got married, I'd be entitled to four tame fish. But that's not what I want. I want what my father used to talk about. I want to drive into the country, without a permit, mind you; just to drive wherever I like. I want to see cows and chickens and trees and lakes and sky."

"You sound like a Naturalist."

"Don't sneer. Maybe the Naturalists are right. Maybe we ought to cut out all this phoney progress and phoney peace that passeth all understanding. I'm no liberal, don't get me wrong, but sometimes I think the Naturalists have the only answer."

"But what can you do about it?" Frazer murmured. "Suppose for the sake of argument that they are right. How can you change things? We can't just will ourselves to stop growing, and we can't legislate against biology. More people, in better health, with more free time, are just bound to have more offspring. It's inevitable, under the circumstances. And neither you nor I nor anyone has the right to condemn millions upon millions of others to death through war or disease."

"I know," Harry said. "It's hopeless, I guess. All the same, I want out." He wet his lips. "Frazer, you're on the Board here. You've got connections higher up. If I could only get a chance to transfer to Ag Culture, go on one of those farms as a worker—"

Frazer shook his head. "Sorry, Harry. You know the situation there, I'm sure. Right now there's roughly ninety million approved applications on file. Everybody wants to get into Ag Culture."

"But couldn't I just buy some land, get a government contract for foodstuffs?"

"Have you got the bucks? A minimum forty acres leased from one of the farm corporations will cost you two hundred thousand at the very least, not counting equipment." He paused. "Besides, there's Vocational Apt. What did your tests show?"

"You're right," Harry said. "I'm supposed to be an agency man. An agency man until I die. Or retire on my pension, at fifty, and sit in my little room for the next fifty years, turning on the telescreen every morning to hear some loudmouthed liar tell me it's a beautiful day in Chicagee. Who knows, maybe by that time we'll have a hundred billion people enjoying peace and progress and prosperity. All sitting in little rooms and—"

"Watch out!" Frazer grabbed the wheel. "You nearly hit that truck." He waited until Harry's face relaxed before relinquishing his grip. "Harry, you'd better go in for a checkup. It isn't just a headache with you, is it?"

"You're not fooling," Harry told him. "It isn't just a headache."

He began to think about what it really was, and that helped a little. It helped him get through the worst part, which was the downtown traffic and letting Frazer off and listening to Frazer urge him to see a doctor.

Then he got to the building parking area and let them take his car away and bury it down in the droning darkness where the horns hooted and the headlights glared.

Harry climbed the ramp and mingled with the ten-thirty shift on its way up to the elevators. Eighteen elevators in his building, to serve eighty floors. Nine of the elevators were express to the fiftieth floor, three were express to sixty-five. He wanted one of the latter, and so did the mob. The crushing, clinging mob. They pressed and panted the way mobs always do; mobs that lynch and torture and dance around bonfires and guillotines and try to drag you
down to trample you to death because they can't stand you if your name is Harry and you want to be different.

They hate you because you don't like powdered eggs and the telescreen and a beautiful day in Chicago. And they stare at you because your forehead hurts and the muscle in your jaw twitches and they know you want to scream as you go up, up, and try to think why you get a headache from jerking your head to the left.

Then Harry was at the office door and they said good morning when he came in, all eighty of the typists in the outer office working their electronic machines and offering him their electronic smiles, including the girl he had made electronic love to last Saturday night and who wanted him to move into a two-room marriage and have children, lots of children who could enjoy peace and progress and prosperity.

Harry snapped out of it, going down the corridor. Only a few steps more and he'd be safe in his office, his own private office, almost as big as his apartment. And there would be liquor, and the yellowjackets in the drawer. That would help. Then he could get to work.

What was today's assignment? He tried to remember. It was Wilmer-Klibby, wasn't it? Telescreenads for Wilmer-Klibby, makers of window-glass.

Window-glass.

He opened his office door and then slammed it shut behind him. For a minute everything blurred, and then he could remember.

Now he knew what caused him to jerk his head, what gave him the headaches when he did so. Of course. That was it.

When he sat down at the table for breakfast in the morning he turned his head to the left because he'd always done so, ever since he was a little boy. A little boy, in what was then Wheaton, sitting at the breakfast table and looking out of the window. Looking out at summer sunshine, spring rain, autumn haze, the white wonder of newfallen snow.

He'd never broken himself of the habit. He still looked to the left every morning, just as he had today. But there was no window any more. There was only a blank wall. And beyond it, the smog and the clamor and the crowds.

Window-glass. Wilmer-Klibby had problems. Nobody was buying window-glass any more. Nobody except the people who put up buildings like this. There were still windows on the top floors, just like the window here in his office.

Harry stepped over to it, moving very slowly because of his head. It hurt to keep his eyes open, but he wanted to stare out of the window. Up this high you could see above the smog. You could see the sun like a radiant jewel packed in the cotton cumulus of clouds. If you opened the window you could feel fresh air against your forehead, you could breathe it in and breathe out the headache.

But you didn't dare look down. Oh, no, never look down, because then you'd see the buildings all around you. The buildings below, black and sooty, their jagged outlines like the stumps of rotten teeth. And they stretched off in all directions, as far as the eye could attain; row after row of rotten teeth grinning up from the smog-choked throat of the streets. From the maw of the city far below came this faint but endless howling, this screaming of traffic and toil. And you couldn't help it, you breathed that in too, along with the fresh air, and it poisoned you and it did more than make your head ache. It made your heart ache and it made your soul sick, and it made you close your eyes and your lungs and your brain against it.

Harry reeled, but he knew this was the only way. Close your brain against it. And then, when you opened your eyes again, maybe you could see the way things used to be—

It was snowing out and it was a wet snow, the very best kind for snowballs and making a snowman, and the whole gang would come out after school.

But there was no school, this was Saturday, and the leaves were russet and gold and red so that it looked as if all the trees in the world were on fire. And you could scuff when you walked and pile up fallen leaves from the grass and roll in them.

And it was swell to roll down the front lawn in summer, just roll right down to the edge of the sidewalk like it was a big hill and let Daddy catch you at the bottom, laughing.

Mamma laughed too, and she said, Look, it's springtime, the lilacs are out, do you want to touch the pretty lilacs, Harry?

And Harry didn't quite understand what she was saying, but he reached out and they were purple and smelled of rain and soft sweetness and they were just beyond the window, if he reached a little further he could touch them—

And then the snow and the leaves and the grass and the lilacs disappeared, and Harry could see the rotten teeth again, leering and looming and snapping at him. They were going to bite, they were going to chew, they were going to devour, and he couldn't stop them, couldn't stop himself. He was falling into the howling jaws of the city.

His last conscious effort was a desperate attempt to gulp fresh air into his lungs before he pinwheeled down. Fresh air was good for headaches....

It took them ten seconds to save Harry from falling, but it took him over ten weeks to regain his balance.

In fact, well over two months had passed before he could fully realize just what had happened, or where he was now. They must have noticed something was wrong with him that morning at the office, because two supervisors and an exec rushed in and caught him just as he was going out of the window. And then they had sent him away, sent him here.

"This is fine," he told Dr. Manschoff. "If I'd known how well they treated you, I'd have gone couch-happy years ago."

Dr. Manschoff's plump face was impassive, but the little laugh-lines deepened around the edges of his eyes. "Maybe that's why we take such care not to publicize our recent advances in mental therapy," he said. "Everybody would want to get into a treatment center, and then where would we be?"

Harry nodded, staring past the doctor's shoulder, staring out of the wide window at the broad expanse of rolling countryside beyond.

"I still don't understand, though," he murmured. "How can you possibly manage to maintain an institution like this, with all the space and the luxuries? The inmates seem to lead a better life than the adjusted individuals outside. It's topsy-turvy."

"Perhaps." Dr. Manschoff's fingers formed a pudgy steeple. "But then, so many things seem to be topsy-turvy nowadays, don't they? Wasn't it the realization of this fact which precipitated your own recent difficulties?"

"Almost precipitated me bodily out of that window," Harry admitted, cheerfully. "And that's another thing. I was sent here, I suppose, because I'd attempted suicide, gone into shock, temporary amnesia, something like that."

"Something like that," the doctor echoed, contemplating his steeple.

"But you didn't give me any treatment," Harry continued. "Oh, I was kept under sedation for a while, I realize that. And you and some of the other staff-members talked to me. But mainly I just rested in a nice big room and ate nice big meals."

"So?" The steeple's fleshy spire collapsed.

"So what I want to know is, when does the real treatment start? When do I go into analysis, or chemotherapy, and all that?"

Dr. Manschoff shrugged. "Do you think you need those things now?"

Harry gazed out at the sunlight beyond the window, half-squinting and half-frowning. "No, come to think of it, I don't believe I do. I feel better now than I have in years."

His companion leaned back. "Meaning that for years you felt all wrong. Because you were constricted, physically, psychically, and emotionally. You were cramped, squeezed in a vise until the pressure became intolerable. But now that pressure has been removed. As a result you no longer suffer, and there is no need to seek escape in death or denial of identity.

"This radical change of attitude has been brought about here in just a little more than two months' time. And yet you're asking me when the 'real treatment' begins."

"I guess I've already had the real treatment then, haven't I?"

"That is correct. Prolonged analysis or drastic therapy is unnecessary. We've merely given you what you seemed to need."

"I'm very grateful," Harry said. "But how can you afford to do it?"

Dr. Manschoff built another temple to an unknown god. He inspected the architecture critically now as he spoke. "Because your problem is a rarity," he said.

"Rarity? I'd have thought millions of people would be breaking down every month. The Naturalists say—"

The doctor nodded wearily. "I know what they say. But let's dismiss rumors and consider facts. Have you ever read any official report stating that the number of cases of mental illness ran into the millions?"

"No, I haven't."

"For that matter, do you happen to know of anyone who was ever sent to a treatment center such as this?"

"Well, of course, everybody goes in to see the medics for regular check-ups and this includes an interview with a psych. But if they're in bad shape he just puts them on extra tranquilizers. I guess sometimes he reviews their Vocational Apt tests and shifts them over into different jobs in other areas."

Dr. Manschoff bowed his head in reverence above the steeple, as if satisfied with the labors he had wrought. "That is roughly correct. And I believe, if you search your memory, you won't recall even a mention of a treatment center. This sort of place is virtually extinct, nowadays. There are still some institutions for those suffering from functional mental disorders—paresis, senile dementia, congenital abnormalities. But regular check-ups and preventative therapy take care of the great majority. We've ceased concentrating on the result of mental illnesses and learned to attack the causes."
"It's the old yellow fever problem all over again, you see. Once upon a time, physicians dealt exclusively with treatment of yellow fever patients. Then they shifted their attention to the source of the disease. They went after the mosquitoes, drained the swamps, and the yellow fever problem vanished.

"That's been our approach in recent years. We've developed social therapy, and so the need for individual therapy has diminished.

"What were the sources of the tensions producing mental disturbances? Physical and financial insecurity, the threat of war, the aggressive patterns of a competitive society, the unresolved Oedipus-situation rooted in the old-style family relationship. These were the swamps where the mosquitoes buzzed and bit. Most of the swamps have been dredged, most of the insects exterminated.

"Today we're moving into a social situation where nobody goes hungry, nobody is jobless or unprovided for, nobody needs to struggle for status. Vocational Apt determines a man's rightful place and function in society, and there's no longer the artificial distinction imposed by race, color or creed. War is a thing of the past. Best of all, the old-fashioned 'home-life,' with all of its unhealthy emotional ties, is being replaced by sensible conditioning when a child reaches school age. The umbilical cord is no longer a permanent leash, a stranger's noose, or a silver-plated life-line stretching back to the womb."

Harry Collins nodded. "I suppose only the exceptional cases ever need to go to a treatment center like this."

"Exactly."

"But what makes me one of the exceptions? Is it because of the way the folks brought me up, in a small town, with all the old-fashioned books and everything? Is that why I hated confinement and conformity so much? Is it because of all the years I spent reading? And why—"

Dr. Manschoff stood up. "You tempt me," he said. "You tempt me strongly. As you can see, I dearly love a lecture—and a captive audience. But right now, the audience must not remain captive. I prescribe an immediate dose of freedom."

"You mean I'm to leave here?"

"Is that what you want to do?"

"Frankly, no. Not if it means going back to my job."

"That hasn't been decided upon. We can discuss the problem later, and perhaps we can go into the answers to those questions you just posed. But at the moment, I'd suggest you stay with us, though without the restraint of remaining in your room or in the wards. In other words, I want you to start going outside again."

"Outside?"

"You'll find several square miles of open country just beyond the doors here. You're at liberty to wander around and enjoy yourself. Plenty of fresh air and sunshine—come and go as you wish. I've already issued instructions which permit you to keep your own hours. Meals will be available when you desire them."

"You're very kind."

"Nonsense. I'm prescribing what you need. And when the time comes, we'll arrange to talk again. You know where to find me."

Dr. Manschoff dismantled his steeple and placed a half of the roof in each trouser-pocket.

And Harry Collins went outdoors.

It was wonderful just to be free and alone—like returning to that faraway childhood in Wheaton once again. Harry appreciated every minute of it during the first week of his wandering.

But Harry wasn't a child any more, and after a week he began to wonder instead of wander.

The grounds around the treatment center were more than spacious; they seemed absolutely endless. No matter how far he walked during the course of a day, Harry had never encountered any walls, fences or artificial barriers; there was nothing to stay his progress but the natural barriers of high, steeply-sloping precipices which seemed to rim all sides of a vast valley. Apparently the center itself was set in the middle of a large canyon—a canyon big enough to contain an airstrip for helicopter landings. The single paved road leading from the main buildings terminated at the airstrip, and Harry saw helicopters arrive and depart from time to time; apparently they brought in food and supplies.

As for the center itself, it consisted of four large structures, two of which Harry was familiar with. The largest was made up of apartments for individual patients, and staffed by nurses and attendants. Harry's own room was here, on the second floor, and from the beginning he'd been allowed to roam around the communal halls below at will.

The second building was obviously administrative—Dr. Manschoff's private office was situated therein, and presumably the other staff-members operated out of here.

The other two buildings were apparently inaccessible; not guarded or policed or even distinguished by signs prohibiting access, but merely locked and unused. At least, Harry had found the doors locked when—out of normal curiosity—he had ventured to approach them. Nor had he ever seen anyone enter or leave the premises. Perhaps
These structures were unnecessary under the present circumstances, and had been built for future accommodations.

Still, Harry couldn't help wondering.

And now, on this particular afternoon, he sat on the bank of the little river which ran through the valley, feeling the mid-summer sun beating down upon his forehead and staring down at the eddying current with its ripples and reflections.

Ripples and reflections....

Dr. Manschoff had answered his questions well, yet new questions had arisen.

Most people didn't go crazy any more, the doctor had explained, and so there were very few treatment centers such as this.

Question: Why were there any at all?

A place like this cost a fortune to staff and maintain. In an age where living-space and areable acreage was at such a premium, why waste this vast and fertile expanse? And in a society more and more openly committed to the policy of promoting the greatest good for the greatest number, why bother about the fate of an admittedly insignificant group of mentally disturbed patients?

Not that Harry resented his situation; in fact, it was almost too good to be true.

Question: Was it too good to be true?

Why, come to realize it, he'd seen less than a dozen other patients during his entire stay here! All of them were male, and all of them—apparently—were recovering from a condition somewhat similar to his own. At least, he'd recognized the same reticence and diffidence when it came to exchanging more than a perfunctory greeting in an encounter in an outer corridor. At the time, he'd accepted their unwillingness to communicate; welcomed and understood it because of his condition. And that in itself wasn't what he questioned now.

But why were there so few patients beside himself? Why were they all males? And why weren't they roaming the countryside now the way he was?

So many staff-members and so few patients. So much room and luxury and freedom, and so little use of it. So little apparent purpose to it all.

Question: Was there a hidden purpose?

Harry stared down into the ripples and reflections, and the sun was suddenly intolerably hot, its glare on the water suddenly blinding and bewildering. He saw his face mirrored on the water's surface, and it was not the familiar countenance he knew—the features were bloated, distorted, shimmering and wavering.

Maybe it was starting all over again. Maybe he was getting another one of those headaches. Maybe he was going to lose control again.

Yes, and maybe he was just imagining things. Sitting here in all this heat wasn't a good idea.

Why not take a swim?

That seemed reasonable enough. In fact, it seemed like a delightful distraction. Harry rose and stripped. He entered the water awkwardly—one didn't dive, not after twenty years of abstinence from the outdoor life—but he found that he could swim, after a fashion. The water was cooling, soothing. A few minutes of immersion and Harry found himself forgetting his speculations. The uneasy feeling had vanished. Now, when he stared down into the water, he saw his own face reflected, looking just the way it should. And when he stared up—

He saw her standing there, on the bank.

She was tall, slim, and blonde. Very tall, very slim, and very blonde.

She was also very desirable.

Up until a moment ago, Harry had considered swimming a delightful distraction. But now—

"How's the water?" she called.

"Fine."

She nodded, smiling down at him.

"Aren't you coming in?" he asked.

"No."

"Then what are you doing here?"

"I was looking for you, Harry."

"You know my name?"

She nodded again. "Dr. Manschoff told me."

"You mean, he sent you here to find me?"

"That's right."

"But I don't understand. If you're not going swimming, then why—I mean—"

Her smile broadened. "It's just part of the therapy, Harry."

"Part of the therapy?"
"That's right. Part." She giggled. "Don't you think you'd like to come out of the water now and see what the rest of it might be?"

Harry thought so.
With mounting enthusiasm, he eagerly embraced his treatment and entered into a state of active cooperation.
It was some time before he ventured to comment on the situation. "Manschoff is a damned good diagnostician," he murmured. Then he sat up. "Are you a patient here?"
She shook her head. "Don't ask questions, Harry. Can't you be satisfied with things as they are?"
"You're just what the doctor ordered, all right." He gazed down at her. "But don't you even have a name?"
"You can call me Sue."
"Thank you."
He bent to kiss her but she avoided him and rose to her feet. "Got to go now."
"So soon?"
She nodded and moved towards the bushes above the bank.
"But when will I see you again?"
"Coming swimming tomorrow?"
"Yes."
"Maybe I can get away for more occupational therapy then."
She stooped behind the bushes, and Harry saw a flash of white.
"You are a nurse, aren't you," he muttered. "On the staff, I suppose. I should have known."
"All right, so I am. What's that got to do with it?"
"And I suppose you were telling the truth when you said Manschoff sent you here. This is just part of my therapy, isn't it?"
She nodded briefly as she slipped into her uniform. "Does that bother you, Harry?"
He bit his lip. When he spoke, his voice was low. "Yes, damn it, it does. I mean, I got the idea—at least, I was hoping—that this wasn't just a matter of carrying out an assignment on your part."
She looked up at him gravely. "Who said anything about an assignment, darling?" she murmured. "I volunteered."
And then she was gone.
Then she was gone, and then she came back that night in Harry's dreams, and then she was at the river the next day and it was better than the dreams, better than the day before.
Sue told him she had been watching him for weeks now. And she had gone to Manschoff and suggested it, and she was very glad. And they had to meet here, out in the open, so as not to complicate the situation or disturb any of the other patients.
So Harry naturally asked her about the other patients, and the whole general setup, and she said Dr. Manschoff would answer all those questions in due time. But right now, with only an hour or so to spare, was he going to spend it all asking for information? Matters were accordingly adjusted to their mutual satisfaction, and it was on that basis that they continued their almost daily meetings for some time.
The next few months were perhaps the happiest Harry had ever known. The whole interval took on a dreamlike quality—idealized, romanticized, yet basically sensual. There is probably such a dream buried deep within the psyche of every man, Harry reflected, but to few is it ever given to realize its reality. His early questioning attitude gave way to a mood of mere acceptance and enjoyment. This was the primitive drama, the very essence of the male-female relationship; Adam and Eve in the Garden. Why waste time seeking the Tree of Knowledge?
And it wasn't until summer passed that Harry even thought about the Serpent.
One afternoon, as he sat waiting for Sue on the river bank, he heard a sudden movement in the brush behind him.
"Darling?" he called, eagerly.
"Please, you don't know me that well." The deep masculine voice carried overtones of amusement.
Flushing, Harry turned to confront the intruder. He was a short, stocky, middle-aged man whose bristling gray crewcut almost matched the neutral shades of his gray orderly's uniform.
"Expecting someone else, were you?" the man muttered. "Well, I'll get out of your way."
"That's not necessary. I was really just daydreaming, I guess. I don't know what made me think—" Harry felt his flush deepen, and he lowered his eyes and his voice as he tried to improvise some excuse.
"You're a lousy liar," the man said, stepping forward and seating himself on the bank next to Harry. "But it doesn't really matter. I don't think your girl friend is going to show up today, anyway."
"What do you mean? What do you know about—"
"I mean just what I said," the man told him. "And I know everything I need to know, about you and about her
and about the situation in general. That's why I'm here, Collins.”

He paused, watching the play of emotions in Harry’s eyes.

“I know what you're thinking right now,” the gray-haired man continued. “At first you wondered how I knew
your name. Then you realized that if I was on the staff in the wards I'd naturally be able to identify the patients. Now
it occurs to you that you've never seen me in the wards, so you're speculating as to whether or not I'm working out of
the administration offices with that psychiatric no good Manschoff. But if I were, I wouldn't be calling him names,
would I? Which means you're really getting confused, aren't you, Collins? Good!”

The man chuckled, but there was neither mockery, malice, nor genuine mirth in the sound. And his eyes were
sober, intent.

"Who are you?" Harry asked. "What are you doing here?"

"The name is Ritchie, Arnold Ritchie. At least, that's the name they know me by around here, and you can call
me that. As to what I'm doing, it's a long story. Let's just say that right now I'm here to give you a little advanced
therapy."

"Then Manschoff did send you?"

The chuckle came again, and Ritchie shook his head. "He did not. And if he even suspected I was here, there'd
be hell to pay.

"Then what do you want with me?"

"It isn't a question of what I want. It's a question of what you need. Which is, like I said, advanced therapy. The
sort that dear old kindly permissive Father-Image Manschoff doesn't intend you to get."

Harry stood up. "What's this all about?"

Ritchie rose with him, smiling for the first time. "I'm glad you asked that question, Collins. It's about time you
did, you know. Everything has been so carefully planned to keep you from asking it. But you were beginning to
wonder just a bit anyway, weren't you?"

"I don't see what you're driving at."

"You don't see what anyone is driving at, Collins. You've been blinded by a spectacular display of kindness,
misdirected by self-indulgence. I told you I knew everything I needed to know about you, and I do. Now I'm going
to ask you to remember these things for yourself; the things you've avoided considering all this while.

"I'm going to ask you to remember that you're twenty-eight years old, and that for almost seven years you were
an agency man and a good one. You worked hard, you did a conscientious job, you stayed in line, obeyed the rules,
ever rebelled. Am I correct in my summary of the situation?"

"Yes, I guess so."

"So what was your reward for all this unceasing effort and eternal conformity? A one-room apartment and a
one-week vacation, once a year. Count your blessings, Collins. Am I right?"

"Right."

"Then what happened? Finally you flipped, didn't you? Tried to take a header out of the window. You chucked
your job, chucked your responsibilities, chucked your future and attempted to chuck yourself away. Am I still
right?"

"Yes."

"Good enough. And now we come to the interesting part of the story. Seven years of being a good little boy got
you nothing but the promise of present and future frustration. Seven seconds of madness, of attempted self-
destruction, brought you here. And as a reward for bucking the system, the system itself has provided you with a life
of luxury and leisure—full permission to come and go as you please, live in spacious ease, indulge in the
gratification of every appetite, free of responsibility or restraint. Is that true?"

"I suppose so."

"All right. Now, let me ask you the question you asked me. What's it all about?"

Ritchie put his hand on Harry's shoulder. "Tell me that, Collins. Why do you suppose you've received such
treatment? As long as you stayed in line, nobody gave a damn for your comfort or welfare. Then, when you
committed the cardinal sin of our present-day society—when you rebelled—everything was handed to you on a
silver platter. Does that make sense?"

"But it's therapy. Dr. Manschoff said—"

"Look, Collins. Millions of people flip every year. Millions more attempt suicide. How many of them end up in
a place like this?"

"They don't, though. That's just Naturalist propaganda. Dr. Manschoff said—"

"Dr. Manschoff said! I know what he said, all right. And you believed him, because you wanted to believe him.
You wanted the reassurance he could offer you—the feeling of being unique and important. So you didn't ask him
any questions, you didn't ask any questions of yourself. Such as why anybody would consider an insignificant little
agency man, without friends, family or connections, worth the trouble of rehabilitating at all, let alone amidst such elaborate and expensive surroundings. Why, men like you are a dime a dozen these days—Vocational Apt can push a few buttons and come up with half a million replacements to take over your job. You aren't important to society, Collins. You aren't important to anyone at all, besides yourself. And yet you got the red-carpet treatment. It's about time somebody yanked that carpet out from under you. What's it all about?"

Harry blinked. "Look here, I don't see why this is any of your business. Besides, to tell the truth, I'm expecting —"

"I know who you're expecting, but I've already told you she won't be here. Because she's expecting."

"What—?"

"It's high time you learned the facts of life, Collins. Yes, the well-known facts of life—the ones about the birds and the bees, and barefoot boys and blondes, too. Your little friend Sue is going to have a souvenir."

"I don't believe it! I'm going to ask Dr. Manschoff."

"Sure you are. You'll ask Manschoff and he'll deny it. And so you'll tell him about me. You'll say you met somebody in the woods today—either a lunatic or a Naturalist spy who infiltrated here under false pretenses. And Manschoff will reassure you. He'll reassure you just long enough to get his hands on me. Then he'll take care of both of us."

"Are you insinuating—"

"Hell, no! I'm telling you!" Ritchie put his hand down suddenly, and his voice calmed. "Ever wonder about those other two big buildings on the premises here, Collins? Well, I can tell you about one of them, because that's where I work. You might call it an experimental laboratory if you like. Sometime later on I'll describe it to you. But right now it's the other building that's important; the building with the big chimney. That's a kind of an incinerator, Collins—a place where the mistakes go up in smoke, at night, when there's nobody to see. A place where you and I will go up in smoke, if you're fool enough to tell Manschoff about this."

"You're lying."

"I wish to God I was, for both our sakes! But I can prove what I'm saying. You can prove it, for yourself."

"How?"

"Pretend this meeting never occurred. Pretend that you just spent the afternoon here, waiting for a girl who never showed up. Then do exactly what you would do under those circumstances. Go in to see Dr. Manschoff and ask him where Sue is, tell him you were worried because she'd promised to meet you and then didn't appear."

"I can tell you right now what he'll tell you. He'll say that Sue has been transferred to another treatment center, that she knew about it for several weeks but didn't want to upset you with the news of her departure. So she decided to just slip away. And Manschoff will tell you not to be unhappy. It just so happens that he knows of another nurse who has had her eye on you—a very pretty little brunette named Myrna. In fact, if you go down to the river tomorrow, you'll find her waiting for you there."

"You're trying."

"I wish to God I was, for both our sakes! But I can prove what I'm saying. You can prove it, for yourself."

"What if I refuse?"

Ritchie shrugged. "Why should you refuse? It's all fun and games, isn't it? Up to now you haven't asked any questions about what was going on, and it would look very strange if you started at this late date. I strongly advise you to cooperate. If not, everything is likely to—quite literally—go up in smoke."

Harry Collins frowned. "All right, suppose I do what you say, and Manschoff gives me the answers you predict. This still doesn't prove that he'd be lying or that you're telling me the truth."

"Wouldn't it indicate as much, though, though?"

"Perhaps. But on the other hand, it could merely mean that you know Sue has been transferred, and that Dr. Manschoff intends to turn me over to a substitute. It doesn't necessarily imply anything sinister."

"In other words, you're insisting on a clincher, is that it?"

"Yes."

"All right." Ritchie sighed heavily. "You asked for it." He reached into the left-hand upper pocket of the gray uniform and brought out a small, stiff square of glossy paper.

"What's that?" Harry asked. He reached for the paper, but Ritchie drew his hand back.

"Look at it over my shoulder," he said. "I don't want any fingerprints. Hell of a risky business just smuggling it out of the files—no telling how well they check up on this material."

Harry circled behind the smaller man. He squinted down. "Hard to read."

"Sure. It's a photostat. I made it myself, this morning; that's my department. Read carefully now. You'll see it's a transcript of the lab report. Susan Pulver, that's her name, isn't it? After due examination and upon completion of preliminary tests, hereby found to be in the second month of pregnancy. Putative father, Harry Collins—that's you, see your name? And here's the rest of the record."

"Yes, let me see it. What's all this about inoculation series? And who is this Dr. Leffingwell?" Harry bent
closer, but Ritchie closed his hand around the photostat and pocketed it again.

"Never mind that, now. I'll tell you later. The important thing is, do you believe me?"

"I believe Sue is pregnant, yes."

"That's enough. Enough for you to do what I've asked you to. Go to Manschoff and make inquiries. See what he tells you. Don't make a scene, and for God's sake don't mention my name. Just confirm my story for yourself. Then I'll give you further details."

"But when will I see you?"

"Tomorrow afternoon, if you like. Right here."

"You said he'd be sending another girl—"

Ritchie nodded. "So I did. And so he'll say. I suggest you beg to be excused for the moment. Tell him it will take a while for you to get over the shock of losing Sue this way."

"I won't be lying," Harry murmured.

"I know. And I'm sorry. Believe me, I am." Ritchie sighed again. "But you'll just have to trust me from now on."

"Trust you? When you haven't even explained what this is all about?"

"You've had your shock-therapy for today. Come back for another treatment tomorrow."

And then Ritchie was gone, the gray uniform melting away into the gray shadows of the shrubbery above the bank.

A short time later, Harry made his own way back to the center in the gathering twilight. The dusk was gray, too. Everything seemed gray now.

So was Harry Collins' face, when he emerged from his interview with Dr. Manschoff that evening. And it was still pallid the next afternoon when he came down to the river bank and waited for Ritchie to reappear.

The little man emerged from the bushes. He stared at Harry's drawn countenance and nodded slowly.

"I was right, eh?" he muttered.

"It looks that way. But I can't understand what's going on. If this isn't just a treatment center, if they're not really interested in my welfare, then what am I doing here?"

"You're taking part in an experiment. This, my friend, is a laboratory. And you are a nice, healthy guinea pig."

"But that doesn't make sense. I haven't been experimented on. They've let me do as I please."

"Exactly. And what do guinea pigs excel at? Breeding."

"You mean this whole thing was rigged up just so that Sue and I would—?"

"Please, let's not be so egocentric, shall we? After all, you're not the only male patient in this place. There are a dozen others wandering around loose. Some of them have their favorite caves, others have discovered little bypaths, but all of them seem to have located ideal trysting-places. Whereupon, of course, the volunteer nurses have located them."

"Are you telling me the same situation exists with each of the others?"

"Isn't it fairly obvious? You've shown no inclination to become friendly with the rest of the patients here, and none of them have made any overtures to you. That's because everyone has his own little secret, his own private arrangement. And so all of you go around fooling everybody else, and all of you are being fooled. I'll give credit to Manschoff and his staff on that point—he's certainly mastered the principles of practical psychology."

"But you talked about breeding. With our present overpopulation problem, why in the world do they deliberately encourage the birth of more children?"

"Very well put. Why in the world do they deliberately encourage the birth of more children?"

Arnold Ritchie seated himself on the grass, pulled out a pipe, and then replaced it hastily. "Better not smoke, " he murmured. "Be awkward if we attracted any attention and were found together."

Harry stared at him. "You are a Naturalist, aren't you?"

"I'm a reporter, by profession."

"Which network?"

"No network. Newzines. There are still a few in print, you know."

"I know. But I can't afford them."

"There aren't many left who can, or who even feel the need of reading them. Nevertheless, mavericks like myself still cling to the ancient and honorable practices of the Fourth Estate. One of which is ferreting out the inside story, the news behind the news."

"Then you're not working for the Naturalists."

"Of course I am. I'm working for them and for everybody else who has an interest in learning the truth." Ritchie paused. "By the way, you keep using that term as if it were some kind of dirty word. Just what does it mean? What is a Naturalist, in your book?"
"Why, a radical thinker, of course. An opponent of government policies, of progress. One who believes we're running out of living space, using up the last of our natural resources."
"What do you suppose motivates Naturalists, really?"
"Well, they can't stand the pressures of daily living, or the prospects of a future when we'll be still more hemmed in."
Ritchie nodded. "Any more than you could, a few months ago, when you tried to commit suicide. Wouldn't you say that you were thinking like a Naturalist then?"
Harry grimaced. "I suppose so."
"Don't feel ashamed. You saw the situation clearly, just as the so-called Naturalists do. And just as the government does. Only the government can't dare admit it—hence the secrecy behind this project."
"A hush-hush government plan to stimulate further breeding? I still don't see—"
"Look at the world," Ritchie repeated. "Look at it realistically. What's the situation at present? Population close to six billion, and rising fast. There was a leveling-off period in the Sixties, and then it started to climb again. No wars, no disease to cut it down. The development of synthetic foods, the use of algae and fungi, rules out famine as a limiting factor. Increased harnessing of atomic power has done away with widespread poverty, so there's no economic deterrent to propagation. Neither church nor state dares set up a legal prohibition. So here we are, at the millennium. In place of international tension we've substituted internal tension. In place of thermonuclear explosion, we have a population explosion."
"You make it look pretty grim."
"I'm just talking about today. What happens ten years from now, when we hit a population-level of ten billion? What happens when we reach twenty billion, fifty billion, a hundred? Don't talk to me about more substitutes, more synthetics, new ways of conserving top-soil. There just isn't going to be room for everyone!"
"Then what's the answer?"
"That's what the government wants to know. Believe me, they've done a lot of searching; most of it sub rosa. And then along came this man Leffingwell, with his solution. That's just what it is, of course—an endocrinological solution, for direct injection."
"Leffingwell? The Dr. Leffingwell whose name was on that photostat? What's he got to do with all this?"
"He's boss of this project," Ritchie said. "He's the one who persuaded them to set up a breeding-center. You're his guinea pig."
"But why all the secrecy?"
"That's what I wanted to know. That's why I scurried around, pulled strings to get a lab technician's job here. It wasn't easy, believe me. The whole deal is being kept strictly under wraps until Leffingwell's experiments prove out. They realized right away that it would be fatal to use volunteers for the experiments—they'd be bound to talk, there'd be leaks. And of course, they anticipated some awkward results at first, until the technique is refined and perfected. Well, they were right on that score. I've seen some of their failures. Ritchie shuddered. "Any volunteer—any military man, government employee or even a so-called dedicated scientist who broke away would spread enough rumors about what was going on to kill the entire project. That's why they decided to use mental patients for subjects. God knows, they had millions to choose from, but they were very particular. You're a rare specimen, Collins."
"How so?"
"Because you happen to fit all their specifications. You're young, in good physical condition. Unlike ninety percent of the population, you don't even wear contact lenses, do you? And your aberration was temporary, easily removed by removing you from the tension-sources which created it. You have no family ties, no close friends, to question your absence. That's why you were chosen—one of the two hundred."
"Two hundred? But there's only a dozen others here now."
"A dozen males, yes. You're forgetting the females. Must be about fifty or sixty in the other building."
"But if you're talking about someone like Sue, she's a nurse——"
Ritchie shook his head. "That's what she was told to say. Actually, she's a patient, too. They're all patients. Twelve men and sixty women, at the moment. Originally, about thirty men and a hundred and seventy women."
"What happened to the others?"
"I told you there were some failures. Many of the women died in childbirth. Some of them survived, but found out about the results—and the results, up until now, haven't been perfect. A few of the men found out, too. Well, they have only one method of dealing with failures here. They dispose of them. I told you about that chimney, didn't I?"
"You mean they killed the offspring, killed those who found out about them?"
Ritchie shrugged.
"But what are they actually doing? Who is this Dr. Leffingwell? What's it all about?"

"I think I can answer those questions for you."

Harry wheeled at the sound of the familiar voice.

Dr. Manschoff beamed down at him from the top of the river bank. "Don't be alarmed," he said. "I wasn't following you with any intent to eavesdrop. I was merely concerned about him." His eyes flickered as he directed his gaze past Harry's shoulder, and Harry turned again to look at Arnold Ritchie.

The little man was no longer standing and he was no longer alone. Two attendants now supported him, one on either side, and Ritchie himself sagged against their grip with eyes closed. A hypodermic needle in one attendant's hand indicated the reason for Ritchie's sudden collapse.

"Merely a heavy sedative," Dr. Manschoff murmured. "We came prepared, in expectation of just such an emergency." He nodded at his companions. "Better take him back now," he said. "I'll look in on him this evening, when he comes out of it."

"Sorry about all this," Manschoff continued, sitting down next to Harry as the orderlies lifted Ritchie's inert form and carried him up the slanting slope. "It's entirely my fault. I misjudged my patient—never should have permitted him such a degree of freedom. Obviously, he's not ready for it yet. I do hope he didn't upset you in any way."

"No. He seemed quite—"Harry hesitated, then went on hastily—"logical."

"Indeed he is." Dr. Manschoff smiled. "Paranoid delusions, as they used to call them, can often be rationalized most convincingly. And from what little I heard, he was doing an excellent job, wasn't he?"

"Well—"

"I know." A slight sigh erased the smile. "Leffingwell and I are mad scientists, conducting biological experiments on human guinea pigs. We've assembled patients for breeding purposes and the government is secretly subsidizing us. Also, we incinerate our victims—again, with full governmental permission. All very logical, isn't it?"

"I didn't mean that," Harry told him. "It's just that he said Sue was pregnant and he was hinting things."

"Said?" Manschoff stood up. "Hinted? I'm surprised he didn't go further than that. Just today, we discovered he'd been using the office facilities—he had a sort of probationary position, as you may have guessed, helping out the staff in administration—to provide tangible proof of his artistic creations. He was writing out 'official reports' and then photostating them. Apparently he intended to circulate the results as 'evidence' to support his delusions. Look, here's a sample."

Dr. Manschoff passed a square of glossy paper to Harry, who scanned it quickly. It was another laboratory report similar to the one Ritchie had shown him, but containing a different set of names.

"No telling how long this sort of thing has been going on," Manschoff said. "He may have made dozens. Naturally, the moment we discovered it, we realized prompt action was necessary. He'll need special attention."

"But what's wrong with him?"

"It's a long story. He was a reporter at one time—he may have told you that. The death of his wife precipitated a severe trauma and brought him to our attention. Actually, I'm not at liberty to say any more regarding his case; you understand, I'm sure."

"Then you're telling me that everything he had to say was a product of his imagination?"

"No, don't misunderstand. It would be more correct to state that he merely distorted reality. For example, there is a Dr. Leffingwell on the staff here; he is a diagnostician and has nothing to do with psychotherapy per se. And he has charge of the hospital ward in Unit Three, the third building you may have noticed behind Administration. That's where the nurses maintain residence, of course. Incidentally, when any nurses take on a—special assignment, as it were, such as yours, Leffingwell does examine and treat them. There's a new oral contraception technique he's evolved which may be quite efficacious. But I'd hardly call it an example of sinister experimentation under the circumstances, would you?"

Harry shook his head. "About Ritchie, though," he said. "What will happen to him?"

"I can't offer any prognosis. In view of my recent error in judgment concerning him, it's hard to say how he'll respond to further treatment. But rest assured that I'll do my best for his case. Chances are you'll be seeing him again before very long."

Dr. Manschoff glanced at his watch. "Shall we go back now?" he suggested. "Supper will be served soon."

The two men toiled up the bank.

Harry discovered that the doctor was right about supper. It was being served as he returned to his room. But the predictions concerning Ritchie didn't work out quite as well.

It was after supper—indeed, quite some hours afterwards, while Harry sat at his window and stared sleeplessly out into the night—that he noted the thick, greasy spirals of black smoke rising suddenly from the chimney of the Third Unit building. And the sight may have prepared him for the failure of Dr. Manschoff's prophecy regarding his
disturbed patient.

Harry never asked any questions, and no explanations were ever forthcoming.

But from that evening onward, nobody ever saw Arnold Ritchie again.

3. President Winthrop—1999

The Secretary of State closed the door.

"Well?" he asked.

President Winthrop looked up from the desk and blinked. "Hello, Art," he said. "Sit down."

"Sorry I'm late," the Secretary told him. "I came as soon as I got the call."

"It doesn't matter." The President lit a cigarette and pursed his lips around it until it stopped wobbling. "I've been checking the reports all night."

"You look tired."

"I am. I could sleep for a week. That is, I wish I could."

"Any luck?"

The President pushed the papers aside and drummed the desk for a moment. Then he offered the Secretary a gray ghost of a smile.

"The answer's still the same."

"But this was our last chance—"

"I know." The President leaned back. "When I think of the time and effort, the money that's been poured into these projects! To say nothing of the hopes we had. And now, it's all for nothing."

"You can't say that," the Secretary answered. "After all, we did reach the moon. We got to Mars." He paused.

"No one can take that away from you. You sponsored the Martian flights. You fought for the appropriations, pushed the project, carried it through. You helped mankind realize its greatest dream—"

"Save that for the newscasts," the President said. "The fact remains, we've succeeded. And our success was a failure. Mankind's greatest dream, eh? Read these reports and you'll find out this is mankind's greatest nightmare."

"Is it that bad?"

"Yes." The President slumped in his chair. "It's that bad. We can reach the moon at will. Now we can send a manned flight to Mars. But it means nothing. We can't support life in either place. There's absolutely no possibility of establishing or maintaining an outpost, let alone a large colony or a permanent human residence. That's what all the reports conclusively demonstrate.

"Every bit of oxygen, every bit of food and clothing and material, would have to be supplied. And investigations prove there's no chance of ever realizing any return. The cost of such an operation is staggeringly prohibitive. Even if there was evidence to show it might be possible to undertake some mining projects, it wouldn't begin to defray expenses, once you consider the transportation factor."

"But if they improve the rockets, manage to make room for a bigger payload, wouldn't it be cheaper?"

"It would still cost roughly a billion dollars to equip a flight and maintain a personnel of twenty men for a year," the President told him. "I've checked into that, and even this estimate is based on the most optimistic projection. So you can see there's no use in continuing now. We'll never solve our problems by attempting to colonize the moon or Mars."

"But it's the only possible solution left to us."

"No it isn't," the President said. "There's always our friend Leffingwell."

The Secretary of State turned away. "You can't officially sponsor a thing like that," he muttered. "It's political suicide."

The gray smile returned to the gray lips. "Suicide? What do you know about suicide, Art? I've been reading a few statistics on that, too. How many actual suicides do you think we had in this country last year?"

"A hundred thousand? Two hundred, maybe?"

"Two million." The President leaned forward. "Add to that, over a million murders and six million crimes of violence."

"I never knew—"

"Damned right you didn't! We used to have a Federal Bureau of Investigation to help prevent such things. Now the big job is merely to hush them up. We're doing everything in our power just to keep these matters quiet, or else there'd be utter panic. Then there's the accident total and the psycho rate. We can't build institutions fast enough to hold the mental cases, nor train doctors enough to care for them. Shifting them into other jobs in other areas doesn't cure, and it no longer even disguises what is happening. At this rate, another ten years will see half the nation going insane. And it's like this all over the world."

"This is race-suicide, Art. Race-suicide through sheer fecundity. Leffingwell is right. The reproductive instinct, unchecked, will overbalance group survival in the end. How long has it been since you were out on the streets?"
The Secretary of State shrugged. "You know I never go out on the streets," he said. "It isn't very safe."

"Of course not. But it's no safer for the hundreds of millions who have to go out every day. Accident, crime, the sheer maddening proximity of the crowds—these phenomena are increasing through mathematical progression. And they must be stopped. Leffingwell has the only answer."

"They won't buy it," warned the Secretary. "Congress won't, and the voters won't, any more than they bought birth-control. And this is worse."

"I know that, too." The President rose and walked over to the window, looking out at the sky-scraper apartments which loomed across what had once been the Mall. He was trying to find the dwarfed spire of Washington's Monument in the tangled maze of stone.

"If I go before the people and sponsor Leffingwell, I'm through. Through as President, through with the Party. They'll crucify me. But somebody in authority must push this project. That's the beginning. Once it's known, people will have to think about the possibilities. There'll be opposition, then controversy, then debate. And gradually Leffingwell will gain adherents. It may take five years, it may take ten. Finally, the change will come. First through volunteers. Then by law. I only pray that it happens soon."

"They'll curse your name," the Secretary said. "They'll try to kill you. It's going to be hell."

"Hell for me if I do, yes. Worse hell for the whole world if I don't."

"But are you quite sure it will work? His method, I mean?"

"You saw the reports on his tests, didn't you? It works, all right. We've got more than just abstract data, now. We've got films for the telescreenings all set up."

"Films? You mean you'll actually show what the results are? Why, just telling the people will be bad enough. And admitting the government sponsored the project under wraps. But when they see, nothing on earth can save you from assassination."

"Perhaps. It doesn't really matter." The President crushed his cigarette in the ashtray. "One less mouth to feed. And I'm getting pretty sick of synthetic meals, anyway."

President Winthrop turned to the Secretary, his eyes brightening momentarily. "Tell you what, Art. I'm not planning on breaking the proposal to the public until next Monday. What say we have a little private dinner party on Saturday evening, just the Cabinet members and their wives? Sort of a farewell celebration, in a way, but we won't call it that, of course? Chef tells me there's still twenty pounds of hamburger in the freezers."

"Twenty pounds of hamburger? You mean it?" The Secretary of State was smiling, too.

"That's right." The President of the United States grinned in anticipation. "Been a long time since I've tasted a real, honest-to-goodness hamburger."

4. Harry Collins—2000

Harry didn't ask any questions. He just kept his mouth shut and waited. Maybe Dr. Manschoff suspected and maybe he didn't. Anyway, there was no trouble. Harry figured there wouldn't be, as long as he stayed in line and went through the proper motions. It was all a matter of pretending to conform, pretending to agree, pretending to believe.

So he watched his step—except in the dreams, and then he was always falling into the yawning abyss.

He kept his nose clean—but in the dreams he smelled the blood and brimstone of the pit.

He managed to retain a cheerful smile at all times—though, in the dreams, he screamed.

Eventually, he even met Myrna. She was the pretty little brunette whom Ritchie had mentioned, and she did her best to console him—only in dreams, when he embraced her, he was embracing a writhing coil of slimy smoke.

It may have been that Harry Collins went a little mad, just having to pretend that he was sane. But he learned the way, and he managed. He saved the madness (or was it the reality?) for the dreams.

Meanwhile he waited and said nothing.

He said nothing when, after three months or so, Myrna was suddenly "transferred" without warning.

He said nothing when, once a week or so, he went in to visit with Dr. Manschoff.

He said nothing when Manschoff volunteered the information that Ritchie had been "transferred" too, or suggested that it would be best to stay on for "further therapy."

And he said nothing when still a third nurse came his way; a woman who was callid, complaisant, and nauseatingly nymphomaniac.

The important thing was to stay alive. Stay alive and try to learn.

It took him almost an additional year to find out what he wanted to find out. More than eight months passed before he found a way of sneaking out of his room at night, and a way of getting into that Third Unit through a delivery door which was occasionally left open through negligence.

Even then, all he learned was that the female patients did have their living quarters here, along with the members of the staff and—presumably—Dr. Leffingwell. Many of the women were patients rather than nurses, as
claimed, and a good number of them were in various stages of pregnancy, but this proved nothing.

Several times Harry debated the possibilities of taking some of the other men in his Unit into his confidence. Then he remembered what had happened to Arnold Ritchie and decided against this course. The risk was too great. He had to continue alone.

It wasn't until Harry managed to get into Unit Four that he got what he wanted (what he didn't want) and learned that reality and dreams were one and the same.

Then he remembered what had happened to Arnold Ritchie and decided against this course. The risk was too great.

He had to continue alone.

It wasn't until Harry managed to get into Unit Four that he got what he wanted (what he didn't want) and learned that reality and dreams were one and the same.

There was the night, more than a year after he'd come to the treatment center, when he finally broke into the basement and found the incinerators. And the incinerators led to the operating and delivery chambers, and the delivery chambers led to the laboratory and the laboratory led to the incubators and the incubators led to the nightmare.

In the nightmare Harry found himself looking down at the mistakes and the failures and he recognized them for what they were, and he knew then why the incinerators were kept busy and why the black smoke poured.

In the nightmare he saw the special units containing those which were not mistakes or failures, and in a way they were worse than the others. They were red and wriggling there beneath the glass, and on the glass surfaces hung the charts which gave the data. Then Harry saw the names, saw his own name repeated twice—once for Sue, once for Myrna. And he realized that he had contributed to the successful outcome or issue of the experiments (outcome? Issue? These horrors?) and that was why Manschoff must have chosen to take the risk of keeping him alive. Because he was one of the good guinea pigs, and he had spawned, spawned living, mewing abominations.

He had dreamed of these things, and now he saw that they were real, so that nightmare merged with now, and he could gaze down at it with open eyes and scream at last with open mouth.

Then, of course, an attendant came running (although he seemed to be moving ever so slowly, because everything moves so slowly in a dream) and Harry saw him coming and lifted a bell-glass and smashed it down over the man's head (slowly, ever so slowly) and then he heard the others coming and he climbed out of the window and ran.

The searchlights winked across the courtyards and the sirens vomited hysteria from metallic throats and the night was filled with shadows that pursued.

But Harry knew where to run. He ran straight through the nightmare, through all the fantastic but familiar convolutions of sight and sound, and then he came to the river and plunged in.

Now the nightmare was not sight or sound, but merely sensation. Icy cold and distilled darkness; ripples that ran, then raced and roiled and roared. But there had to be a way out of the nightmare and there had to be a way out of the canyon, and that way was the river.

Apparently no one else had thought of the river; perhaps they had considered it as a possible avenue of escape and then discarded the notion when they realized how it ripped and raged among the rocks as it finally plunged from the canyon's mouth. Obviously, no one could hope to combat that current and survive.

But strange things happen in nightmares. And you fight the numbness and the blackness and you claw and convulse and you twist and turn and toss and then you ride the crests of frenzy and plunge into the troughs of panic and despair and you sweep round and round and sink down into nothingness until you break through to the freedom which comes only with oblivion.

Somewhere beyond the canyon's moiling maw, Harry Collins found that freedom and that oblivion. He escaped from the nightmare, just as he escaped from the river.

The river itself roared on without him.

And the nightmare continued, too....

5. Minnie Schultz—2009

When Frank came home, Minnie met him at the door. She didn't say a word, just handed him the envelope containing the notice.

"What's the matter?" Frank asked, trying to take her in his arms. "You been crying."

"Never mind." Minnie freed herself. "Just read what it says there."

Frank read slowly, determinedly, his features contorted in concentration. Vocational Apt had terminated his schooling at the old grade-school level, and while like all students he had been taught enough so that he could read the necessary advertising commercials, any printed message of this sort provided a definite challenge.

Halfway through the notice he started to scowl. "What kind of monkey business is this?"

"No monkey business. It's the new law. Everybody that gets married in Angelisco takes the shots, from now on. Fella from State Hall, he told me when he delivered this."

"We'll see about this," Frank muttered. "No damn government's gonna tell me how to run my life. Sa free country, ain't so?"

Minnie's mouth began to twitch. "They're coming back tomorra morning, the fella said. To give me the first
shots. Gee, honey, I'm scared, like. I don't want 'em."

"That settles it," Frank said. "We're getting out of this place, fast."

"Where'd we go?"

"Dunno. Someplace. Texas, maybe. I was listening to the 'casts at work today. They don't have this law in Texas. Not yet, anyway. Come on, start packing."

"Packing? But how'll we get there?"

"Fly. We'll jet right out."

"You got priority reservations or something?"

"No. The scowl returned to Frank's forehead. "But maybe if I pitch 'em a sob story, tell 'em it's our honeymoon, you know, then we could—"

Minnie shook her head. "It won't work, honey. You know that. Takes six months to get a priority clearance or whatever they call it. Besides, your job and all—what'll you do in Texas? They've got your number listed here. Why, we couldn't even land, like. I bet Texas is even more crowded than Angelisco these days, in the cities. And all the rest of it is Ag Culture project, isn't it?"

Frank was leaning against the sink, listening. Now he took three steps forward and sat down on the bed. He didn't look at her as he spoke.

"Well, we gotta do something," he said. "You don't want those shots and that's for sure. Maybe I can have one of those other things instead, those whaddya-call-'ems."

"You mean where they operate you, like?"

"That's right. A vas-something. You know, sterilize you. Then we won't have to worry."

Minnie took a deep breath. Then she sat down and put her arm around Frank.

"But you wanted kids," she murmured. "You told me, when we got married, you always wanted to have a son —"

Frank pulled away.

"Sure I do," he said. "A son. That's what I want. A real son. Not a freak. Not a damned little monster that has to go to the Clinic every month and take injections so it won't grow. And what happens to you if you take your shots now? What if they drive you crazy or something?"

Minnie put her arm around Frank again and made him look at her. "That's not true," she told him. "That's just a lot of Naturalist talk. I know."

"Hell you do."

"But I do, honey! Honest, like! May Stebbins, she took the shots last year, when they asked for volunteers. And she's all right. You seen her baby yourself, remember? It's the sweetest little thing, and awful smart! So maybe it wouldn't be so bad."

"I'll ask about being operated tomorrow," Frank said. "Forget it. It don't matter."

"Of course it matters." Minnie looked straight at him. "Don't you think I know what you been going through? Sweating it out on that job day after day, going nuts in the traffic, saving up the ration coupons so's we'd have extra food for the honeymoon and all?"

"You didn't have to marry me, you know that. It was just like we could have a place of our own together, and kids. Well, we're gonna have 'em, honey. I'll take the shots."

Frank shook his head but said nothing.

"It won't be so bad," Minnie went on. "The shots don't hurt at all, and they make it easier, carrying the baby. They say you don't even get morning sickness or anything. And just think, when we have a kid, we get a chance for a bigger place. We go right on the housing lists. We can have two rooms. A real bedroom, maybe."

Frank stared at her. "Is that all you can think about?" he asked. "A real bedroom?"

"But honey—"

"What about the kid?" he muttered. "How you suppose it's gonna feel? How'd you like to grow up and not grow up? How'd you like to be a midget three feet high in a world where everybody else is bigger? What kind of a life you call that? I want my son to have a decent chance."

"He will have."

Minnie stared back at him, but she wasn't seeing his face. "Don't you understand, honey? This isn't just something happening to us. We're not special. It's happening to everybody, all over the country, all over the world. You seen it in the 'casts, haven't you? Most states, they adopted the laws. And in a couple more years it'll be the only way anyone will ever have kids. Ten, twenty years from now, the kids will be growing up. Ours won't be different then, because from now on all the kids will be just like he is. The same size."

"I thought you was afraid of the shots," Frank said.

Minnie was still staring. "I was, honey. Only, I dunno. I keep thinking about Grandma."
"What's the old lady got to do with it?"

"Well, I remember when I was a little girl, like. How my Grandma always used to tell me about her Grandma, when she was a little girl.

"She was saying about how in the old days, before there even was an Angelisco—when her Grandma came out here in a covered wagon. Just think, honey, she was younger than I am, and she come thousands and thousands of miles in a wagon! With real horses, like! Wasn't any houses, no people or nothing. Except Indians that shot at them. And they climbed up the mountains and they crossed over the deserts and went hungry and thirsty and had fights with those Indians all the way. But they never stopped until they got here. Because they was the pioneers."

"Pioneers?"

"That's what Grandma said her Grandma called herself. A pioneer. She was real proud of it, too. Because it means having the courage to cut loose from all the old things and try something new when you need to. Start a whole new world, a whole new kind of life."

She sighed. "I always wanted to be a pioneer, like, but I never thought I'd get the chance."

"What are you talking about? What's all this got to do with us, or having a kid?"

"Don't you see? Taking these shots, having a baby this new way—it's sort of being a pioneer, too. Gonna help bring a new kind of people into a new kind of world. And if that's not being a pioneer, like, it's the closest I can come to it. It sounds right to me now."

Minnie smiled and nodded. "I guess I made up my mind just now. I'm taking the shots."

"Hell you are!" Frank told her. "We'll talk about it some more in the morning."

But Minnie continued to smile.

And that night, as she lay in the utility bed, the squeaking of the springs became the sound of turning wheels. The plastic walls and ceiling of the eightieth-floor apartment turned to billowing canvas, and the thunder of the passing jets transformed itself into the drumming hoofbeats of a million buffalo.

Let Frank talk to her again in the morning if he liked, Minnie thought. It wouldn't make any difference now. Because you can't stop us pioneers.

6. Harry Collins—2012

Harry crouched behind the boulders, propping the rifle up between the rocks, and adjusted the telescopic sights. The distant doorway sprang into sharp focus. Grunting with satisfaction, he settled down to his vigil. The rifle-barrel had been dulled down against detection by reflection, and Harry's dark glasses protected him against the glare of the morning sun. He might have to wait several hours now, but he didn't care. It had taken him twelve years to come this far, and he was willing to wait a little while longer.

Twelve years. Was it really that long?

A mirror might have answered him; a mirror might have shown him the harsh features of a man of forty-two. But Harry needed no mirror. He could remember the past dozen years only too easily—though they had not been easy years.

Surviving the river was only the beginning. Animal strength carried him through that ordeal. But he emerged from the river as an animal; a wounded animal, crawling through the brush and arroyo outside the southern Colorado canyon.

And it was animal cunning which preserved him. He'd wandered several days until he encountered Emil Grizek and his outfit. By that time he was half-starved and completely delirious. It took a month until he was up and around again.

But Emil and the boys had nursed him through. They took turns caring for him in the bunkhouse; their methods were crude but efficient and Harry was grateful. Best of all, they asked no questions. Harry's status was that of a hunted fugitive, without a Vocational Apt record or rating. The authorities or any prospective employers would inquire into these things, but Emil Grizek never seemed curious. By the time Harry was up and around again, he'd been accepted as one of the bunch. He told them his name was Harry Sanders, and that was enough.

Two months after they found him, he'd signed on with Emil Grizek and found a new role in life.

Harry Collins, advertising copywriter, had become Harry Sanders, working cowhand.

There was surprisingly little difficulty. Grizek had absentee employers who weren't interested in their foreman's methods, just as long as he recruited his own wranglers for the Bar B Ranch. Nobody demanded to see Apt cards or insisted on making out formal work-reports, and the pay was in cash. Cowhands were hard to come by these days, and it was an unspoken premise that the men taking on such jobs would be vagrants, migratory workers, fugitives from justice and injustice. A generation or so ago they might have become tramps—but the last of the hoboies had vanished along with the last of the freight trains. Once the derelicts haunted the canyons of the big cities; today there was no place for them there, so they fled to the canyons of the west. Harry had found himself a new niche, and no questions asked.
Oddly enough, he fitted in. The outdoor life agreed with him, and in a matter of months he was a passable cowpoke; within a year he was one of Grizek's top hands.

He learned to ride a bucking jeep with the best of them, and he could spot, single out, and stun a steer in forty seconds flat; then use his electronic brander on it and have the critter back on its feet in just under a minute.

Work was no problem, and neither was recreation. The bunkhouse offered crude but adequate facilities for living; old-fashioned air-conditioning and an antique infra-red broiler seemed good enough for roughing it, and Cookie at least turned out real man-sized meals. Eating genuine beef and honest-to-goodness baked bread was a treat, and so was having the luxury of all that space in the sleeping quarters. Harry thrived on it.

And some of the other hands were interesting companions. True, they were renegades and mavericks, but they were each of them unique and individual, and Harry enjoyed listening to them fan the breeze during the long nights.

There was Big Phil, who was pushing sixty now. But you'd never know it, not unless you got him to talking about the old days when he'd been a boy in Detroit. His daddy had been one of the last of the Union Men, back in the days of what they used to call the Organized Labor Movement. He could tell you about wage-hour agreements and the Railroad Brotherhood and contract negotiations almost as if he knew of these things through personal experience. He even remembered the Democratic Party. Phil got out when the government took over and set up Vocational Apt and Industrial Supervision; that's when he drifted west.

Tom Lowery's family had been military; he claimed to have been a member of the last graduating class ever to leave West Point. When the armament race ended, his prospects of a career vanished, and he settled down as a guard at Canaveral. Finally, he'd headed for the open country.

Bassett was the scholar of the outfit. He could sit around and quote old-time book-authors by the hour—classic writers like Prather and Spillane. In another age he might have been a college professor or even a football coach; he had an aptitude for the arts.

And there was Lobo, the misogynist, who had fled a wife and eleven children back in Monterey; and Januzki, who used to be mixed up with one of those odd religious cults out on the Coast. He bragged he'd been one of the Big Daddy-Os in the Beat Generationists, and he argued with Bassett about some old-time evangelist named Kerouac.
Best of all, though, Harry liked talking to Nick Kendrick. Nick's hobby was music, and he treasured his second-hand stereophonic unit and collection of tapes. He too was a classicist in his way, and there was many a long winter night when Harry sat there listening to ancient folk songs. The quaint atonalities of progressive jazz and the childishly frantic rhythms of "cool sounds" were somehow soothing and reassuring in their reminder of a simple heritage from a simpler age.

But above all, these men were wranglers, and they took a peculiar pride in the traditions of their own calling. There wasn't a one of them who wouldn't spend hours mulling over the lore of the range and the prairie. They knew the Great Names from the Great Days—Eugene Autry, Wyatt Earp, the legendary Thomas Mix, Dale Robertson, Paladin, and all the others; men who rode actual horses in the era when the West was really an untamed frontier.

And like the cowboys they were, they maintained the customs of other days. Every few months they rode a bucking helicopter into some raw western town—Las Vegas, or Reno, or even over to Palm Springs—to drink recklessly in the cocktail lounges, gamble wildly at the slots, or "go down the line" with some telescreen model on location for outdoor ad-backgrounds. There were still half a dozen such sin-cities scattered throughout the west; even the government acknowledged the need of lonely men to blow off steam. And though Ag Culture officially disapproved of the whole cowhand system, and talked grimly of setting up new and more efficient methods for training personnel and handling the cattle ranges, nothing was ever done. Perhaps the authorities knew that it was a hopeless task; only the outcasts and iconoclasts had the temperament necessary to survive such loneliness under an open sky. City-dwelling conformists just could not endure the monotony.

But even Emil Grizek's hands marvelled at the way Harry lived. He never joined them in their disorderly descent upon the scarlet cities of the plain, and most of the time he didn't even seem to watch the telescreen. If anything, he deliberately avoided all possible contact with civilization.

Since he never volunteered any information about his own past, they privately concluded that he was just a psychopathic personality.

"Strong regressive and seclusive tendencies," Bassett explained, solemnly.

"Sure," Nick Kendrick nodded, wisely. "You mean a Mouldy Fig, like.'

"Creeping Meatball," muttered cultist Januzki. Not being religious fanatics, the others didn't understand the reference. But gradually they came to accept Harry's isolationist ways as the norm—at least, for him. And since he never quarreled, never exhibited any signs of dissatisfaction, he was left to his own pattern.

Thus it was all the more surprising when that pattern was rudely and abruptly shattered.

Harry remembered the occasion well. It was the day the Leff Law was officially upheld by the Supremist Courts. The whole business came over the telescreens and there was no way of avoiding it—you couldn't avoid it, because everybody was talking about it and everybody was watching.

"Now what do you think?" Emil Grizek demanded. "Any woman wants a baby, she's got to have those shots. They say kids shrink down into nothing. Weigh less than two pounds when they're born, and never grow up to be any bigger than midgets. You ask me, the whole thing's plumb loco, to say nothing of psychotic."

"I'dunno." This from Big Phil. "Reckon they just about have to do something, the way cities are filling up and all. Tell me every spot in the country, except for the plains states here, is busting at the seams. Same in Europe, Africa, South America. Running out of space, running out of food, all over the world. This man Leffingwell figures on cutting down on size so's to keep the whole shebang going."

"But why couldn't it be done on a voluntary basis?" Bassett demanded. "These arbitrary rulings are bound to result in frustrations. And can you imagine what will happen to the individual family constellations? Take a couple that already has two youngsters, as of now. Suppose the wife submits to the inoculations for her next child and it's born with a size-mutation. How in the world will that child survive as a midget in a family of giants? There'll be untold damage to the personality—""
"How do you know?" Bassett demanded. "Maybe it's all a lot of motivationalist propaganda."
"We have seen them on the telescreens, no?"
"They could be faking the whole thing."
"But Leffingwell, he has offered the shots to other governments beside our own. The whole world will adopt them—"
"What if some countries don't? What if our kids become midgets and the Asiatics refuse the inoculations?"
"They won't. They need room even more than we do."
"No sense arguing," Emil Grizek concluded. "It's the law. You know that. And if you don't like it, join the Naturalists." He chuckled. "But better hurry. Something tells me there won't be any Naturalists around after a couple of years. Now that there's a Leff Law, the government isn't likely to stand for too much criticism." He turned to Harry. "What do you think?" he asked.
Harry shrugged. "No comment," he said.
But the next day he went to Grizek and demanded his pay in full.
"Leaving?" Grizek muttered. "I don't understand. You've been with us almost five years. Where you going, what you intend to do? What's got into you all of a sudden?"
"Time for a change," Harry told him. "I've been saving my money."
"Don't I know it? Never touched a penny in all this time." Grizek ran a hand across his chin. "Say, if it's a raise you're looking for, I can—"
"No, thanks. It's not that. I've money enough."
"So you have. Around eighteen, twenty thousand, I reckon, what with the bonuses." Emil Grizek sighed. "Well, if you insist, that's the way it's got to be, I suppose. When you plan on taking off?"
"Just as soon as there's a 'copter available."
"Got one going up to Colorado Springs tomorrow morning for the mail. I can get you aboard, give you a check—"
"I'll want my money in cash."
"Well, now, that isn't so easy. Have to send up for a special draft. Take a week or so."
"I can wait."
"All right. And think it over. Maybe you'll decide to change your mind."
But Harry didn't change his mind. And ten days later he rode a 'copter into town, his money-belt strapped beneath his safety-belt.
From Colorado Springs he jetted to Kancity, and from Kancity to Memphisee. As long as he had money, nobody asked any questions. He holed up in cheap airtels and waited for developments.
It wasn't easy to accustom himself to urbanization again. He had been away from cities for over seven years now, and it might well have been seven centuries. The overpopulation problem was appalling. The outlawing of private automotive vehicles had helped, and the clearing of the airlanes served a purpose; the widespread increase in the use of atomic power cut the smog somewhat. But the synthetic food was frightful, the crowding intolerable, and the welter of rules and regulations attending the performance of even the simplest human activity past all his comprehension. Ration cards were in universal use for almost everything; fortunately for Harry, the black market accepted cash with no embarrassing inquiries. He found that he could survive.
But Harry's interest was not in survival; he was bent upon destruction. Surely the Naturalists would be organized and planning a way!
Back in '98, of course, they'd been merely an articulate minority without formal unity—an abstract, amorphous group akin to the "Liberals" of previous generations. A Naturalist could be a Catholic priest, a Unitarian layman, an atheist factory hand, a government employee, a housewife with strong prejudices against governmental controls, a wealthy man who deplored the dangers of growing industrialization, an Ag Culture worker who dreaded the dwindling of individual rights, an educator who feared widespread employment of social psychology, or almost anyone who opposed the concept of Mass Man, Mass-Motivated. Naturalists had never formed a single class, a single political party.
Surely, however, the enactment of the Leffingwell Law would have united them! Harry knew there was strong opposition, not only on the higher levels but amongst the general population. People would be afraid of the inoculations; theologians would condemn the process; economic interests, real-estate owners and transportation magnates and manufacturers would sense the threat here. They'd sponsor and they'd subsidize their spokesmen and the Naturalists would evolve into an efficient body of opposition.
So Harry hoped, and so he thought, until he came out into the cities; came out into the cities and realized that the very magnitude of Mass Man mitigated against any attempt to organize him, except as a creature who labored and consumed. Organization springs from discussion, and discussion from thought—but who can think in chaos,
discuss in delirium, organize in a vacuum? And the common citizen, Harry realized, had seemingly lost the capacity for group action. He remembered his own existence years ago—either he was lost in a crowd or he was alone, at home. Firm friendships were rare, and family units survived on the flimsiest of foundations. It took too much time and effort just to follow the rules, follow the traffic, follow the incessant routines governing even the simplest life-pattern in the teeming cities. For leisure there was the telescreen and the yellowjackets, and serious problems could be referred to the psych in routine check-ups. Everybody seemed lost in the crowd these days.

Harry discovered that Dr. Manschoff had indeed lied to him; mental disorders were on the increase. He remembered an old, old book—one of the very first treatises on sociological psychology. The Lonely Crowd, wasn't it? Full of mumbo-jumbo about "inner-directed" and "outer-directed" personalities. Well, there was a grain of truth in it all. The crowd, and its individual members, lived in loneliness. And since you didn't know very many people well enough to talk to, intimately, you talked to yourself. Since you couldn't get away from physical contact with others whenever you ventured abroad, you stayed inside—except when you had to go to work, had to line up for food-rations or supplies, had to wait for hours for your check-ups on off-days. And staying inside meant being confined to the equivalent of an old-fashioned prison cell. If you weren't married, you lived in "solitary"; if you were married, you suffered the presence of fellow-inmates whose habits became intolerable, in time. So you watched the screen more and more, or you increased your quota of sedation, and when that didn't help you looked for a real escape. It was always available to you if you searched long enough; waiting at the tip of a knife, in the coil of a rope, the muzzle of a gun. You could find it at the very bottom of a bottle of pills or at the very bottom of the courtyard outside your window. Harry recalled looking for it there himself, so many years ago.

But now he was looking for something else. He was looking for others who shared not only his viewpoint but his purposefulness.

Where were the Naturalists?
Harry searched for several years.

The press?
But there were no Naturalists visible on the telescreens. The news and the newsmakers reflected a national philosophy adopted many generations ago by the Founding Fathers of mass-communication in their infinite wisdom—"What's good for General Motors is good for the country." And according to them, everything happening was good for the country; that was the cardinal precept in the science of autobuyology. There were no Arnold Ritchies left any more, and the printed newzine seemed to have vanished.

The clergy?
Individual churches with congregations in physical attendance, seemed difficult to find. Telepreachers still appeared regularly every Sunday, but their scripts—like everyone else's—had been processed in advance. Denominationalism and sectarianism had waned, too; all of these performers seemed very much alike, in that they were vigorous, forthright, inspiring champions of the status quo.

The scientists?
But the scientists were a part of the government, and the government was a one-party system, and the system supported the nation and the nation supported the scientists. Of course, there were still private laboratories subsidized for industrial purposes, but the men who worked in them seemed singularly disinterested in social problems. In a way, Harry could understand their position. It isn't likely that a dedicated scientist, a man whose specialized research has won him a Nobel Prize for creating a new detergent, will be worldly enough to face unpleasant realities beyond the walls of his antiseptic sanctum. After all, there was precedent for such isolationism—did the sainted Betty Crocker ever enlist in any crusades? As for physicians, psychiatrists and mass-psychologists, they were the very ones who formed the hard core of Leffingwell's support.

The educators, then?
Vocational Apt was a part of the government. And the poor pedagogues, who had spent generations hacking their way out of the blackboard jungles, were only too happy to welcome the notion of a coming millennium when their small charges would be still smaller. Even though formal schooling, for most youngsters, terminated at fourteen, there was still the problem of overcrowding. Telescreening and teletesting techniques were a help, but the problem was essentially a physical one. And Leffingwell was providing a physical solution. Besides, the educators had been themselves educated, through Vocational Apt. And while they, and the government, fervently upheld the principle of freedom of speech, they had to draw the line somewhere. As everyone knows, freedom of speech does not mean freedom to criticize.

Business men?
Perhaps there were some disgruntled souls in the commercial community, whose secret heroes were the oil tycoons of a bygone era or the old-time Stock Exchange clan united under the totems of the bull or the bear. But the day of the rugged individualist was long departed; only the flabby individualist remained. And he had the forms to
fill out and the inspectors to contend with, and the rationing to worry about and the taxes to meet and the quotas to fulfill. But in the long run, he managed. The business man worked for the government, but the government also worked for him. His position was protected. And if the government said the Leff Shots would solve the overpopulation problem—without cutting down the number of consumers—well, was that really so bad? Why, in a generation or so there'd be even more customers! That meant increased property values, too.

It took Harry several years to realize he'd never find Naturalists organized for group action. The capacity for group action had vanished as the size of the group increased. All interests were interdependent; the old civic, fraternal, social and anti-social societies had no present purpose any more. And the once-familiar rallying-points—whether they represented idealistic humanitarianism or crass self-interest—had vanished in the crowd. Patriotism, racism, unionism, had all been lost in a moiling megalopolitanism.

There were protests, of course. The mothers objected, some of them. Ag Culture, in particular, ran into difficulties with women who revived the quaint custom of "going on strike" against the Leff Law and refused to take their shots. But it was all on the individual level, and quickly coped with. Government medical authorities met the women at checkup time and demonstrated that the Leff Law had teeth in it. Teeth, and scalpels. The rebellious women were not subdued, slain, or segregated—they were merely sterilized. Perhaps more would have come of this if their men had backed them up; but the men, by and large, were realists. Having a kid was a headache these days. This new business of injections wasn't so bad, when you came right down to it. There'd still be youngsters around, and you'd get the same allotment for extra living space—only the way it worked out, there'd be more room and the kids would eat less. Pretty good deal. And it wasn't as if the young ones were harmed. Some of them seemed to be a lot smarter than ordinary—like on some of the big quizzeshows, youngsters of eight and nine were winning all those big prizes. Bright little ones. Of course, these must be the ones raised in the first special school the government had set up. They said old Leffingwell, the guy who invented the shots, was running it himself. Sort of experimenting to see how this new crop of kids would make out....

It was when Harry learned about the school that he knew what he must do. And if nobody else would help him, he'd act on his own. There might not be any help from organized society, but he still had disorganized society to turn to.

He spent the next two years and the last of his money finding a way. The pattern of criminality had changed, too, and it was no easy matter to find the assistance he needed. About the only group crime still flourishing was hijacking; it took him a long while to locate a small under-cover outfit which operated around St. Louie and arrange to obtain a helicopter and pilot. Getting hold of the rifle was still more difficult, but he managed. And by the time everything was assembled, he'd found out what he needed to know about Dr. Leffingwell and his school.

As he'd suspected, the school was located in the old canyon, right in the same buildings which had once served as experimental units. How many youngsters were there, Harry didn't know. Maybe Manschoff was still on the staff, and maybe they'd brought in a whole new staff. These things didn't matter. What mattered was that Leffingwell was on the premises. And a man who knew his way about, a man who worked alone and to a single purpose, could reach him.

Thus it was that Harry Collins crouched behind the boulder that bright May morning and waited for Dr. Leffingwell to appear. The helicopter had dropped him at the upper end of the canyon the day before, giving him a chance to reconnoitre and familiarize himself with the terrain once again. He'd located Leffingwell's quarters, even seen the man through one of the lower windows. Harry had no trouble recognizing him; the face was only too familiar from a thousand 'casts viewed on a thousand screens. Inevitably, some time today, he'd emerge from the building. And when he did, Harry would be waiting.

He shifted behind the rocks and stretched his legs. Twelve years had passed, and now he'd come full circle. The whole business had started here, and here it must end. That was simple justice.

And it is justice, Harry told himself. It's not revenge. Because there'd be no point to revenge; that was only melodramatic nonsense. He was no Monte Cristo, come to wreak vengeance on his cruel oppressors. And he was no madman, no victim of a monomaniacal obsession. What he was doing was the result of lengthy and logical consideration.

If Harry Collins, longtime fugitive from a government treatment center, tried to take his story to the people, he'd be silenced without a hearing. But his story must be heard. There was only one way to arrest the attention of a nation—with the report of a rifle.

A bullet in Leffingwell's brain; that was the solution of the problem. Overnight the assassin would become a national figure. They'd undoubtedly try him and undoubtedly condemn him, but first he'd have his day in court. He'd get a chance to speak out. He'd give all the voiceless, unorganized victims of the Leff Law a reason for rebellion—and offer them an example. If Leffingwell had to die, it would be in a good cause. Moreover, he deserved to die. Hadn't he killed men, women, infants, without mercy?
But it’s not revenge, Harry repeated. And I know what I’m doing. Maybe I was disturbed before, but I’m sane now. Perfectly logical. Perfectly calm. Perfectly controlled.

Yes, and now his sane, logical, calm, controlled eyes noted that the distant door was opening, and he sighted through the ‘scope and brought his sane, logical, calm, controlled hand up along the barrel to the trigger. He could see the two men emerging, and the shorter, plumper of the two was Leffingwell. He squinted at the high forehead with its receding hairline; it was a perfect target. A little squeeze now and he knew what would happen. In his sane, logical, calm, controlled mind he could visualize the way the black hole would appear in the center of that forehead, while behind it would be the torn and dripping redness flecked with gray—

“What are you doing?”

Harry whirled, staring; staring down at the infant who stood smiling beside him. It was an infant, that was obvious enough, and implicit in the diminutive stature, the delicate limbs and the oversized head. But infants do not wear the clothing of pre-adolescent boys, they do not enunciate with clarity, they do not stare coolly and knowingly at their elders. They do not say, "Why do you want to harm Dr. Leffingwell?"

Harry gazed into the wide eyes. He couldn't speak.

"You're sick, aren't you?" the child persisted. "Let me call the doctor. He can help you."

Harry swung the rifle around. "I'll give you just ten seconds to clear out of here before I shoot."

The child shook his head. Then he took a step forward. "You wouldn't hurt me," he said, gravely. "You're just sick. That's why you talk this way."

Harry leveled the rifle. "I'm not sick," he muttered. "I know what I'm doing. And I know all about you, too. You're one of them, aren't you? One of the first of Leffingwell's brood of illegitimates."

The child took another step forward. "I'm not illegitimate," he said. "I know who I am. I've seen the records. My name is Harry Collins."

Somewhere the rifle exploded, the bullet hurtling harmlessly overhead. But Harry didn't hear it. All he could hear, exploding in his own brain as he went down into darkness, was the sane, logical, calm, controlled voice of his son.

7. Michael Cavendish—2027

Mike was just coming through the clump of trees when the boy began to wave at him. He shifted the clumsy old Jeffrey .475, cursing the weight as he quickened his pace. But there was no help for it, he had to carry the gun himself. None of the boys were big enough.

He wondered what it had been like in the old days, when you could get full-sized bearers. There used to be game all over the place, too, and a white hunter was king.

And what was there left now? Nothing but pygmies, all of them, scurrying around and beating the brush for dibatags and gerenuks. When he was still a boy, Mike had seen the last of the big antelopes go; the last of the wildebeest and zebra, too. Then the carnivores followed—the lions and the leopards. Simba was dead, and just as well. These natives would never dare to come out of the villages if they knew any lions were left. Most of them had gone to Cape and the other cities anyway; handling cattle was too much of a chore, except on a government farm. Those cows looked like moving mountains alongside the average boy.

Of course there were still some of the older generation left; Kikiyu and even a few Watusi. But the free inoculations had begun many years ago, and the life-cycle moved at an accelerated pace here. Natives grew old and died at thirty; they matured at fifteen. Now, with the shortage of game, the elders perished still more swiftly and only the young remained outside the cities and the farm projects.

Mike smiled as he waited for the boy to come up to him. He wasn't smiling at the boy—he was smiling at himself, for being here. He ought to be in Cape, too, or Kenyarobi. Damned silly, this business of being a white hunter, when there was nothing left to hunt.

But somehow he'd stayed on, since Dad died. There were a few compensations. At least here in the forests a man could still move about a bit, taste privacy and solitude and the strange, exotic tropical fruit called loneliness. Even that was vanishing today.

It was compensation enough, perhaps, for lugging this damned Jeffrey. Mike tried to remember the last time he'd fired it at a living target. A year, two years? Yes, almost two. That gorilla up in Ruwenzori country. At least the boys swore it was ingagi. He hadn't hit it, anyway. Got away in the darkness. Probably he'd been shooting at a shadow. There were no more gorillas—maybe they had been taking the shots, too. Perhaps they'd all turned into rhesus monkeys.

Mike watched the boy run towards him. It was a good five hundred yards from the river bank, and the short brown legs couldn't move very swiftly. He wondered what it felt like to be small. One's sense of proportion must be different. And that, in turn, would affect one's sense of values. What values applied to the world about you when you were only three feet high?
Mike wouldn't know. He was a big man—almost five feet seven.

Sometimes Mike reflected on what things might be like if he'd been born, say, twenty years later. By that time almost everyone would be a product of Leff shots, and he'd be no exception. He might stay with people his own age in Kenyarobi without feeling self-conscious, clumsy, conspicuous. Pressed, he had to admit that was part of the reason he preferred to remain out here at Dad's old place now. He could tolerate the stares of the natives, but whenever he ventured into a city he felt awkward under the scrutiny of the young people. The way those teen-agers looked up at him made him feel a monster, rather.

Better to endure the monotony, the emptiness out here. Yes, and wait for a chance to hunt. Even though, nine times out of ten, it turned out to be a wild goose-chase. During the past year or so Mike had hunted nothing but legends and rumors, spent his time stalking shadows.

Then the villagers had come to him, three days ago, with their wild story. Even when he heard it, he realized it must be pure fable. And the more they insisted, the more they protested, the more he realized it simply couldn't be.

Still, he'd come. Anything to experience some action, anything to create the illusion of purpose, of—

"Tembo!" shrieked the boy, excited beyond all pretense of caution. "Up ahead, in river. You come quick, you see!"

No. It couldn't be. The government surveys were thorough. The last record of a specimen dated back over a half-dozen years ago. It was impossible that any survivors remained. And all during the safari these past days, not a sign or a print or a spoor.

"Tembo!" shrielled the boy. "Come quick!"

Mike cradled the gun and started forward. The other bearers shuffled behind him, unable to keep pace because of their short legs and—he suspected—unwilling to do so for fear of what might lie ahead.

Halfway towards the river bank, Mike halted. Now he could hear the rumbling, the unmistakable rumbling. And now he could smell the rank mustiness borne on the hot breeze. Well, at least he was down-wind.

The boy behind him trembled, eyes wide. He had seen something, all right. Maybe just a crocodile, though. Still some crocs around. And he doubted if a young native would know the difference.

Nevertheless, Mike felt a sudden surge of unfamiliar excitement, half expectancy and half fear. Something wallowed in the river; something that rumbled and exuded the stench of life.

Now they were approaching the trees bordering the bank. Mike checked his gun carefully. Then he advanced until his body was aligned with the trees. From here he could see and not be seen. He could peer down at the river—or the place where the river had been, during the rainy season long past. Now it was nothing but a mudwallow under the glaring sun; a huge mudwallow, pitted with deep, circular indentations and dotted with dung.

But in the middle of it stood tembo.

Tembo was a mountain, tembo was a black block of breathing basalt. Tembo roared and snorted and rolled red eyes.

Mike gasped.

He was a white hunter, but he'd never seen a bull elephant before. And this one stood eleven feet at the shoulders if it stood an inch; the biggest creature walking the face of the earth.

It had risen from the mud, abandoned its wallowing as its trunk curled about, sensitive to the unfamiliar scent of man. Its ears rose like the outspread wings of some gigantic jungle bat. Mike could see the flies buzzing around the ragged edges. He stared at the great tusks that were veined and yellowed and broken—once men had hunted elephants for ivory, he remembered.

But how could they? Even with guns, how had they dared to confront a moving mountain? Mike tried to swallow, but his throat was dry. The stock slipped through his clammy hands.

"Shoot!" implored the boy beside him. "You shoot, now!"

Mike gazed down. The elephant was aware of him. It turned deliberately, staring up the bank as it swayed on the four black pillars of its legs. Mike could see its eyes, set in a mass of grayish wrinkles. The eyes had recognized him.

They knew, he realized. The eyes knew all about him; who he was and what he was and what he had come here to do. The eyes had seen man before—perhaps long before Mike was born. They understood everything; the gun and the presence and the purpose.

"Shoot!" the boy cried, not bothering to hold his voice down any longer. For the elephant was moving slowly towards the side of the wallow, moving deliberately to firmer footing, and the boy was afraid. Mike was afraid, too, but he couldn't shoot.

"No," he murmured. "Let him go. I can't kill him."

"You must," the boy said. "You promise. Look—all the meat. Meat for two, three villages."

Mike shook his head. "I can't do it," he said. "That isn't meat. That's life. Bigger life than we are. Don't you
understand? Oh, the bloody hell with it! Come on."

The boy wasn't listening to him. He was watching the elephant. And now he started to tremble.

For the elephant was moving up onto solid ground. It moved slowly, daintily, almost mincing as its legs sampled the surface of the shore. Then it looked up and this time there was no doubt as to the direction of its gaze—it stared intently at Mike and the boy on the bank. Its ears fanned, then flared. Suddenly the elephant raised its trunk and trumpeted fiercely.

And then, lowering the black battering-ram of its head, the beast came forward. A deceptively slow lope, a scarcely accelerated trot, and then all at once it was moving swiftly, swiftly and surely and inexorably towards them. The angle of the bank was not steep and the elephant's speed never slackened on the slope. Its right shoulder struck a sapling and the sapling splintered. It was crashing forward in full charge. Again it trumpeted, trunk extended like a flail of doom.

"Shoot!" screamed the boy.

Mike didn't want to shoot. He wanted to run. He wanted to flee the mountain, flee the incredible breathing bulk of this grotesque giant. But he was a white hunter, he was a man, and a man is not a beast; a man does not run away from life in any shape or size.

The trunk came up. Mike raised the gun. He heard the monster roar, far away, and then he heard another sound that must be the gun's discharge, and something hit him in the shoulder and knocked him down. Recoil? Yes, because the elephant wasn't there any more; he could hear the crashing and thrashing down below, over the rim of the river bank.

Mike stood up. He saw the boy running now, running back to the bearers huddled along the edge of the trail.

He rubbed his shoulder, picked up his gun, reloaded. The sounds from below had ceased. Slowly, Mike advanced to the lip of the bank and stared down.

The bull elephant had fallen and rolled into the wallow once more. It had taken a direct hit, just beneath the right ear, and even as Mike watched, its trunk writhed feebly like a dying serpent, then fell forward into the mud. The gigantic ears twitched, then flickered and flopped, and the huge body rolled and settled.

Suddenly Mike began to cry.

Damn it, he hadn't wanted to shoot. If the elephant hadn't charged like that—

But the elephant had to charge. Just as he had to shoot. That was the whole secret. The secret of life. And the secret of death, too.

Mike turned away, facing the east. Kenyarobi was east, and he'd be going there now. Nothing to hold him here in the forests any longer. He wouldn't even wait for the big feast. To hell with elephant-meat, anyway. His hunting days were over.

Mike walked slowly up the trail to the waiting boys.

And behind him, in the wallow, the flies settled down on the lifeless carcass of the last elephant in the world.

8. Harry Collins—2029

The guards at Stark Falls were under strict orders not to talk. Each prisoner here was exercised alone in a courtyard runway, and meals were served in the cells. The cells were comfortable enough, and while there were no telescreens, books were available—genuine, old-style books which must have been preserved from libraries dismantled fifty years ago or more. Harry Collins found no titles dated later than 1975. Every day or so an attendant wheeled around a cart piled high with the dusty volumes. Harry read to pass the time.

At first he kept anticipating his trial, but after a while he almost forgot about that possibility. And it was well over a year before he got a chance to tell his story to anyone.

When his opportunity came, his audience did not consist of judge or jury, doctor, lawyer or penologist. He spoke only to Richard Wade, a fellow-prisoner who had been thrust into the adjoining cell on the evening of October 11th, 2013.

Harry spoke haltingly at first, but as he progressed the words came more easily, and emotion lent its own eloquence. His unseen auditor on the other side of the wall did not interrupt or question him; it was enough, for Harry, that there was someone to listen at last.

"So it wasn't a bit like I'd expected," he concluded. "No trial, no publicity. I've never seen Leffingwell again, nor Manschoff. Nobody questioned me. By the time I recovered consciousness, I was here in prison. Buried alive."

Richard Wade spoke slowly, for the first time. "You're lucky. They might have shot you down on the spot."

"That's just what bothers me," Harry told him. "Why didn't they kill me? Why lock me up incommunicado this way? There aren't many prisons left these days, with food and space at such a premium."

"There are no prisons left at all—officially," Wade said. "Just as there are no longer any cemeteries. But important people are still given private burials and their remains secretly preserved. All a matter of influence."

"I've no influence. I'm not important. Wouldn't you think they'd consider it risky to keep me alive, under the
circumstances? If there’d ever be an investigation—"

"Who would investigate? Not the government, surely."

"But suppose there’s a political turnover. Suppose Congress want to make capital of the situation?"

"There is no Congress."

Harry gasped. "No Congress?"

"As of last month. It was dissolved. Henceforth we are governed by the Cabinet, with authority delegated to department heads."

"But that’s preposterous! Nobody’d stand still for something like that!"

"They did stand still, most of them. After a year of careful preparation—of wholesale exposes of Congressional graft and corruption and inefficiency. Turned out that Congress was the villain all along; the Senators and Representatives had finagled tariff-barriers and restrictive trade-agreements which kept our food supply down. They were opposing international federation. In plain language, people were sold a bill of goods—get rid of Congress and you’ll have more food. That did it."

"But you’d think the politicians themselves would realize they were cutting their own throats! The state legislatures and the governors—"

"Legislatures were dissolved by the same agreement," Wade went on. "There are no states any more; just governmental districts. Based upon sensible considerations of area and population. This isn’t the old-time expanding economy based on obsolescence and conspicuous consumption. The primary problem at the moment is sheer survival. In a way, the move makes sense. Old-fashioned political machinery couldn’t cope with the situation; there’s no time for debate when instantaneous decisions are necessary to national welfare. You’ve heard how civil liberties were suspended during the old wars. Well, there’s a war on right now; a war against hunger, a war against the forces of fecundity. In another dozen years or so, when the Leff shot generation is fullgrown and a lot of the elderly have died off, the tensions will ease. Meanwhile, quick action is necessary. Arbitrary action."

"But you’re defending dictatorship!"

Richard Wade made a sound which is usually accompanied by a derisive shrug. "Am I? Well, I didn’t when I was outside. And that’s why I’m here now."

Harry Collins cleared his throat. "What did you do?"

"If you refer to my profession, I was a scripter. If you refer to my alleged criminal activity, I made the error of thinking the way you do, and the worse error of attempting to inject such attitudes in my scripts. Seems that when Congress was formally dissolved, there was some notion of preparing a timely show—a sort of historical review of the body, using old film clips. What my superiors had in mind was a comedy of errors; a cavalcade of mistakes and misdeeds showing just why we were better off without supporting a political sideshow. Well, I carried out the assignment and edited the films, but when I drafted a rough commentary, I made the mistake of taking both a pro and con slant. Nothing like that ever reached the telescreens, of course, but what I did was promptly noted. They came for me at once and hustled me off here. I didn’t get a hearing or a trial, either."

"But why didn’t they execute you? Or—"" Harry hesitated—"is that what you expect?"

"Why didn’t they execute you?" Wade shot back. He was silent for a moment before continuing. "No, I don’t expect anything like that, now. They’d have done it on the spot if they intended to do so at all. No, I’ve got another idea about people like you and myself. And about some of the Congressmen and Senators who dropped out of sight, too. I think we’re being stockpiled."

"Stockpiled?"

"It’s all part of a plan. Give me a little time to think. We can talk again, later."

"Looks as if there’ll be ample opportunity in the future."

And there was. In the months ahead, Harry spoke frequently with his friend behind the wall. He never saw him—prisoners at Stark Falls were exercised separately, and there was no group assembly or recreation. Surprisingly adequate meals were served in surprisingly comfortable cells. In the matter of necessities, Harry had no complaints. And now that he had someone to talk to, the time seemed to go more swiftly.

He learned a great deal about Richard Wade during the next few years. Mostly, Wade liked to reminisce about the old days. He talked about working for the networks—the commercial networks, privately owned, which flourished before the government took over communications media in the ’80s.

"That’s where you got your start, eh?" Harry asked.

"Lord, no, boy! I’m a lot more ancient than you think. Why, I’m pushing sixty-five. Born in 1940. That’s right, during World War II. I can almost remember the atomic bomb, and I sure as hell remember the sputniks. It was a crazy period, let me tell you. The pessimists worried about the Russians blowing us up, and the optimists were sure we had a glorious future in the conquest of space. Ever hear that old fable about the blind men examining an elephant? Well, that’s the way most people were; each of them groping around and trying to determine the exact
shape of things to come. A few of us even made a little money from it for a while, writing science fiction. That's how I got my start."

"You were a writer?"

"Sold my first story when I was eighteen or so. Kept on writing off and on for almost twenty years. Of course, Robertson's thermo-nuc formula came along in '75, and after that everything went to pot. It knocked out the chances of future war, but it also knocked out the interest in speculation or escape-fiction. So I moved over into television for a while, and stayed with it. But the old science fiction was fun while it lasted. Ever read any of it?"

"No," Harry admitted. "That was all before my time. Tell me, though—did any of it make sense? I mean, did some of those writers foresee what was really going to happen?"

"There were plenty of penny prophets and nickel Nostradamuses," Wade told him. "But as I said, most of them were assuming war with the Communists or a new era of space travel. Since Communism collapsed and space flight was just an expensive journey to a dead end and dead worlds, it follows that the majority of fictional futures were founded on fallacies. And all the rest of the extrapolations dealt with superficial social manifestations.

"For example, they wrote about civilizations dominated by advertising and mass-motivation techniques. It's true that during my childhood this seemed to be a logical trend—but once demand exceeded supply, the whole mechanism of stimulating demand, which was advertising's chief function, bogged down. And mass-motivation techniques, today, are dedicated almost entirely to maintaining minimum resistance to a system insuring our survival.

"Another popular idea was based on the notion of an expanding matriarchy—a gerontomatriarchy, rather, in which older women would take control. In an age when women outlived men by a number of years, this seemed possible. Now, of course, shortened working hours and medical advances have equalized the life-span. And since private property has become less and less of a factor in dominating our collective destinies, it hardly matters whether the male or the female has the upper hand.

"Then there was the common theory that technological advances would result in a push-button society, where automatons would do all the work. And so they might—if we had an unlimited supply of raw materials to produce robots, and unlimited power-sources to activate them. As we now realize, atomic power cannot be utilized on a minute scale.

"Last, but not least, there was the concept of a medically-orientated system, with particular emphasis on psychotherapy, neurosurgery, and parapsychology. The world was going to be run by telepaths, psychosis eliminated by brainwashing, intellect developed by hypnotic suggestion. It sounded great—but the conquest of physical disease has occupied the medical profession almost exclusively.

"No, what they all seemed to overlook, with only a few exceptions, was the population problem. You can't run a world through advertising when there are so many people that there aren't enough goods to go around anyway. You can't turn it over to big business when big government has virtually absorbed all of the commercial and industrial functions, just to cope with an ever-growing demand. A matriarchy loses its meaning when the individual family unit changes character, under the stress of an increasing population-pressure which eliminates the old-fashioned home, family circle, and social pattern. And the more we must conserve dwindling natural resources for people, the less we can expend on experimentation with robots and machinery. As for the psychologist-dominated society, there are just too many patients and not enough physicians. I don't have to remind you that the military caste lost its chance of control when war disappeared, and that religion is losing ground every day. Class-lines are vanishing, and racial distinctions will be going next. The old idea of a World Federation is becoming more and more practical. Once the political barriers are down, miscegenation will finish the job. But nobody seemed to foresee this particular future. They all made the mistake of worrying about the hydrogen-bomb instead of the sperm-bomb."

Harry nodded thoughtfully, although Wade couldn't see his response. "But isn't it true that there's a little bit of each of these concepts in our actual situation today?" he asked. "I mean, government and business are virtually one and the same, and they do use propaganda techniques to control all media. As for scientific research, look at how we've rebuilt our cities and developed synthetics for food and fuel and clothing and shelter. When it comes to medicine, there's Leffingwell and his inoculations. Isn't that all along the lines of your early science fiction?"

"Where's your Underground?" Richard Wade demanded.

"My what?"

"Your Underground," Wade repeated. "Hell, every science fiction yarn about a future society had its Underground! That was the whole gimmick in the plot. The hero was a conformist who tangled with the social order—come to think of it, that's what you did, years ago. Only instead of becoming an impotent victim of the system, he'd meet up with the Underground Movement. Not some sourball like your friend Ritchie, who tried to operate on his own hook, without real plans or system, but a complete sub rosa organization, bent on starting a revolution and taking over. There'd be wise old priests and wise old crooks and wise old officers and wise old officials, all playing a
double game and planning a coup. Spies all over the place, get me? And in no time at all, our hero would be playing tag with the top figures in the government. That's how it worked out in all the stories.

"But what happens in real life? What happened to you, for example? You fell for a series of stupid tricks, stupidly perpetrated—because the people in power are people, and not the kind of synthetic super-intellects dreamed up by frustrated fiction-fabricators. You found out that the logical candidates to constitute an Underground were the Naturalists; again, they were just ordinary individuals with no genius for organization. As for coming in contact with key figures, you were actually on hand when Leffingwell completed his experiments. And you came back, years later, to hunt him down. Very much in the heroic tradition, I admit. But you never saw the man except through the telescopic sights of your rifle. That was the end of it. No modern-day Machiavelli has hauled you in to play cat-andmouse games with you, and no futuristic Freud has bothered to wash your brain or soft-soap your subconscious. You just aren't that important, Collins."

"But they put me in a special prison. Why?"
"Who knows? They put me here, too."
"You said something once, about stockpiling us. What did you mean?"
"Well, it was just an old science fiction idea, I suppose. I'll tell you about it tomorrow, eh?"
And so the matter—and Harry Collins—rested for the night.

The next day Richard Wade was gone.

Harry called to him and there was no answer. And he cried out and he cursed and he paced his cell and he walked alone in the courtyard and he begged the impassive guards for information, and he sweated and he talked to himself and he counted the days and he lost count of the days.

Then, all at once, there was another prisoner in the adjacent cell, and his name was William Chang, and he was a biologist. He was reticent about the crime he had committed, but quite voluble about the crimes committed by others in the world outside. Much of what he said, about genes and chromosomes and recessive characteristics and mutation, seemed incomprehensible to Harry. But in their talks, one thing emerged clearly enough—Chang was concerned for the future of the race. "Leffingwell should have waited," he said. "It's the second generation that will be important. As I tried to tell my people—"

"Is that why you're here?"
Chang sighed. "I suppose so. They wouldn't listen, of course. Overpopulation has always been the curse of Asia, and this seemed to be such an obvious solution. But who knows? The time may come when they need men like myself."

"So you were stockpiled too."
"What's that?"
Harry told him about Richard Wade's remarks, and together they tried to puzzle out the theory behind them.

But not for long. Because once again Harry Collins awoke in the morning to find the adjoining cell empty, and once again he was alone for a long time.

At last a new neighbor came. His name was Lars Neilstrom. Neilstrom talked to him of ships and shoes and sealing-wax and the thousand and one things men will discuss in their loneliness and frustration, including—inevitably—their reasons for being here.

Neilstrom had been an instructor under Vocational Apt, and he was at a loss to explain his presence at Stark Falls. When Harry spoke of the stockpiling theory, his fellow-prisoner demurred. "It's more like Kafka than science fiction," he said. "But then, I don't suppose you've ever read any Kafka."

"Yes, I have," Harry told him. "Since I came here I've done nothing but read old books. Lately they've been giving me microscans. I've been studying up on biology and genetics; talking to Chang got me interested. In fact, I'm really going in for self-education. There's nothing else to do."

"Self-education! That's the only method left nowadays." Neilstrom sounded bitter. "I don't know what's going to become of our heritage of knowledge in the future. I'm not speaking of technological skill; so-called scientific information is carefully preserved. But the humanities are virtually lost. The concept of the well-rounded individual is forgotten. And when I think of the crisis to come—"

"What crisis?"

"A new generation is growing up. Ten or fifteen years from now we'll have succeeded in erasing political and racial and religious divisions. But there'll be a new and more dangerous differentiation; a physical one. What do you think will happen when half the world is around six feet tall and the other half under three?"

"I can't imagine."

"Well, I can. The trouble is, most people don't realize what the problem will be. Things have moved too swiftly. Why, there were more changes in the last hundred years than in the previous thousand! And the rate of acceleration increases. Up until now, we've been concerned about too rapid technological development. But what we have to
worry about is social development."

"Most people have been conditioned to conform."

"Yes. That's our job in Vocational Apt. But the system only works when there's a single standard of conformity. In a few years there'll be a double one, based on size. What then?"

Harry wanted some time to consider the matter, but the question was never answered. Because Lars Neilstrom went away in the night, as had his predecessors before him. And in succeeding interludes, Harry came to know a half-dozen other transient occupants of the cell next to his. They came from all over, and they had many things to discuss, but always there was the problem of why they were there—and the memory of Richard Wade's premise concerning stockpiling.

There came a time when the memory of Richard Wade merged with the memory of Arnold Ritchie. The past was a dim montage of life at the agency and the treatment center and the ranch, a recollection of lying on the river bank with women in attitudes of opisthotonos or of lying against the boulders with a rifle.

Somewhere there was an image of a child's wide eyes and a voice saying, "My name is Harry Collins." But that seemed very far away. What was real was the cell and the years of talking and reading the microscans and trying to find a pattern.

Harry found himself describing it all to a newcomer who said his name was Austin—a soft-voiced man who became a resident of the next cell one day in 2029. And eventually he came to Wade's theory.

"Maybe there were a few wiser heads who foresaw a coming crisis," he concluded. "Maybe they anticipated a time when they might need a few nonconformists. People like ourselves who haven't been passive or persuaded. Maybe we're the government's insurance policy. If an emergency arises, we'll be freed."

"And then what would you do?" Austin asked, softly. "You're against the system, aren't you?"

"Yes. But I'm for survival." Harry Collins spoke slowly, thoughtfully. "You see, I've learned something through the years of study and contact here. Rebellion is not the answer."

"You hated Leffingwell."

"Yes, I did, until I realized that all this was inevitable. Leffingwell is not a villain and neither is any given individual, in or out of government. Our road to hell has been paved with only the very best of intentions. Killing the engineers and contractors will not get us off that road, and we're all on it together. We'll have to find a way of changing the direction of our journey. The young people will be too anxious to merely rush blindly ahead. Most of my generation will be sheeplike, moving as part of the herd, because of their conditioning. Only we old-time rebels will be capable of plotting a course. A course for all of us."

"What about your son?" Austin asked.

"I'm thinking of him," Harry Collins answered. "Of him, and of all the others. Maybe he does not need me. Maybe none of them need me. Maybe it's all an illusion. But if the time ever comes, I'll be ready. And meanwhile, I can hope."

"The time has come," Austin said, gently.

And then he was standing, miraculously enough, outside his cell and before the door to Harry's cell, and the door was opening. And once again Harry stared into the wide eyes he remembered so well—the same wide eyes, set in the face of a fullgrown man. A fullgrown man, three feet tall. He stood up, shakily, as the man held out his hand and said, "Hello, Father."

"But I don't understand—"

"I've waited a long time for this moment. I had to talk to you, find out how you really felt, so that I'd be sure. Now you're ready to join us."

"What's happening? What do you want with me?"

"We'll talk later." Harry's son smiled. "Right now, I'm taking you home."

9. Eric Donovan—2031

Eric was glad to get to the office and shut the door. Lately he'd had this feeling whenever he went out, this feeling that people were staring at him. It wasn't just his imagination: they did stare. Every younger person over a yard high got stared at nowadays, as if they were freaks. And it wasn't just the staring that got him down, either.

Sometimes they muttered and mumbled, and sometimes they called names. Eric didn't mind stuff like "dirty Naturalist." That he could understand—once upon a time, way back, everybody who was against the Leff Law was called a Naturalist. And before that it had still another meaning, or so he'd been told. Today, of course, it just meant anyone who was over five feet tall.

No, he could take the ordinary name-calling, all right. But sometimes they said other things. They used words nobody ever uses unless they really hate you, want to kill you. And that was at the bottom of it, Eric knew. They did hate him, they did want to kill him.

Was he a coward? Perhaps. But it wasn't just Eric's imagination. You never saw anything about such things on
the telescreens, but Naturalists were being killed every day. The older people were still in the majority, but the
youngsters were coming up fast. And there were so many more of them. Besides, they were more active, and this
created the illusion that there were Yardsticks everywhere.

Eric sat down behind his desk, grinning. Yardsticks. When he was a kid it had been just the other way around.
And the rest of them who didn't get shots in those early days considered themselves to be the normal ones. And
they did the name-calling. Names like "runt" and "half-pint" and "midgie." But the most common name was the one
that stuck—Yardstick. That used to be the worst insult of all.

But now it wasn't an insult any more. Being taller was the insult. Being a dirty Naturalist or a son-of-a-
Naturalist. Times certainly had changed.

Eric glanced at the communicator. Almost noon, and it had not flicked yet. Here he'd been beaming these big
offers, you'd think he'd get some response to an expensive beaming program, but no. Maybe that was the trouble—
nobody liked big things any more. Everything was small.

He shifted uneasily in his chair. That was one consolation, at least; he still had old-time furniture. Getting to be
harder and harder to find stuff that fitted him these days. Seemed like most of the firms making furniture and
bedding and household appliances were turning out the small stuff for the younger generation. Cheaper to make, less
material, and more demand for it. Government allocated size priorities to the manufacturers.

It was even murder to ride public transportation because of the space-reductions. Eric drove his own jetter.
Besides, that way was safer. Crowded into a liner with a gang of Yardsticks, with only a few other Naturalists
around, there might be trouble.

Oh, it was getting to be a Yardstick world, and no mistake. Smaller furniture, smaller meals, smaller sizes in
clothing, smaller buildings—

That reminded Eric of something and he frowned again. Dammit, why didn't the communicator flick? He
should be getting some kind of inquiries. Hell, he was practically giving the space away!

But there was only silence, as there had been all during this past week. That's why he let Lorette go. Sweet girl,
but there was no work for her here any more. No work, and no pay, either. Besides, the place spooked her. She'd
been the one who suggested leaving, really.

"Eric, I'm sorry, but I just can't take this any more. All alone in this huge building—it's curling my toes!"

At first he tried to talk her out of it. "Don't be silly, luscious! There's Bernstein, down on ten, and Saltonstall
above us, and Wallaby and Son on fourteen, I tell you, this place is coming back to life, I can feel it! I'll beam for
tenants next week, you'll see—"

Actually he'd been talking against his own fear and Lorette must have known it. Anyway, she left. And now he
was here alone.

Alone.

Eric didn't like the sound of that word. Or the absence of sound behind it. Three other tenants in a ninety-story
building. Three other tenants in a place that had once held three thousand. Why, fifty years ago, when this place
went up, you couldn't buy a vacancy. Where had the crowds gone to?

He knew the answer, of course. The Leff shots had created the new generation of Yardsticks, and they lived in
their own world. Their shrunked, dehydrated world of doll-houses and miniatures. They'd deserted the old-fashioned
skyscrapers and cut the big apartment buildings up into tiny cubicles; two could occupy the space formerly reserved
for one.

That had been the purpose of the Leff shots in the first place—to put an end to overcrowding and conserve on
resources. Well, it had worked out. Worked out too perfectly for people like Eric Donovan. Eric Donovan, rental
agent for a building nobody wanted any more; a ninety-storey mausoleum. And nobody could collect rent from
ghosts.

Ghosts.

Eric damned near jumped through the ceiling when the door opened and this man walked in. He was tall and
towheaded. Eric stared; there was something vaguely familiar about his face. Something about those ears, that was
it, those ears. No, it couldn't be, it wasn't possible—

Eric stood up and held out his hand. "I'm Donovan," he said.

The towheaded man smiled and nodded. "Yes, I know. Don't you remember me?"

"I thought I knew you from someplace. You wouldn't be—Sam Wolzek?"

The towheaded man's smile became a broad grin. "That's not what you were going to say, Eric. You were going
to say 'Handle-head,' weren't you? Well, go on, say it. I don't mind. I've been called a lot worse things since we were
kids together."

"I can't believe it," Eric murmured. "It's really you! Old Handle-head Wolzek! And after all these years, turning
up to rent an office from me. Well, what do you know!"
"I didn't come here to rent an office."
"Oh? Then—"
"It was your name that brought me. I recognized it on the beamings."
"Then this is a social call, eh? Well, that's good. I don't get much company these days. Sit down, have a reef."
Wolzek sat down but refused the smoke. "I know quite a bit about your setup," he said. "You and your three tenants. It's tough, Eric."
"Oh, things could be worse." Eric forced a laugh. "It isn't as if my bucks depended on the number of tenants in the building. Government subsidizes this place. I'm sure of a job as long as I live."
"As long as you live." Wolzek stared at him in a way he didn't like. "And just how long do you figure that to be?"
"I'm only twenty-six," Eric answered. "According to statistics, that gives me maybe another sixty years."
"Statistics!" Wolzek said it like a dirty word. "Your life-expectancy isn't determined by statistics any more. I say you don't have sixty months left. Perhaps not even sixty days."
"What are you trying to hand me?"
"The truth. And don't go looking for a silver platter underneath it, either."
"But I mind my own business. I don't hurt anybody. Why should I be in any danger?"
"Why does a government subsidy support one rental manager to sit here in this building every day—but ten guards to patrol it every night?"
Eric opened his mouth wide before shaping it for speech. "Who told you that?"
"Like I said, I know the setup." Wolzek crossed his legs, but he didn't lean back. "And in case you haven't guessed it, this is a business call, not a social one."
Eric sighed. "Might have figured," he said. "You're a Naturalist, aren't you?"
"Of course I am. We all are."
"Not I."
"Oh yes—whether you like it or not, you're a Naturalist, too. As far as the Yardsticks are concerned, everyone over three feet high is a Naturalist. An enemy. Someone to be hated, and destroyed."
"Think I'd believe that? Sure, I know they don't like us, and why should they? We eat twice as much, take up twice the space, and I guess when we were kids we gave a lot of them a hard time. Besides, outside of a few exceptions like ourselves, all the younger generation are Yardsticks, with more coming every year. The older people hold the key positions and the power. Of course there's a lot of friction and resentment. But you know all that."
"Certainly." Wolzek nodded. "All that and more. Much more. I know that up until a few years ago, no Yardstick held any public office or government position. Now they're starting to move in, particularly in Europasia. But there's so many of them now—adults, in their early twenties—that the pressure is building up. They're impatient, getting out of hand. They won't wait until the old folks die off. They want control now. And if they ever manage to get it, we're finished for good."
"Impossible!" Eric said.
"Impossible?" Wolzek's voice was a mocking echo. "You sit here in this tomb and when somebody tells you that the world you know has died, you refuse to believe it. Even though every night, after you sneak home and huddle up inside your room trying not to be noticed, ten guards patrol this place with subatomics, so the Yardstick gangs won't break in and take over. So they won't do what they did down south—overrun the office buildings and the factories and break them up, cut them down to size for living quarters."
"But they were stopped," Eric objected. "I saw it on the telescreen, the security forces stopped them—"
"Crapola!" Wolzek pronounced the archaicism with studied care. "You saw films. Faked films. Have you ever traveled, Eric? Ever been down south and seen conditions there?"
"Nobody travels nowadays. I know that. Priorities."
"I travel, Eric. And I know. Security forces don't suppress anything in the south these days. Because they're made up of Yardsticks now; that's right, Yardsticks exclusively. And in a few years that's the way it will be up here. Did you ever hear about the Chicagee riots?"
"You mean last year, when the Yardsticks tried to take over the synthetic plants at the Stockyards?"
"Tried? They succeeded. The workers ousted management. Over fifty thousand were killed in the revolution—oh, don't look so shocked, that's the right word for it!—but the Yardsticks won out in the end."
"But the telescreen showed—"
"Damn the telescreen! I know because I happened to be there when it happened. And if you had been there, you and a few million other ostriches who sit with your heads buried in telescreens, maybe we could have stopped them."
"I don't believe it. I can't!"
"All right. Think back. That was last year. And since the first of this year, what's happened to the standard size meat-ration?"

"They cut it in half," Eric admitted. "But that's because of Ag shortages, according to the telescreen reports—" He stood up, gulping. "Look here, I'm not going to listen to any more of this kind of talk. By rights, I ought to turn your name in."

"Go ahead." Wolzek waved his hand. "It's happened before. I was reported when I blasted the Yardsticks who shot my father down when he tried to land his jet in a southern field. I was reported when they killed Annette."

"Annette?"

"You remember that name, don't you, Eric? Your first girl, wasn't she? Well, I'm the guy who married her. Yes, and I'm the guy who talked her into having a baby without the benefit of Leff shots. Sure, it's illegal, and only a few of us ever try it any more, but we both agreed that we wanted it that way. A real, life-sized, normal baby. Or abnormal, according to the Yardsticks and the stupid government.

"It was a dirty scum of a government doctor who let her die on the table when he discovered the child weighed seven pounds. That's when I really woke up, Eric. That's when I knew there was going to be only one decision to make in the future—kill or be killed."

"Annette. She died, you say?"

Wolzek moved over and put his hand on Eric's shoulder. "You never married, did you, Eric? I think I know why. It's because you felt the way I did about it. You wanted a regular kid, not a Yardstick. Only you didn't quite have the guts to try and beat the law. Well, you'll need guts now, because it's getting to the point where the law can't protect you any more. The government is made up of old men, and they're afraid to take action. In a few years they'll be pushed out of office all over the world. We'll have Yardstick government then, all the way, and Yardstick law. And that means they'll cut us down to size."

"But what can you—we—do about it?"

"Plenty. There's still a little time. If we Naturalists can only get together, stop being just a name and become an organized force, maybe the ending will be different. We've got to try, in any case."

"The Yardsticks are human beings, just like us," Eric said, slowly. "We can't just declare war on them, wipe them out. It's not their fault they were born that way."

Wolzek nodded. "I know. Nothing is anybody's fault, really. This whole business began in good faith. Leffingwell and some of the other geniuses saw a problem and offered what they sincerely believed was a solution."

"But it didn't work," Eric murmured.

"Wrong. It worked only too well. That's the trouble. Sure, we eliminated our difficulties on the physical level. In less than thirty years we've reached a point where there's no longer any danger of overcrowding or starvation. But the psychological factor is something we can't cope with. We thought we'd ended war and the possibilities of war a long time ago. But it isn't foreign enemies we must fear today. We've created a nation divided into Davids and Goliaths—and David and Goliath are always enemies."

"David killed Goliath," Eric said. "Does that mean we're going to die?"

"Only if we're as stupid as Goliath was. Only if we wear our telescreens like invincible armor and pay no attention to the slingshot in David's hands."

Eric lit a reef. "All right," he said. "You don't have to lecture. I'm willing to join. But I'm no Goliath, really. I never had a fight in my life. What could I do to help?"

"You're a rental agent. You have the keys to this building. The guards don't bother you by day, do they? You come and go as you please. That means you can get into the cellars. You can help us move the stuff down there. And we'll take care of the guards some night, after that."

"I don't understand."

The friendly pressure on Eric's shoulder became a fierce grip. "You don't have to understand. All you do is let us plant the stuff in the cellars and let us get rid of the guards afterwards in our own way. The Yardsticks will do the rest."

"You mean, take over the building when it's not protected?"

"Of course. They'll take it over completely, once they see there's no opposition. And they'll remodel it to suit themselves, and within a month there'll be ten thousand Yardsticks sitting in this place."

"The government will never stand still for that."

"Wake up! It's happening all over, all the time, and nothing is being done to prevent it. Security is too weak and officials are too timid to risk open warfare. So the Yardsticks win, and I'm going to see that they win this place."

"But how will that help us?"

"You don't see it yet, do you? And neither will the Yardsticks. Until, some fine day three or four months from now, we get around to what will be planted in the cellars. Somebody will throw a switch, miles away, and—boom!"
"Wolzek, you couldn't—"

"It's coming. Not only here, but in fifty other places. We've got to fight fire with fire, Eric. It's our only chance. Bring this thing out into the open. Make the government realize this is war. Civil war. That's the only way to force them to take real action. We can't do it any other way; it's illegal to organize politically, and petitions do no good. We can't get a hearing. Well, they'll have to listen to the explosions."

"I just don't know—"

"Maybe you're the one who should have married Annette after all." Wolzek's voice was cold. "Maybe you could have watched her, watched her scream and beg and die, and never wanted to move a muscle to do anything about it afterwards. Maybe you're the model citizen, Eric; you and the thousands of others who are standing by and letting the Yardsticks chop us down, one by one. They say in Nature it's the survival of the fittest. Well, perhaps you're not fit to survive."

Eric wasn't listening. "She screamed," he said. "You heard her scream?"

Wolzek nodded. "I can still hear her. I'll always hear her."

"Yes." Eric blinked abruptly. "When do we start?"

Wolzek smiled at him. It was a pretty good smile for a man who can always hear screaming. "I knew I could count on you," he murmured. "Nothing like old friends."

"Funny, isn't it?" Eric tried to match his smile. "The way things work out. You and I being kids together. You marrying my girl. And then, us meeting up again this way."

"Yes," said Wolzek, and he wasn't smiling now. "I guess it's a small world."

10. Harry Collins—2032

Harry's son's house was on the outskirts of Washington, near what had once been called Gettysburg. Harry was surprised to find that it was a house, and a rather large one, despite the fact that almost all the furniture had been scaled down proportionately to fit the needs of a man three feet high.

But then, Harry was growing accustomed to surprises.

He found a room of his own, ready and waiting, on the second floor; here the furniture was of almost antique vintage, but adequate in size. And here, in an atmosphere of unaccustomed comfort, he could talk.

"So you're a physician, eh?" Harry gazed down into the diminutive face, striving to accept the fact that he was speaking to a mature adult. His own son—his and Sue's—a grown man and a doctor! It seemed incredible. But then, nothing was more incredible than the knowledge that he was actually here, in his child's home.

"We're all specialists in one field or another," his son explained. "Every one of us born and surviving during the early experimental period received our schooling under a plan Leffingwell set up. It was part of his conditional agreement that we become wards of the state. He knew the time might come when we'd be needed."

"But why wasn't all this done openly?"

"You know the answer to that. There was no way of educating us under the prevailing system, and there was always a danger we might be singled out as freaks who must be destroyed—particularly in those early years. So Leffingwell relied on secrecy, just as he did during his experimentation period. You know how you felt about that. You believed innocent people were being murdered. Would you have listened to his explanations, accepted the fact that his work was worth the cost of a few lives so that future billions of human beings might be saved? No, there was no time for explanation or indoctrination. Leffingwell chose concealment."

"Yes," Harry sighed. "I understand that better now, I think. But I couldn't see it then, when I tried to kill him."

He flushed. "And I still can't quite comprehend why he spared me after that attempt."

"Because he wasn't the monster you thought him to be. When I pleaded with him—"

"You were the one!"

Harry's son turned away. "Yes. When I was told who you really were, I went to him. But I was only a child, remember that. And he didn't spare you out of sentimentality. He had a purpose."

"A purpose in sending me to prison, letting me rot all these years while—"

"While I grew up. I and the others like myself. And while the world outside changed." Harry's son smiled. "Your friend Richard Wade was right, you know. He guessed a great deal of the truth. Leffingwell and Manschoff and the rest of their associates deliberately set out to assemble a select group of nonconformists—men of specialized talents and outlooks. There were over three hundred of you at Stark Falls. Richard Wade knew why."

"And so he was dragged off and murdered."

"Murdered? No, Father, he's very much alive, I assure you. In fact, he'll be here tonight."

"But why was he taken away so abruptly, without any warning?"

"He was needed. There was a crisis, when Dr. Leffingwell died." Harry's son sighed. "You didn't know about that, did you? There's so much for you to learn. But I'll let him tell you himself, when you see him this evening."

Richard Wade told him. And so did William Chang and Lars Neilstrom and all the others. During the ensuing
weeks, Harry saw each of them again. But Wade's explanation was sufficient.

"I was right," he said. "There was no Underground when we were at Stark Falls. What I didn't realize, though, was that there was an Overground."

"Overground?"

"You might call it that. Leffingwell and his staff formed the nucleus. They foresaw the social crisis which lay ahead, when the world became physically divided into the tall and the short, the young and the old. They knew there'd be a need of individuality then—and they did create a stockpile. A stockpile of the younger generation, specially educated; a stockpile of the older generation, carefully selected. We conspicuous rebels were incarcerated and given an opportunity to think the problem through, with limited contact with one another's viewpoints."

"But why weren't we told the truth at the beginning, allowed to meet face-to-face and make some sensible plans for the future?"

Harry's son interrupted. "Because Dr. Leffingwell realized this would defeat the ultimate purpose. You'd have formed your own in-group, as prisoners, dedicated to your own welfare. There'd be emotional ties—"

"I still don't know what you're talking about. What are we supposed to prepare for now?"

Richard Wade shrugged. "Leffingwell had it all planned. He foresaw that when the first generation of Yardsticks—that's what they call themselves, you know—came of age, there'd be social unrest. The young people would want to take over, and the older generation would try to remain in positions of power. It was his belief that tensions could be alleviated only by proper leadership on both sides."

"He himself had an important voice in government circles. He set up an arrangement whereby a certain number of posts would be assigned to people of his choice, both young and old. Similarly, in the various professions, there'd be room for appointees he'd select. Given a year or two of training, Leffingwell felt that we'd be ready for these positions. Young men, like your son, would be placed in key spots where their influence would be helpful with the Yardsticks. Older men such as yourself would go into other assignments—in communications media, chiefly. The skillful use of group-psychological techniques could avert open clashes. He predicted a danger-period lasting about twenty years—roughly, from 2030 to 2050. Once we weathered that span, equilibrium would be regained, as a second and third generation came along and the elders became a small minority. If we did our work well and eliminated the sources of prejudice, friction and hostility, the transition could be made. The Overground in governmental circles would finance us. This was Leffingwell's plan, his dream."

"You speak in the past tense," Harry said.

"Yes." Wade's voice was harsh. "Because Leffingwell is dead, of cerebral hemorrhage. And his plan died with him. Oh, we still have some connections in government; enough to get men like yourself out of Stark Falls. But things have moved too swiftly. The Yardsticks are already on the march. The people in power—even those we relied upon—are getting frightened. They can't see that there's time left to train us to take over. And frankly, I'm afraid most of them have no inclination to give up their present power. They intend to use force."

"But you talk as though the Yardsticks were united."

"They are uniting, and swiftly. Remember the Naturalists?"

Harry nodded, slowly. "I was one, once. Or thought I was."

"You were a liberal. I'm talking about the new Naturalists. The ones bent on actual revolution."

"Revolution?"

"That's the word. And that's the situation. It's coming to a head, fast."

"And how will we prevent it?"

"I don't know." Harry's son stared up at him. "Most of us believe it's too late to prevent it. Our immediate problem will be survival. The Naturalists want control for themselves. The Yardsticks intend to destroy the power of the older generation. And we feel that if matters come to a head soon, the government itself may turn on us, too. They'll have to."

"In other words," said Harry, "we stand alone."

"Fall alone, more likely," Wade corrected.

"How many of us are there?"

"About six hundred," said Harry's son. "Located in private homes throughout this eastern area. If there's violence, we don't have a chance of controlling the situation."

"But we can survive. As I see it, that's our only salvation at the moment—to somehow survive the coming conflict. Then, perhaps, we can find a way to function as Leffingwell planned."

"We'll never survive here. They'll use every conceivable weapon."

"But since there's no open break with the government yet, we could still presumably arrange for transportation facilities."

"To where?"
"Some spot in which we could weather the storm. What about Leffingwell's old hideout?"

"The units are still standing." Harry's son nodded. "Yes, that's a possibility. But what about food?"

"Grizek."

"What?"

"Friend of mine," Harry told him. "Look, we're going to have to work fast. And yet we've got to do it in a way that won't attract any attention; not even from the government. I suggest we set up an organizing committee and make plans." He frowned. "How much time do you think we have—a year or so?"

"Six months," his son hazarded.

"Four, at most," Wade said. "Haven't you been getting the full reports on those riots? Pretty soon they'll declare a state of national emergency and then nobody will be going anywhere."

"All right." Harry Collins grinned. "We'll do it in four months."

Actually, as it worked out, they did it in just a day or so under three.

Five hundred and forty-two men moved by jetter to Colorado Springs; thence, by helicopter, to the canyon hideaway. They moved in small groups, a few each week. Harry himself had already established the liaison system, and he was based at Grizek's ranch. Grizek was dead, but Bassett and Tom Lowery remained and they cooperated. Food would be ready for the 'copters that came out of the canyon.

The canyon installation itself was deserted, and the only problem it presented was one of rehabilitation. The first contingent took over.

The jetters carried more than their human cargo; they were filled with equipment of all sorts—microscans and laboratory instruments and devices for communication. By the time the entire group was assembled, they had the necessary implementation for study and research. It was a well-conceived and well-executed operation.

To his surprise, Harry found himself acting as the leader of the expedition, and he continued in this capacity after they were established. The irony of the situation did not escape him; to all intents and purposes he was now ruling the very domain in which he had once languished as a prisoner.

But with Wade and Chang and the others, he set up a provisional system which worked out very well. And proved very helpful, once the news reached them that open revolt had begun in the world outside.

A battered 'copter landed one evening at dusk, and the wounded pilot poured out his message, then his life's blood.

Angelisco was gone. Washington was gone. The Naturalists had struck, using the old, outlawed weapons. And it was the same abroad, according to the few garbled reports thereafter obtainable only via ancient shortwave devices.

From then on, nobody left the canyon except on weekly 'copter-lifts to the ranch grazing lands for fresh supplies. Fortunately, that area was undisturbed, and so were its laconic occupants. They neither knew nor cared what went on in the world outside; what cities were reported destroyed, what forces triumphed or went down into defeat, what activity or radioactivity prevailed.

Life in the canyon flowed on, more peacefully than the river cleaving its center. There was much to do and much to learn. It was, actually, a monastic existence, compounded of frugality, abstinence, continence and devotion to scholarly pursuits. Within a year, gardens flourished; within two years herds grazed the grassy slopes; within three years cloth was being woven on looms in the ancient way and most of the homespun arts of an agrarian society had been revived. Men fell sick and men died, but the survivors lived in amity. Harry Collins celebrated his sixtieth birthday as the equivalent of a second-year student of medicine; his instructor being his own son. Everyone was studying some subject, acquiring some new skill. One-time rebellious natures and one-time biological oddities alike were united by the common bond of intellectual curiosity.

It was, however, no Utopia. Some of the younger men wanted women, and there were no women. Some were irked by confinement and wandered off; three of the fleet of eleven 'copters were stolen by groups of malcontents. From time to time there would be a serious quarrel. Six men were murdered. The population dwindled to four hundred and twenty.

But there was progress, in the main. Eventually Banning joined the group, from the ranch, and under his guidance the study-system was formalized. Attempts were made to project the future situation, to prepare for the day when it would be possible to venture safely into the outside world once again and utilize newly-won abilities.

Nobody could predict when that would be, nor what kind of world would await their coming. By the time the fifth year had passed, even shortwave reports had long since ceased. Rumors persisted that radioactive contamination was widespread, that the population had been virtually decimated, that the government had fallen, that the Naturalists had set up their own reign only to fall victim to internal strife.

"But one thing is certain," Harry Collins told his companions as they assembled in the usual monthly meeting on the grounds before the old headquarters building one afternoon in July. "The fighting will end soon. If we hear
nothing more within the next few months, we'll send out observation parties. Once we determine the exact situation, we can plan accordingly. The world is going to need what we can give. It will use what we have learned. It will accept our aid. One of these days—"

And he went on to outline a carefully-calculated program of making contact with the powers that be, or might be. It sounded logical and even the chronic grumblers and habitual pessimists in the group were encouraged.

If at times they felt the situation fantastic and the hope forlorn, they were heartened now. Richard Wade summed it up succinctly afterwards, in a private conversation with Harry.

"It isn't going to be easy," he said. "In the old science fiction yarns I used to write, a group like this would have been able to prevent the revolution. At the very least, it would decide who won if fighting actually broke out. But in reality we were too late to forestall revolt, and we couldn't win the war no matter on whose side we fought. There's just one job we're equipped for—and that's to win the peace. I don't mean we'll step out of here and take over the world, either. We'll have to move slowly and cautiously, dispersing in little groups of five or six all over the country. And we'll have to sound out men in the communities we go to, find those who are willing to learn and willing to build. But we can be an influence, and an important one. We have the knowledge and the skill. We may not be chosen to lead, but we can teach the leaders. And that's important."

Harry smiled in agreement. They did have something to offer, and surely it would be recognized—even if the Naturalists had won, even if the entire country had sunk into semi-barbarism. No use anticipating such problems now. Wait until fall came; then they'd reconnoitre and find out. Wait until fall—

It was a wise decision, but one which ignored a single, important fact. The Naturalists didn't wait until fall to conduct their reconnaissance.

They came over the canyon that very night; a large group of them in a large jetter.

And they dropped a large bomb....

11. Jesse Pringle—2039

They were after him. The whole world was in flames, and the buildings were falling, the mighty were fallen, the Day of Judgment was at hand.

He ran through the flames, blindly. Blind Samson. Eyeless in Gaza, treading at the mill. The mills of the gods grind slowly, but they grind exceedingly small.

Small. They were all small, but that didn't matter. They had the guns and they were hunting him down to his doom. Day of doom. Doomsday. The great red dragon with seven heads and ten horns was abroad in the land.

They had unleashed the dragon and his breath was a fire that seared, and his tail was a thunder that toppled towers. The dragon was searching him out for his sins; he would be captured and set to labor in the mill.

But he would escape, he must escape! He was afraid of them, small as they were, and great oaks from little acorns grow, it's the little things that count, and he dare not go a-hunting for fear of little men.

Jesse crouched against the dock, watching the grain-elevators burn. The whole city was burning, Babylon the mighty, the whole world was burning in God's final wrath of judgment.

Nobody believed in God any more, nobody read the Bible, and that's why they didn't know these things. Jesse knew, because he was an old man and he remembered how it had been when he was a little boy. A little boy who learned of the Word of God and the Wrath of God.

He could see the reflection of the flames in the water, now, and the reflection was shimmery and broken because of the black clusters floating past. Large clusters and small clusters. There were bodies in the water, the bodies of the slain.

Thunder boomed from the city behind him. Explosions. That's how it had started, when the Naturalists began blowing up the buildings. And then the Yardsticks had come with their weapons, hunting down the Naturalists. Or had it been that way, really? It didn't matter, now. That was in another country and besides, the wench was dead.

The wench is dead. His wench, Jesse's wench. She wasn't so old. Only seventy-two. But they killed her, they blew off the top of her head and he could feel it when they did. It was as if something had happened in his head, and then he ran at them and screamed, and there was great slaughter amongst the heathen, the forces of unrighteousness.

And Jesse had fled, and smote evil in the name of the Lord, for he perceived now that the time was at hand.

How the mighty are fallen.

Jesse blinked at the water, wishing it would clear, wishing his thoughts would clear. Sometimes for a moment he could remember back to the way things really were. When it was still a real world, with real people in it. When he was just a little boy and everybody else was big.

Strange. Now he was an old man, a big old man, and almost everybody else was little.

He tried to think what it had been like, so long ago. It was too long. All he could remember about being small was that he had been afraid. Afraid of the bigger people.

And now he was big, and afraid of the smaller people.
Of course they weren't real. It was just part of the prophecy, they were the locusts sent to consume and destroy. He kept telling himself there was nothing to fear; the righteous need not fear when the day of judgment is at hand.

Only somewhere inside of him was this little boy, crying, "Mama, Mama, Mama!" And somewhere else was this old man, just staring down into the water and waiting for them to find him.

Another explosion sounded.

This one was closer. They must be bombing the entire city. Or else it was the dragon, lashing his tail.

Somebody ran past Jesse, carrying a torch. No, it wasn't a torch—his hair was on fire. He jumped into the water, screaming, "They're coming! They're coming!"

Jesse turned and blinked. They were coming, all right. He could see them pouring out of the alleyway like rats. Rats with gleaming eyes, gleaming claws.

Suddenly, his head cleared. He realized that he was going to die. He had, perhaps, one minute of life left. One minute out of eighty years. And he couldn't fool himself any longer. He was not delirious. Day of judgment—that was nonsense. And there was no dragon, and these were not rats. They were merely men. Puny little men who killed because they were afraid.

Jesse was a big man, but he was afraid, too. Six feet three inches tall he was, when he stood up straight as he did now, watching them come—but he knew fear.

And he resolved that he must not take that fear with him into death. He wanted to die with something better than that. Wasn't there something he could find and cling to, perhaps some memory—?

A minute is so short, and eighty years is so long. Jesse stood there, swaying, watching them draw nearer, watching them as they caught sight of him and raised their weapons.

He scanned rapidly into the past. Into the past, before the time the wench was dead, back to when you and I were young, Maggie, back still earlier, and earlier, seeking the high point, the high school, that was it, the high school, the highlight, the moment of triumph, the game with Lincoln. Yes, that was it. He hadn't been ashamed of being six feet three inches then, he'd been proud of it, proud as he raised his arms and—

Splashed down into the water as the bullets struck.

And that was the end of Jesse Pringle. Jesse Pringle, champion basketball center of the Class of '79....

12. Littlejohn—2065

The helicopter landed on the roof, and the attendants wheeled it over to one side. They propped the ladder up, and Littlejohn descended slowly, panting.

They had a coasterchair waiting and he sank into it, grateful for the rest. Hardy fellows, these attendants, but then they were almost three feet tall. More stamina, that was the secret. Common stock, of course, but they served a purpose. Somebody had to carry out orders.

When they wheeled the coasterchair into the elevator, Littlejohn descended. The elevator halted on the first floor and he breathed a sigh of relief. Great heights always made him faint and dizzy, and even a short helicopter trip took its toll—the mere thought of soaring two hundred feet above the ground was enough to paralyze him.

But this journey was vital. Thurmon was waiting for him.

Yes, Thurmon was waiting for him here in the council chamber. The coasterchair rolled forward into the room and again Littlejohn felt a twinge of apprehension. The room was vast—too big for comfort. It must be all of fifty feet long, and over ten feet in height. How could Thurmon stand it, working here?

But he had to endure it, Littlejohn reminded himself. He was head of the council.

Thurmon was lying on the couch when Littlejohn rolled in, but he sat up and smiled.

"I greet you," he said.

"I greet you," Littlejohn answered. "No, don't bother to stay seated. Surely we don't need to be ceremonious."

Thurmon pricked up his ears at the sound of the unfamiliar word. He wasn't the scholarly type, like Littlejohn. But he appreciated Littlejohn's learning and knew he was important to the council. They needed scholars these days, and antiquarians too. One has to look to the past when rebuilding a world.

"You sent for me?" Littlejohn asked. The question was purely rhetorical, but he wanted to break the silence. Thurmon looked troubled as he replied.

"Yes. It is a matter of confidence between us."

"So be it. You may speak in trust."

Thurmon eyed the door. "Come nearer," he said.

Littlejohn pressed a lever and rolled up to the couchside. Thurmon's eyes peered at him through the thick contact lenses. Littlejohn noted the deep wrinkles around his mouth, but without surprise. After all, Thurmon was an old man—he must be over thirty.

"I have been thinking," Thurmon said, abruptly. "We have failed."

"Failed?"
Thurmon nodded. "Need I explain? You have been close to the council for many years. You have seen what we've attempted, ever since the close of the Naturalist wars."

"A magnificent effort," Littlejohn answered politely. "In less than thirty years an entire new world has risen from the ruins of the old. Civilization has been restored, snatched from the very brink of a barbarism that threatened to engulf us."

"Nonsense," Thurmon murmured.

"What?"

"Sheer nonsense, Littlejohn. You're talking like a pedant."

"But I am a pedant." Littlejohn nodded. "And it's true. When the Naturalists were exterminated, this nation and other nations were literally destroyed. Worse than physical destruction was the threat of mental and moral collapse. But the Yardstick councils arose to take over. The concept of small government came into being and saved us. We began to rebuild on a sensible scale, with local, limited control. The little community arose—"

"Spare me the history lesson," said Thurmon, dryly. "We rebuilt, yes. We survived. In a sense, perhaps, we even made certain advances. There is no longer any economic rivalry, no social distinctions, no external pressure. I think I can safely assume that the danger of future warfare is forever banished. The balance of power is no longer a factor. The balance of Nature has been partially restored. And only one problem remains to plague mankind."

"What is that?"

"We face extinction," Thurmon said.

"But that's not true," Littlejohn interrupted. "Look at history and—"

"Look at us." Thurmon sighed. "You needn't bother with history. The answer is written in our faces, in our own bodies. I've searched the past very little, compared to your scholarship, but enough to know that things were different in the old days. The Naturalists, whatever else they might have been, were strong men. They walked freely in the land, they lived lustily and long."

"Do you know what our average life-expectancy is today, Littlejohn? A shade under forty years. And that only if one is fortunate enough to lead a sheltered existence, as we do. In the mines, in the fields, in the radioactive areas, they die before the age of thirty."

Littlejohn leaned forward. "Schuyler touches on just that point in his Psychology of Time," he said, eagerly. "He posits the relationship between size and duration. Time is relative, you know. Our lives, short as they may be in terms of comparative chronology, nevertheless have a subjective span equal to that of the Naturalists in their heyday."

"Nonsense," Thurman said, again. "Did you think that is what concerns me—whether or not we feel that our lives are long or short?"

"What then?"

"I'm talking about the basic elements essential to survival. I'm talking about strength, stamina, endurance, the ability to function. That's what we're losing, along with the normal span of years. The world is soft and flabby. Yardstick children, they tell us, were healthy at first. But their children are weaker. And their grandchildren, weaker still. The effect of the wars, the ravages of radiation and malnutrition, have taken a terrible toll. The world is soft and flabby today. People can't walk any more, let alone run. We find it difficult to lift and bend and work—"

"But we won't have to worry about such matters for long," Littlejohn hazarded. "Think of what's being done in robotics. Those recent experiments seem to prove—"

"I know." Thurmon nodded. "We can create robots, no doubt. We have a limited amount of raw materials to allocate to the project, and if we can perfect automatons they'll function quite adequately. Virtually indestructible, too, I understand. I imagine they'll still be able to operate efficiently a hundred or more years from now—if only they learn to oil and repair one another. Because by that time, the human race will be gone."

"Come now, it isn't that serious—"

"Oh, but it is!" Thurmon raised himself again, with an effort. "Your study of history should have taught you one thing, if nothing else. The tempo is quickening. While it took mankind thousands of years to move from the bow and arrow to the rifle, it took only a few hundred to move from the rifle to the thermonuclear weapon. It took ages before men mastered flight, and then in two generations they developed satellites; in three, they reached the moon and Mars."

"But we're talking about physical development."

"I know. And physically, the human race altered just as drastically in an equally short span of time. As recently as the nineteenth century, the incidence of disease was a thousandfold greater than it is now. Life was short then. In the twentieth century disease lessened and life-expectancy doubled, in certain areas. Height and weight increased perceptibly with every passing decade. Then came Leffingwell and his injections. Height, weight, life-expectancy have fallen perceptibly every decade since then. The war merely hastened the process."
"You appear to have devoted a great deal of time to this question," Littlejohn observed.

"I have," answered the older man. "And it is not a question. It is a fact. The one fact that confronts us all. If we proceed along our present path, we face certain extinction in a very short time. The strain is weakening constantly, the vitality is draining away. We sought to defeat Nature—but the Naturalists were right, in their way."

"And the solution?"
Thurmon was silent for a long moment. Then, "I have none," he said.

"You have consulted the medical authorities?"

"Naturally. And experiments have been made. Physical conditioning, systems of exercise, experimentation in chemotherapy are still being undertaken. There's no lack of volunteers, but a great lack of results. No, the answer does not lie in that direction."

"But what else is there?"

"That is what I had hoped you might tell me," Thurmon said. "You are a scholar. You know the past. You speak often of the lessons of history—"

Littlejohn was nodding, but not in agreement. He was trying to comprehend. For suddenly the conviction came to him clearly; Thurmon was right. It was happening, had happened, right under their smug noses. The world was weakening. It was slowing down, and the race is only to the swift.

He cursed himself for his habit of thinking in platitudes and quotations, but long years of study had unfitted him for less prosaic phraseology. If he could only be practical.

Practical.

"Thurmon," he said. "There is a way. A way so obvious, we've all overlooked it—passed right over it."

"And that is—?"

"Stop the Leffingwell injections!"

"But—"

"I know what you'll say. There have been genetic mutations. Very true, but such mutations can't be universal. A certain percentage of offspring will be sound, capable of attaining full growth. And we don't have the population-problem to cope with any more. There's room for people again. So why not try it? Stop the injections and allow babies to be born as they were before." Littlejohn hesitated before adding a final word, but he knew he had to add it; he knew it now. "Normally," he said.

Thurmon nodded. "So that is your answer."

"Yes. I—I think it will work."

"So do the biologists," Thurmon told him. "A generation of normal infants, reared to maturity, would restore mankind to its former stature, in every sense of the word. And now, knowing the lessons of the past, we could prepare for the change to come. We could rebuild the world for them to live in, rebuild it psychically as well as physically. We'd plan to eliminate the rivalry between the large and the small, the strong and the weak. It wouldn't be difficult because there's plenty for all. There'd be no trouble as there was in the old days. We've learned to be psychologically flexible."

Littlejohn smiled. "Then that is the solution?" he asked.

"Yes. Eliminating the Leffingwell injections will give us a good proportion of normal children again. But where do we find the normal women to bear them?"

"Normal women?"

Thurmon sighed, then reached over and placed a scroll in the scanner. "I have already gone into that question with research technicians," he said. "And I have the figures here." He switched on the scanner and began to read.

"The average nubile female, aged thirteen to twenty-one, is two feet, ten inches high and weighs forty-eight pounds." Thurmon flicked the switch again and peered up. "I don't think I'll bother with pelvic measurements," he said. "You can already see that giving birth to a six or seven-pound infant is a physical impossibility under the circumstances. It cannot be done."

"But surely there must be some larger females! Perhaps a system of selective breeding, on a gradual basis—"

"You're talking in terms of generations. We haven't got that much time." Thurmon shook his head. "No, we're stopped right here. We can't get normal babies without normal women, and the only normal women are those who began life as normal babies."

"Which comes first?" Littlejohn murmured. "The chicken or the egg?"

"What's that?"

"Nothing. Just an old saying. From history."

Thurmon frowned. "Apparently, then, that's all you can offer in your professional capacity as an historian. Just some old sayings." He sighed. "Too bad you don't know some old prayers. Because we need them now."

He bowed his head, signifying the end of the interview.
Littlejohn rolled out of the room.

His 'copter took him back to his own dwelling, back across the rooftops of New Chicagee. Ordinarily, Littlejohn avoided looking down. He dreaded heights, and the immensity of the city itself was somehow appalling. But now he gazed upon the capital and center of civilization with a certain morbid affection.

New Chicagee had risen on the ashes of the old, after the war's end. Use of thermo-nucs had been limited, fortunately, so radioactivity did not linger, and the vast craters hollowed out by ordinary warheads had been partially filled by rubble and debris. Artificial fill had done the rest of the job, so that now New Chicagee was merely a flat prairie as it must have been hundreds of years ago—a flat prairie on which the city had been resurrected. There were almost fifty thousand people here in the capital; the largest congregation of population on the entire continent. They had built well and surely this time, built for the security and certainty of centuries to come.

Littlejohn sighed. It was hard to accept the fact that they had been wrong; that all this would end in nothingness. They had eliminated war, eliminated disease, eliminated famine, eliminated social inequality, injustice, disorders external and internal—and in so doing, they had eliminated themselves.

The sun was setting in the west, and long shadows crept over the city below. Yes, the sun was setting and the shadows were gathering, the night was coming to claim its own. Darkness was falling, eternal darkness.

It was quite dark by the time Littlejohn's 'copter landed on the rooftop of his own dwelling; so dark, in fact, that for a moment he didn't see the strange vehicle already standing there. Not until he had settled into his coasterchair did he notice the presence of the other 'copter, and then it was too late. Too late to do anything except sit and stare as the gigantic shadow loomed out of the night, silhouetted against the sky.

The shadow shambled forward, and Littlejohn gaped, gaped in terror at the titanic figure. He opened his mouth to speak, but words did not form; there were no words to form, for how does one address an apparition? Instead, it was the apparition which spoke.

"I have been waiting for you," it said.
"Y-yes—"
"I want to talk to you." The voice was deep, menacing.

Littlejohn shifted in his coasterchair. There was nowhere to go, no escape. He gazed up at the shadow. Finally he summoned a response. "Shall we go inside?" he asked.

The figure shook its head. "Where? Down into that dollhouse of yours? It isn't big enough. I've already been there. What I have to say can be said right here."
"W-who are you?"

The figure stepped forward, so that its face was illuminated by the fluorescence streaming from the open door which led to the inclined chairway descending to Littlejohn's dwelling.

Littlejohn could see the face, now—the gigantic, wrinkled face, scarred and seared and seamed. It was a human face, but utterly alien to the humanity Littlejohn knew. Faces such as this one had disappeared from the earth a lifetime ago. At least, history had taught him that. History had not prepared him for the actual living presence of a—

"Naturalist!" Littlejohn gasped. "You're a Naturalist! Yes, that's what you are!"

The apparition scowled.

"I am not a Naturalist. I am a man."
"But you can't be! The war—"
"I am very old. I lived through your war. I have lived through your peace. Soon I shall die. But before I do, there is something else which must be done."
"You've come here to kill me?"
"Perhaps." The looming figure moved closer and stared down. "No, don't try to summon help. When your servants saw me, they fled. You're alone now, Littlejohn."
"You know my name."
"Yes, I know your name. I know the names of everyone on the council. Each of them has a visitor tonight."
"Then it is a plot, a conspiracy?"
"We have planned this very carefully, through the long years. It's all we lived for, those few of us who survived the war."
"But the council wasn't responsible for the war! Most of us weren't even alive, then. Believe me, we weren't to blame—"

"I know." The gigantic face ceased in senile simulation of a smile. "Nobody was ever to blame for anything, nobody was ever responsible. That's what they always told me. I mustn't hate mankind for multiplying, even though population created pressure and pressure created panic that drove me mad. I mustn't blame Leffingwell for solving the overpopulation problem, even though he used me as a guinea-pig in his experiments. I mustn't blame the Yardsticks for penning me up in prison until revolution broke out, and I mustn't blame the Naturalists for bombing
the place where I took refuge. So whose fault was it that I've gone through eighty years of assorted hell? Why did I, Harry Collins, get singled out for a lifetime of misery and misfortune?" The huge old man bent over Littlejohn's huddled form. "Maybe it was all a means to an end. A way of bringing me here, at this moment, to do what must be done."

"Don't harm me—you're not well, you're—"

"Crazy?" The old man shook his head. "No, I'm not crazy. Not now. But I have been, at times, during my life. Perhaps we all are, when we attempt to face up to the complications of an average existence, try to confront the problems which are too big for a single consciousness to cope with in a single life-span. I've been crazy in the city, and crazy in the isolation of a cell, and crazy in the welter of war. And perhaps the worst time of all was when I lost my son.

"Yes, I had a son, Littlejohn. He was one of the first, one of Leffingwell's original mutations, and I never knew him very well until the revolution came and we went away together. He was a doctor, my boy, and a good one. We spent almost five years together and I learned a lot from him. About medicine, but that wasn't important then. I'm thinking of what I learned about love. I'd always hated Yardsticks, but my son was one, and I came to love him. He had plans for rebuilding the world, he and I and the rest of us. We were going to wait until the revolution ended and then help restore sanity in civilization.

"But the Naturalists flew over and dropped their bomb, and my boy died. Over four hundred of our group died there in the canyon—four hundred who might have changed the fate of the world. Do you think I can forget that? Do you think I and the few others who survived have ever forgotten? Can you blame us if we did go crazy? If we hid away out there in the western wilderness, hid away from a world that had offered us nothing but death and destruction, and plotted to bring death and destruction to that world in return?

"Think about it for a moment, Littlejohn. We were old men, all of us, and the world had given us only its misery to bear during our lifetimes. The world we wanted to save was destroying itself; why should we be concerned with its fate or future?

"So we changed our plans, Littlejohn. Perhaps the shock had been too much. Instead of plotting to rebuild the world, we turned our thoughts to completing its destruction. Our tools and texts were gone, buried in the rubble with the bodies of fine young men. But we had our minds. Crazed minds, you'd call them—but aware of reality. The grim reality of the post-revolutionary years.

"We burrowed away in the desert. We schemed and we dreamed. From time to time we sent out spies. We knew what was going on. We knew the Naturalists were gone, that six-footers had vanished from a Yardstick world. We knew about the rehabilitation projects. We watched your people gradually evolve new patterns of living and learning. Some of the former knowledge was rescued, but not all. Our little group had far more learning than you've ever dreamed of. Fifty of us, between ourselves, could have surpassed all your scientists in every field.

"But we watched, and we waited. And some of us died of privation and some of us died of old age. Until, at last, there were only a dozen of us to share the dream. The dream of destruction. And we knew that we must act swiftly, or not at all.

"So we came into the world, cautiously and carefully, moving unobtrusively and unobserved. We wanted to contemplate the corruption, seek out the weaknesses in your degenerate civilization. And we found them, immediately. Those weaknesses are everywhere apparent, for they are physical. You're one of a dying race, Littlejohn. Mankind's days are numbered. There's no need for grandiose schemes of reactivating warheads in buried missile-centers, of loosing thermo-nucs upon the world. Merely by killing off the central council here in New Chicagee, we can accomplish our objective. A dozen men die, and there's not enough initiative left to replace them. It's as simple as that. And as complicated."

Harry Collins nodded. "Yes, as complicated. Because the only weaknesses we've observed are physical ones. We've seen enough of the ways of this new civilization to realize that.

"All of the things I hated during my lifetime have disappeared now—the crowding, the competition, the sordid self-interest, the bigotry, intolerance, prejudice. The anti-social aspects of society are gone. There is only the human race, living much closer to the concept of Utopia than I ever dreamed possible. You and the other survivors have done well, Littlejohn."

"And yet you come to kill us."

"We came for that purpose. Because we still retained the flaws and failings of our former cultures. We looked for targets to blame, for villains to hate and destroy. Instead, we found this reality."

"No, I'm not crazy, Littlejohn. And I and my fellows aren't here to execute revenge. We have returned to the original plan; the plan Leffingwell had, and my son, and all the others who worked in their own way for their dream of a better world. We come now to help you. Help you before you die—before we die."

Littlejohn looked up and sighed. "Why couldn't this have happened before?" he murmured. "It's too late now."
"But it isn't too late. My friends are here. They are telling your fellow council-members the same thing right now. We may be old, but we can still impart what we have learned. There are any number of technological developments to be made. We can help you to increase your use of atomic power. There's soil reclamation and irrigation projects and biological techniques—"

"You said it yourself," Littlejohn whispered. "We're a dying race. That's the primary problem. And it's an insoluble one. Just this afternoon—" And he told him about the interview with Thurmon.

"Don't you understand?" Littlejohn concluded. "We have no solution for survival. We're paying the price now because for a while we wouldn't heed history. We tried to defeat Nature and in the end Nature has defeated us. Because we would not render unto Caesar the things which are—"

Harry Collins smiled. "That's it," he said.

"What?"

"Caesar. That's the answer. Your own medical men must have records. I know, because I learned medicine from my son. There used to be an operation, in the old days, called a caesarean section—used on normal women and on dwarfs and midgets too, in childbirth. If your problem is how to deliver normal children safely, the technique can be revived. Get hold of some of your people. Let's see what data you have on this. I'll be glad to furnish instruction—"

There was excitement after that. Too much excitement for Littlejohn. By the time the council had assembled in emergency session, by the time plans were formulated and he returned to his own dwelling in the helicopter, he was completely exhausted. Only the edge of elation sustained him; the realization that a solution had been found.

As he sank into slumber he knew that he would sleep the clock around.

And so would Harry Collins. The old man and his companions, now guests of the council, had been temporarily quartered in the council-chambers. It was the only structure large enough to house them and even so they had to sleep on the floor. But it was sufficient comfort for the moment.

It was many hours before Harry Collins awoke. His waking was automatic, for the tiny telescreen at the end of the council room glowed suddenly, and the traditional voice chirped forth to interrupt his slumber.

"Good morning," said the voice. "It's a beautiful day in New Chicagee!"

Harry stared at the screen and then he smiled.

"Yes," he murmured. "But tomorrow will be better."

THE END
CHAPTER I

The boxed ad in the opportunities section of the Kardon Journal of Allied Medical Sciences stood out like a cut diamond in a handful of gravel. "Wanted," it read, "Veterinarian - for residency in active livestock operation. Single recent graduate preferred. Quarters and service furnished. Well-equipped hospital. Five-year contract, renewal option, starting salary 15,000 cr./annum with periodic increases. State age, school, marital status, and enclose recent tri-di with application. Address Box V-9, this journal."

Jac Kennon read the box a second time. There must be a catch to it. Nothing that paid a salary that large could possibly be on the level. Fifteen thousand a year was top pay even on Beta, and an offer like this for a new graduate was unheard of - unless Kardon was in the middle of an inflation. But Kardon wasn't. The planet's financial status was A-1. He knew. He'd checked that immediately after landing. Whatever might be wrong with Kardon, it wasn't her currency. The rate of exchange was 1.2-1 Betan.

A five-year contract - hmm - that would the seventy-five thousand. Figure three thousand a year for living expenses, that would leave sixty-plenty of capital to start a clinic. The banks couldn't turn him down if he had that much cash collateral.

Kennon chuckled wryly. He'd better get the job before he started spending the money he didn't have. He had 231 credits plus a few halves, tenths, and hundredths, a diploma in veterinary medicine, some textbooks, a few instruments, and a first-class spaceman's ticket. By watching his expenses he had enough money to live here for a month and if nothing came of his efforts to find a job on this planet, there was always his spaceman's ticket and another world.

Another world! There were over six thousand planets in the Brotherhood of Man. At two months per planet, not figuring transit time, it would take more than a thousand Galactic Standard years to visit them all, and a man could look forward to scarcely more than five hundred at best. The habitat of Man had become too large. There wasn't time to explore every possibility.

But a man could have certain standards, and look until he found a position that fitted. The trouble was - if the standards were too high the jobs were too scarce. Despite the chronic shortage of veterinarians throughout the Brotherhood, there was a peculiar reluctance on the part of established practitioners to welcome recent graduates. Most of the ads in the professional journals read "State salary desired," which was nothing more than economic blackmail - a bald-faced attempt to get as much for as little as possible. Kennon grimaced wryly. He'd be damned if he'd sell his training for six thousand a year. Slave labor, that's what it was. There were a dozen ads like that in the Journal. Well, he'd give them a trial, but he'd ask eight thousand and full GEA benefits. Eight years of school and two more as an intern were worth at least that.

He pulled the portable voicewrite to a comfortable position in front of the view wall and began composing another of the series of letters that had begun months ago in time and parsecs away in space. His voice was a fluid counterpoint to the soft hum of the machine.

And as he dictated, his eyes took in the vista through the view wall. Albertsville was a nice town, too young for slums, too new for overpopulation. The white buildings were the color of winter butter in the warm yellow sunlight as the city drowsed in the noonday heat. It nestled snugly in the center of a bowl-shaped valley whose surrounding forest clad hills gave mute confirmation to the fact that Kardon was still primitive, an unsettled world that had not yet reached the explosive stage of population growth that presaged maturity. But that was no disadvantage. In fact, Kennon liked it. Living could be fun on a planet like this.

It was abysmally crude compared to Beta, but the Brotherhood had opened Kardon less than five hundred years ago, and in such a short time one couldn't expect all the comforts of civilization.

It required a high population density to supply them, and while Kardon was integrated its population was scarcely more than two hundred million. It would be some time yet before this world would achieve a Class I status. However, a Class II planet had some advantages. What it lacked in conveniences it made up in opportunities and elbow room.

A normal Betan would have despised this world, but Kennon wasn't normal, although to the casual eye he was a typical representative of the Medico-Technological Civilization, long legged, fair haired, and short bodied with the typical Betan squint that left his eyes mere slits behind thick lashes and heavy brows. The difference was internal
Possibly it was due to the fact that his father was the commander of a Shortliner and most of his formative years had been spent in space. To Kennon, accustomed to the timeless horror of hyper space, all planets were good, broad open places where a man could breathe unfiltered air and look for miles across distances unbroken by dually bulk heads and safety shields. On a planet there were spaciousness and freedom and after the claustrophobic confinement of a hyper ship any world was paradise. Kennon sighed, finished his letters, and placed them in the mail chute. Perhaps, this time, there would be a favorable reply.

CHAPTER II

Kennon was startled by the speed with which his letters were answered. Accustomed to the slower pace of Beta he had expected a week would elapse before the first reply, but within twenty-four hours nine of his twelve inquiries were returned. Five expressed the expected "Thank you but I feel that your asking salary is a bit high in view of your lack of experience." Three were frankly interested and requested a personal interview. And the last was the letter, outstanding in its quietly ostentatious folder—the reply from Box V-9.

"Would Dr. Kennon call at 10 A.M. tomorrow at the offices of Outworld Enterprises Incorporated and bring this letter and suitable identifications? Kennon chuckled. Would he? There was no question about it. The address, 200 Central Avenue, was only a few blocks away. In fact, he could see the building from his window, a tall functional block of durilium and plastic, soaring above the others on the street, the sunlight gleaming off its clean square lines. He eyed it curiously, wondering what he would find inside.

* * *

The receptionist took his I.D. and the letter, scanned them briefly, and slipped them into one of the message tubes beside her desk. "It will only be a moment, Doctor," she said impersonally. "Would you care to sit down?"

"Thank you," he said. The minute, reflected, could easily be an hour. But she was right. It was only a minute until the message tube clicked and popped a capsule onto the girl's desk. She opened it, and removed Kennon's I.D. and a small yellow plastic rectangle. Her eyes widened at the sight of the plastic card.

"Here you are, Doctor. Take shaft number one. Slip the card into the scanner slot and you'll be taken to the correct floor. The offices you want will be at the end of the corridor to the left. You'll find any other data you may need on the card in case you get lost." She looked at him with a curious mixture of surprise and respect as she handed him the contents of the message tube.

Kennon murmured an acknowledgment, took the card and his I.D., and entered the grav-shaft. There was the usual moment of heaviness as the shaft whisked him upward and deposited him in front of a thickly carpeted corridor.

Executive level, Kennon thought as he followed the receptionist's directions. No wonder she had looked respectful. But what was he doing here? The employment of a veterinarian wasn't important enough to demand the attention of a senior executive. The personnel section could handle the details of his application as well as not. He shrugged. Perhaps veterinarians were more important on Kardon. He didn't know a thing about this world's customs.

He opened the unmarked door at the end of the corridor, entered a small reception room, smiled uncertainly at the woman behind the desk, and received an answering smile in return.

"Come right in, Dr. Kennon. Mr. Alexander is waiting for you."

Alexander! The entrepreneur himself! Why? Numb with surprise Kennon watched the woman open the intercom on her desk.

"Sir, Dr. Kennon is here," she said.

"Bring him in," a smooth voice replied from the speaker. Alexander X. M. Alexander, President of Outsold Enterprises - a lean, dark, wolfish man in his early sixties - eyed Kennon with a flat predatory intentness that was oddly disquieting. His stare combined the analytical inspection of the pathologist, the probing curiosity of the psychiatrist, and the weighing appraisal of the butcher. Kennon's thoughts about Alexander's youth vanished that instant. Those eyes belonged to a leader on the battlefield of galactic business.

Kennon felt the conditioned respect for authority surge through him in a smothering wave. Grimly he fought it down, knowing it was a sign of weakness that would do him no good in the interview which lay ahead.

"So you're Kennon," Alexander said. His lingua franca was clean and accentless. "I expected someone older."

"Frankly, sir, so did I," Kennon replied.

Alexander smiled, an oddly pleasant smile that transformed the hard straight lines in his face into friendly curves. "Business, Dr. Kennon, is not the sole property of age."

"Nor is a veterinary degree," Kennon replied.

"True. But one thinks of a Betan as someone ancient and sedate."

"Ours is an old planet -- but we still have new generations."

"A fact most of us outsiders find hard to believe," Alexander said. "I picture your world as an ironclad society rather than external.
crystallized by age and custom into something rigid and in flexible.”

“You would be wrong to do so,” Kennon said. “Even though we are cultural introverts there is plenty of
dynamism within our society.”

“How is it that you happen to be out here on the edge of civilization?”

“I never said I was like my society,” Kennon grinned. “Actually I suppose I’m one of the proverbial bad
apples.”

“There’s more to it than that,” Alexander said. “Your early years probably influenced you.”

Kennon looked sharply at the entrepreneur. How much did the man really know about him? “I suppose so,” he
said indifferently.

Alexander looked pleased. “But even with your childhood experiences there must be an atavistic streak in you -
a throwback to your adventurous Earth forebears who settled your world?”

Kennon shrugged. “Perhaps you’re right. I really don’t know. Actually, I’ve never thought about it. It merely
seemed to me that an undeveloped world offered more opportunity.”

“It does,” Alexander said. “But it also offers work. If you’re figuring that you can get along on the
minimum physical effort required on the Central Worlds, you have a shock coming.”

“I’m not that innocent,” Kennon said. “But I am not so stupid that I can’t apply modifications of Betan
techniques to worlds as new as this.”

Alexander chuckled. “I like you,” he said. suddenly. “Here read this and see if you’d care to work for me.” He
picked a contract form from one of the piles of paper on his desk and handed it to Kennon. “This is one of our
standard work contracts. Take it back to your hotel and check it over. I’ll expect to see you at this time tomorrow.”

“Why waste time?” Kennon said. “The rapid-reading technique originated on Beta. I can tell you in fifteen
minutes.”

“Hmm. Certainly. Read it here if you wish. I like to get things settled - the sooner the better. Sit down, young
man and read. You can rouse me when you’re finished.” He turned his attention to the papers on his desk and within
seconds was completely oblivious of Kennon, his face set in the rapt trancelike expression of a trained rapid reader.

Kennon watched for a moment as sheets of paper passed through Alexander's hands to be added to the pile at
the opposite end of the desk. The man would do better, he thought, if he would have his staff transcribe the papers to
microfilm that could be read through an interval-timed scanner. He might suggest that later. As for now, he shrugged
and seated himself in the chair beside the desk. The quiet was broken only by the rustle of paper as the two rapt-
faced men turned page after page with mechanical regularity.

Finally Kennon turned the last page, paused, blinked, and performed the necessary mental gymnastics to orient
his time sense. Alexander, he noticed, was still engrossed, sunk in his autohypnotic trance. Kennon waited until he
had finished the legal folder which he was reading and then gently intruded upon Alexander's concentration.

Alexander looked up blankly and then went through the same mental gyrations Kennon had performed a few
minutes before. His eyes focused and became hard and alert.

“Well?” he asked. “What do you think of it?”

“I think it’s the damnedest, trickiest, most unilateral piece of legalistics I’ve ever seen,” Kennon said bluntly. “If
that’s the best you can offer, I wouldn’t touch the job with a pair of forceps.”

Alexander smiled. “I see you read the fine print,” he said. There was quiet amusement in his voice. “So you
don’t like the contract?”

“No sensible man would. I’m damned if I’ll sign commitment papers just to get a job. No wonder you’re having
trouble getting professional help. If your contracts are all like that it’s a wonder anyone works for you.”

“We have no complaints from our employees,” Alexander said stiffly.

“How could you? If they signed that contract you’d have a perfect right to muzzle them.”

“There are other applicants for this post,” Alexander said.

“Then get one of them. I wouldn’t be interested.”

“A spaceman’s ticket is a good thing to have,” Alexander said idly. “It’s a useful ace in the hole. Besides, you
have had three other job offers - all of which are good even though they don’t pay fifteen Ems a year.”

Kennon did a quick double take. Alexander’s investigative staff was better than good. It was uncanny.

“But seriously, Dr. Kennon, I am pleased that you do not like that contract. Frankly, I wouldn’t consider
employing you if you did.”

“Sir?”

“That contract is a screen. It weeds out the careless, the fools, and the unfit in one operation. A man who would
sign a thing like that has no place in my organization.” Alexander chuckled at Kennon’s blank expression. “I see you
have had no experience with screening contracts.”

“I haven’t,” Kennon admitted. “On Beta the tests are formal. The Medico-Psych Division supervises them.”
“Different worlds, different methods,” Alexander observed. “But they're all directed toward the same goal. Here we aren't so civilized. We depend more on personal judgment.” He took another contract from one of the drawers of his desk. “Take a look at this. I think you'll be more satisfied.”

“If you don't mind, I'll read it now,” Kennon said.

Alexander nodded.

* * *

“It's fair enough,” Kennon said, “except for Article Twelve.”

“The personal privilege section?”

“Yes.”

“Well, that's the contract. You can take it or leave it.”

“I'll leave it,” Kennon said. “Thank you for your time.” He rose to his feet, smiled at Alexander, and turned to the door. “Don't bother to call your receptionist,” he said. “I can find my way out.”

“Just a minute, Doctor,” Alexander said. He was standing behind the desk, holding out his hand.

“Another test?” Kennon inquired.

Alexander nodded. “The critical one,” he said. “Do you want the job?”

“Of course.”

“Without knowing more about it?”

“The contract is adequate. It defines my duties.”

“And you think you can handle them?”

“I know I can.”

“I notice,” Alexander observed, “that you didn't object to other provisions.”

“No, sir. They're pretty rigid, but for the salary you are paying I figure you should have some rights. Certainly you have the right to protect your interests. But that Article Twelve is a direct violation of everything a human being should hold sacred besides being a violation of the Peeper Laws. I'd never sign a contract that didn't carry a full Peeper rider.”

“That's quite a bit.”

“That's the minimum,” Kennon corrected. “Naturally, I won't object to mnemonic erasure of matters pertaining to your business once my contract's completed and I leave your employment. But until then there will be no conditioning, no erasures, no taps, no snoopers, and no checkups other than the regular periodic psychans. I'll consult with you on vacation time and will arrange it to suit your convenience. I'll even agree to emergency recall, but that's the limit.” Kennon's voice was flat.

“You realize I'm agreeing to give you a great deal of personal liberty,” Alexander said. “How can I protect myself?”

“I'll sign a contingency rider,” Kennon said, “if you will specify precisely what security matters I am not to reveal.”

“I accept,” Alexander said. “Consider yourself hired.” He touched a button on his desk. “Prepare a standard 2-A contract for Dr. Jac Kennon's signature. And attach two riders, a full P-P-yes, no exceptions - and a security-leak contingency, Form 287-C. Yes - that's right - that one. And strike out all provisions of Article Twelve which conflict with the Peeper Laws. Yes. Now - and finish it as soon as you can.” He touched another button. “Well, that's that,” he said. “I hope you'll enjoy being a member of our group.”

“I think I shall,” Kennon said. “You know, sir, I would have waived part of that last demand if you had cared to argue.”

“I know it,” Alexander said. “But what concessions I could have wrung from you would be relatively unimportant beside the fact that you would be unhappy about them later. What little I could have won here, I'd lose elsewhere. And since I want you, I'd prefer to have you satisfied.”

“I see,” Kennon said. Actually he didn't see at all. He looked curiously at the entrepreneur. Alexander couldn't be as easy as he seemed. Objectivity and dispassionate weighing and balancing were nice traits and very helpful ones, but in the bear pit of galactic business they wouldn't keep their owner alive for five minutes. The interworld trade sharks would have skinned him long ago and divided the stripped carcass of his company between them.

But Outworld was a "respected" company. The exchange reports said so - which made Alexander a different breed of cat entirely. Still, his surface was perfect - polished and impenetrable as a duralloy turret on one of the latest Brotherhood battleships. Kennon regretted he wasn't a sensitive. It would be nice to know what Alexander really was.

“Tell me, sir,” Kennon asked. “What are the real reasons that make you think I'm the man you want?”

“And you're the young man who's so insistent on a personal privacy rider,” Alexander chuckled. “However, there's no harm telling you. There are several reasons.
"You're from a culture whose name is a byword for moral integrity. That makes you a good risk so far as your ethics are concerned. In addition you're the product of one of the finest educational systems in the galaxy-and you have proven your intelligence to my satisfaction. You also showed me that you weren't a spineless 'yes man.' And finally, you have a spirit of adventure. Not one in a million of your people would do what you have done. What more could an entrepreneur ask of a prospective employee?"

Kennon sighed and gave up. Alexander wasn't going to reveal a thing.

"All I hope," Alexander continued affably, "is that you'll find Outworld Enterprises as attractive as did your predecessor Dr. Williamson. He was with us until he died last month - better than a hundred years."

"Died rather young, didn't he?"

"Not exactly, he was nearly four hundred when he joined us. My grandfather was essentially conservative. He liked older men, and Old Doc was one of his choices - a good one, too. He was worth every credit we paid him."

"I'll try to do as well," Kennon said, "but I'd like to warn you that I have no intention of staying as long as he did. I want to build a clinic and I figure sixty thousand is about enough to get started."

"When will you veterinarians ever learn to be organization men?" Alexander asked. "You're as independent as tomcats."

Kennon grinned. "It's a breed characteristic, I guess."

Alexander shrugged. "Perhaps you'll change your mind after you've worked for us."

"Possibly, but I doubt it."

"Tell me that five years from now," Alexander said - "Ah - here are the contracts." He smiled at the trim secretary who entered the room carrying a stack of papers.

"The riders are as you asked, sir," the girl said.

"Good. Now, Doctor, if you please."

"You don't mind if I check them?" Kennon asked.

"Not at all. And when you're through, just leave them on the desk - except for your copy, of course." Alexander scrawled his signature on the bottom of each contract. "Don't disturb me. I'll be in contact with you. Leave your whereabouts with your hotel." He turned to the papers in front of him, and then looked up for the last time. "Just one more thing," he said. "You impress me as a cautious man. It would be just as well if you carried your caution with you when you leave this room."

Kennon nodded, and Alexander turned back to his work.

CHAPTER III

"I'd never have guessed yesterday that I'd be here today," Kennon said as he looked down at the yellow waters of the Xantline Sea flashing to the rear of the airboat at a steady thousand kilometers per hour as they sped westward in the middle traffic level. The water, some ten thousand meters below, had been completely empty for hours as the craft hurtled through the equatorial air.

"We have to move fast to stay ahead of our ulcers," Alexander said with a wry smile. "Besides, I wanted to get away from the Albertsville offices for awhile."

"Three hours' notice," Kennon said. "That's almost too fast."

"You had nothing to keep you in the city, and neither did I - at least nothing important. There are plenty of females where we are going and I need you on Flora - not in Albertsville. Besides I can get you there faster than if you waited for a company transport."

"Judging from those empty sea lanes below, Flora must be an out-of-the-way place," Kennon said with a wry smile. "Besides, I wanted to get away from the Albertsville offices for awhile."

"Rugged-looking place," he murmured.

"Most of them are deserted. Two support search and warning stations and automatic interceptors to protect our property. Look! - there's Flora." Alexander gestured at the land mass that appeared below.

Flora was a great green oval two hundred kilometers long and about a hundred wide.

"Pretty, isn't it?" Alexander said as they sped over the low range of hills and the single gaunt volcano filling the eastward end of the island and swept over a broad green valley dotted with fields and orchards interspersed at intervals by red-roofed structures whose purpose was obvious.

said. "Grandfather named it. He was a classicist in his way - spent a lot of his time reading books most people never heard of. Things like the Iliad and Gone with the Wind. The mountains he called the Apennines, and that volcano's Mount Olympus. The marshland to the north is called the Pontine Marshes - our main road is the Camino Real."

Alexander grinned. "There's a lot of Earth on Flora. You'll find it in every name. Grandfather was an Earthman and he used to get nostalgic for the homeworld. Well - there's Alexandria coming up. We've just about reached the end of the line."

Kennon stared down at the huge gray-green citadel resting on a small hill in the center of an open plain. It was a Class II Fortalice built on the efficient star-shaped plan of half a millennium ago - an ugly spiky pile of durilium, squat and massive with defensive shields and weapons which could still withstand hours of assault by the most modern forces.

"Why did he build a thing like that?" Kennon asked.

"Alexandria? - well, we had trouble with the natives when we first came, and Grandfather had a synthesizer and tapes for a Fortalice in his ship. So he built it. It serves the dual purpose of base and house. It's mostly house now, but it's still capable of being defended."

"And those outbuildings?"

"They're part of your job."

The airboat braked sharply and settled with a smooth, sickeningly swift rush that left Kennon gasping - feeling that his stomach was still floating above him in the middle level. He never had become accustomed to an arbutus landing characteristics. Spacers were slower and steadier. The ship landed gently on a pitted concrete slab near the massive radiation shields of the barricaded entranceway to the fortress. Projectors in polished dually turrets swivelled to point their ugly noses at them. It gave Kennon a queasy feeling. He never liked to trust his future to automatic machinery. If the analyzers failed to decode the ship's I.D. properly, Kennon, Alexander, the ship, and a fair slice of surrounding territory would become an incandescent mass of dissociated atoms.

"Grandfather was a good builder," Alexander, said proudly. "Those projectors have been mounted nearly four hundred years and they're still as good as the day they were installed."

"I can see that," Kennon said uncomfortably. "You ought to dismantle them. They're enough to give a man the weebies."

Alexander chuckled. "Oh - they're safe. The firing mechanism's safetied. But we keep them in operating condition. You never can tell when they'll come in handy."

"I knew Kardon was primitive, but I didn't think it was that bad. What's the trouble?"

"None - right now," Alexander said obliquely, "and since we've shown we can handle ourselves there probably won't be any more."

"You must raise some pretty valuable stock if the competition tried to rustle them in the face of that armament."

"We do." Alexander said. "Now if you'll follow me" - the entrepreneur opened the cabin door letting in a blast of heat and a flood of yellow sunlight.

"Great Arthur Fleming!" Kennon exploded. "This place is a furnace!"

"It's hot out here on the strip," Alexander admitted, "but its cool enough inside. Besides, you'll get used to this quickly enough - and the nights are wonderful. The evening rains cool things off. Well - come along." He began walking toward the arched entrance to the great building some hundred meters away. Kennon followed looking around curiously. So this was to be his home for the next five years? It didn't look particularly inviting. There was a forbidding air about the place that was in stark contrast to its pleasant surroundings.

They were only a few meters from the archway when a stir of movement came from its shadow - the first life Kennon had seen since they descended from the ship. In this furnace heat even the air was quiet. Two women came out of the darkness, moving with quiet graceful steps across the blistering hot concrete. They were naked except for a loincloth, halter, and sandals and so nearly identical in form and feature that Kennon took them to be twins. Their skins were burned a deep brown that glistened in the yellow sun light.

Kennon shrugged. It was none of his business how his employer ran his household or what his servants wore or didn't wear. Santos was a planet of nudists, and certainly this hot sun was fully as brilliant as the one which warmed that tropical planet. In fact, he could see some virtue in wearing as little as possible. Already he was perspiring.

The two women walked past them toward the airboat. Kennon turned to look at them and noticed with surprise that they weren't human. The long tails curled below their spinal bases were adequate denials of human ancestry.

"Humanoids!" he gasped. "For a moment I thought-"

"Gave you a start-eh?" Alexander chuckled. "It always does when a stranger sees a Lani for the first time. Well - now you've seen some of the livestock what do you think of them?"

"I think you should have hired a medic."

Alexander shook his head. "No - it wouldn't be reason able or legal. You're the man for the job."
"But I've no experience with humanoid types. We didn't cover that phase in our studies - and from their appearance they'd qualify as humans anywhere if it weren't for those tails!"

"They're far more similar than you think," Alexander said. "It just goes to show what parallel evolution can do. But there are differences."

"I never knew that there was indigenous humanoid life on Kardon," Kennon continued. "The manual says nothing about it."

"Naturally. They're indigenous only to this area."

"That's impossible. Species as highly organized as that simply don't originate on isolated islands." "This was a subcontinent once," Alexander said. "Most of it has been inundated. Less than a quarter of a million years ago there was over a hundred times the land area in this region than exists today. Then the ocean rose. Now all that's left is the mid continent plateau and a few mountain tops. You noted, I suppose, that this is mature topography except for that range of hills to the east. The whole land area at the time of flooding was virtually a peneplain. A rise of a few hundred feet in the ocean level was all that was needed to drown most of the land."

"I see. Yes, it's possible that life could have developed here under those conditions. A peneplain topography argues permanence for hundreds of millions of years."

"You have studied geology?" Alexander asked curiously. "Merely a casual acquaintance."

"We think the Lani were survivors of that catastrophe - and with their primitive culture they were unable to reach the other land masses," Alexander shrugged. "At any rate they never established themselves anywhere else."

"How did you happen to come here?"

"I was born here," Alexander said. "My grandfather discovered this world better than four hundred years ago. He picked this area because it all could be comfortably included in Discovery Rights. It wasn't until years afterward that he realized the ecological peculiarities of this region."

"He certainly capitalized on them."

"There was plenty of opportunity. The plants and animals here are different from others in this world. Like Australia in reverse."

Kennon looked blank, and Alexander chuckled. "Australia was a subcontinent on Earth," he explained. "Its ecology, however, was exceedingly primitive when compared with the rest of the planet. Flora's on the contrary, was - and is - exceedingly advanced when compared with other native life forms on Kardon."

"Your grandfather stumbled on a real bonanza," Kennon said. "For which I'm grateful," Alexander grinned. "It's made me the biggest operator in this sector of the galaxy. For practical purposes I own an independent nation. There's about a thousand humans here, and nearly six thousand Lani. We're increasing the Lani now, since we found they have commercial possibilities. Up to thirty years ago we merely used them for labor."

Kennon didn't speculate on what Alexander meant. He knew. For practical purposes, his employer was a slave trader - or would have been if the natives were human. As it was, the analogy was so close that it wasn't funny.

They entered the fortress, passed through a decontamination chamber that would have done credit to an exploration ship, and emerged dressed in tunics and sandals that were far more appropriate and comfortable in this tropical climate.

"That's one of Old Doc's ideas," Alexander said, gesturing at the door from which they had emerged. "He was a hound for sanitation and he infected us with the habit." He turned and led the way down an arched corridor that opened into a huge circular room studded with iris doors.

Kennon sucked his breath in with a low gasp of amazement. The room was a gem of exquisite beauty. The parquet floor was inlaid with rare hardwoods from a hundred different worlds. Parthian marble veneer covered with lacy Van tapestries from Santos formed the walls. Delicate ceramics, sculpture, and bronzes reflected the art of a score of different civilizations. A circular pool, festooned with lacelike Halsite ferns, stood in the center of the room, surrounding a polished black granite pedestal on which stood an exquisite bronze of four Lani females industriously and eternally pouring golden water from vases held in their shapely hands. "Beautiful," Kennon said softly.

"We like it," Alexander said.

"We?"

"Oh yes - I forgot to tell you about the Family," Alexander said grimly. "I run Outworld, and own fifty per cent of it. The Family owns the other fifty. There are eight of them - the finest collection of parasites in the entire galaxy. At the moment they can't block me since I also control my cousin Douglas's shares. But when Douglas comes of age they will be troublesome. Therefore I defer to them. I don't want to build a united opposition. Usually I can get one or more of them to vote with me on critical deals, but I always have to pay for their support." Alexander's voice was bitter as he touched the dilate button on the iris door beside him. "You'll have to meet them tonight. There's five of
"That isn't in the contract," Kennon said. He was appalled at Alexander. Civilized people didn't speak of others that way, even to intimates.

"It can't be helped. You must meet them. It's part of the job." Alexander's voice was grim. "Mother, Cousin Anne, Douglas, and Eloise like to play lord of the manor. Cousin Harold doesn't care - for which you should be grateful."

The door dilated, and Alexander ushered Kennon into the room. The Lani sitting on the couch opposite the door leaped to her feet, her mouth opening in an 0 of surprise. Her soft snow-white hair, creamy skin, and bright china blue eyes were a startling contrast to her black loincloth and halter. Kennon stared appreciatively.

Her effect on Alexander, however, was entirely different. His face darkened. "You!" he snapped. "What are you doing here?"

"Serving, sir," the Lani said.
"On whose authority?"
"Man Douglas, sir."

Alexander groaned. "You see," he said, turning to Kennon. "We need someone here with a little sense. Like I was telling you, the Family'd - he stopped abruptly and turned back to the Lani. "Your name and pedigree," he demanded.

"Silver Dawn, sir - out of White Magic - platinum experimental type - strain four."
"I thought so. How long have you been inhouse?"
"Almost a month, sir."

"You're terminated. Report to Goldie and tell her that Man Alexander wants you sent back to your group."

The Lani's eyes widened. "Man Alexander! - You?"

Alexander nodded.
"Gosh!" she breathed. "The big boss!"

"Get moving," Alexander snapped, "and tell Goldie to report to me in my quarters."

"Yes, sir, right away, sir!" The Lath ran, disappearing through the door they had entered with a flash of shapely white limbs.

"That Douglas!" Alexander growled. "Leave that young fool alone here for six months and he'd disrupt the entire operation. The nerve of that young pup - requisitioning an experimental type for household labor. Just what does he think he's doing?"

The question obviously didn't demand a reply, so Kennon kept discreetly silent as Alexander crossed the room to the two doors flanking the couch on which the Lani had sat. He opened the left-hand one revealing a modern grav-shaft that carried them swiftly to the uppermost level. They walked down a short corridor and stopped before another door. It opened into a suite furnished with stark functional simplicity. It fitted the entrepreneur's outward personality so exactly that Kennon had no doubt that this was Alexander's quarters.

"Sit down, Kennon. Relax while you can," Alexander said as he dropped into a chair and crossed his sandaled feet.

"I'm sure you have many questions, but they can wait."

You might as well get some rest. You'll have little enough later. The Family will probably put you through the meat grinder, but remember that they don't control this business. You're my man."

Kennon had hardly seated himself in another chair when the door opened and a plump pink-skinned Lani entered. She was considerably older than the silver-haired one he had seen earlier, and her round face was smiling.

"Ah, Goldie," Alexander said. "I understand Man Douglas has been giving you quite a time."

"It's high time you came back, sir," she said. "Since Old Doc died, Man Douglas has been impossible. He's been culling the staff and replacing them with empty-headed fillies whose only claim to usefulness is that they can fill out a halter. Pretty soon this place will be a pigsty."

"I'll take care of that," Alexander promised. "Now I'd like you to meet Old Doc's replacement. This is Dr. Kennon, our new veterinarian."

"Pleased, I'm sure," Goldie said. "You look like a nice man."

"He is," Alexander said, "but he's just as hard as Old Doc - and he'll have the same powers. Goldie's the head housekeeper," Alexander added. "She's an expert, and you'd do well to take her advice on assignments."

Kennon nodded.

"Have a maid bring us a light meal and something to drink," Alexander said. "Have a couple of porters take Dr. Kennon's things to Old Doc's house. Find Man Douglas and tell him I want to see him at once. Tell the Family that I've arrived and will see them in the Main Lounge at eight tonight. Tell Blalok I'll be seeing him at nine. That's all."

"Yes, sir," Goldie said and left the room, her tail curling buoyantly.
"A good Lani," Alexander commented. "One of the best. Loyal, trustworthy, intelligent. She's been running Alexandria for the past ten years, and should be good for at least ten more."

"Ten? - how old is she?"

"Thirty."

"Thirty - years?"

Alexander nodded.

"Good Lord Lister! I'd have guessed her at least three hundred!"

"Wrong life scale. Lani only live about one tenth as long as we do. They're mature at twelve and dead at fifty."

Alexander sighed. "That's another difference. Even without agerone we'd live to be a hundred."

"Have you tried gerontological injections?"

"Once. They produced death in about two days. Killed five Lani with them." Alexander's face darkened at an unpleasant memory. "So we don't try any more," he said. "There are too many differences." He stretched. "I'd tell you more about them but it'll be better to hear it from Evald Blalok. He's our superintendent. Steve Jordan can tell you a lot, too. He runs the Lani Division. But right now let's wait for Cousin Douglas. The pup will take his time about coming - but he'll do it in the end. He's afraid not to."

"I'd rather not," Kennon said. "It's poor manners to be injected into a family affair - especially when I'm just one of the employees."

"You're not just one of the employees. You are the Station Veterinarian, and as such you hold an authority second only to Blalok and myself. You and Blalok are my hands, ears, and eyes on Flora. You are responsible to me - and to me alone. While I defer at times to the desires of the Family, I do not have to. I run Outworld Enterprises and all the extensions of that organization. I possess control - and the Family knows it. My men are respected and furthermore they know everything that goes on." He smiled icily. "In a way it's quite a healthy situation. It keeps my relatives under control. Somehow they dislike being disciplined before outsiders. Now think no more about it."

Alexander stood up and walked over to one of the windows opening onto the broad roof gardens, and stood looking at the sun-drenched greenery.

"Odd, isn't it," Alexander said, "how beautiful nature is and how simple things are in a state of nature. It's only when man interjects himself onto a scene that things get complicated. Take Flora for instance. Before Grandfather came here, it must have been a pleasant place with the simple natives happy in their paradise. But that's all changed now. We have taken over - and they, like other lesser creatures on other worlds, have been bent to our will and uses. I could pity them, but being human I cannot afford that luxury."

Kennon understood. He, too, had felt that sensation, that odd tightening of the throat when he first saw a Varl on Santos. The Varl had been the dominant life form there until men had come. Now they were just another animal added to humanity's growing list of pets and livestock. The little Varl with their soft-furred bodies and clever six-fingered hands made excellent pets and precision workmen. The products of those clever hands, the tiny instruments, the delicate microminiaturized control circuits, the incredibly fine lacework and tapestries, formed the bulk of Santos' interstellar trade.

He had owned a Varl once and had delighted in its almost human intelligence. But the Varl weren't human and there lay their tragedy. Two thousand years of human domination had left them completely dependent on their conquerors. They were merely intelligent animals - and that was all they would ever be until the human race changed its cultural pattern or was overthrown. The one alternative was as unlikely as the other. Humanity had met some fierce competitors, but none with its explosive acquisitive nature, and none with its drive to conquer, colonize, and rule. And probably it never would.

The little Varl were one race among hundreds that had fallen before the fierceness and the greed of men. But unlike most others, the Varl were not combative. Therefore they had survived.

Yet had it been necessary to reduce them to slavery? They would never be a threat. Not only were they essentially gentle and noncombative, but their delicate bodies could not stand the strains of spaceflight. They were trapped on their world. Why should they be forced into so subordinate a role? - Why was humanity so jealous of its dominance that no other species could exist except by sufferance? Why after five thousand years of exploration, invasion, and colonization did the human race still consider the galaxy as its oyster, and themselves uniquely qualified to hold the knife? He hadn't thought this way since he had given the Varl to his girl friend of the moment, and had blasted off for Beta. Now the questions returned to haunt him. As a Betan, the haunting was even more acute, since Beta had a related problem that was already troublesome and would become more acute as the years passed.

He shrugged and laid the thought aside as a slim, dark-haired Lani entered pushing a service cart ahead of her. The two men ate silently, each busy with his own thoughts. And behind the view wall of Alexander's apartment Kardon's brilliant yellow sun sank slowly toward the horizon, filling the sky with flaming colors of red and gold,
rimmed by the blues and purples of approaching night. The sunset was gaudy and blatant, Kennon thought with mild
distaste, unlike the restful day-end displays of his homeworld.

CHAPTER IV

Douglas Alexander was a puffy-faced youngster with small intolerant eyes set in folds of fat above a button
nose and a loose-lipped sensual mouth. There was an odd expression of defiance overlaid with fear on his pudgy
features. Looking at him, Kennon was reminded of a frightened dog, ready either to bite or cower.

But it wasn't Douglas who held his eye. It was the two Lani who followed him into the room. Every line of
their bodies was perfection that spoke volumes about generations of breeding for physical elegance. They moved
with a co-ordinated grace that made Douglas look even more clumsy by contrast. And they were identical, twin
cream-and-gold works of art. They were completely nude - and Kennon for the first time in his life fully appreciated
the beauty of an unclad female. To cover them would be sacrilege, and ornaments would only detract from their
exquisite perfection.

Kennon knew that he was staring like an idiot. Alexander's amused smile told him that much. With an effort he
composed his startled features.

The pair looked at him with soft violet eyes - and it was as though some psychic bathhouse attendant had
poured ice water down his spine. For he had seen that look before, that liquid introspective look in the velvet eyes of
cattle. He shivered. For a moment he had been thinking of them as human. And somehow the lack of that
indefinable some thing called humanity robbed them of much of their glamour. They were still beautiful, but their
beauty had become impersonal.

"Don't take these as representative of the Lani," Alexander said suddenly. "They're a special case, a very special
case." He glared at his cousin. "Damn your impudence," he said without beat. "I sent for you - not your toys. Send
them away."

Douglas sulkily thrust out his lower lip. "You can't talk to me like that, Cousin Alex," he began. "I'm just a"
"You head me, Douglas. Out!" Alexander's voice didn't rise but it cut like a whip.
"Oh, very well," Douglas said. "I can't fight you - yet." He turned to the humanoids. "You heard the Boss-man.
Go home."

The two nodded in unison and departed quickly. Somehow Kennon got the impression that they were happy to
leave.

"Just wait," Douglas said. "You can't boss me forever. Just wait. I'll reach my majority in five years. I can vote
my shares then - and then I'll fix you. You won't be so high and mighty then, Mr. Big. I'll throw in with the rest of
the Family. They don't like you too much."

"Don't hold your breath waiting for the Family to help you," Alexander said. "They wouldn't have anyone else
but me handle the finances. They love money too much. And until you get your inheritance remember one thing -
I'm master here."

"I know it," Douglas said, and then curiously - "Who's the oddball?" He gestured at Kennon with a pudgy
thumb.

"Our new veterinarian, Dr. Kennon."
"Oh - great! Now you tell me!"
"There's nothing like making a good first impression," Alexander said with ironic emphasis. "I hope he cuts you
off from the Lani. He'll have the authority to do it, since he's taking Old Doc's place."

"He can't. I'm an owner. I own-"

"You own nothing. You're a minor. And under the terms of Grandfather's will, you'll own nothing except an
allowance until you reach legal age. And that brings me to the reason I brought you here. Just when did you gain the
right to reorganize the household staff? Just when did you get the power to interfere with the experimental
program?"

Douglas flushed dull red and bit his lip. "Do we have to go into this in front of strangers?"

"Kennon's my agent," Alexander said coldly, "and he might as well learn about you and the others from the
start."

"Well - what do you want him to do - watch me crawl?" Douglas asked bitterly. "You'll make me do it. You
always do. Do you want me to beg, to say I was wrong, to promise I won't do it again?"

"You've done that already," Alexander said. "Several times. You need a lesson. I won't have you meddling with
valuable animals."

"And what are you going to do about it?"

"Put you where you can do no more damage. As of tomorrow you'll go to Otpen One."

Douglas paled. His lips quivered, and his eyes flicked uneasily as he watched Alexander's granite face. "You
don't mean that," he said finally. "You're joking."
"I never joke about business."

"But you can't do that! I'll tell the Family. They won't let you."

"I already have their consent," Alexander said. "I obtained it after your last escapade. You'll be happy out there.

You can play tin god all you like. Master of life and death on a two-acre island. No one will mind. You can also go
to work. No one will mind that, either. And Mullins won't mind as long as you leave the troops alone. Now get out
of here and get packed. You're leaving tomorrow morning."

"But cousin Alex--"

"Move! I'm tired of the sight of you!" Alexander said.

Douglas turned and shambled out of the room. His ego was thoroughly deflated and he seemed more frightened
than before. Obviously the Otpens weren't the pleasantest place in this world.

"They're a military post," Alexander said. "And Commander Mullins doesn't like Douglas. Can't say that I blame
him. Douglas is a thoroughly unpleasant specimen, and incidentally quite typical of the rest of the Family."

Alexander sighed and spread his hands in a gesture that combined disgust and resignation. "Sometimes I wonder
why I have been cursed with my relatives."

Kennon nodded. The implications behind the empty eyes of Douglas's Lani sickened him. There were several
ways to produce that expression, all of them unpleasant. Hypnoconditioning, the Quiet Treatment, brainburning,
transorbital leukotomy, lobectomy - -all of the products of that diseased period of humanity's thinking when men
tampered with the brains of other men in an effort to cure psychic states. Psychiatry had passed that period, at least
on the civilized worlds, where even animal experiments were frowned upon as unnecessary cruelty.

"You saw those two Lani," Alexander said. "Grandfather had them made that way as a birthday present for
Douglas. He was getting senile. He died a year later. You'd think a man would be ashamed to keep things like that
around -- but not Douglas. He likes them." Alexander's voice was tinged with contempt. "He knows they disgust me
-- so he parades them in. I could strangle that pup sometimes!"

"I wondered about it. I wouldn't like to work for a man who permitted such things."

"That was done before I took over. For the past three years there have been no dockings, no mutilations. I can't
see treating a helpless animal like that."

"I feel better about it," Kennon said. "I didn't think you were that sort."

"Understand me," Alexander said. "I'm always opposed to senseless cruelty and waste -- particularly when it's
dangerous. Docked Lani are the height of stupidity. Just because someone wants a pet that is an exact duplicate of a
human being is no reason to risk a court action. Those Lani, and a few others whose tails have been docked, could
be a legal bombshell if they ever left Flora."

Kennon was jolted. He had been thinking of mental mutilation and Alexander had been talking physical.

Naturally they would be dangerous property. Anyone attempting to sell a docked Lani would probably be thrown in
Detention and charged with slave trading.

"Did you ever figure the cost of taking a legal action through our court system?" Alexander asked. "Even the
small ones set you back four or five thousand, and a first-class action like a Humanity Trial could cost over a
million. Grandfather found that out. Sure, there are differences between Lani and humans, but a smart lawyer can
make them seem trivial until the final test and that would drag on for nearly two years until all the requirements
were satisfied -- and by that time the unfavorable publicity would drop sales to zero. The Family would be on my
neck for lost dividends, and I'd lose much of the control I hold over them.

"Sure, it's possible that prehensile tails could be produced by mutation, but so far as we know it hasn't happened
in human history. As a result, the tail serves as a trade-mark - something that can be easily recognized by anyone. So
we sell them intact." Alexander crossed his legs and settled back in his chair. "Shocks you, doesn't it?"

Kennon nodded. "Yes," he admitted. "It does."

"I know. You can't help it. Most of our new employees think the Lani are human - at first. They learn better, but
adjustment is always a strain. They keep confusing external appearances with the true article. But remember this --
Lani are not human. They're animals. And on this island they're treated as what they are -- no more, no less. They
are a part of our economics and are bred, fed, and managed according to sound livestock principles. Despite some of
the things you may see here in Alexandria, don't forget that. You are a veterinarian. Your job is to handle disease
problems in animals. Lani are animals. Therefore you will be doing your job. I was disappointed in your reaction
when you first saw them, but I suppose it was natural. At any rate this should clear the air."

"It does -- intellectually," Kennon admitted. "But the physical resemblance is so close that it is difficult to
accept."

Alexander smiled. "Don't worry. You'll accept it in time. Now I think it's time that you met the Family."

CHAPTER V

The main salon was crowded. The huge room, glittering with mirrors and crystal, floored with thick carpets,
and hung with rich drapes, had something of the appearance of a Sarkian harem. Although there were only five of
the Alexander family present, there were at least twenty Lani whose costumes ranged from the black G string and
halter of the household staff to the utter nudity of Douglas’s playthings. They were all female, and Kennon wondered
for a moment what a male was like.

Besides Alexander, there were two men and three women: Douglas, still with his sulky expression, an older
man in his late nineties who looked like Douglas’s eider brother, two mature women who could be any age from fifty
to three hundred, and a girl. She might have been thirty --- perhaps younger, perhaps older, a lean feminine edition of
Alexander, with the same intriguing face and veiled predatory look. There was a hardness about her that was absent
in the others. Kennon had the feeling that whatever this girl did, she didn’t do it half way.

"My sister Eloise," Alexander said in a low voice. "Watch out for her. She’s as deadly as a puff adder and she
collects men. The other man is Douglas’s father, Henry. The plump redhead beside him is his wife, Anne. The other
woman is my mother, Clara, even though Eloise and I don’t look like her. We take after Father."

"Where’s he?" Kennon whispered.

"Dead," Alexander replied. "He was killed twenty years ago."

"I'd like to present Dr. Jac Kennon, our new veterinarian," Alexander said into the hush that followed their
entrance. The introductions that followed were in proper form, and Kennon was beginning to feel more at ease until
Eloise sent one of her Lani with a summons. He looked around for Alexander, but the entrepreneur was the center of
a three-cornered argument, hemmed in by Douglas, Henry, and Anne. Henry’s voice was raised in bitter protest that
Alexander was exceeding his authority. He shrugged. There was no help there.

"All right," he said, "tell your mistress I’ll be along in a moment."

"Yes, Doctor," the Lani said, "but the Woman Eloise says for you to come, and she is not accustomed to being
disobeyed."

"Tell her what I said," Kennon replied. "I shall be there directly." He crossed to the table and examined it,
selecting a cluster of odd purple fruit which looked more interesting than it tasted. When he had finished he walked
leisurely over to where Eloise sat.

She looked at him angrily. "I am accustomed to being obeyed by my employees," she said coldly. Her dark
eyes, oddly like her brother’s, traversed his hard body like twin scanners.

He returned her appraising stare with one of his own. "I’m not your employee," he said bluntly. "I was hired by
your brother, and there’s a full peeper rider on my contract." His eyes traveled slowly over her carefully arranged
hair, her make-up, her jewelry at throat and arms, her painted finger- and toenails, and then across the slim small-
breasted lines of her body half revealed under her thin ankle-length tunic of Lyranian silk.

"Satisfied?" she asked.

"On Beta," he said bluntly, "your appearance would qualify you for a parasite camp. Six months of hard labor
would do you no end of good. You’re soft, lazy, and undisciplined."

Eloise gasped. "Why, you----" she sputtered.

"And perhaps next time you’ll learn to be polite," Kennon continued imperturbably. "After all, the superficial
attributes of good breeding are not too hard to counterfeit."

To his surprise, Eloise giggled. "You bite, don’t you?" she asked. "Remind me to remember that."

"I shall."

"Of course, your actions weren’t good breeding either."

"Admitted -- but I’ve never pretended to be what I’m not. I’m the son of a spaceship skipper, and I’m a
veterinarian. That’s all."

"That’s not all. You are also a man." Her face was sober, "It’s been some time since I’ve met one. I’d almost
forgotten they existed."

"There’s your brother."

"Alex? -- he’s a money making machine. Come -- sit beside me and let’s talk."

"About what?"

"You -- me -- your job, your life -- anything you wish?"

"That line isn’t exactly new," Kennon grinned.

"I know," she admitted, "but it usually works."

"I’m immune."

"That’s what you think." Eloise’s eyes were frankly appraising. "I think I could become interested in you."

"I have a job here. I don’t think I would have time to give you the attention you’d demand."

"I get bored easily. It probably wouldn’t be long before I would be tired of you."

"Perhaps -- and perhaps not, I can’t afford to take the chance."

"You seem confident."
"You forget. I was a sailor."
"And spacemen have a reputation, eh?" Eloise chuckled.
"At that, you might be right. I remember the first officer of--"she let the thought die. "But I became tired of him," she finished.
Kennon smiled. "I've never had that complaint."
"Perhaps you'd like to make the acid test?" she asked.
"Perhaps," he said. "But not tonight."
"Tomorrow then? Alex will be leaving in the morning. He never stays more than a few hours." Eloise's eyes were bright, her lips moist and red.
"I'll pick the time," Kennon said -- and added to himself, "If ever." Despite her wealth Eloise was no different from the port-of-call girls. If anything, she was worse since she had enough money to implement her desires. They were merely in the trade for business reasons. No -- Eloise would be something to steer clear of. Alexander was right. She was a mantrap. He stood up and bowed Betan fashion. "I see your brother is free now. He wants to brief me on my duties here. We were discussing it before we entered."
Eloise pouted. "You can always do that."
"You said yourself that Alexander never stays here very long. I would be a poor employee if I delayed him." He grinned knowingly at her and she smiled back with complete understanding.
"Very well, then. Get your business done. Your pleasure can wait."
Kennon steered Alexander over to an open window that led to a balcony. "Whew! he said. "I see what you mean."
"She's a tartar," Alexander agreed. "I suspect that she's a nymphomaniac."
"You suspect?" Kennon asked. "By this time you should know. Let's get out of here. I've had about all of your sister I care to take."
"Can't say as I blame you. I'll show you to your quarters. Maybe Old Doc left a bottle or two, although I suspect the old sinner hung on until the last one was empty."
"If he had to put up with your relatives as a steady diet, I can't say that I blame him," Kennon said.
"Careful, Doctor. You're talking about my kinfolk," Alexander said wryly. "At that, though, you have a point."
The two men slipped quietly from the room. Apparently none of the Family was conscious of their departure except Eloise, who watched them leave with an enigmatic expression on her narrow face.
They left the fortress through the rear gate and walked slowly down the winding path that led to the cluster of buildings in the valley below. It was a beautiful night, calm and clear with the stars shining down from the dark vault of the heavens. The constellations were strange, and Kennon missed the moons. Beta had three, two of which were always in the sky, but Kardon was moonless. Somehow it gave the sky an empty look.
A damp coolness rose from the ground as the evening rain evaporated mistily into the still air. Kennon sniffed the odor of soil and growing vegetation, clean pleasant odors in contrast to what he had left. In the distance a bird called sleepily from one of the fortress turrets and was answered by some creature Kennon couldn't identify. A murmur of blended sound came from the valley below, punctuated by high-pitched laughter. Someone was singing, or perhaps chanting would be a better description. The melody was strange and the words unrecognizable. The thin whine of an atomotor in the fortress's generating plant slowly built up to a keening undertone that blended into the pattern of half-perceived sound.
"Nice, isn't it?" Alexander remarked as they rounded another turn on the switchback path.
"Yes. You can't hear a sound from back there except for that generator. It's almost as though we shut those people out of existence by merely closing a door."
"I wish it were that simple," Alexander said. "But doors that can be closed can also be opened. Well - think you'll like it here?"
"I wish it were that simple," Alexander said. "But doors that can be closed can also be opened. Well - think you'll like it here?"
"I think so, providing I don't have to entertain your relatives."
"You mean Eloise? Don't worry about her. She's as fickle as the wind."
"I've never seen anyone so frankly predatory," Kennon said. "She worries me."
"They'll all be gone tomorrow -- except for Eloise," Alexander said with mock comfort. "Douglas is on the Otpens for a year, and the others are off somewhere."
"You'll be staying, I suppose."
"No -- I'm afraid I can't."
"I hoped you'd help me get organized. This whole thing has been something of a shock. I was expecting something entirely different."
"Sorry -- someone has to run the business. But Blalok'll brief you. Actually he's more qualified than I. He knows everything worth knowing about this place. We're going past his house in a minute--want to stop in and see
"It's pretty late."
"Not for Blalok. He's a Mystic -- a nocturnal. He's probably doing his work now."
"Perhaps we shouldn't disturb him."
"Nonsense. He's used to it. I visit him frequently at night."
"Sure -- but you're the boss."
"Well -- in a sense you are too. At least in the veterinary end of this business."
Alexander swung sharply to the left and climbed a short flight of stairs that led to the nearest house. Lights flared on the deep porch, and the old-fashioned iris door dilated to frame the black silhouette of a stocky, broad-shouldered man.
"Good evening, sir," he said. "I was expecting you. That the new vet with you?"
"Your pipeline's still working, I see," Alexander said. "Yes, this is Dr. Kennon -- Evald Blalok -- I wanted you two to meet."

Kennon liked the gray middle-aged man. He looked honest and competent, a solid quiet man with a craggy face and the deep-set eyes of a Mystic. His skin had the typical thickness and pore prominence of the dwellers on that foggy world from which he came. But unlike the natives of Myst, his skin was burned a dark brown by Kardon's sun. He seemed out of place on this tropic world, but Kennon reflected wryly that there was probably more than one misplaced human here, himself included.

"I've been going over Station Fourteen's records with Jordan," Blalok said as he ushered them into the house. A tall black-haired man rose as they entered.
"Skip the formality, Jordan. Sit down," Alexander said, "and meet Dr. Kennon -- Steve Jordan -- Jordan runs the Lani Division."
Kennon nodded acknowledgment as Alexander continued, "What's this trouble at Fourteen?"
"I don't know. We've got an epizootic of something. Another youngster died this morning, and there's three more that look pretty bad, jaundice, no appetite, complaining of muscular pains. Same symptoms as took the others. The one this morning makes the fourth this month, and we're only half through it."
"Are all your losses in this one station?" Kennon asked.
"No -- but it's worst there."
"I don't like losses like that," Alexander said.
"Neither do I," Jordan replied.
"This isn't Jordan's fault, sir," Blalok said quickly. "As you know, we haven't had a vet for three months."
"Two," Alexander corrected.
"Three -- Old Doc wasn't around at all the month before he died," Blalok said. "As a result we've got a problem. We need professional help."
"Well here he is -- use him," Alexander said. He looked at Kennon, a trace of amusement on his face. "There's nothing like getting into things early."
"Particularly when one comes into them stone cold," Kennon added. "It's a poor way to start a career."
"We can't afford to wait," Jordan said. "We need help."
"I'll see what can be done," Kennon replied. "Have you saved the body?"
"Every one of them," Jordan said. "They're in the hospital in the autopsy room."
That was sensible. A post-mortem might give us an answer. Where's the hospital?"
"I'll show you," Jordan offered.
"Count me out," Alexander said. "I have a weak stomach."
"I'll go along if it's necessary," Blalok said.
"There's a staff there, Old Doc trained them," Jordan said.
"Then it shouldn't be necessary," Kennon said.
Blalok sighed with relief and turned to Alexander. "We could check the records while those two are about their bloody work."
"I'd rather check a long strong drink," Alexander replied. "What with the Family and this, it's too much to take for one evening."

Kennon hid a smile. Alexander had a weak spot. He was squeamish. That was a good thing to know.

CHAPTER VI
Jordan opened the door of the two-story building below Blalok's house. "This is it," he said, "just outside your front door. Convenient -- no?"
"Too convenient," Kennon said, "also too quiet. Isn't anyone on duty?"
"I wouldn't know. Old Doc never kept the place open at night."
There was a stir of movement in the darkness, the lights flashed on, and a sleepy-eyed Lani blinked at them in
the sudden glare. She looked blankly at Kennon and then brightened as she saw Jordan. "What's the trouble, sir?"

"Nothing. We want to look at the Lani I sent down this morning -- Dr. Kennon would like to inspect the carcass."

"You're the new doctor?" the Lani asked. "Thank goodness you've come! I'll get the staff. I'll be back in a moment." She stepped quickly over to the switchboard beside the door and punched five buttons. Four more humanoids came into the room, followed a little later by a fifth.

"Where's the emergency?" one asked.

"He is -- it's our new doctor."

"More females," Kennon muttered to himself. He turned to Jordan. "Aren't there any males in this crew?"

Jordan stared at him with mild surprise. "No, sir -- didn't you know? There are no male Lani."

"What?"

"Just that," Jordan said. "Only females. There hasn't been a male on the island since Old Man Alexander took over. He killed them all."

"But that's impossible! How do they reproduce?"

"Ever hear of artificial fertilization?"

"Sure -- but that's a dead end. The offspring are haploids and they're sterile. The line would die out in a generation."

"Not the Lani--you can see for yourself. We've been using the technique here for better than four centuries, and we're still doing all right. Over forty generations so far, and from the looks of things we can go on indefinitely."

"But how is it done?"

"I don't know. That's Alexander's secret. The Boss-man doesn't tell us everything. All I know is that we get results. Old Doc knew how it was done, and I suppose you will too, but don't ask me. I'm dumb."

Kennon shrugged. Maybe -- maybe not. At any rate there was no sense in belaboring the point. He turned to the staff. Five of them were the same big-boned heavy-framed type that apparently did most of the manual labor. The sixth, the late arrival, was an elegant creature, a bronze-skinned, green-eyed minx with an elfin face half hidden under a wavy mass of red-brown hair. Unlike the others, she had been docked - and in contrast to their heavy eyes and sleep-puffed features she was alert and lively. She flashed him an impish grin, revealing clean white teeth.

Kennon smiled back. He couldn't help it. And suddenly the tension and strangeness was broken. He felt oddly at ease. "Which of you are on duty?" he asked.

"All of us," the redhead replied, "if it's necessary. What do you want us to do?"

"He's already told me. He wants that last carcass prepped for a post-mortem," the nightcall Lani said.

"Good," the redhead said. "I'll be nice to get to work again." She turned to face Kennon. "Now, Doctor -- would you like to see your office? Old Doc left a fine collection of notes on Lani anatomy and perhaps you could do with a little review."

"I could do with a lot of it," Kennon admitted. "Unless the inner structure of a Lani is as similar to human as their outer."

"There are differences," the redhead admitted. "After all, we aren't quite alike."

"Perhaps I'd better do some reading," Kennon said.

"You need me any more?" Jordan asked.

"No -- I think not."

"Good. I'll get back. Frankly, I don't like this any better than Blalok or the boss, but I'm low man on that pole. See you later."

Kennon chuckled as Jordan left. "Now, let's get ready for that cadaver," he said.

"Carcass, doctor," the redhead corrected. "A cadaver is a dead human body." She accented the "human."

Even in death there is no equality, Kennon thought. He nodded and the Lani led the way to a door which opened into a good-sized office, liberally covered with bookshelves. An old-fashioned plastic desk, some office cybernetics, a battered voicewriter, and a few chairs completed the furnishings. The redhead placed several large folio volumes in front of him and stepped back from the desk as he leafed rapidly through the color plates. It was an excellent atlas. Dr. Williamson had been a careful and competent workman.

Half an hour later, well fortified with a positional knowledge of Lani viscera, Kennon looked up at the redhead. She was still standing patiently, a statue of red-gold and bronze.

"Get a smock and let's go," he said. "No -- wait a minute."

"Yes, sir?"

"What's your name? I don't want to say 'Hey you!'"

She smiled. "It's Copper Glow - want my pedigree too?"
"No -- it wouldn't mean anything to me. Do they call you Copper or Glow? or both?"
"Just Copper, sir."
"Very well, Copper - let's get going."

* * *

The body of the dead Lani lay on the steel table, waxy and yellowish in the pitiless light of the fluorescents. She had been hardly more than a child. Kennon felt a twinge of pity - so young - so young to die. And as he looked he was conscious of another feeling.

It had been an open secret among his classmates that he had refused an offer to study human medicine because of his aversion to dissecting cadavers. The sarcoplasmic models were all right, but when it came to flesh, Kennon didn't have the stomach for it. And now, the sight of the dead humanoid brought back the same cold sweat and gut-wrenching nausea that had caused him to turn to veterinary medicine eight years ago.

He fought the spasms back as he approached the table and made the external examination. Icterus and a swollen abdomen - the rest was essentially normal. And he knew with cold certainty that he could not lay a scalpel edge upon that cold flesh. It was too human, too like his own.

"Are you ready, Doctor?" the Lani standing across the table from him asked. "Shall I expose the viscera?"

Kennon's stomach froze. Of course! He should have realized! No pathologist did his own dissection. He examined. And that he could do. It was the tactile, not the visual sensations that upset him. He nodded. "The abdominal viscera first," he said.

The Lani laid back the skin and musculature with bold, sure strokes. An excellent prosectress, Kennon thought. Kennon pointed at the swollen liver and the Lani deftly severed its attachments and laid the organ out for inspection. The cause of death was obvious. The youngster had succumbed to a massive liver-fluke infestation. It was the worst he had ever seen. The bile ducts were thick, calcified and choked with literally thousands of the gray-green leaf-shaped trematodes.

"Let's look at the others," he said.

Two more post-mortems confirmed the diagnosis. Except for minor differences, the lesions were identical. He removed a few of the flukes and set them aside for further study.

"Well that's that," he said. "You can clean up now."

He had found the criminal, and now the problem assumed the fascinating qualities of a crime hunt. Now he must act to prevent further murders, to reconstruct the crime, to find the modus operandi, to track the fluke to its source, and to execute it before it could do more harm.

Photographs and tri-dis would have to be taken, the parasite would have to be identified and its sensitivity to therapy determined. Studies would have to be made on its life cycle, and the means by which it gained entrance to its host. It wouldn't be simple, because this trematode was probably Hepatodirus hominis, and it was tricky. It adapted, like the species it parasitized.

Kennon leaned back from the microscope and studied the illustrations in the parasitology text. No matter how much Hepatodirus changed its life cycle, it could not change its adult form. The arrangements of the suckers and genital structures were typical. Old Doc's library on parasites was too inadequate for more than diagnosis. He would have to wait for his own books to be uncrated before he could do more than apply symptomatic treatment. He sighed and rose slowly to his feet. Tomorrow was going to be a busy day.

The door opened behind Mm and Copper slipped quietly into the office. She looked at him curiously, a faint half-shy smile on her face.

"What is it?" Kennon asked.
"Are you ready to fill out the autopsy protocol? It's customary."
"It's also customary to knock on a door before entering."
"Is it? Old Doc never mentioned it."
"I'm not Old Doc."
"No, you're not," she admitted. "You're much younger - and far more beautiful. Old Doc was a fat, gray old man." She paused and eyed Kennon appraisingly with a look on her pointed face that was the virtual twin of Eloise's. "I think I'll like working for you if you're as nice as you are pretty."

"You don't call a man beautiful or pretty!" Kennon exploded.
"Why not?"
"It just isn't done"
"You're a funny human," she said. "I called Old Doc beautiful, and he didn't mind."
"That's different. He was an old man."
"What difference does that make?"
"I don't like it," Kennon said, hitting on the perfect answer.
She stiffened. "I'm sorry, Doctor. I won't do it again." She looked down at him, head cocked sideways. "I guess I have a lot to learn about you. You're much different from Old Doc. He didn't snap at me." She paused for a moment, then drew a deep breath.

Kennon blinked.

"About that report," she said. "Regulations require that each post-mortem be reported promptly and that a record of the Lani concerned be posted in the death book together with all pertinent autopsy data. Man Blalok is very fussy about proper records." She drew one of the chairs to a spot beside the desk and sat down, crossed her long legs, and waited expectantly.

Kennon's mouth was suddenly dry. This situation was impossible. How in the name of Sir Arthur Fleming could he dictate a coldly precise report with a naked redhead sitting beside him? "Look," he said. "I won't need you. I can operate a voicewriter. You can pick up the material later and transcribe it."

Her face fell. "You don't like me," she said, her green eyes filling with quick tears. "Old Doc never---"

"Oh, damn Old Doc!" Kennon snapped. "And stop that sniveling -- or get out. Better yet -- get out and stop sniveling!"

She leaped to her feet and fled.

Kennon swore. There was no reason for him to act that way. He had been more brutal than necessary. But the girl -- no, the Lani -- was disconcerting. He felt ashamed of himself. He had behaved like a primitive rather than a member of one of the oldest human civilizations in the galaxy. He wouldn't bark at a dog that way. He shook his head. Probably he was tired. Certainly he was irritable, and unclad females virtually indistinguishable from human weren't the most soothing objects to contemplate.

He wondered if his exasperation was real or merely a defense mechanism. First Eloise, and then this! Confound it! He was surrounded! He felt trapped. And it wasn't because he'd been away from women too long. A week was hardly that. He grinned as he recalled the blonde from Thule aboard the starship. Now there was a woman, even though her ears were pointed and her arms were too long. She didn't pressure a man. She let him make the advances. He grinned. That was it. He was on the defensive. He was the one who was being pursued -- and his male ego had revolted. He shrugged and turned his attention to the autopsy report, but it was hopeless. He couldn't concentrate. He jotted a few notes and dropped them on the desk -- tomorrow would be time enough. What he needed now was a stiff drink and eight hours' sleep.

CHAPTER VII

Kennon stopped at Blalok's house long enough to tell the superintendent what was causing the trouble. Blalok scowled. "We've never had flukes here before," he said. "Why should they appear now?"

"They've been introduced," Kennon said. "The thing that bothers me is how Dr. Williamson missed them."

"The old man was senile," Blalok said. "He was nearly blind the last six months of his life. I wouldn't doubt that he let his assistants do most of his work, and they could have missed them."

"Possibly, but the lesions are easy to see. At any rate, the culprit is known now."

"Culprit?"

"Hepatodirus hominis -- the human liver fluke. He's a tricky little fellow -- travels almost as far as men do."

"I'm glad it's your problem, not mine. All I can remember about flukes is that they're hard to eradicate."

"Particularly H. hominis."

"You can tell me about it later. Right now Mr. Alexander's over at Old -- your house. Probably he's looking for you."

"Where's Jordan?"

"He went up to Station Fourteen. We'll see him tomorrow."

"I'll say good night then," Kennon said.

"I'm glad you're here. It's a load off my shoulders. See you tomorrow." Blalok waved a friendly good night and left the lights on long enough for Kennon to make his way to his quarters.

Alexander was seated in a heavily upholstered chair listening to a taped symphony in the stereo, his eyes half closed, an expression of peace on his face. An elderly Lani stood beside him. It was a comfortable picture.

The humanoid saw Kennon and gasped, a tiny indrawn sound of surprise. Alexander's eyes snapped open. "Oh -- it's you," he said. "Don't worry, Kara -- it's your new doctor."

Kara smiled. "You startled me," she said. "I was dreaming."

"On your feet?" Alexander interjected idly.

"I should have known you at once, Doctor. There's talk about you all over the yards, ever since you arrived."

"They know what is going on around here better than any of us," Alexander chuckled. "The grapevine is amazingly efficient. Well -- what's the story?"

"Liver fluke."
"Hmm - not good."
"I think it can be stopped. I looked at the records. It doesn't seem to have been here too long."
"I hope you're right. How long will it take?"
"Several months, maybe a year, maybe more. I can't say. But I'll try to clean it up as quickly as possible. I'm pretty sure of the fluke, and it's a hard one to control."
"Hepatodirus?"
Kennon nodded.
"That's an offworld parasite, isn't it?"
"Yes. It originated on Santos. Parasitized the Varl originally, but liked humans better. It's adapted to a hundred different planetary environments, and it keeps spreading. It's a real cutie - almost intelligent the way it behaves. But it can be licked."
"Good - get on it right away."
"I'm starting tomorrow."
"Fine -- I thought you'd be the right man. Kara! Fix the doctor a drink. We might as well have a nightcap -- then I'll go back to the house and listen to Henry and Anne's screams about poor mistreated Douglas, and then back to Albertsville tomorrow. Duty and the credits call."

With mild surprise, Kennon realized that Alexander was drunk. Not obnoxiously, but enough to change his character. Intoxicated, he was a friendlier person. If there was any truth in the ancient cliche about alcohol bringing out a man's true character, then Alexander was basically a very nice person indeed.

"Well -- here's your home for the next five years," Alexander said. "Eight rooms, two baths, a freshener, and three Lani to keep the place running. You've got it made."
"Perhaps -- we'll see when we tackle this fluke infestation. Personally, I don't think I'm going to have an easy time. Tomorrow I'm going to be up to my neck in trouble trying to save your profits."
"You'll do it. I have confidence in you."
"I still think you should have hired a medic."
"This isn't all of your job," Alexander said. "And besides I can't afford to do it. Oh - not the money, but it might be admitting that the Lani might be human. And we've gone to a great deal of trouble to prove they're not." He shifted uncomfortably in his chair. "There's a story behind this."
"I wouldn't doubt it."
"Maybe it'd be better if I told it. It goes back over four centuries. Grandfather was a clever man. After he had secured this island he became worried about the surviving Lani. He didn't want to be accused of genocide, since the Lani were so human in appearance. So he had his medical officer make a few autopsies. The M.D. reported that while there was similarity, the Lani were probably not human."
"That was enough for Grandfather. He requested a Court of Inquiry. The court was sitting in Halsey and the hearing was private. Even so, it leaked and Grandfather was highly unpopular for a time until the lab reports came in. It cost him over eight hundred Ems and nearly two years' time to finish the case, but when it was over the Lani were declared alien, and Grandfather had ironclad discovery rights."
"They really put him through the mill. Grandfather furnished the bodies and three court-appointed M.O.'s went through them with microscopes. They didn't miss a thing. Their reports are so detailed that they're classics of their kind. They're almost required reading for anyone who wants to learn Lani structure and function. The court rendered an interim decision that the Lani were nonhuman, and armed with this, Grandfather prepared the final tests which were run by a team of court-appointed medics and biologists, who made in vitro and live tests on a number of Lani female prisoners. The tests ran for over two years and were totally negative. So the Alexander family acquired Flora and the Otpens, and a legal status." Alexander stood up. "Well -- that's a capsule summary. The records are in the library if you'd care to check them."
"Why?"
"Just to prove we're honest." He moved carefully toward the door, opened it, and disappeared into the night.

Silently Kennon watched him descend the porch steps. He seemed steady enough. For a moment Kennon debated whether he should see him home -- and then decided against it. If Alexander needed help he'd have asked for it. As it was, it was better to leave things alone. Certainly he didn't know Alexander well enough to act as a guardian. He turned back to the living area. The stereo was playing something soft and nostalgic as Kennon sank into the chair Alexander had vacated. He let his body relax. It had been as full a day as he had ever spent filled with changes so abrupt that they were exhausting. He felt confused. There were no precedents he could apply. Neither his studies nor his travels had prepared him for living in a situation like this.

Legally and biologically the Lani weren't human. But they were intelligent, upright, bipedal mammals whose morphology was so close to man's that it had taken the ultimate test to settle their status. And being a Betan, Kennon
was suspicious of the accuracy of that ultimate test.

But the Brotherhood of Man was based upon it. The feeling of unity that pervaded mankind's expanding empire was its product. From almost the beginning of mankind's leap to the stars it had been recognized that men must help each other or perish. The spirit of co-operation against the common enmity of alien worlds and cultures transcended the old petty rivalries on Earth. Men -- all men -- were brothers in arms.

And so the Brotherhood was born -- and the concept born of necessity developed its muscles in a thousand battles on a thousand hostile worlds. And ultimately it evolved into the only form of central authority that men would accept. Yet basically it was not a government. It was an attitude of mind. Men accepted its decisions as they would accept the rulings of a family council, and for the same reasons.

The Brotherhood laid down certain rules but it did not attempt to enforce them. After all, it didn't need to. It also arbitrated disputes, admitted new worlds to membership, and organized concerted human effort against dangerous enemies. And that was all. Yet in its sphere the authority of the Brotherhood was absolute.

There was only one criterion for membership in the Brotherhood -- membership in the human race. No matter how decadent or primitive a population might be, if it was human it was automatically eligible for Brotherhood - a free and equal partner in the society of human worlds.

Kennon doubted that any nonhuman race had ever entered the select circle of humanity, although individuals might have done so. A docked Lani, for instance, would probably pass unquestioned as a human, but the Lani race would not. In consequence they and their world were fair prey, and had been attacked and subjugated.

Of course, proof of inhumanity was seldom a problem. Most alien life forms were obviously alien. But there were a few -- like the Lani--where similarities were so close that it was impossible to determine their status on the basis of morphology alone. And so the Humanity Test had come into being.

Essentially it was based upon species compatibility -- on the concept that like can interbreed with like. Tests conducted on every inhabited world in the Brotherhood had proven this conclusively. Whatever changes had taken place in the somatic characteristics of mankind since the Exodus, they had not altered the compatibility of human germ plasm. Man could interbreed with man - aliens could not. The test was simple. The results were observable. And what was more important, everyone could understand it. No definition of humanity could be more simple or direct.

But was it accurate?

Like other Betans, Kennon wondered. It was -- so far - probably. The qualifying phrases were those of the scientist, that strange breed that refuses to accept anything as an established fact until it is proven beyond a shadow of a doubt. After all, the human race had been spaceborne for only six thousand years -- scarcely time for any real differences to develop. But physical changes had already appeared -- and it would only be a question of time before these would probably be followed by genetic changes. And in some groups the changes might be extensive enough to make them genetic strangers to the rest of humanity.

What would happen then? No one knew. Actually no one bothered to think about it except for a few far-seeing men who worried as they saw.

Probably.
Might.
Possibly.
If.

Four words. But because of them the Betans were slowly withdrawing from the rest of humanity. Already the radiations of Beta's variant-G sun had produced changes in the population. Little things like tougher epidermis and depilation of body hair -- little things that held alarming implications to Beta's scientists, and to Beta's people. Not too many generations hence a Betan outside his home system would be a rarity, and in a few millennia the Betan system itself would be a closed enclave peopled by humans who had deviated too far from the basic stock to mingle with it in safety.

Of course, the Brotherhood itself might be changed by that time, but there was no assurance that this would happen. And mankind had a history of dealing harshly with its mutants. So Beta would play it safe.

Kennon wondered if there were other worlds in the Brotherhood that had come to the same conclusion. Possibly there were. And possibly there were worlds where marked deviations had occurred. There wasn't a year that passed that didn't bring some new human world into the Brotherhood, and many of these had developed from that cultural explosion during the First Millennium known as the Exodus, where small groups of colonists in inadequate ships set out for unannounced goals to homestead new worlds for man. Some of these survived, and many were being discovered even at this late date. But so far none had any difficulty in proving their human origin.

The Lani, conceivably, could have been descendants of one of these groups, which probably explained the extreme care the Brotherhood courts had taken with their case. But they had failed the test, and were declared
animals. Yet it was possible that they had mutated beyond genetic compatibility. If they had, and if it were proved, here was a test case that could rock the galaxy -- that could shake the Brotherhood to its very foundations -- that could force a re-evaluation of the criteria of humanity.

Kennon grinned. He was a fine employee. Here he was, less than a full day on the job, dreaming how he could ruin his employer, shake the foundation of human civilization, and force ten thousand billion humans to change their comfortable habit patterns and their belief in the unchangeable sameness of men. He was, he reflected wryly, an incurable romantic.

CHAPTER VIII

"Wake up, Doctor, it's six A.M." A pleasant voice cut through Kennon's slumber. He opened one eye and looked at the room. For a moment the strange surroundings bothered him, then memory took over. He stirred uncomfortably, looking for the owner of the voice.

"You have your morning calls at seven, and there's a full day ahead," the voice went on. "I'm sorry, sir, but you should get up." The voice didn't sound particularly sorry.

It was behind him, Kennon decided. He rolled over with a groan of protest and looked at his tormentor. A gasp of dismay left his lips, for standing beside the bed, a half smile on her pointed face, was Copper -- looking fresh and alert and as disturbing as ever.

It wasn't right, Kennon thought bitterly, to be awakened from a sound sleep by a naked humanoid who looked too human for comfort. "What are you doing here?" he demanded.

"I'm supposed to be here," Copper said. "I'm your secretary." She grinned and flexed a few curves of her torso. Kennon was silent.

"Is there anything wrong?" she asked.

For a moment Kennon was tempted to tell her what was wrong -- but he held his tongue. She probably wouldn't understand. But there was one thing he'd better settle right now. "Now look here, young lady--" he began.

"I'm not a lady," Copper interrupted before he could continue. "Ladies are human. I'm a Lani."

"All right," Kennon growled. "Lani or human, who cares? But do you have to break into a man's bedroom and wake him in the middle of the night?"

"I didn't break in," she said, "and it isn't the middle of the night. It's morning."

"All right -- so it's morning and you didn't break in. Then how in Halstead's sacred name did you get here?"

"I sleep next door," she said jerking a thumb in the direction of an open door in the side wall. "I've been there ever since you dismissed me last night," she explained.

The explanation left Kennon cold. The old cliche about doing as the Santosians do flicked through his mind. Well, perhaps he would in time -- but not yet. The habits of a lifetime couldn't be overturned overnight. "Now you have awakened me," he said, "perhaps you'll get out of here."

"Why?"

"I want to get dressed."

"I'll help you."

"You will not! I'm perfectly capable of taking care of myself. I've been dressing myself for years. I'm not used to people helping me."

"My -- what a strange world you must come from. Haven't you ever had a Lani before?"

"No."

"You poor man." Her voice was curiously pitying. "No one to make you feel like the gods. No one to serve you. No one to even scrub your back."

"That's enough," Kennon said. "I can scrub my own back."

"How? -- you can't reach it."

Kennon groaned.

"Weren't there any Lani on your world?"

"No."

"No wonder you left it. It must be quite primitive."

"Primitive!" Kennon's voice was outraged. "Beta has one of the highest civilizations in the Brotherhood!"

"But you don't have Lani," she said patiently. "So you must be primitive."

"Halstead, Fleming, and Ochsner!" Kennon swore. "Do you believe that?"

"Naturally, isn't it obvious? You can't possibly be civilized unless you take responsibility for intelligent life other than your own race. Until you face up to your responsibilities you are merely a member of a dominant race, not a civilized one."

Kennon's reply caught in his throat. His eyes widened as he looked at her, and what he was about to say remained unspoken. "Out of the mouths of humanoids--" he muttered oddly.
"What does that mean?" Copper asked.

"Forget it," Kennon said wildly. "Leave me alone. Go put on some clothes. You embarrass me."

"I'll go," Copper said, "but you'll have to be embarrassed. Only household Lani wear cloth." She frowned, two vertical furrows dividing her dark brows. "I've never understood why inhouse Lani have to be disfigured that way, but I suppose there's some reason for it. Men seldom do anything without a reason."

Kennon shook his head. Either she was grossly ignorant, which he doubted, or she was conditioned to the eyeballs.

The latter was more probable. But even that was doubtful. Her trenchant remark about civilization wasn't the product of a conditioned mind. But why was he worrying about her attitudes? They weren't important -- she wasn't even human. He shook his head. That was a sophistry. The fact that she wasn't human had nothing to do with the importance of her attitude. "I suppose there is a reason," he agreed. "But I don't know it. I haven't been here long enough to know anything about such things."

She nodded. "That does make a difference," she admitted. "Many new men are bothered at first by the fact that we Lani are naked, but they adjust quickly. So will you." She smiled as she turned away. "You see," she added over her shoulder as she left the room, "we're not human. We're just another of your domestic animals."

Was there laughter in her voice? Kennon wasn't sure. His sigh was composed of equal parts of relief and exasperation as he slipped out of bed and began to dress. He'd forgo the shower this morning. He had no desire for Copper to appear and offer to scrub his back. In his present state of mind he couldn't take it. Possibly he'd get used to it in time. Perhaps he might even like it. But right now he wasn't acclimatized.

* * *

"Man Blalok called," Copper said as she removed the breakfast dishes. "He said that he'd be right over to pick you up. He wants to show you the operation."

"When did he call?"

"About ten minutes ago. I told him that you were at breakfast. He said he'd wait." She disappeared in the direction of the kitchen.

"There's a nightmare quality to this," Kennon muttered as he slipped his arms into the sleeves of his tunic and closed the seam tabs. "I have the feeling that I'm going to wake up any minute." He looked at his reflection in the dresser mirror, and his reflection looked worriedly back. "This whole thing has an air of plausible unreality: the advertisement, the contract, this impossible island that raises humanoids as part of the livestock." He shrugged and his mirrored image shrugged back. "But it's real, all right. No dream could possibly be this detailed. I wonder how I'm going to take it for the next five years? Probably not too well," he mused silently. "Already I'm talking to myself. Without even trying, that Lani Copper can make me feel like a Sarkian." He nodded at his image.

The Sarkian analogy was almost perfect, he decided. For on that grimly backward world females were as close to slaves as the Brotherhood would permit; raised from birth under an iron regimen designed to produce complaisant mates for the dominant males. Probably that was the reason Sark was so backward. The men, having achieved domestic tranquillity, had no desire to do anything that would disturb the status quo. And since no Sarkian woman under any conceivable circumstances would annoy her lordly master with demands to produce better mousetraps, household gadgetry, and more money, the technological development of Sark had come to a virtual standstill. It took two sexes to develop a civilization.

Kennon shrugged. Worlds developed as they did because people were as they were, and while passing judgment was still a major human pursuit, no native of one world had a right to force his customs down the unwilling throat of another. It would be better to accept his present situation and live with it rather than trying to impose his Betan conception of morality upon Lani that neither understood nor appreciated it. His business was to treat and prevent animal disease. What happened to the animals before infection or after recovery was none of his affair. That was a matter between Alexander and his conscience.

Blalok was waiting for him, sitting behind the wheel of a square boxy vehicle that squatted with an air of unpolished efficiency on the graveled drive behind his house. He smiled a quick greeting as Kennon approached. "It's about time you showed up," he said. "You'll have to get into the habit of rising early on this place. We do most of our work early in the morning and late in the afternoon. During the day it's too hot to breathe, let alone work. Well, let's get going. There's still time to visit the outer stations."

Kennon climbed in and Blalok started the vehicle. "I thought we'd take a jeep today," he said. "They aren't very pretty, but they get around." He turned onto the surfaced road that ran down the hill toward the hospital and the complex of red-roofed buildings clustered about it. "About those flukes," he said. "You have any plans to get rid of them?"

"Not yet. I'll have to look the place over. There's more detective work than medicine involved in this."

"Detective work?"
"Sure -- we know the criminal, but to squelch him we have to learn his hangouts, study his modus operandi, and learn how to make his victims secure from his activities. Unless we do that, we can treat individuals from now to infinity and all we'll have is more cases. We have to apply modern criminology tactics -- eliminate the source of crime -- stop up the soft spots. In other words, kill the flukes before they enter the Lani."

"Old Doc never said anything about this," Blalok said.

"Probably he never knew about it. I was looking over the herd books last night, and I saw nothing about trematodes, or anything that looked like a parasite pattern until the last few months."

"Why not?"

"My guess is that he was one of the first deaths."

"You mean this thing attacks human beings?"

"Preferentially," Kennon said. "It's strange, too, because it originated on Santos so far as we know. In fact, some people think that the Varl bred it for a weapon to use against us before we conquered them. They could have done it. Their biological science was of a high enough order."

"But how did it get here?"

"I wouldn't know--unless you've hired a Santosian or someone else who was affected."

"We did have a man from Santos. Fellow called Joe Kryla. We had to let him go because he was a nudist. It made a bad impression on the Lani. But that was over a year ago."

"That's about the right time to build up a good reservoir of infection. The fatal cases usually don't show up before an area is pretty well seeded."

"That's not so good."

"Well, there's one thing in our favor. The Lani are pretty well concentrated into groups. And so far there doesn't seem to be any infestation outside of Hillside Station - except for two deaths in Lani recently sent from there. If we quarantine those stations and work fast, may be we can stop this before it spreads all over the island."

"That's fine, but what are you going to do now?"

"Treat those that show symptoms. There should be some Trematox capsules at the hospital. If there aren't we'll get them. We'll take the sick ones back to the hospital area and push therapy and supportive treatment. Now that we know the cause, we shouldn't have any more death losses."

"Old Doc didn't treat at the hospital," Blalok said.

"I'm not Old Doc."

"But it's going to mess up our operations. We're using the ward buildings to finish training the Lani scheduled for market."

"Why?"

"It's convenient. Most of the ward space is filled right now." Blalok said. There was a touch of disgust in his voice.

"They're well, aren't they?" Kennon demanded.

"Of course."

"Then get them out of there."

"But I told you--"

"You told me nothing. The hospital area is needed for something more than a training center. Perhaps Old Doc was trained in outcall work, but I'm not. I work from a hospital. The only things I do on outcalls are diagnoses, vaccinations, and emergencies. The rest of the patients come to the hospital."

"This isn't going to set well with Jordan and the division chiefs."

"That's not my concern," Kennon said. "I run my business in the best way possible. The patients are of more concern than the personal comfort of any straw boss or administrator. You're the administrator -- you calm them down."

"You have the authority," Blalok admitted. "But my advice to you is to go slow."

"I can't," Kennon said. "Not if we want to prevent any more losses. There simply won't be time to run all over the island dosing with Trematox and taking temperatures, and while that sort of thing is routine, it should be supervised. Besides, you'll see the advantages of this method. Soon enough."

"I hope so," Blalok said as he braked the jeep to a stop in front of the hospital. "I suppose you'll want to take some things along."

"So I will," Kennon said. "I'll be back in a minute."

"Plan on taking them?" Blalok said, jerking a thumb at the two Lani.

The minute stretched to nearly ten before Kennon returned followed by two Lani carrying bags which they loaded into the back of the jeep. "I had to reorganize a little," Kennon apologized, "some things were unfamiliar."

"Sure -- we know the criminal, but to squelch him we have to learn his hangouts, study his modus operandi, and learn how to make his victims secure from his activities. Unless we do that, we can treat individuals from now to infinity and all we'll have is more cases. We have to apply modern criminology tactics -- eliminate the source of crime -- stop up the soft spots. In other words, kill the flukes before they enter the Lani."

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"So I will," Kennon said. "I'll be back in a minute."

"Plan on taking them?" Blalok said, jerking a thumb at the two Lani.
"Not this time. I'm having them fit up an ambulance. They should be busy most of the day."

Blalok grunted and started the turbine. He moved a lever and the jeep floated off the ground.

"An airboat too," Kennon remarked. "I wondered why this rig was so boxy."

"It's a multipurpose vehicle," Blalok said. "We need them around here for fast transport. Most of the roads aren't so good." He engaged the drive and the jeep began to move. "We'll go cross country," he said. "Hillside's pretty far out -- the farthest station since we abandoned Olympus."

The air began whistling past the boxlike body of the jeep as Blalok increased the power to the drive and set the machine on automatic. "We'll get a pretty good cross-section of our operations on this trip," he said over the whine of the turbine. "Look down there."

They were passing across a series of fenced pastures and Kennon was impressed. The size of this operation was beginning to sink in. It hadn't looked so big from the substratosphere in Alexander's ship, but down here close to the ground it was enormous. Fields of grain, wide orchards, extensive gardens. Once they were forced to detour a huge supply boat that rose heavily in front of them. Working in the fields were dozens of brown-skinned Lani who paused to look up and wave as the jeep sped by. Occasional clusters of farm buildings and the low barrackslike stations appeared and disappeared behind them.

"There's about twenty Lani at each of these stations," Blalok said, "They work the farm area under the direction of the stationmaster."

"He's a farmer?"

"Of course. Usually he's a graduate of an agricultural school, but we have a few who are descendants of the crew of the first Alexander, and there's one old codger who was actually with him during the conquest. Most of our stationmasters are family men. We feel that a wife and children add to a man's stability -- and incidentally keep him from fooling around with the Lani."

A series of fenced pastures containing hundreds of huge grayish-white quadrupeds slipped past.

"Cattle?" Kennon asked.

"Yes - Earth strain. That's why they're so big. We also have sheep and swine, but you won't see them on this run."

"Any native animals?"

"A few - and some which are native to other worlds. But they're luxury-trade items. The big sale items are beef, pork, and mutton." Blalok chuckled. "Did you think that the Lani were our principal export?"

Kennon nodded.

"They're only a drop in the bucket. Agriculture -- Earth-style agriculture -- is our main source of income. The Lani are valuable principally to keep down the cost of overhead. Virtually all of them work right here on the island. We don't sell more than a hundred a year less than five per cent of our total. And those are surplus -- too light or too delicate for farm work."

"Where do you find a market for all this produce?" Kennon asked.

"There's two hundred million people here, and quite a few billion more in space-train range. We can produce more cheaply than any competitor, and we can undersell any competition, even full automation." Blalok chuckled.

"There are some things that a computer can't do as well as a human being, and one of them is farm the foods on which humanity is accustomed to feed. A man'll pay two credits for a steak. He could get a Chlorella substitute for half a credit, but he'll still buy the steak if he can afford it. Same thing goes for fruit, vegetables, grain, and garden truck. Man's eating habits have only changed from necessity. Those who can pay will still pay well for natural foods." Blalok chuckled. "We've put quite a dent in the algae and synthetics operations in this sector."

"It's still a luxury trade," Kennon said.

"You've eaten synthetic," Blalok replied. "What do you prefer?"

Kennon had to agree that Blalok was right. He, too, liked the real thing far better than its imitations.

"If it's this profitable, then why sell Lani?" Kennon asked.

"It's the Family's idea. Actually -- since the export type is surplus it does us no harm. We keep enough for servants -- and the others would be inefficient for most farm work. So disposal by sale is a logical and profitable way of culling. But now the Boss-man is being pressured into breeding an export type. And this I don't like. It's too commercial. Smells like slavery."

"You're a Mystic, aren't you?" Kennon asked.

"Sure -- but that doesn't mean I like slavery. Oh, I know some of those fatheaded Brotherhood economists call our system economic slavery -- and I'll admit that it's pretty hard to crack out of a spherical trust. But that doesn't mean that we have to stay where we are. Mystics aren't owned by their entrepreneurs. Sure, it's a tough haul to beat the boss, but it can be done. I did it, and others do it all the time. The situation isn't hopeless."

"But it is with the Lani," Kennon added.
"Of course. That's why they should be protected. What chance does a Lani have? Without us they can't even keep going as a race. They're technological morons. They don't live long enough to understand modern civilization. To turn those poor helpless humanoids out into human society would be criminal. It's our duty to protect them even while we're using them."

"Man's burden?" Kennon said, repeating the old cliche.

"Exactly." Blalok scowled. "I wish I had guts enough to give the Boss-man the facts -- but I can't get nerve enough to try. I've a good job here -- a wife and two kids -- and I don't want to jeopardize my future." Blalok glanced over the side. "Well, here we are," he said, and began descending into the center of a spokelike mass of buildings radiating outward from a central hub.

"Hmm -- big place," Kennon murmured.

"It should be," Blalok replied. "It furnishes all of our Lani for replacement and export. It can turn out over a thousand a year at full capacity. Of course we don't run at that rate, or Flora would be overpopulated. But this is a big layout, like you said. It can maintain a population of at least forty thousand. Old Alexander had big ideas."

"I wonder what he planned to do with them?" Kennon said.

"I wouldn't know. The Old Man never took anyone into his confidence."

Jordan came up as the jeep settled to the ground. "Been expecting you for the past half hour," he said. "Your office said you were on your way. -- Good to see you, too, Doc. I've been going over the records with Hank Allworth - the stationmaster here." Jordan held out his hand.

"You're an Earthman, eh?" Kennon asked as he grasped the outstretched hand. The gesture was as old as man, its ritualistic meaning lost in antiquity.

"No -- Marsborn -- a neighbor world," Jordan said. "But our customs and Earth's are the same."

"You're a long way from home," Kennon said.

"No farther than you, Doc." Jordan looked uncomfortable. "But we can compare origins later. Right now, you'd better come into the office. I've run across something peculiar."

CHAPTER IX

"There are twelve bays to this station," Jordan said. "Under our present setup two are used for breeding and the other ten for maturation. We rotate the youngsters around the bay -- a different bay each year until they're age eleven. Then they're sorted according to type and sent out for a year of further specialized training after which they go onto the farms, or to inhouse or export.

"Now here's the peculiar part. There's no trouble in Bays One through Nine, but Bay Ten has had all our losses except two that have occurred at the training stations."

"That's good news," Kennon said. "Our parasite can't have had time to migrate too far. We have him pinpointed unless -- say how many training centers are there?"

"Three," Jordan said.

"Quarantine them," Kennon replied. "Right now. Nothing goes in or out until we've checked them and completed prophylaxis."

Jordan looked at Blalok inquiringly.

"He's the boss," Blalok said. "Do as you're told. This is his problem."

"Why the quarantine?" Jordan asked.

"I want to get any carriers. We can check them with antigen, and then give Trematox."

"All that concentration in Bay Ten," Jordan said. "Does it mean something?"

"Blalok said that there was a Santosian in your division."

"Yeah - Joe Kryla - and come to think of it, he ran Bay Ten!"

"That's a help - now let's see what makes that bay different from the others."

"Why?"

"I'll tell you--but you may not understand," Kennon said.

"I'll take a chance."

Kennon grinned. "All right, you asked for it. The parasite that's doing the damage is a flatworm, a trematode called Hepatodirus hominis. As I've told Blalok, it's a tricky thing. Like all trematodes it has a three-stage life cycle, but unlike every other fluke, its life cycle is not fixed to definite intermediate hosts. Depending upon where it is, the fluke adapts. It still must pass through its life cycle, but its intermediate host need not be one species of snail, fish, or copepod. Any cold-blooded host will do. What you have here is a Kardonian variant which has adapted to some particular intermediate host on this world. Until now, its final host was either man or Varl. Now we have a third, the Lani. And apparently they are the most susceptible of the three. It never kills Varl. And humans, while they're more susceptible, only occasionally succumb, but the Lani appear to be the most susceptible of all. I've never seen an infestation like those Lani had. Their livers were literally crawling with flukes." Kennon paused and looked at
Jordan. "You following me?" he asked.
"Slowly and poorly," Jordan said. "You're assuming too much knowledge on my part."
Kennon chuckled. "You can't say I didn't warn you."
"Well -- I'm really interested in only one thing - how do you break the parasite up in business?"
"There's only one sure way -- and that's to break the life cycle. The technique is thousands of years old, but it's just as good today as it was then."
"Good -- then let's do it."
"To make a varrit stew," Kennon said, "one must first catch the varrit."
"Huh?"
"We have to learn the beastie's life cycle before we can break it, and like I said, it adapts. Its intermediate host can be any one of a hundred cold-blooded animals."
"Is there no place else where it can be attacked?"
"Sure, in the body of the final host, or on its final encysting place. But that won't eliminate the bug."
"Why not?"
"It'll still survive in its infective form and enough Lani will get subacute dosage to propagate it until the time is right for another epizootic. We have to kill its intermediate host -- or hosts if it has more than one. That will keep it from growing and will ultimately eradicate it."

Judson scratched his head. "It sounds complicated,"
"It is. It's so complicated that once the fluke becomes well established it's virtually impossible to eradicate."
"And you think it can be done here?"
"We can give it the old college try. But it's going to take some detective work."
"Where do we start?"
"With Bay Ten. We look it over real well. Then we check the diet and habits of the Lani. Then we check each individual Lani. Then we check the life cycle of the parasite. Somewhere along the line if we're lucky we'll find a weak point that can be attacked."
"That's a big order," Blalok said.
"It can't be helped. That's the way it is. Of course, we're lucky that we're on an isolated land mass. That gives us an advantage. We should be able to clean this up."
"How long do you think it will take?"
"It depends on how well the fluke is established. Six months at the minimum -- and I wouldn't care to guess at the maximum. However, I hope the minimum will be time enough."
"So do I," Blalok said.
"Well," Kennon said, "let's get on with it."
"I hope it won't interrupt our program," Jordan said.
"Of course it will interrupt it," Kennon replied. "It can't help it. Get the idea in your head that you're facing something here that can cripple you -- maybe abort your whole operation. You have a choice -- interrupt now or abort later. And half measures won't work. To eradicate this pest requires an all-out effort."
"But I can't see why we can't merely bypass Bay Ten--" Jordan said.
"Take my word for it," Kennon said. "You can't. There's no accurate way of telling how far this spreads until the death losses occur. Our tests for fluke infestation aren't that good. We have to work thoroughly and carefully. We can't be butting heads over this -- either we all co-operate or this whole operation will blow up in our faces."
"Look at the record. Six months ago you ended a year with no deaths from disease. Five months ago Old Doc and two Lani were ill. Four months ago one of the two Lani was dead and Old Doc was too ill to be effective. Three months ago Old Doc and the other Lani were dead, and before the end of the month two more followed them. Two months ago six died, last month eight, and so far this month you've lost four and you have over two weeks to go. Up to now they've all been from here, but two this month were at other stations. In six months if nothing is done, we'll be having losses there unless we're lucky. And the losses will keep on increasing. Apparently you don't know what it is to live with parasites - so let me tell you. It isn't pleasant!"
Blalok shrugged. "You needn't get hot about it," he said. "After all, you're the Doc -- and we'll co-operate."
Jordan nodded. "We will," he said. "All the way."

CHAPTER X
There is a special providence that looks over recent veterinary graduates, Kennon reflected as he checked the monthly reports from the Stations. Since the time he had laid down the law to Judson and Blalok, he had had no trouble from the production staff. And for the past four months there had been no further trouble with Hepatodirus. That unwanted visitor had apparently been evicted. At that, they had been lucky. The parasite had been concentrated at Hillside Station and had failed to establish itself in the training area. The intermediate host, it had turned out, was
a small amphibian that was susceptible to commercial insecticide. It had been no trouble to eradicate. Systemic treatment and cooking of all food had cleaned up the infective cercaria and individual infections, and after six months of intensive search, quarantine, and investigation, Kennon was morally certain that the disease had been eradicated. The last four reports confirmed his belief.

He sighed as he leaned back in his chair. Blalok was at last convinced that his ideas were right. The hospital was operating as a hospital should, with a staff of twelve Lani kept busy checking the full wards. Actually, it was working better than it should, since stationmasters all over the island were now shipping in sick animals rather than treating them or requesting outpatient service.

"Hi, Doc," Blalok said as he pushed the door open and looked into the office. "You doing anything?"
"Not at the moment," Kennon said. "Something troubling you?"
"No -- just thought I'd drop in for a moment and congratulate you."
"For what?"
"For surviving the first year."
"That won't be for two months yet."
Blalok shook his head. "This is Kardon," he said. "There's only three hundred and two days in our year, ten thirty-day months and two special days at the year's end."
Kennon shrugged. "My contract is Galactic Standard. I still have two months to go. But how come the ten-month year? Most other planets have twelve, regardless of the number of days."
"Old Alexander liked thirty-day months."
"I've wondered about that."
"You'll find a lot more peculiar things about Flora when you get to know her better. This year has just been a breaking-in period."
Kennon chuckled. "It's damn near broken me," he admitted. "You know, I thought that the Lani'd be my principal practice when I came here."
"You didn't figure that right. They're the easiest part. They're intelligent and co-operative."
"Which is more than one can say about the others." Kennon wiped the sweat from his face. "What with this infernal heat and their eternal stubbornness, I've nearly been driven crazy."
"You shouldn't have laid out that vaccination program."
"I had to. Your hog business was living mostly on luck, and the sheep and shrikes were almost as bad. You can't get away from soil saprophytes no matter how clean you are. Under a pasture setup there's always a chance of contamination. And that old cliche about an ounce of prevention is truer of livestock raising than anything else I can think of."
"I have some more good news for you," Blalok said. "That's why I came over. We're going to have another species to treat and vaccinate."
Kennon groaned. "Now what?"
"Poultry." Blalok's voice was disgusted. "Personally I think it's a mess, but Alexander thinks it's profitable. Someone's told him that pound for pound chickens are the most efficient feed converters of all the domestic animals. So we're getting a pilot plant: eggs, incubator, and a knocked-down broiler battery so we can try the idea out. The Boss-man is always hot on new ideas to increase efficiency and production. The only trouble is that he fails to consider the work involved in setting up another operation."
"You're so right. I'll have to brush up on pullorum, ornithosis, coccidiosis, leukosis, perosis, and Ochsner knows how many other -osises and -itises. I was never too strong on fowl practice in school, and I'd be happier if I never had anything to do with them."
"So would I," Blalok agreed. "I can't see anything in this but trouble."
Kennon nodded.
"And he's forgotten something else," Blalok added. "Poultry need concentrated feed. We're going to have to install a feed mill."
Kennon chuckled. "I hope he'll appreciate the bill he gets."
"He thinks we can use local labor," Blalok said gloomily. "I wish he'd realize that Lani are technological morons."
"They could learn."
"I suppose so -- but it isn't easy. And besides, Allworth is the only man with feed-mill experience, and he's up to his ears with Hillside Station since that expansion order came in."
"I never did get the reason for that. After we complained about the slavery implications and got the Boss-man's okay to hold the line, why do we need more Lani?"
"Didn't you know? His sister's finally decided to try marriage. Found herself some overmuscled Halsite who
looked good to her -- but she couldn't crack his moral barrier.” Blalok grinned. "I thought you'd be the first to know. Wasn't she interested in you?"

Kennon chuckled. "You could call it that. Interested -- like the way a dog's interested in a beefsteak. It's a good thing we had that fluke problem or I'd have been chewed up and digested long ago. That woman frightens me."

"I could be scared by uglier things," Blalok said. "With the Boss-man's sister on my side I wouldn't worry."

"What makes you think she'd be on my side? She's a cannibal."

"Well, you know her better than I do."

He did -- he certainly did. That first month had been one of the worst he had ever spent, Kennon reflected. Between Eloise and the flukes, he had nearly collapsed -- and when it had come to the final showdown, he thought for a while that he'd be looking for another job. But Alexander had been more than passably understanding and had refused his sister's passionate pleas for a Betan scalp. He owed a debt of gratitude to the Boss-man.

"You're lucky you never knew her," Kennon said.

"That all depends on what you mean," Blalok said as he grinned and walked to the door. The parting shot missed its mark entirely as Kennon looked at him with blank incomprehension. "You should have been a Mystic," Blalok said. "A knowledge of the sacred books would do you no end of good." And with that cryptic remark the superintendent vanished.

"That had all the elements of a snide remark," Kennon murmured to himself, "but my education's been neglected somewhere along the line. I don't get it." He shrugged and buzzed for Copper. The veterinary report would have to be added to the pile already before him, and the Boss-man liked to have his reports on time.

Copper watched Kennon as he dictated the covering letter, her slim fingers dancing over the stenotype. He had been here a full year -- but instead of becoming a familiar object, he had grown so gigantic that he filled her world. And it wasn't merely because he was young and beautiful. He was kind, too.

Yet she couldn't approach him, and she wanted to so desperately that it was a physical pain. Other Lani had told her about men and what they could do. Even her old preceptress at Hillside Station had given her some advice when Man Allworth had tattooed the tiny V on her thigh that meant she had been selected for the veterinary staff. And when Old Doc had brought her from the Training Station to the hospital and removed her tail, she was certain that she was one of the lucky ones who would know love.

But love wasn't a pain in the chest, an ache in the belly and thighs, an unfulfilled longing that destroyed sleep and made food tasteless. Love was supposed to be pleasant and exciting. She could remember every word her preceptress had spoken.

"My little one," the old Lani had said, "you now wear the doctor's mark. And soon no one will be able to tell you from a human. You will look like our masters. You will share in their work. And there may be times when you will find favor in their eyes. Then you may learn of love."

"Love," the old voice was soft in Copper's ears. "The word is almost a stranger to us now, known only to the few who serve our masters. It was not always so. The Old Ones knew love before Man Alexander came. And our young were the fruit of love rather than the product of our masters' cunning. But you may know the flower even though you cannot bear its fruit. You may enter that world of pleasure-pain the Old Ones knew, that world which is now denied us.

"But remember always that you are a Lani. A man may be kind to you. He may treat you gently. He may show you love. Yet you never will be his equal. Nor must you become too attached to him, for you are not human. You are not his natural mate. You cannot bear his young. You cannot completely share. You can only accept.

"So if love should come to you, take it and enjoy it, but do not try to possess it. For there lies heartache rather than happiness. And it is a world of heartache, my little one, to long for something which you cannot have."

To long for something which one cannot have! Copper knew that feeling. It had been with her ever since Kennon had come into her life that night a year ago. And it had grown until it had become gigantic. He was kind -- yes. He was harsh -- occasionally. Yet he had shown her no more affection than he would have shown a dog. Less -- for he would have petted a dog and he did not touch her.

He laughed, but she was not a part of his laughter. He needed her, but the need was that of a builder for a tool. He liked her and sometimes shared his problems and triumphs with her, and sometimes his defeats, but he did not love. There had never been for her the bright fierce look he had bent upon the Woman Eloise those times when she had come to him, the look men gave to those who found favor in their eyes.

Had he looked at her but once with that expression she would have come to him though fire barred the way. The Woman Eloise was a fool.

Copper looked at him across the corner of the desk, the yellow hair, the bronze skin, firm chin, soft lips and long straight nose, the narrowed eyes, hooded beneath thick brows, scanning the papers in his lean-tendoned hands. His nearness was an ache in her body -- yet he was far away.
She thought of how his hands would feel upon her. He had touched her once, and that touch had burned like hot iron. For hours she had felt it. He looked up. Her heart choked her with its beating. She would die for him if he would but once run his fingers over her tingling skin, and stroke her hair.

The naked emotion in Copper's face was readable enough, Kennon thought. One didn't need Sorovkin techniques to interpret what was in her mind. And it would have been amusing if it weren't so sad. For what she wanted, he couldn't give. Yet if she were human it would be easy. A hundred generations of Betan moral code said "never," yet when he looked at her their voices faded. He was a man -- a member of the ruling race. She was an animal -- a beast -- a humanoid -- near human but not near enough. To like her was easy - but to love her was impossible. It would be bestiality. Yet his body, less discerning than his mind, responded to her nearness.

He sighed. It was a pleasant unpleasantness, a mixed emotion he could not analyze. In a way it was poetry -- the fierce, vaguely disquieting poetry of the sensual Santosian bards - the lyrics that sung of the joys of flesh. He had never really liked them, yet they filled him with a vague longing, an odd uneasiness -- just the sort that filled him now. There was a deadly parallel here. He sighed.

"Yes, sir? Do you want something?" Copper asked.

"I could use a cup of coffee," he said. "These reports are getting me down." The banality amused him -- sitting here thinking of Copper and talking about coffee. Banality was at once the curse and the saving grace of mankind. It kept men from the emotional peaks and valleys that could destroy them. He chuckled shakily. The only alternative would be to get rid of her -- and he couldn't (or wouldn't? -- the question intruded slyly) do that.

Copper returned with a steaming cup which she set before him. Truly, this coffee was a man's drink. She had tried it once but the hot bitterness scalded her mouth and flooded her body with its heat. And she had felt so lightheaded. Not like herself at all. It wasn't a drink for Lani. Of that she was certain.

Yet he enjoyed it. He looked at her and smiled. He was pleased with her. Perhaps -- yet -- she might find favor in his eyes. The hope was always there within her -- a hope that was at once fear and prayer. And if she did -- she would know what to do.

Kennon looked up. Copper's face was convulsed with a bright mixture of hope and pain. Never, he swore, had he seen anything more beautiful or sad. Involuntarily he placed his hand upon her arm. She flinched, her muscles tensing under his finger tips. It was though his fingers carried a galvanic current that backlashed up his arm even as it stiffened hers.

"What's the matter, Copper?" he asked softly.

"Nothing, Doctor. I'm just upset."

"Why?"

There it was again, the calm friendly curiosity that was worse than a bath in ice water. Her heart sank. She shivered. She would never find her desire here. He was cold -- cold- cold! He wouldn't see. He didn't care. All right - - so that was how it had to be. But first she would tell him. Then he could do with her as he wished. "I hoped -- for the past year that you would see me. That you would think of me not as a Lani, but as a beloved." The words came faster now, tumbling over one another. "That you would desire me and take me to those worlds we cannot know unless you humans show us. I have hoped so much, but I suppose it's wrong - for you -- you are so very human, and I -- well, I'm not!" The last three words held all the sadness and the longing of mankind aspiring to be God.

"My dear -- my poor child," Kennon murmured.

She looked at him, but her eyes could not focus on his face, for his hands were on her shoulders and the nearness of him drove the breath from her body. From a distance she heard a hard tight voice that was her own. "Oh, sir -- oh please, sir!"

The hands withdrew, leaving emptiness -- but her heartbeat slowed and the pink haze cleared and she could see his face.

And with a surge of terror and triumph she realized what she saw! That hard bright look that encompassed and possessed her! The curved lips drawn over white, white teeth! The flared nostrils! The hungry demand upon his face that answered the demand in her heart! And she knew -- at last - with a knowledge that turned her limbs to water, that she had found favor in his eyes!

CHAPTER XI

Mixed emotion! Ha! The author of that cliche didn't even know its meaning! Kennon strode furiously down the dusty road toward Station One trying to sublimate his inner conflict into action. It was useless, of course, for once he stopped moving the grim tug-of-war between training and desire would begin again, and no matter how it ended the result would be unsatisfactory. As long as he had been able to delude himself that he was fond of Copper the way a man is fond of some lesser species, it had been all right. But he knew now that he was fond of her as a man is of a woman -- and it was hell! For no rationalization in the universe would allow him to define her as human. Copper was humanoid -- something like human. And to live with her and love her would not be miscegenation, which was
bad enough, but bestiality which was a thousand times worse.

Although throughout most of the Brotherhood miscegenation was an unknown word, and even bestiality had become a loose definition on many worlds with humanoid populations, the words had definite meaning and moral force to a Betan. And -- God help him -- he was a Betan. A lifetime of training in a moral code that frowned upon mixed marriages and shrank appalled from even the thought of mixing species was nothing to bring face to face with the fact that he loved Copper.

It was odd, Kennon reflected bitterly, that humans could do with animals what their customs and codes prohibited them from doing to themselves. For thousands of years - back to the very dawn of history when men had bred horses and asses to produce mules -- men had been mixing species to produce useful hybrids. Yet a Betan who could hybridize plants or animals with complete equanimity shrank with horror from the thought of applying the same technique to himself.

What was there about a human being that was so sacrosanct? He shook his head angrily. He didn't know. There was no answer. But the idea -- the belief -- was there, ingrained into his attitudes, a part of his outlook, built carefully block by block from infancy until it now towered into a mighty wall that barred him from doing what he wished to do.

It would be an easier hurdle if he had been born anywhere except on Beta. In the rest of the Brotherhood, the color of a man's skin, the shape of his face, the quality and color of his hair and eyes made no difference. All men were brothers. But on Beta, where a variant-G sun had already caused genetic divergence, the brotherhood of man was a term that was merely given lip service. Betans were different and from birth they were taught to accept the difference and to live with it. Mixing of Betan stock with other human species, while not actually forbidden, was so encircled with conditioning that it was a rare Betan indeed who would risk self-opprobrium and the contempt of his fellows to mate with an outsider. And as for humanoids -- Kennon shuddered. He couldn't break the attitudes of a lifetime. Yet he loved Copper.

And she knew he did!

And that was an even greater horror. He had fled from the office, from the glad light in her eyes, as a burned child flees fire. He needed time to think, time to plan. Yet his body and his surface thoughts wanted no plans or time. Living with a Lani wasn't frowned upon on Flora. Many of the staff did, nor did anyone seem to think less of them for doing so. Even Alexander himself had half-confessed to a more than platonic affection for a Lani called Susy.

Yet this was no excuse, nor would it silence the cold still voice in his mind that kept repeating sodomite -- sodomite -- sodomite with a passionless inflection that was even more terrible than anger.

The five kilometers to Station One disappeared unnoticed beneath his feet as he walked, and he looked up in surprise to see the white walls and red roofs of the station looming before him.

"Good Lord! Doc! What's got into you?" the stationmaster said. "You look like you'd seen a ghost. And out in this sun without a helmet! Come inside, man, before you get sunstroke!"

Kennon chuckled without humor. "Getting sunstroke is the least of my worries, Al," he said wryly. "O.K., where is it?"

"You look pretty bushed, Doc. Maybe you'd better rest awhile."

"And maybe it's an emergency," Kennon interrupted. "And probably it is because the staff can handle routine matters -- so maybe you'd better show me where you keep the phone."

* * *

"One moment please," the Message Center operator said. There were a few clicks in the background. "Here's your party," she continued. "Go ahead, Doctor."

"Kennon?" a nervous voice crackled from the receiver.

"Yes?"

"You're needed out on Otpen One."

"Who is calling -- and what's the rush?"

"Douglas -- Douglas Alexander. The Lani are dying! It's an emergency! Cousin Alex'll skin us alive if we let these Lani die!"

Douglas! Kennon hadn't thought of him since the one time they had met in Alexandria. That was a year ago. It seemed much longer. Since the Boss-man had exiled his cousin to that bleak rock to the east of Flora there had been no word of him. And now -- he laughed a sharp bark of humorless annoyance -- Douglas couldn't have timed it better if he had tried!
"All right," Kennon said. "I'll come. What seems to be the trouble?"
"They're sick."
"That's obvious," Kennon snapped. "Otherwise you wouldn't be calling. Can't you tell me any more than that?"
"They're vomiting. They have diarrhea. Several have had fits."
"Thanks," Kennon said. "I'll be right out. Expect me in an hour."
"So you're leaving?" Al asked as he cradled the phone.
"That's a practitioner's life," Kennon said. "Full of interruptions. Can I borrow your jeep?"
"I'll drive you. Where do you want to go?"
"To the hospital," Kennon said. "I'll have to pick up my gear. It's an emergency all right."
"You're a tough one," Al said admiringly. "I'd hate to walk five kilos in this heat without a hat -- and then go out on a call."

Kennon shrugged. "It's not necessarily toughness. I believe in doing one job at a time -- and my contract reads veterinary service, not personal problems. The job comes first and there's work to do."

Copper wasn't in sight when Kennon came back to the hospital -- a fact for which he was grateful. He packed quickly, threw his bags into the jeep, and took off with almost guilty haste. He'd contact the Hospital from the Otpens. Right now all he wanted was to put distance between himself and Copper. Absence might make the heart grow fonder, but at the moment propinquity was by far the more dangerous thing. He pointed the blunt nose of the jeep toward Mount Olympus, set the autopilot, opened the throttle, and relaxed as best he could as the little vehicle sped at top speed for the outer islands. A vague curiosity filled him. He'd never been on the Otpens. He wondered what they were like.

* * *

Otpen One was a rocky tree-clad islet crowned with the stellate mass of a Class II Fortalice. But this one wasn't like Alexandria. It was fully manned and in service condition.

"Airboat!" a voice crackled from the dashboard speaker of the jeep, "Identify yourself! You are being tracked."
Kennon quickly flipped the IFF switch. "Dr. Kennon, from Flora," he said.
"Thank you, sir. You are expected and are clear to land. Bring your vehicle down in the marked area." A section of the roof turned a garish yellow as Kennon circled the building. He brought the jeep in lightly, setting it carefully in the center of the area.

"Leave your vehicle," the speaker chattered. "If you are armed leave your weapon behind."
"It's not my habit to carry a gun," Kennon snapped.
"Sorry, sir -- regulations," the speaker said. "This is S.O.P."

Kennon left the jeep and instantly felt the probing tingle of a search beam. He looked around curiously at the flat roof of the fortress with its domed turrets and ugly snouts of the main battery projectors pointing skyward. Beside him, the long metal doors of a missile launcher made a rectangular trace on the smooth surface of the roof. Behind him the central tower poked its gaunt ferromorph and durilium outline into the darkening sky bearing its crown of spiderweb radar antennae turning steadily on their gimbals covering a vast hemisphere from horizon to zenith with endless inspection.

From the base of the tower a man emerged. He was tall, taller even than Kennon, and the muscles of his body showed through the tightness of his battle dress. His face was harsh, and in his hands he carried a Burkholtz magnum -- the most powerful portable weapon mankind had yet devised.

"You are Dr. Kennon?" the trooper asked.
"I am."
"Your I.D., please."

Kennon handed it over and the big man scanned the card with practiced eyes. "Check," he said. "Follow me, sir."
"My bags," Kennon said.
"They'll be taken care of."

Kennon shrugged and followed the man into the tower. A modern grav-shaft lowered them to the ground floor. They passed through a gloomy caricature of the Great Hall in Alexandria, through an iris, and down a long corridor lined with doors.

A bell rang.
"Back!" the trooper said. "Against the wall! Quick! Into the doorway!"
"What's up?"

"Another practice alert." The trooper's voice was bored. "It gets so that you'd almost wish for a fight to relieve the monotony."

A trooper and several Lani came down the corridor, running in disciplined formation. Steel clanged on steel as
they turned the corner and moments later the whine of servos came faintly to their ears. From somewhere deep in the
pile a rising crescendo of generators under full battle load sent out vibrations that could be sensed rather than heard.
A klaxon squawked briefly. There was another clash of metal, and a harsh voice boomed through the corridors.
"Fourteen seconds. Well done. Secure stations!"
The trooper grinned. "That ties the record," he said. "We can go now."
The corridor ended abruptly at an iris flanked by two sentries. They conferred briefly with Kennon's guide,
dilated the iris, and motioned for Kennon to enter. The pastel interior of the modern office was a shocking contrast
to the gray ferromorph corridors outside.
Douglas Alexander was standing behind the desk. He was much the same. His pudgy face was haggard with
uncertainty and his eyes darted back and forth as his fingers caressed the knobby grip of a small Burkholtz jutting
from a holster at his waist. There were new, unpleasant furrows between his eyes. He looked older and the
indefinable air of cruelty was more pronounced. He had been frightened the last time Kennon had seen him, and he
was frightened now.
"I'm not sure whether I am glad to see you, Kennon," he said uncertainly. "But I suppose I have to be."
Kennon believed him.
"How have you been?" Kennon asked.
"Not too bad until this afternoon. Things have been going pretty well." He shifted uncomfortably from one foot
to another. "I suppose Cousin Alex will skin me for this, but there's nothing else I can do." He licked his lips.
"You've been here long enough -- and you'll have to know eventually." He fidgeted and finally sat down behind the
desk. "We have trouble. Half the Lani were stricken about four hours ago. It was sudden. No warning at all. And if
they die----" his voice trailed off.
"Well -- what are we waiting for? Get someone to bring my bags down here and we'll look them over."
"Do you have to? -- Can't you prescribe something?"
"How? I haven't examined the patients."
"I can tell you what's wrong."
Kennon smiled. "I hardly think that's the way to do it. Even though your description might be accurate, you still
might miss something of critical importance."
Douglas sighed. "I thought that's what you'd say," he said. "Oh -- very well -- you might as well see what we
have out here."
"You can't possibly believe that I don't already know," Kennon said. "You have male Lani."
Douglas looked at him, his face blank with surprise. "But -- how did you know? No one on the main island
does except the Family. And we never talk about it. Did Eloise tell you? I noticed she was struck with you the day
you came, and the Lani who have come out here since have been talking about you two. Did she do it?"
Kennon shook his head. "She never said a word."
"Then how----"
"I'm not stupid," Kennon said. "That story you've spread about artificial fertilization has more holes in it than a
sieve. That technique has been investigated a thousand times. And it has never worked past the first generation. If
you had been using it, the Lani would long ago have been extinct. Haploids don't reproduce, and the only way the
diploid number of chromosomes can be kept is to replace those lost by maturation division of the ovum. You might
be able to keep the diploid number by using immature ova, but the fertilization technique would be far more
complex than the simple uterine injections you use at Hillside Station."
Douglas looked at him blankly.
"Besides," Kennon added, "I have a microscope. I checked your so-called fertilizing solution. I found
spermatozoa, and spermatozoa only come from males. What's more, the males have to be the same species as the
females or fertilization will not take place. So there must be male Lani. Nothing else fits. You've been using
artificial insemination on the main-island Lani. And from the way this place is guarded, it's obvious that here is your
stud farm."
Douglas shrugged and spread his hands in a gesture of resignation. "I suppose," he said, "that's the way Old
Doc found out too. We never told him, but he knew before he ever came out here."
"The only thing that puzzles me," Kennon went on, "is how you managed to eliminate the Y-chromosome
carriers within the sperm."
"Eh?"
"The male sex-determinant. Half the sperm carry it, but so far as I know, there's never been a male born on the
main island."
"Oh -- that. It's something that's done in the labs here. Probably one of the technicians could tell you. It's called
electro-- electro freezing or something like that."
"Electrodiaphoresis?"
Douglas nodded. "That sounds like it. I don't know anything about it. One of Grandfather's men did the basic work. We just follow instructions." He shrugged. "Well - since you know the secret there's no sense in hiding the bodies. Come along and tell me what's wrong."

It was a peculiar feeling to walk down the row of cubical rooms with their barred doors. The whole area reminded him of a historical novel, of the prisons of early human history where men confined other men for infractions of social customs. The grimness of the place was appalling. The male Lani -- impressive in their physical development -- were in miserable condition, nauseated, green-faced, retching. The sickening odors of vomit and diarrhea hung heavily on the air. Douglas coughed and held a square of cloth to his face, and even Kennon, strong-stomached as he was, could feel his viscera twitch in sympathy with the caged sufferers.

"Great Fleming, man!" Kennon exploded. "You can't keep them here. Get them out! Give them some fresh air! This place would make a well man sick."

Douglas looked at him, "I wouldn't take one of them out unless I had him shackled and there was an armed guard to help me. Those males are the most vicious, cunning, and dangerous animals on Kardon. They exist with but one thought in mind -- to kill!"

Kennon looked curiously through a barred door at one of the Lani. He lay on a bare cot, a magnificently muscled figure with a ragged black beard hiding his face. There were dozens of scars on his body and one angry purple area on his thick right forearm where flesh had been torn away not too long ago. Beads of sweat stood out on his forehead and soft moaning noises came from his tight lips as he pressed his abdomen with thick-fingered hands. "He doesn't look so dangerous," Kennon said.

"Watch it!" Douglas warned. "Don't get too close!" But the warning was too late. Kennon touched the bars, and as he did, the Lani moved with fluid speed, one huge hand clutching Kennon's sleeve and pulling him against the bars while the other darted for his throat. Fingers bit into Kennon's neck and tightened in a viselike grip. Kennon reacted automatically. His arms came up inside the Lani's and crashed down, elbows out, tearing the Lani loose. He jumped back, rubbing his bruised throat. "That fellow's not sick!" he gasped. "He's crazy!"

The Lani glared at him through the bars, disappointment written on his scarred and bearded face.

"I warned you," Douglas said. His voice held an undertone of malicious laughter. "He must be sick or he would have killed you. George is clever in a stupid sort of way."

Kennon looked into the cubicle. The Lani glared back and growled. There was a beastlike note in his voice that made the short hairs on Kennon's neck prickle.

"That fellow needs a lesson," he said. "You want to give it to him?" Douglas asked.

"Not particularly."

"Ha! -- man! -- you afraid!" the Lani taunted. His voice was thick and harsh. "All men fear me. All Lani, too. I am boss. Come close again man and I kill you!"

"Are they all that stupid?" Kennon asked. "He sounds like a homicidal moron."

"He's not stupid," Douglas said. "Just uneducated."

"Why is he so murderous?"

"That's his training. All his life he has fought. From childhood his life has been based on his ability to survive in an environment where every male is his enemy. You see here the sublimation of individuality. He cannot cooperate with another male. He hates them, and they in turn hate him. George, here, is a perfect example of absolute freedom from restraint." Douglas smiled unpleasantly.

"His whole history is one of complete lack of control. As an infant, being a male, his mother thought she was favored by the gods and she denied him nothing. In fact we were quite insistent that she gave him everything he wanted. By the time he was able to walk and take care of himself, he was completely spoiled, selfish, and authoritative.

"Then we took him and a dozen others exactly like him and put them together." Douglas grinned. "You should see what happens when a dozen spoiled brats are forced to live together. It's more fun. The little beasts hate each other on sight. And we stimulate them to compete for toys, food, and drink. Never quite enough to go around. You can imagine what happens. Instead of sharing, each little selfish individualist fights to get everything he can grab. Except for one thing we don't punish them no matter what they do. If anyone shows signs of co-operating he is disciplined severely, the first time. The next time, he is culled. But other than that, we leave them alone. They develop their personalities and their muscles -- and if one proves to be too much for his fellows we transfer him to a more advanced class where the competition is keener, and he learns what it is to lose.

"At puberty we add sex drive to the basics, and by the time our male reaches maturity we have something like George. Actually, George is more mature than either you or I. He has all the answers he needs. He's strong, solitary,
authoritative, and selfish. He has no curiosity and resents encroachment. He's a complete individualist. If he proves out he should make an excellent sire."

"But isn't he dangerous to handle?" Kennon asked.

"Yes, but we take precautions."

Kennon grimaced with distaste.

"Look at it objectively," Douglas said. "We're trying to select the best physical type we can in the hope that he'll pass his qualities to his offspring, and there's no better practical way to select the strongest and hardiest than by natural selection. We control their environment as little as possible and let Nature do our educating until they're old enough to be useful."

"Naturally, there are some things which we cannot provide, such as exposure to disease, to the elements, and to predators. The one isn't selective about whom it infects, while the others would tend to produce co-operation as a matter of survival."

"Isn't there a great deal of mortality under such a regimen?" Kennon asked.

"Not as much as you might expect. It's about twenty per cent. And there is a great deal of compensation from a management viewpoint. We would essentially the same physical end product as we would from a closely managed operation, plus a great saving in labor. Males, you see, are fairly expendable. We only need a few a year."

"It's brutal."

"So it is, but life is brutal. Still, it's efficient for our purposes. We merely take advantage of natural impulses to produce a better product. Grandfather got the idea out of an old book -- something about the noble savage, natural selection and survival of the fittest. He thought it was great - said there was nothing like relentless competition to bring out the strongest and hardiest types. And he's been right for centuries. Can you imagine anything much better than George -- from a physical viewpoint?"

"He is a magnificent animal," Kennon admitted as he eyed the Lani. "But it seems to me that you could train some obedience into him."

Douglas shook his head. "That would introduce a modifying factor, something bigger and more powerful than the male himself. And that would modify the results. We can control them well enough with knockout gas and shackles. And those things, oddly enough, don't destroy their pride or self-esteem. They think that we use them because we are afraid, and it satisfies their egos."

Kennon eyed the caged Lani dubiously. "This is going to be difficult. I must examine them and treat them, but if they're all as homicidal as this one--"

"You fight me man," George interrupted, his face twisted into lines of transparent guile. "I am boss and others do as I say. You beat me, then you are boss."

"Is this true?" Kennon asked.

"Oh, it's true enough," Douglas said. "George is the leader and if you beat him you'd be top male until some other one got courage enough to challenge you. But he's just trying to get his hands on you. He'd like to kill."

Kennon looked at the big humanoid appraisingly. George was huge, at least five centimeters taller and fifteen kilograms heavier than himself. And he was all muscle. "I don't think I'd care to accept that challenge unless I was forced to," Kennon said.

Douglas chuckled. "I don't blame you."

Kennon sighed. "It looks like we are going to need reinforcements to get these brutes under control. I'm not going in there with them, and I can't examine them from out here."

"Oh, we can hold them all right. Paralysis gas and shackles will keep them quiet. There's no need to bother the troopers. We can handle this by ourselves."

Kennon shrugged. "It's your baby. You should know what you're doing."

"I do," Douglas said confidently. "Wait here until I get the gas capsules and the equipment." He turned and walked back to the entrance to the cell block. At the iris he turned. "Be careful," he said.

"Don't worry, I will." Kennon looked at George through the bars and the humanoid glared back, his eyes bright with hatred. Kennon felt the short hairs prickle along the back of his neck. George roused a primal emotion -- an elemental dislike that was deeper than reason -- an antagonism intensely physical, almost overpowering -- a purely adrenal response that had no business in the make-up of a civilized human.

He had thought the Lani had a number of human traits until he had encountered George. But if George was a typical male -- then the Lani were alien. He flexed his muscles and stared coldly into the burning blue eyes behind the bars. There would be considerable satisfaction in beating this monstrosity to a quivering pulp. Millennia of human pre-eminence -- of belief that nothing, no matter how big or muscular, should fail to recognize that a man's person was inviolate -- fed the fuel of his anger. The most ferocious beasts on ten thousand worlds had learned this lesson. And yet this animal had laid hands on him with intent to kill. A cold corner of his mind kept telling him that
he wasn't behaving rationally, but he disregarded it. George was a walking need for a lesson in manners.

"Don't get the idea that I'm afraid of you -- you overmuscled oaf," Kennon snapped. "I can handle you or anyone like you. And if you put your hands on me again I'll beat you within an inch of your worthless life."

The Lani snarled. "Let me out and I kill you. But you are like all men. You use gun and iron -- not fair fight."

Douglas returned with a gas capsule and a set of shackles. "All right," he said. "We're ready for him." He handed Kennon the shackles and a key to the cell door -- and drew his Burkholz.

"See," the Lani growled. "It is as I say. Men are cowards."

"You know gun?" Douglas asked as he pointed the muzzle of the Burkholz at the Lani.

"I know," George growled. "Gun kill."

"It does indeed," Douglas said. "Now get back -- clear back against the wall."

Kennon unlocked the door.

And George rolled over, muscles bunched and driving! He hit the door with such force that Kennon was slammed against the wall, dazed -- half stunned by the speed of the attack. George -- he had time to think in one brief flash -- wasn't stupid. He had held his breath for the necessary two minutes!

Douglas jerked the blaster up and fired, but his target was too quick. George dropped and rolled. The sizzling streak of violet flashed inches above his body and tore a six-inch hole through the back of the cell. And then George was on him! The huge, marvelously fast hands of the humanoid wrenched the blaster out of Douglas's hands and jerked him forward. A scream burst from Douglas as George's hands closed around his neck. Muscles sprang into writhing life in the humanoid's huge forearms. There was a soft, brittle crack, and Douglas sagged limp in the iron grip that held him dangling.

"Faugh!" George grunted. He dropped Douglas as Kennon pushed the door back and came out into the passageway. "Maybe you make better fight," George said as he lowered his head into the muscular mass of his broad shoulders.

Kennon eyed him appraisingly, swinging the irons in his right hand.

This time the Lani didn't charge. He moved slowly, half crouched, long arms held slightly forward. Kennon backed away, watching the humanoid's eyes for that telltale flicker of the pupils that gives warning of attack. The expression on George's face never changed. It was satisfied -- smug almost -- reflecting the feelings of a brute conditioned to kill and given an opportunity to do so. The Lani radiated confidence.

Kennon shivered involuntarily. He wasn't frightened, but he had never met an opponent like this. A chill raced up the back of his legs and spread over his stomach and chest. His mouth was dry and his muscles quivered with tense anticipation. But his concentration never wavered. His hard blue eyes never left George's, searching with microscopic intentness for the faintest sign of the Lani's intentions.

George charged -- hands reaching for Kennon's throat, face twisted in a snarl of rage and hate. But even as he charged Kennon moved. He ducked beneath the Lani's outstretched hands and drove his left fist deep into George's belly just below the breastbone.

Air whistled out of the Lani's gaping mouth as he bent double from the power of the blow. Kennon clipped him on the chin with a driving knee, snapping George's head back and smashed the bearded face with the shackles. Blood spurted and George screamed with rage. One of the Lani's big hands wrapped around the shackles and tugged. Kennon let go and drove another left to George's ribs.

The Lani threw the irons at Kennon, but his aim was poor. One of the handcuff rings scraped across Kennon's cheek, but did nothing more than break the skin. Half paralyzed by the blows to his solar plexus, George's coordination was badly impaired. But he kept trying. Kennon wrapped lean fingers about one of George's outstretched hands, bent, pivoted, and slammed the Lani with bone-crushing force against the bars of a nearby cell. But George didn't go down. "He's more brute than man," Kennon thought. "No man could take a beating like that!" He moved aside from George's stumbling rush, feeling a twinge of pity for the battered humanoid. It was no contest. Strong as
he was, George didn't know the rudiments of hand-to-hand fighting. His reactions were those of an animal, to close, clutch, bite, and tear. Even if he were completely well, the results would have been the same. It would merely have taken longer. Kennon drove a vicious judo chop to the junction of the Lani's neck and shoulder. Brute strength was no match for the highly evolved mayhem that every spaceman learns as a necessary part of his trade. George had never been on planet leave in a spaceport town. He knew nothing about the dives, the crimps, the hostile port police. His idea of fighting was that of a beast, but Kennon was a civilized man to whom fighting was an art perfected by millennia of warfare. And Kennon knew his trade.

Even so it took longer than Kennon expected because George was big, George was strong, and George had courage and pride that kept him coming as long as the blazing will behind his blazing eyes could drive his battered body. But the end was inevitable.

Kennon looked at his bloody arm where George's teeth had reached their mark. It was hardly more than a scratch, but it had been close. George had his lesson and Kennon felt oddly degraded. He sighed, dragged George back into the cell, and locked the door.

Then he turned to Douglas. The howls of hate from the caged Lani died to a sullen silence as Kennon gently examined the limp body.

Douglas wasn't dead. His neck was dislocated, not broken, but he was in serious condition. Kennon was still bending over Douglas wondering how to call for help when three guards burst through the door, faces grim, weapons at the ready.

"What's going on here?" the leader demanded. "The board showed an open door down here." He saw the body-- "Mr. Douglas!" he gasped. "The commandant will have to know about this!" He took a communicator from his waist belt and spoke rapidly into it. "Arleson in stud cell block,-- Attempted escape. One casualty -- Douglas Alexander - yes, that's right. No -- he's not dead. Send a litter and bearers. Inform the commandant. I am making investigation on the spot. Out." He turned to look coldly at Kennon.

"Who are you--and what happened here?" he asked.

Kennon told him.
"You mean you took George!" Arleson said.
"Look in his cell if you don't believe me."

The soldier looked and then turned back to Kennon. There was awed respect in his hard brown eyes. "You did that! -- to him! Man, you're a fighter," he said in an unbelieving voice.

A stretcher detail manned by two sober-faced Lani females came in, loaded Douglas's body on the stretcher, and silently bore it away.

"Douglas was a fool," Arleson said. "He knew we never handle this kind without maximum restraint. I wonder why he did it?"

"I couldn't say. He told me that gas and shackles would hold him."

"He knew better. These Lani know gas capsules. All George had to do was hold his breath. In that cell George would have killed you. You couldn't have stayed away from him."

Kennon shrugged. Maybe that was what Douglas had wanted. Kennon sighed. He didn't have the answer. And it could just be that Douglas had tried to show off. Well, he would pay for it. He'd have a stiff neck for months, and perhaps that was a proper way to end it.

* * *

Commander Mullins, a thin gray-faced man with the hard cold eyes of a professional soldier, came into the corridor followed by another trooper.

His eyes took in the wreckage that had been George, the split lips, the smashed nose, the puffed eyes, the cuts and bruises, and then raked across Kennon.

"Spaceman -- hey?" he asked. "I've seen work like that before."

Kennon nodded. "I was once. I'm station veterinarian now. Douglas called me over -- said it was an emergency."

Mullins nodded.

"Well -- why aren't you tending to it?"

"I have to examine them," Kennon said gesturing at the cells. "And I don't want any more trouble like this."

"Don't worry. You won't have it. Now that you've beaten George, you'll have no trouble at all. You're top dog," Mullins gestured at the cages. "They'll be good for a while. Now you'd better get on with your work. There's been enough disruption of routine for today. The men will help you."

* * *

Kennon checked in at the commandant's office before he left for the main island.

"How is Douglas?" he asked.
"He's alive," Mullins said. "We flew him to Albertsville - and good riddance. How are the Lani?"

"They'll be all right," Kennon said. "It's just food poisoning. I suggest you check your kitchen and your food handlers. There's a break in sanitation that could incapacitate your whole command. I found a few things wrong but there are probably more."

"I'll check on it -- and thanks for the advice," Mullins said. "Sit down, Doctor. Your airboat won't be serviced for another few minutes. Tell me how things are on the main island. How's Blalok?"

"You know him?"

"Of course. I used to be a frequent visitor there. But with that young pup here, I couldn't leave. I didn't dare to. He'd have disrupted routine in a single day. Look what he did in half an hour. Frankly, I owe you a debt for getting him off my hands." Mullins chuckled dryly.

"That's a fine thing to say," Kennon grinned. "But I can sympathize. It took us two months to straighten out Alexandria after the Boss-man sent him here."

"I heard about that."

"Well -- we're under control now. Things are going pretty smoothly."

"They'll be better here," Mullins said. "Now that Douglas is gone." He shrugged. "I hope the Boss doesn't send him back. He's hard to handle and he makes discipline a problem."

"Could you tell me--or would it be violating security?" Kennon said. "Why do you have a Class II installation on full war footing out here?"

Mullins chuckled. "It's no secret," he said. "There was a commercial raid on this place about fifty years ago. Seems as though one of our competitors didn't like us. Alexandria was on a war footing then and managed to hold them off. But it scared the Old Man. You see, our competitive position is based on Lani labor. Our competitors didn't know that. Their intelligence wasn't so good. Up until that time, we'd been keeping the males out here in what was hardly more than a stockade. Those people could have taken a few dozen females and a couple of males and they'd have been in business. But they didn't know. They tried to smash Alexandria instead. Naturally they didn't have a chance. And after it was over the Old Man got smart. He still had the tapes for Alexandria so he built a duplicate out here and spent a few millions on modern armament. The way we're set now it'd take a battle group to hurt us."

"But how about security? Don't the others know about the Lani now?"

"It's a moot question. But it won't do them any good. They can't crack this place, and without males, all the females on Flora wouldn't do them enough long-term good to pay for the force they'd need to be successful."

"So that's why the males are isolated."

"There's another reason -- two of them in fact. One is physical. Even the best male is a dangerous beast. They have a flair for violence that makes them useless as labor and their training doesn't help matters. And the other is mental. The females on the main island believe that we humans are responsible for the continuation of their breed. This tends to keep them in line. We have a great deal more trouble with them out here once they know the truth. We've had a number of cases of females trying to engineer a male's escape. But they're never repeated," Mullins said grimly. "Actually, it would be an interesting life out here, except for the abattoir." He grimaced. "That's an unpleasant chore."

"You mean--." Kennon said.

"Why, certainly. What else could we do with senile animals?"

"But that's murder!"

Mullins shook his head. "No more than killing a cow for beef."

"You know," Kennon said, "I've never thought of what happened to aged Lani. Sure, I've never seen one, but -- Lord Lister! -- I'm a fool."

"You'll get used to the idea," Mullins said. "They aren't human, and except for a few, they aren't as intelligent as a Santosian Varl. I know that they look like us except for those tails, but that's as far as it goes. I've spent two hundred years with them and I know what I'm talking about."

"That's what Alexander says."

"He should know. He's lived with them all his life."

"Well -- perhaps. But I'm not convinced."

"Neither was Old Doc -- not until the day he died."

"Did he change then?"

"I don't know. I wasn't there. But Old Doc was a stubborn cuss."

Kennon stood up. "I've given instructions for treatment to your corpsman," he said. "Now I think I'd better be getting back. I have some reports to finish."

Mullins smiled grimly. "You know," he said, "I get the feeling that you don't approve of this operation."
"Frankly, I don't," Kennon said, "but I signed a contract." He turned toward the door and gestured to the two Lani who waited outside with his bags. "I can find my way to the roof," he said.

"Well -- good luck," Mullins said. "We'll call you again if we need you."

"Do that," Kennon replied. He wanted to leave, to get away from this place and back to the main island. He wanted to see Copper. He'd be damned if anyone was going to butcher her. If he had to stay here until she died of old age, he'd do it. But nobody was going to hurt her.

CHAPTER XII

Kennon wondered if his colleagues in human medicine felt toward their patients as he did toward the Lani, or if they ultimately lost their individuality and became mere hosts for diseases, parasites, and tumors -- vehicles for the practice of surgical and medical skills -- economic units whose well-being meant a certain amount of credits. Probably not, he decided. They were human and their very humanity made them persons rather than things.

But the possession of individuality was not an asset in the practice of animal medicine where economics was the main factor and the satisfaction of the owner the principal personality problem. The normal farm animals, the shrikes, cattle, sheep, morks, and swine were no problem. They were merely a job. But the Lani were different. They weren't human, but they were intelligent and they did have personality even though they didn't possess that indefinable quality that separated man from the beasts. It was hard to treat them with dispassionate objectivity. In fact, it was impossible.

And this lack of objectivity annoyed him. Should he be this way? Was he right to identify them as individuals and treat them as persons rather than things? The passing months had failed to rob them of their personalities: they had not become the faceless mass of a herd of cattle or a flock of sheep. They were still not essentially different from humans -- and wouldn't men themselves lose many of their human characteristics if they were herded into barracks and treated as property for forty generations? Wouldn't men, too, approach the animal condition if they were bred and treated as beasts, their pedigrees recorded, their types winnowed and selected? The thought was annoying.

It would be better, Kennon reflected, if he didn't have time to think, if he were so busy he could drop to his bed exhausted each night and sleep without dreaming, if he could keep on the run so fast that he wouldn't have time to sit and reflect. But he had done his work too well. He had trained his staff too thoroughly. They could handle the petty routines of minor treatment and laboratory tests as well as he. He had only the intellectual stimulation of atypical cases and these were all too rare. The routine inspections were boring, yet he forced himself to make them because the filled the time. The hospital wards were virtually empty of patients, the work was up to date, the whole island was enjoying a carnival of health, and Kennon was still impaled upon the horns of his dilemma. It wasn't so bad now that the first shock was over, but it was bad enough -- and showed no signs of getting better. Now that Copper realized he wanted her, she did nothing to make his life easier. Instead she did her best to get underfoot, usually in some provocative position. It was enough to try the patience of a marble statue Kennon reflected grimly. But it did have its humorous side and were it not for the fact that Copper wasn't human could have been thoroughly enjoyable. That, however, was the real hell of it. He couldn't relax and enjoy the contest - his feet were on too slippery ground.

And Copper with her unerring female instinct knew just what to do to make the footing slipperier. Sooner or later, she was certain that he would fall. It was only a question of applying sufficient pressure at the right spot and the right time. Now that she knew he desired her, she was content to wait. The only thing that had bothered her was the uncertainty whether he cared or not. For Copper the future was a simple thing and she was lighthearted about it.

But not so Kennon. Even after the initial shock had passed there still remained the moral customs, the conditioning, and the prohibitions. But Copper - was Copper -- and somehow the conditioning lost its force in her presence. Perhaps, he thought wryly, it was a symptom of the gradual erosion of his moral character in this abnormal environment.

"I'm getting stale," he confided to Copper as he sat in his office idly turning the pages of the Kardon Journal of Allied Medical Sciences. "There's nothing to do that's interesting."

"You could help me," Copper said as she looked up from the pile of cards she was sorting. He had given her the thankless task of reorganizing the files, and she was barely half through the project.

"There's nothing to do that's interesting," he repeated. He cocked his head to one side. From this angle Copper looked decidedly intriguing as she bent over the file drawer and replaced a stack of cards.

"I could suggest something," Copper said demurely.

"Yes, I know," he said. "You're full of suggestions."

"I was thinking that we could go on a picnic."

"A what?"

"A picnic. Take a lunch and go somewhere in the jeep. Maybe up into the hills. I think it might be fun."

"Why not?" Kennon agreed. "At least it would break the monotony. Tell you what. You run up to the house and tell Kara to pack a lunch and we'll take the day off."
"Good! I hoped you'd say that. I'm getting tired of these dirty old cards." She stood up and sidled past the desk. Kennon resisted the impulse to slap as she went past, and congratulated himself on his self-control as she looked at him with a half-disappointed expression on her face. She had expected it, he thought gleefully. Score one for morality.

He smiled. Whatever the other Lani might be, Copper was different. Quick, volatile, intelligent, she was a constant delight, a flashing kaleidoscope of unexpected facets. Perhaps the others were the same if he knew them better. But he didn't know them -- and avoided learning. In that direction lay ulcers.

"We'll go to Olympus," he said.
Copper looked dubious. "I'd rather not go there. That's forbidden ground."
"Oh nonsense. You're merely superstitious."
She smiled. "Perhaps you're right. You usually are."
"That's the virtue of being a man. Even if I'm wrong, I'm right." He chuckled at the peculiar expression on her face.

"Now off with you -- and get that lunch basket packed."
She bowed. "Yes, master. Your slave flies on winged feet to execute your commands."
Kennon chuckled. Copper had been reading Old Doc's romances again. He recognized the florid style.

* * *

Kennon landed the jeep in a mountain meadow halfway up the slope of the peacefully slumbering volcano. It was quiet and cool, and the light breeze was blowing Olympus's smoky cap away from them to the west. Copper unpacked the lunch. She moved slowly. After all, there was plenty of time, and she wasn't very hungry. Neither was Kennon.

"Let's go for a walk," Copper said. "The woods look cool -- and maybe we can work up an appetite."
"Good idea. I could use some exercise. That lunch looks big enough to choke a horse and I'd like to do it justice."

They walked through the woods, skirting scant patches of underbrush, slowly moving higher on the mountain slopes. The trees, unlike those of Beta, did not end abruptly at a snow line, but pushed green fingers upward through passages between old lava flows, on whose black wrinkled surfaces nothing grew. The faint hum of insects and the piping calls of the birdlike mammals added to the impression of remoteness. It was hard to believe that scarcely twenty kilometers from this primitive microcosm was the border of the highly organized and productive farmlands of Outworld Enterprises.

"Do you think we can see the hospital if we go high enough?" Copper said. She panted a little, unaccustomed to the altitude.
"Possibly," Kennon said. "It is a long distance away. But we should be able to see Alexandria," he added. "That's high enough and big enough." He looked at her curiously. "How is it that you're so breathless?" he asked.
"We're not that high. You're getting fat with too much soft living."
Copper smiled. "Perhaps I'm getting old."
"Nonsense," Kennon chuckled. "It's just fat. Come to think of it you are plumper. Not that I mind, but if you're going to keep that sylphlike figure you'd better go on a diet."
"You're too good to me," Copper said.
"You're darn right I am. Well - let's get going. Exercise is always good for the waistline, and I'd like to see what's up ahead."

Scarcely a kilometer ahead they came to a wall of lava that barred their path. "Oh, oh," Kennon said. "We can't go over that." He looked at the wrinkled and shattered rock with its knifelike edges.
"I don't think my feet could take it," Copper admitted.
"It looks like the end of the trail."
"No -- not quite," Kennon said. "There seems to be a path here." He pointed to a narrow cleft in the black rock.
"Let's see where it goes."
Kennon hung back. "I don't think I want to," she said doubtfully. "It looks awfully dark and narrow."
"Oh, stop it. Nothing's going to hurt us. Come on," Kennon took her hand.

Unwillingly Copper allowed herself to be led forward. "There's something about this place that frightens me," she said uncomfortably as the high black walls closed in, narrowing until only a slit of yellow sky was visible overhead. The path underfoot was surprisingly smooth and free from rocks, but the narrow corridor, steeped in shadows, was gloomy and depressingly silent. It even bothered Kennon, although he wouldn't admit it. What forces had sliced this razor-thin cleft in the dense rock around them? Earthquake probably. And if it happened once it could happen again. He would hate to be trapped here entombed in shattered rock.
Gradually the passage widened, then abruptly it ended. A bleak vista of volcanic ash dotted with sputter cones opened before them. It was a flat tableland, roughly circular, scarcely half a kilometer across, a desolation of black rock, stunted trees and underbrush, and gray volcanic ash. A crater, somewhat larger than the rest, lay with its nearest edge about two hundred meters away. The rock edges were fire polished, gleaming in the yellow sunshine, and the thin margin of trees and brush surrounding the depression were gnarled and shrunken, twisted into fantastic shapes.

"Hey! what's this?" Kennon asked curiously. "That crater looks peculiar, like a meteor had struck here -- but those stunted plants -- hmm -- there must have been some radioactivity too." He looked at the crater speculatively. "Now I wonder----" he began.

Copper had turned a sickly white. "No!" she said in a half-strangled voice--"oh, no!"

Kennon looked at her. "You know what this is?" he demanded. "No," Copper said. But her voice was unsteady. "You're lying."

"But I don't know." Copper wailed. "I'm only guessing. I've never seen this place before in my life! Please! let's get out of here!"

"Then you know about this," Kennon demanded. "I think it's the Pit," Copper said. "The redes don't say where it is. But the description fits -- the Circle of Death, the Twisted Land -- it's all like the redes say."

"Redes? -- what are redes? And what is this business about circles of death? There's something here that's peculiar and I want to know what it is."

"It's nothing. Truly. Just let's go back. Let's leave this place. It's no good. It's tabu."

"Tabu? You've never used that word before."

"Forbidden."

"Who forbids it?"

"The Gods -- the Old Ones. It is not for Lani. Nor for you." Her voice was harsh. "Come away before it is too late. Before the Silent Death strikes you down."

"I'm going to have a look at this."

"You'll be killed!" Copper said. "And if you die, I die too."

"Don't be foolish. There's nothing here that can hurt me. See those trees and plants growing right up to the crater's edge. If they can take it permanently, I can stand it for a few moments. If there's any radioactivity there, it's not very much."

"But the redes say---"

"Oh, forget those redes. I know what I'm doing. Besides, I'm a Betan and can stand more radiation than most men. A brief exposure isn't going to hurt me."

"You go and I go too," Copper said desperately. "You'll stay here where it's safe," Kennon said flatly.

"I'm going with you," Copper repeated. "I don't want to live without you."

"I tell you I won't be hurt. And one quick look isn't going to bother whatever's down there."

"That's what Roga the Foolish said when he opened Lyssa's tower. But he brought men to Flora. And your little look may bring an even greater calamity."

Kennon shrugged, and started Walking toward the crater's edge.

Copper followed.

He turned to order her back, but the words died on his lips as he saw the terror and determination on her face. Neither commands nor pleas would move her. If he went she would follow. The only way he could stop her would be with violence, and he didn't want to manhandle her. He felt an odd mixture of pride, tenderness, and admiration for her. Were their situations reversed, he doubted whether he would have the courage she was showing. He sighed. Perhaps she was right. Perhaps he did need an antiradiation suit.

"All right," he said. "You win. I'll get some protective clothing and look at it later."

Her knees sagged, but he caught her before she fell, and held her erect until her strength returned. Belatedly he understood the emotional strain that had been gripping her. "If you come back later, sir, you'll take me with you."

The words were a statement, not a question.

He nodded. "Providing you wear a radiation suit," he said.

She grimaced with distaste and he chuckled. Clothing and Copper simply didn't get along together.

"Well?"

"All right," she said unhappily.

"And there's one more condition."
"What's that?" she asked suspiciously.
"That you tell me about this place. You obviously know something about it, and with all your talking, you've never mentioned it to me."
"It is forbidden to talk of these things to men," Copper said -- and then, perversely, "Do you want me to tell you now?"
"No -- it can wait. We have come a long way and I am hungry. I listen poorly on an empty stomach. Let's go back to the jeep and you can tell me later."
Copper smiled. "That's good," she said. "I'd feel better away from this place."
CHAPTER XIII
"I was a poor learner of the redes," Copper confessed. "And I'll have to skip the Mysteries. I never even tried to learn them. Somehow I was sure I'd never be a preceptress." She settled herself more comfortably on the tawny grass and watched him as he lay on his back beside her.
"Eh?" Kennon said. "Preceptress?"
"The guardians of our traditions. They know the redes and mysteries by heart."
"And you have kept your religion alive that way all these years?"
"It isn't exactly religion," Copper said. "It's more like history, we learn it to remember that we were once a great race -- and that we may be again. Someday there will come a male, a leader to bring us out of bondage, and our race will be free of dependence on men. There will be pairings again, and freedom to live as we please." She looked thoughtfully at Kennon. "You might even be the one -- even though you are human. You're different from the others."
"You're prejudiced." Kennon smiled. "I'm no different. Well -- not very different at any rate."
"That is not my thought," Copper said. "You are very different indeed. No man has ever resisted a Lani as long as you have."
Kennon shook his head. "Let's not go into that now. What are these redes?"
"I do not remember them all," Copper apologized. "I was----"
"You've said that before. Tell me what you do know."
"I remember the beginning fairly well," she said. "It goes back to the time before Flora when everything was nothing and the Master Himself was lonely."
Without warning her voice changed to a rhythmic, cadenced chant that was almost a song. Her face became rapt and introspective as she rocked slowly from side to side. The rhythm was familiar and then he recognized it -- the unintelligible music he had often heard coming from the barracks late at night when no men were around -- the voiceless humming that the Lani sang at work.
First there was Darkness -- starless and sunless
Void without form -- darker than night
Then did the Master -- Lord of Creation
Wave His right hand, saying, "Let there be light!"
Verse, Kennon thought. That was logical. People remember poetry better than prose. But the form was not what he'd normally expect. It was advanced, a style that was past primitive blank verse or heroic pentameter. He listened intently as Copper went on.
Light filled the heavens, bright golden glowing,
Brought to the Void by His wondrous hand;
Then did the Master -- Lord of Creation
Nod His great head, saying, "Let there be land!"
Air, land, and water formed into being,
Born in the sight of His all-seeing eyes;
Then did the master -- Lord of Creation --
Smile as He murmured, "Let life arise!"
All of the life conceived by the Master,
Varied in shape as the grasses and birds;
Hunters and hunted, moveless and moving,
Came into form at the sound of His words.
"That's a great deal like Genesis," Kennon said with mild astonishment. "Where could you have picked that up?"
"From the beginning of our race," Copper said. "It came to us with Ulf and Lyssa -- but what is Genesis?"
"A part of an ancient religion -- one that is still followed on some of the Central Worlds. Its followers call themselves Christians. They say it came from Earth, the mother-world of men."
"Our faith has no name. We are children of Lyssa, who was a daughter of the Master."

"It is an odd similarity," Kennon said. "But other races have had stories of the Creation. And possibly there may be another explanation. Your ancestors could have picked this up from Alexander's men. They came from Earth originally and some of them could have been Christians."

"No," Cooper said. "This rede is long before Man Alexander. It is the origin of our world, even before Ulf and Lyssa. It is the first Book -- the Book of the God-spell. Man Alexander came in the sixth Book -- the Book of Roga."

"There's no point in arguing about it," Kennon said. "Go on -- tell me the rest."

"It's going to be a long story," Copper said. "Even though I have forgotten some of it, I can chant the redes for hours."

Kennon braced his back against one of the fat tires of the jeep. "I'm a good listener," he said.

She chuckled. "You asked for this," she said -- and took up the verses where she had left off. And Kennon learned the Lani version of creation, of the first man and woman, cast out of Heaven for loving each other despite the Master's objection, of how they came to Flora and founded the race of the Lani. He learned how the Lani grew in numbers and power, how they split into two warring groups over the theological point of whether Ulf or Lyssa was the principal deity, how Roga the Foolish opened Lyssa's tower to find out whether the Ulfians or Lyssans were right, and brought the Black Years to Flora.

He heard the trial of Roga and the details of his torture by the priests of Ulf and the priests of Lyssa -- united by this greatest sacrilege. And he heard the Lani version of the landing of Alexander's ship and man's conquest of Flora.

It was a story of savagery and superstition, of blood and intolerance, of bravery and cowardice, of love and beauty. Yet through it all, even through the redes that described the Conquest, there was a curious remoteness, a lack of emotion that made the verses more terrible as they flowed in passionless rhythm from Copper's lips.

"That's enough!" Kennon said.

"I told you you wouldn't like it."

"It's horrible. How can you remember such things?"

"We begin to learn them as soon as we can talk. We know the redes almost our entire lives." Copper was silent for a moment. "There's lots more," she said, "but it's all about our lives since the Man Alexander -- the old one -- took possession of us. And most of the newer redes are pretty dull. Our life hasn't changed much since the men came. The Book of Man is boring." Copper sighed. "I have dared a great deal by telling you these things. If the others knew, they would kill both of us."

"Then why tell me?" he asked.

"I love you," she said simply. "You wanted to know -- and I can deny you nothing."

A wave of tenderness swept over him. She would give her life for him -- and what would he give? Nothing. Not even his prejudices. His face twisted. If she was only human, If she wasn't just an animal. If he wasn't a Betan. If, if, if. Resentment gorged his throat. It was unfair -- so damned unfair. He had no business coming here. He should have stayed on Beta or at least on a human world where he would never have met Copper. He loved her, but he couldn't have her. It was Tantalus and Sisyphus rolled into one unsightly package and fastened to his soul. With a muttered curse he rose to his feet, and as he did he stopped -- frozen - staring at Copper as though he had never seen her before.

"How did you say that Roga was judged responsible for Alexander coming here?" he demanded.

"He went into Lyssa's tower -- where Ulf and Lyssa tried to call Heaven -- and with his foolish meddling set the tower alight with a glow that all could see. Less than a week later the Man Alexander came."

"Where was this tower?"

"Where Alexandria now stands. Man Alexander destroyed it and built his house upon its ruins."

"And what was that place of the Pit?"

"The Shrine of Ulf -- where the God-Egg struck Flora. It is buried in the pit, but the Silent Death has protected it from blasphemy -- and besides Man Alexander never learned about it. We feared that he would destroy it as he did Lyssa's tower."

A wild hope stirred in Kennon. "We're going home," he announced.

"Good."

"And we're going to get a pair of radiation suits -- and then we're coming back. We'll have a good look at that Pit, and if what's in there is what I think it is -- his face was a mixture of grimness and eagerness -- 'we'll blow this whole operation off this planet!'"

Copper blanched. "It is death to meddle with the God-Egg," she said.

"Superstition!" Kennon scoffed. "If that Egg is what I think, it was made by men, and you are their descendant."

"Perhaps you're right, but I can't help thinking you are wrong," she said soberly. "Look at the trouble that came
with Roga's meddling. Be careful that you do not bring us a worse fate."
"I'll be very careful. We'll take every precaution."
"We?"
"You're coming, of course. I can't imagine you staying away."
Copper nodded.
"You shouldn't worry so much" Kennon teased. "You know we men live forever."
"That is true."
"And if I'm right you're just as human as I. And you're capable of living as long as I do."
"Yes, sir," Copper said. Her voice was unconvinced, her expression noncommittal.
"You females," Kennon said in quick exasperation. "You drive a man crazy. Get an idea in your head and it
takes triatomate to blast it out. Now let's go."
Two hours brought them back to the volcanic area, and knowing what to look for, Kennon located the
pockmarked mountain valley. From the air it looked completely ordinary. Kennon was amazed at the perfection of
the natural camouflage. The Pit was merely another crater in the pitted ground. He dropped to a lower altitude,
barely a hundred feet above the sputter cones. "Look!" he said.
Below them was the crater of the Pit and in its center a smooth bluish-black hemisphere protruded from the
 crater floor. It would have passed unnoticed by the casual eye -- nearly concealed by two gigantic blocks of pumice.
"The God-Egg!" Copper exclaimed.
"Egg -- ha! that's a spacer! I thought it would be. I'd recognize durilium anywhere. Let's go down and look this
over, but first we want a couple of pictures." He pointed a camera at the crater and snapped the shutter. "There --
now let's have a closer look at our baby."
"Do you expect me to get into that thing?" Copper said distastefully as she prodded the shapeless green
coveralls with a bare toe. She eyed the helmet, gloves and boots with equal distaste. "I'd suffocate."
"If you want to come with me, you'll wear it," Kennon said. "Otherwise you won't come near that pit. Try it and
I'll chain you to the jeep."
"You wouldn't!"
"Just try me."
"Oh -- all fight. I'll wear the thing -- but I won't be comfortable."
"Who cares about that? You'll be protected."
"All right -- show me how to put it on. I'd rather be with you than worry about what you are doing."
The suit was several sizes too large but it covered her adequately. Too adequately, Kennon decided. She looked
like a pile of wrinkles with legs. He chuckled.
She glared. "So I'm funny," she said. "Let me tell you something else that's funny. I'm hot. I'm sweating. I itch.
Now -- laugh!"
"I don't feel like laughing," Kennon said. "I feel the same way."
They approached the edge of the Pit carefully. Kennon kept checking the radiation counter. The needle slowly
rose and steadied at one-half roentgen per hour as he thrust the probe over the rim of the depression. "It's fine, so
far," he said encouragingly. "We could take this much for quite a while even without suits."
He lowered himself
over the edge, sliding down the gentle slope.
"How is it down there?" Copper called. The intercom crackled in his ear.
"Fine -- barely over one roentgen per hour. With these suits we could stay here indefinitely." The sigh of relief
was music in her ears. "This place is barely lukewarm."
"That's what you think," Kennon said. "I mean radiation warm," Kennon said. "Stay up there and watch me. I may need some things."
"All right."
Copper squirmed inside the hot suit. The thing was an oven. She hoped that Kennon didn't plan to
work in the daytime. It would be impossible.
Kennon gingerly approached the ship. It was half buried in the loose debris and ash that had fallen or blown
into the pit during the centuries it had rested there. It was old -- incredibly old. The hull design was ancient -- riveted
sheets of millimeter-thick durilium. Ships hadn't been built like that in over two thousand years. And the ovoid
shape was reminiscent of the even more ancient spindizzy design. A hyperspace converter like that couldn't be less
than four millennia old. It was a museum piece, but the blue-black hull was as smooth and unblemished as the day it
had left fabrication.
Space travel would have gotten nowhere without durilium, Kennon reflected. For five thousand years men had
used the incredibly tough synthetic to build their spacecraft. It had given man his empire. Kennon gave the hull one
quick glance. That part of the ship didn't worry him. It was what he would find inside that bothered him. How much
damage had occurred from two thousand or more years of disuse? How much had the original travelers
cannibalized? How much could be salvaged? What sort of records remained? There were a thousand questions that the interior of that enigmatic hull might answer.

The upper segment of the airlock was visible. It was closed, which was a good sign. A few hours' work with a digger should expose it enough to be opened.

"Copper," he said, "we're going to have to dig this out. There's a small excavator in the cargo bed of the jeep. Do you think you can bring it down here?"

"I think so."

"Good girl!" Kennon turned back to the ship. He was eager to enter it. There might be things inside that would settle the question of the Lani. The original crew had probably recognized the value of the hull as a repository as well as he did. But in the meantime there would be work -- lots of it. And every step must be recorded.

It was the rest of the day's work to expose the emergency airlock. The little excavator toiled over the loose ash for hours before it displaced enough to make the port visible, and the ash was not yet cleared away sufficiently to open the portal when darkness brought a halt to the work.

It would be impossible to unearth the spaceship with their low-capacity digger, Kennon decided. It would be difficult enough to clear the emergency airlock in the nose. But if the tubes and drive were still all right, by careful handling it should be possible to use the drive to blast out the loose ash and cinders which surrounded the hull.

Kennon reluctantly gave up the idea of entering the spaceship. That would have to wait until tomorrow. Now they would have to conceal the work and call it a day. A few branches and the big blocks of pumice would suffice for temporary camouflage. Later they could make something better. Anything in the jeep which might be useful was cached along with the radiation suits in the passageway through the lava wall -- and in a surprisingly short time they were heading homeward.

Kennon was not too displeased. Tomorrow they would be able to enter the ship. Tomorrow they would probably have some of the answers to his questions. He looked ahead into the gathering night. The gray mass of the abandoned Olympus Station slipped below them as he lined the jeep along the path indicated by the luminous arrow atop the main building, set the controls on automatic, and locked the craft on the guide beacon in Alexandria's tower. In a little less than an hour they would be home.

CHAPTER XIV

Kennon was morally certain that the Lani were of human stock. Evolved, of course. Mutated. Genetic strangers to the rest of humanity. But human. The spaceship and the redes proved it as far as he was concerned. But moral certainty and legal certainty were two different things. What he believed might be good enough to hold up in a Brotherhood court, but he doubted it. Ulf and Lyssa might be the founders of the Lani race, but they had come to Kardon nearly four thousand years ago and no records existed to prove that the Lani weren't here before they came. Redes passed by word of mouth through hundreds of generations were not evidence. Even the spaceship wasn't the absolute proof that would be needed to overturn the earlier legal decision. Other and better proof was needed -- something that would stand up in any court in the Brotherhood. He hoped the spaceship would hold that proof.

But Kennon's eagerness to find out what was inside the ancient spacer was tempered by hard practicality. Too much depended on what he might find inside that hull. Every step of the work must be documented beyond any refutation. Some method of establishing date, time, and location had to be prepared. There must be a record of every action. And that would require equipment and planning. There must be no mistake that could be twisted by the skillful counsel that Alexander undoubtedly retained.

He had no doubt that the Family would fight. Too much money and prestige were involved. To prove the Lani human would destroy Outworld Enterprises on Kardon. Yet this thought did not bother him. To his surprise he had no qualms of conscience. He was perfectly willing to violate his contract, break faith with his employers, and plot their ruin. The higher duty came first -- the duty to the human race.

He smiled wryly. It wasn't all higher duty. There were some personal desires that leavened the nobility. To prove Copper human was enough motivation -- actually it was better than his sense of duty. Events, Kennon reflected, cause a great deal of change in one's attitude. Although not by nature a plotter, schemes had been flitting through his mind with machine-like regularity, to be examined and discarded, or to be set aside for future reference.

He rejected the direct approach. It was too dangerous, depended too much on personalities, and had too little chance for success. He considered the possibility of letters to the Brotherhood Council but ultimately rejected it. Not only was the proof legally insufficient to establish humanity in the Lani, but he also remembered Alexander's incredible knowledge of his activities, and there was no reason to suppose that his present didn't receive the same scrutiny as the past. And if he, who hadn't written a letter in over a year, suddenly began to write, the correspondence would undoubtedly be regarded with suspicion and would probably be examined, and Dirac messages would be out for the same reason.

He could take a vacation and while he was away from the island he could inform the Brotherhood. Leaving
Flora wouldn't be particularly difficult, but leaving Kardon would be virtually impossible. His contract called for vacations, but it expressly provided that they would be taken on Kardon. And again, there would be no assurance that his activities would not be watched. In fact, it was probable that they would be.

There was nothing that could be done immediately. But there were certain long-range measures that could be started. He could begin preparing a case that could be presented to the Council. And Beta, when it knew, would help him. The situation of the Lani was so close to Beta's own that its obvious merit as a test case simply could not be ignored. If he could get the evidence to Beta, it would be easy to enlist the aid of the entire Medico-Technological Civilization. It would take time and attention to detail; the case, the evidence, everything would have to be prepared with every safeguard and contingency provided, so that there would not be the slightest chance of a slip-up once it came to court.

And perhaps the best method of bringing the evidence would be to transport it under its own power. The thought intrigued him. Actually it wouldn't be too difficult. Externally the Egg wasn't in bad shape. The virtually indestructible durilium hull was still intact. The controls and the engines, hermetically sealed inside the hull, were probably as good as the day they stopped running. The circuitry would undoubtedly be bad but it could be repaired and restored, and new fuel slugs could be obtained for the engine and the converter. But that was a problem for the future.

The immediate problem was to get into the ship in a properly documented fashion. It took nearly two months, but finally, under the impersonal lenses of cameras and recorders, the entrance port of the God-Egg swung open and revealed the dark interior. Kennon moved carefully, recording every step as he entered the black orifice in the spaceship's side. His handtorch gave plenty of light for the recorders as he moved inside - Copper at his heels, both of them physically unrecognizable in antiradiation suits.

"Why are we moving so slowly?" Copper said. "Let's go ahead and find out what's beyond this passageway."
"From a superstitious coward you've certainly become a reckless explorer," he said.
"The Egg hasn't hurt us, and we've been around it many times," she said. "Either the curse has become too old to hurt us, or there never was any in the first place. So let's see what is ahead. I'm curious."
Kennon shook his head. "In this business we must hurry slowly -- very slowly. You know why."
"But I want to see."
"Patience, girl. Simmer down. You'll see soon enough," Kennon said. "Now help me set up this camera."
"Oh, all right -- but isn't there any excitement in you?"
"I'm bubbling over with it," Kennon admitted, "but I manage to keep it under control."
"You're cold-blooded."
"No -- I'm sensible. We want to nail this down. My future, yours, and that of your people depend upon how carefully we work. You wouldn't want to let us all down by being too eager, would you?"
She shook her head. "No -- you're right of course. But I still would like to see."
They moved cautiously through the airlock and into the control room.
"Ah!" Kennon said with satisfaction. "I hoped for this, but I didn't dare expect it."
"What?"
"Look around. What do you see?"
"Nothing but an empty room. It's shaped like half an orange, and it has a lot of funny instruments and dials on the walls, and a video screen overhead. But that's all. Why -- what's so unusual about it? It looks just like someone had left it."
"That's the point. There's nothing essential that's missing. They didn't cannibalize the instruments -- and they didn't come back."
"Why not?"
"Maybe because that curse you mentioned a few minutes ago was real."
Copper drew back. "But you said it wouldn't hurt us--"
"Not now. The heat's practically gone, but when whoever flew this crate came here, the whole shell could have been as hot as a Samarian summer."
"But couldn't they have come back when it cooled?"
"Not with this kind of heat. The hull was probably too radioactive to approach from the outside. And radioactivity cools off slowly. It might take several lifetimes for its level to become low enough to approach if there was no decontamination equipment available."
"I suppose that's why the early ones thought the Egg was cursed."
Kennon nodded. "Now let's check -- oh! oh! what's this?" He pointed to a metal-backed book lying on the control panel.
"It looks like a book," Copper said.
"I'm hoping it's the book."
"The book?"
"Yes -- the ship's log. It's possible. And if it is, we may have all the evidence we need -- Copper! -- Don't touch it!"
"Why not?"
"Because its position has to be recorded first. Wait until we get the camera and recorders set up."

* * *

Gingerly Kennon opened the ancient book. The sheets inside were brittle -- crumbling with age -- but he could make out the title U.N.S.S. Wanderer with the date of launching and a lower line which read "Ship's Log." Kennon was thankful for his medical training. The four years of Classical English that he had despised so much were essential now. Stumbling over unfamiliar words and phrases, he moved slowly through the log tracing the old ship's history from pleasure craft to short-haul freight tractor to obsolescence in a space dump orbiting around a world called Heaven.

There was a gap of nearly ten years indicated by a blank page before the entries resumed.
"Ah -- this is it!" Kennon said.
"What is it?" Copper said curiously. "I can't read the writing."
"Of course you can't. It's in English -- a language that became obsolete during the Interregnum. I had to learn it, since most medical terminology is based on it."
"What is an Interregnum?" Copper interrupted. I've never heard that word before."
"It's a period of confusion when there is no stable government. The last one came after the Second Galactic War -- but never mind that -- it happened long ago and isn't important now. The important thing that did happen was the Exodus."
"What was that?"
"A religious revival and a tremendous desire to see what was happening beyond the next star. During that century men traveled wider and farther then they ever have before or since. In that outward explosion with its mixed motivations of religion and practicality, colonists and missionaries went starward to find new worlds to tame, and new races to be rescued from the darkness of idolatry and hell. Almost any sort of vehicle capable of mounting a spindizzy converter was pressed into service. The old spindizzies were soundly engineered converters of almost childlike simplicity that could and did carry ships enormous distances if their passengers didn't care about subjective time-lag, and a little radioactivity."
"And that's what happened to this ship. According to this log it was bought by Alfred and Melissa Weygand - a missionary couple with the idea of spreading the Christian faith to the heathen."
"Alfred and Melissa -- Ulf and Lyssa -- they were a part of this ancient explosion that scattered human seed across parsecs of interstellar space. It seems that they were a unit in a missionary fleet that had gone out to the stars with flame in their hearts and Gospel on their lips to bring the Word to the benighted heathen on other worlds." Kennon's lips curled with mild contempt at their stupid foolhardiness even as his pulse quickened to their bravery. They had been fanatics, true enough, but theirs was a selfless fanaticism that would risk torture and death for what they believed -- a fanaticism that was more sublime than the concept of Brotherhood which had evolved from it. They knew nothing of the enmity of race, of the incessant struggle man had since waged with alien intelligences all too willing to destroy intruders who encroached upon their worlds. Mankind's early selflessness had long ago been discarded for frank expansionism and dominance over the lesser races that stood in their way. And in a way it was too bad.

The ship's log, meticulously kept in neat round English script, told a story that was more than the bare bones of flight. There was passion and tenderness and a spiritual quality that was shocking to a modern man steeped in millennia of conquest and self-interest. There was a greatness to it, a depth of faith that had since been lost. And as Kennon slowly deciphered the ancient script he admired the courage even as his mind winced with dismay at the unheeding recklessness.

The Weygands had lost contact with the others, and had searched for them in hyperspace, doubling and twisting upon their course until they had become hopelessly lost, and then, with their fuel nearly exhausted, had broken out into the normal three-space continuum to find Kardon's sun and the world they called Flora.

How little they had known and how lucky they had been.

It was only by the grace of their God that they had found this world before their fuel was exhausted. And it was only by further grace that the planet was habitable and not populated with intelligent life. They had more luck than people were entitled to in a dozen lifetimes. Against odds of a million to one they had survived.

It was fascinating reading.
But it was not proof.
The last entry read: "We have circled this world and have seen no buildings -- no sign of intelligent life. We are lost, marooned on this empty world. Our fuel supplies are too low for us to attempt to find the others. Nor could we. The constellations in the sky are strange. We do not know which way to go. Therefore we shall land upon the great island in the center of the yellow sea. And perhaps someday men will come to us since we cannot return to them. Melissa thinks that this is an example of Divine Providence, that the Lord's mercy has been shown to us that were lost in the vastness of the deep -- that we have been chosen, like Eve and Adam, to spread the seed of man to yet another world. I hope she is right, yet I fear the radiation level of the ship has become inordinately high. We may well be Eve and Adam, yet an Adam that cannot beget and an Eve that is not fruitful. I am trimming the ship for landing, and we shall leave it immediately after we have landed, taking with us only what we absolutely need. There is too much radiation from the spindizzy and the drive to remain here longer -- and God knows how hot the outer hull may be."

And that was all. Presumptive evidence -- yes. Reasonable certainty -- yes. But not proof. Lawyers could argue that since no direct exploration was made there was no valid reason to assume that the Lani did not already inhabit Kardon. But Kennon knew. His body, more perceptive than his mind, had realized a truth that his brain would not accept until he read the log. It was at once joy and frustration. Joy that Copper was human, frustration that he could not obtain for her and her race the rights to which they were entitled. But the immediate problem was solved. His conditioning was broken now he was convinced that Copper was a member of the human race. It was no violation of his code to love her. The greatest barrier was broken, and with it gone the lesser ones would yield. Relief that was almost pain washed through him and left him weak with reaction.

"What is it?" Copper asked as he turned to her. "What is this thing that has turned your face to joy?"
"Can't you guess?"
She shook her head. "I have seen nothing but you reading this ancient book, yet you turn to me with the look in your eyes that the redes say Ulf had for Lyssa."
"You're human!"
Copper shrugged. "You're mad. I'm a Lani. I was born a Lani -- and I shall die one."
"Don't you understand? All Lani are human. You all are the descendants of two humans who came here thousands of years ago."
"Then there is no reason why you cannot love me."
Kennon shook his head. "No," he said. "There is no reason."
Copper laughed. It was a sound so merry and gay that Kennon looked at her in surprise. She looked as happy as she sounded.

Simple and savage, Kennon thought. She cared nothing for the future, and probably very little about the injustice of her present. The thing that mattered was that what had kept them apart was gone. She was probably offering mental sacrifices to the Old Ones who had caused this change in the man she loved. She didn't really care about what had caused the change. To her it was sufficient that it had happened.

For a moment Kennon wished that it could be as simple for him as it apparently was for her. The fact that Copper was human posed a greater problem than the one it solved. The one had been personal. The other was infinitely greater. He could not let it lie. The very morality which had kept him from doing what he wished when he thought she was a humanoid now forced him to do what he did not wish. Every instinct said to leave it alone. The problem was too great for one man to solve, the situation too complicated, the evidence too inconclusive, the opposition too powerful. It would be far better to take his happiness and enjoy it. It was not his problem to solve. He could turn the evidence over to the Brotherhood once his contract was over, and better and more capable people than he could settle the Lani legal status. But the inner voice that had called him bestial now called him shirker, coward, and slacker. And this, too, could not be borne. The case of the Lani would have to be pursued as vigorously as he could do it. They were entitled to human rights -- whether they wanted them or not.

His first idea of making the spacer operational was a good one, Kennon decided as they finished the inspection of the ship. Even if it was never used it would make a good means of retreat. He grinned wryly. In a guerrilla operation such as the one he was considering it would be wise to have a way out if things got too hot. The heavy parts, the engines and the controls, were in workable condition and would merely require cleaning and oiling. Some of the optical equipment would have to be replaced and fuel slugs would have to be obtained for the drive -- but none of these would be too hard to accomplish. The slugs from any of the power reactors on the island would serve nicely. All that would have to be done would be to modify the fuel ports on the ship's engine. The spindizzy would have to be disassembled and checked, and the main leads, embedded in time-resistant plastic, would have to be examined. The most serious problem, however, wouldn't involve these things. The control board wiring and circuitry was where the trouble would lie. Normal insulation and printed circuitry wasn't designed to last for thousands of years. Each wired circuit would have to be removed, duplicated, and replaced. Every printed panel would have to be
cleaned and receive a new coat of insulating varnish. Working full time, a four-man electronics team could do the job in a week. Working part-time the two of them might get it done in three months. And the other jobs would take at least another. Add a month for errors in judgment, lack of materials, and mistakes -- and another for unavoidable delays -- it would be at least six months before the Egg would be spaceworthy.

Six months.

Not too long if everything went well, but far too long if there were any mistakes. He would have to be careful, yet he must not give the impression of being careful. He shook his head. Being a subversive was going to require a greater amount of acting ability than he had ever been called upon to display.

And what of Copper? How would she behave under the double strain of knowledge that she was human and knowledge of the spaceship? Women weren't noted for their tight-lipped reticence. Would she tell the other Lani? Would she crack under the pressure? Did she have the qualities of a good conspirator?

As it turned out, he didn't need to worry. As a partner in crime, Copper was all that could be wished. Everything was normal. She was still obedient, helpful, and gay as ever. To watch her, no one would ever think that her bright head was full of knowledge that could rock Flora to its foundations. Never by look or word did she betray the slightest trace of strain or guilt.

And in her other moments she was ecstatic in her love and helpful with the repair work on the Egg whenever Kennon could get time to visit the old spaceship.

"You amaze me," Kennon said as they eased the cover of the spindizzy in place and spun the bolts on the lugs that held it to the outer shielding. He picked up a heavy wrench and began methodically to seat the bolts as Copper wiped the white extrusion of the cover sealant from the shining case.

"How?"

"The way you hide your knowledge of this ship from the others. I know you better than anyone else on this island, and yet you would fool me."

"We Lani are used to hiding things. You men have been our masters for centuries, yet you do not know our redes. Nor do you know what we think, We obey you, but there are parts of us you do not own. It is easy to hide a little thing like this."

Kennon nodded. It figured. He seated another bolt. Three more and the drive room would be restored and they could start on the control circuits. "I wish you were as clever about adopting human customs as you are about hiding guilty knowledge," he said.

Copper laughed. "You mean those silly things you have been teaching me? Why should I learn them? I'm happy as I am. I love you, you love me, and that is all that matters."

"It's not all that matters. Can't you get it through your head that civilized customs are necessary in a civilized society?" He gave the next-to-last bolt an extra-vicious wrench. "You'll have to know them if you expect to get along on Beta."

"But I will never see Beta."

"I am going there when my duty here is over. And you're going with me."

"When will that be?"

"Three years."

"So long? Well -- we can think of it then, but I don't think Man Alexander will let you take me."

"Then I shall take you without his consent."

She smiled. "It would be easier to stay here. In another fifteen years I will be old and you will not want me."

"I'll never do that. I'll always want you."

"You swear too easily," she said gently. "You men live forever. We Lani are a short-lived race."

"But you needn't be. It's obviously----"

"It's been tried, my love -- and those who were treated died. Man Alexander tried many years ago to make us long-lived like you. But he failed. You see, he loved one of us too."

"But----"

"Let us think no more of it. Let us enjoy what we have and be grateful to the Gods for the love we enjoy -- or do you have any Gods?"

"One."

"Two are better. More, anyway. And besides, Ulf and Lyssa and the God-Egg are responsible for our joy."

"They are indeed," Kennon said.

"Then why should you think of leaving the place where they rule? You should stay here. There will be other Lani when I am gone. You will be happy always."

"Not without you," Kennon said. "Don't you understand that I love you?"

"And I you. But I am a Lani. You are a man."
"You're as human as I am," Kennon said abruptly.
"That is what you say," Copper replied. "I am not so sure. I need more proof than this." She waved her hand at the ship.
"What proof do you need?"
"The same as the proof you men require. If I should have your child, then I would believe that I was human."
"I've told you a thousand times that the radiation on this ship must have affected Ulf and Lyssa's germ plasm. Can't you understand that?"
"I can understand it all right, but it does not change things. Ulf and Lyssa may have been human before they came here, but they were not when they landed. They were Lani, and their children were Lani."
"But they were of human stock."
"The law that lets men become our masters does not agree with you."
"Then the law is wrong. It should be changed."
Copper shrugged. "Two people cannot change a law."
"They can try -- particularly if the law is unjust."
"Copper sighed. "Is it not enough for us to love? Must you try to run through a wall?"
"When the wall stands in the way of right and justice I must."
Copper looked at him with pity in her green eyes. "This I do not understand. I know nothing of right and justice. What are these things? Just words. Yet you will endanger our happiness for them. If it is my happiness you wish - then leave this foolishness alone. I have fifteen years I can live with you before I am old and you tire of me. With those years I can be content."
"But I can't," Kennon said. "Call me selfish if you wish, but I want you with me as long as I live. I don't want to live my life without you."
"You want too much," Copper said softly. "But if it makes you happy to try to get it, I shall help. And if we do not succeed you will at least be happier for trying. And if you are happy" -- she shrugged -- "then the rest makes little difference."

That was the crux of the matter, Kennon reflected bitterly. He was convinced she was human. She was not. And until her mind could be changed on that point she would help him but her heart wouldn't be in it. And the only thing that would convince her that she was human would be a child - a child of his begetting. He could perhaps trick her with an artificial insemination of Lani sperm. There were drugs that could suspend consciousness, hypnotics that would make her believe anything she was told while under their influence.

But in the end it would do no good. All witnesses in Brotherhood court actions were examined under psychoprobe, and a hypnotic was of no value against a lie detector that could extract the deepest buried truth. And he would be examined too. The truth would out--and nothing would be gained. In fact -- everything would be lost. The attempt at trickery would prejudice any court against the honest evidence they had so painfully collected.

He sighed. The only thing to do was to go on as they were -- and hope that the evidence would hold. With Betan legal talent at their back it might. And, of course, they could try to produce a child as nature had intended. They could try -- but Kennon knew it would not succeed. It never had.

CHAPTER XV
Copper had been acting strangely of late, Kennon thought as he rolled over in his bed and watched her standing before the full-length mirror on the bathroom door. She pivoted slowly before the glass, eying herself critically, raising her arms over her head, holding them at her sides, flexing her supple spine and tightening muscles that moved like silken cords beneath her golden skin.
"What are you trying to do--become a muscle dancer?" Kennon asked idly.
She whirled, a crimson blush deepening the tan of her face. "You were supposed to be asleep," she said.
"I'm an unregenerate heel," he replied, "and I don't sleep too well nowadays unless you're beside me."
"Well -- I suppose you might as well know now as later," she said. "You'll know in any event."
"Know what?"
"That you're right. I am human."
"And what brought on this sudden change of--" He stopped abruptly, his eyes widening.
"Yes," Copper said. "I am with child. Your child."
"But that's impossible."
She shook her head. "It's a miracle perhaps, but it's not impossible. It's happened. Can't you see the difference?"
"See what? You look just as you always do."
"I suppose you can't see it yet," she admitted. "But I am with child. I'm two weeks past my time."
Kennon's mind leaped to the obvious conclusion. Pseudo-pregnancy. He had seen it before among Lani at Hillside Farm. It was an odd syndrome which occasionally occurred in humans and animals. The brain, desiring
children, made demands upon the body and the body responded to its desire by tricking the brain. Lani were fairly subject to its probably because they had better imaginations. He would run a few tests when they went down to the hospital, and once she realized the practical joke her body was playing everything would be all right. No wonder she seemed excited.

"We'll find out about that later," he said equably. "We'll settle this when we get back to the hospital."

Copper smiled confidently and patted her stomach. "I know what you are thinking, but you're wrong. We Lani know about these things. In forty generations I am the first to conceive as the Master intended."

"I hope you haven't," Kennon said with such bitter sincerity that Copper looked at him wide-eyed. "Not now. Because if you have, neither your life nor mine is safe."

"Why?"

"The Alexanders. Do you think they'll take it lying down? We're not ready for them yet. They'll fight, and the first thing they'll do is kill you and erase me so we would never be able to talk. You have been declared an animal, and you will not be allowed to change."

"What can we do?" Copper asked. She shivered. "I do not want to die."

"Nor do I want you to," Kennon said.

"I could tell the others."

"And just what would that accomplish?"

"In a week every Lani on the island would know it. There would be revolt. For the Lani would no longer be dependent upon Men to survive. Their greatest hold on us would be gone. And we would be free again on our island world."

"You would not!" Kennon said. "That sort of thinking is foolishness. Alexander would have men here within a week, and a week after that you would be smashed. Don't you realize that there are thousands of millions of men in the galaxy -- and to every one of them you would be animals. You know nothing about what you would face. Your puny hundreds couldn't even stand against a fraction of the power Alexander could mount against you. Have you seen a Burkholtz blaster work? Have you seen remote-control antipersonnel missiles? Have you push-pull projectors, atomic warheads? All of these weapons Alexander can command. Don't you realize he's an entrepreneur -- one of the most powerful men in this sector?"

Copper shook her head. "You put that in a different way. You talk as if it were my belief rather than the truth."

"What is truth?" Kennon said heavily. "Who would believe you? There are hundreds of others with child."

"Sure you're human. You know it. I know it. I've been trying to convince you for the past two months. You're just as human as I am. But pray that you're not pregnant. We can't get out of here in less than four months and by then everybody will know about you. Someone will certainly check the records. And after that will come the psychoprobes. Everything will come to light. The Egg will be destroyed. I will be erased. You will be dead. And that will be the end of it." He looked down at her with an odd expression of pity on his face. "You see?" he demanded harshly.

Copper nodded. "I didn't understand," she said. "Don't be angry with me. I shouldn't have told you. I thought you'd be happy."

"I was never angry with you, but I am with myself. I was stupid. I didn't figure on the remote possibility that we might be genetically compatible. I should have my head examined for putting you in such danger. However there's the possibility -- the probability -- that your body is playing a trick upon you."

She shook her head. "You are wrong. I am not mistaken. I am with child and the child is yours. But the fault is no more yours than mine. I wanted you before you looked on me. I still do and I do not feel at fault. That is I am yours, that my child is yours is a thing of wonder and joy. Never could I have expected so much."

Kennon looked down at her smudged face, streaked with the sudden rivulets of tears, and bitterness galled his throat. Dear God -- let her be wrong, he prayed silently. Let it be pseudopregnancy this time. Let the tests be negative.

But they weren't. Unequivocally they confirmed Copper's diagnosis. Here was the proof he needed. The final test that would prove the Lani human. And he had no way of getting it where it would do any good. It would take at least four months of steady labor before the ship was ready, and he didn't have that sort of time. He was needed here and his prolonged absence would cause suspicion and investigation. Something would have to be done -- but what? He couldn't take Copper off the island in an airboat. They were checked with microscopic care by Otpen One's IFF. A jeep didn't have enough range to take them to the mainland. And even if they got there they couldn't get off the planet. Alexander knew everything that happened on Kardon's two spaceports. The Egg was the only way, but the
Egg was unfinished and unspaceworthy.

Frantically Kennon considered concealing Copper. He shook his head. It wouldn't work. It would be impossible, to hide a baby on a place where every birth was recorded. Nor could one hide evidence of pregnancy in a Lani. Childbearing leaves telltale marks upon the body, and Copper, even if she could be concealed for the duration of her pregnancy, could never survive the sharp-eyed scrutiny of her fellows or the other humans. Questions would inevitably be asked.

There had to be a solution. He rubbed his forehead wearily. It was strange how so little a thing as the union of a spermatozoon and an ovum could produce so much trouble. He looked across the office at Copper placidly filing case cards. She wasn't worrying. With sublime faith, she was sure that he would find the answer, the one that would solve everything. He shuddered. The only logical solution was abortion -- and that was unthinkable! He would not murder his child -- nor would Copper permit it if he was capable of doing so.

It was almost a relief when his phone rang and Blalok's voice came cheerfully across the wire.

"Tried to get you about an hour ago," the superintendent said, "but your girl said you were busy."

"I was."

"You through now?"

"Yes."

"Well, get up to the fortress. Alexander just flew in and he's calling a meeting. Something important has come up."

Something important! A wave of ice rattled down Kennon's spine, and then he grinned feebly. Alexander didn't know. He couldn't know. It had to be something else.

"I'll be right up," he said, marveling at the calmness in his voice.

Kennon couldn't help comparing this meeting with the one a year ago. The location was different -- the conference room in Alexandria was more formal than Blalok's parlor but the same people were present: Alexander, Blalok, Jordan, and himself. Somehow Alexander seemed to have shrunk. He was no longer as impressive as he had been. But the man still radiated force, even though it didn't seem quite so overpowering. The year, Kennon thought, had done much to build his self-confidence. He felt assured rather than nervous.

"Good to see you, Kennon," Alexander said. "Reports say you're doing a good job."

"I can't claim the credit," Kennon said. "Eighty-five per cent of our success is due to co-operation from the operating staff. And that's Blalok's doing -- he knocked the heads of the division managers together and they took care of their staffs. Otherwise we could have had a bad time."

"But you didn't," Alexander said. "And you were the motive force."

"I've darn near motivated myself out of a job," Kennon said. "They co-operate all too well nowadays."

"Which goes to prove that my theories on preventive medicine are right," Alexander said, turning to Blalok.

"It looks that way," Blalok admitted, "but that could be because you picked a good man."

"He's good in more ways than one," Alexander said. "Or did he tell you he saved Douglas's life out on Otpen One?"

"He's never said a word."

Alexander smiled. "Another point in his favor. He knows how to keep his mouth shut."

"Not when he's telling someone what to do about disease," Jordan interjected.

"Or telling someone off when they haven't followed directions," Blalok added.

"Better and better. I was sure that he was the one we needed when we first met."

Kennon felt his ears turn flaming red.

"But that's not the reason I brought you here. This isn't a Jac Kennon admiration society. I called you because I want to expand the Lani breeding program."

"Why?" Jordan asked.

Blalok stiffened. "You know my feeling about that, sir. I've never liked the idea of selling them. If that's what's in your mind--"

Alexander shook his head. "Simmer down," he said, as he seated himself at the head of the table. "There's going to be no selling. The Lani are too valuable for that. We'll need them more than the money they'd bring on the market. You see -- I've acquired a planet out on the periphery. A place called Phoebe. One of our ships found it, and I staked a discovery claim on the major land mass, and the crew made lesser claims that covered all the available land. Last month the Brotherhood allowed the claims. Last week the crews sold me their land. Phoebe's a lovely place -- quite a bit like Flora -- and the ecological tests show it's capable of supporting mammalian life. Just before I came here I sent three shiploads of exterminators to clean it up and make it ready for us. It should be ready in two years."

"What sort of an ecology are you exterminating?" Jordan asked.
"Not that it makes any difference," Alexander said, "but it's mainly reptilian. Nothing over Group I. We'll restock with Floran animals."

Jordan sighed. "Since that's the way it is, it doesn't make any difference," he said. "But it could have. The Lani are sensitive to things like that. If they thought that they were walking in over a pile of bodies they'd do badly. It'd be like Olympus all over again. And we couldn't keep them from knowing. We talk and we forget, but they'd tell each other - and they'd remember."

"I know," Alexander said, "somehow they've never forgotten that Grandfather trapped the last of the Lani males on Olympus."

Jordan nodded. "They can't stand the place. That's why we had to abandon the station."

"Does this new world have a moon?" Kennon asked abruptly.

"Yes -- in fact it has two."

"Habitable?"

"No -- they're too small to hold air. But men could live there in domes -- but why do you? -- oh! I see! I hadn't considered that point." Alexander's hand darted to the phone beside him. "Get me Albertsville," he snapped. "Yes, my offices -- I want Mr. Oliver in purchasing and contracting. Hello -- Ward? Alexander here. Yes -- everythin's fine. I have a job for you -- use your scrambler - pattern two." Alexander dialed the scrambler code on the second dial at the base of the phone, effectively preventing eavesdropping by beam tappers. "Yes," he went on. "It's Project Phoebe. Have you secured title to the moons? You haven't? Well -- you'd better do it before some of our competitors get bright ideas. Sure they know about the project -- do you think they're stupid? Warren over at Consolidated practically told me that he was onto our scheme. So get title to those moons. Since they're uninhabitable and within the planet's primary field they come under the Spatial Debris Act and you should be able to get Kardonian title without any great amount of trouble. Naturally we want them. -- For defense -- what else? We'll have most of our eggs in that basket. No -- I don't know how we overlooked that point. But if it wasn't for a bright young man out here we'd have left ourselves wide open. Now get cracking -- get that leak plugged!" Alexander dropped the phone back in its cradle and sighed. "Well -- that's buttoned up," he said. "Thanks, Kennon."

Kennon looked at Alexander's grinning face, his own impassive, but a shattering certainty exploded in his mind - Alexander was a telepath! That was his difference! That was the thing that made him feared and respected by his business associates. It wouldn't have been enough on the Central Worlds, where men knew of sensitives and took precautions against them. But out here on the periphery it was a deadly advantage.

"So I gave it away," Alexander said. "I suppose I was careless, but your thoughts about the moons shocked me."

"You practically told me once before, when you hired me," Kennon said, "but I never realized it."

"You were too excited then."

"I wouldn't know," Kennon said. "At any rate I didn't add the facts correctly." From somewhere deep in his memory an old quip came floating to the surface: "An executive is a man who picks brains -- others' brains." By that definition Alexander was an executive of the first class. Alexander chuckled.

Suddenly Kennon wanted to run. Panic flooded him! What had he been thinking about? Had he thought of -- two times two are four, four times four are sixteen, sixteen times sixteen are -- let's see, six times sixteen is ninety-six, one times sixteen is -- six, five, carry one -- two hundred fifty-six. Two hundred fifty-six times--

"What's eating you?" Alexander demanded.

"I'm angry," Kennon said. "I told you the conditions I'd sign that contract, and you wrote a Peep Clause into it. And then you peep in the worst way possible. There's no defense against a Telep unless you know about him; you've had my whole mind bare! You've violated my personal privacy like no man has done before. Sure I'm mad. I expected honesty from you -- and you peep!" The anger was stronger now -- a wave of raw emotion based on a lifetime of training in mutual respect of a man's privacy -- a feeling intensified by his childhood environment of a crowded planetary ecology and the cramped crew quarters on a spaceship. To Kennon, Alexander had committed the ultimate sin.

"I can see I made a mistake by not telling you," Alexander said. His voice was cold. "But you have no right to insult me."

"I'm not saying it, am I?" Kennon snapped. The moonflower on the bookcase behind Alexander was a thing of beauty. Alexander liked beauty. He had said so, and the Great Hall below them bore it out. It was a lovely room. Those four bronze Lani in the fountain were works of art. One of them looked remarkably like Copper. Copper in bronze. The little witch had probably posed for the casting. Maybe it had even been made from her body.

"They're all of Susy," Alexander said. "I can see why you are angry, and I don't blame you. But remember I warned you about Lani."

Copper -- Kennon wrenched his thoughts back to the moonflower. It had twelve petals, limpid white on the
borders shading to deep blue in the center-from which the cream-colored stamen surrounded by transparent pistils sprang to burst into a golden glory of pollen that dripped in tiny yellow flecks to the broad petals below. It was a magnificent flower. There was nothing like it on Beta. That was a marvelous thing about flowers -- wherever one went in the universe, plants used the same methods to fertilize their seed and spread their germ plasm. It was too bad that -- Kennon jerked his attention to Alexander's face. He detested the thought that his mind was common property. A man should have something he can call his own. There had been a clinics instructor in Year Six who was a sensitive. The classes had protected themselves against his prying with a circlet -- a thought screen -- he had done it too. Maybe he had brought the circlet with him. If he did, no one was going to catch him without it. It was a dirty business, this reading of others' thought. Now where had he put that circlet? Was it among his old books -- or was it with his instruments?

"Why don't you go back to your house and find it?" Alexander snapped. "As you are, you're nothing but a disruption. I want you in on this meeting, but not the way you're acting."

"I'm not going to act any other way until I get some protection from peeping," Kennon said grimly. "And if you think this is bad wait till I start going through comparative anatomy."

"What's the matter with you two?" Blalok asked.

"Be quiet," Alexander snapped. "This isn't your problem. Kennon is behaving like a spoiled child!"

"He's a telepath!" Kennon said. "And he didn't tell me."

"So what? I've known that for years."

"And you stand for it?"

"I'm a Mystic, not a Betan," Blalok said. "I don't have your insane desire for privacy."

"Go find that thought screen if you still have it!" Alexander said. "I don't want any more of this. You're making me ill!"

Kennon grinned thinly as he rose to his feet. It was a good thing he remembered Alexander was squeamish and didn't like anatomy. The door was to his left, an iris door with eight leaves -- terribly old-fashioned. About ten steps away. Count them -- one -- two -- three--

Alexander sighed as Kennon left the room. "I certainly pushed the panic button on that young man," he said. "He has a pathological attitude toward telepathy. Wonder what he has to hide that he wants privacy so badly? Even for a Betan this reaction was violent."

"Oh, I don't know. He's a pretty emotional sort. Maybe he hates to look like a fool. He's gotten himself mixed up with one of the Lani. Cute little thing by the name of Copper," Blalok said.

"Oh -- that's it. I thought that was what he was hiding. A picture of a girl kept popping up." Alexander chuckled. "I suppose that's the trouble. A man hardly likes to look a fool, particularly to someone who has warned him. At that, I don't blame him. They are beautiful and affectionate. And even with their superstitions and tabus they're better than most humans."

"For pets," Blalok said heavily.

"They're not better at anything," Jordan demurred. "They can't be -- man is the best and always will be."

"The eternal racial chauvinist," Alexander murmured. He turned his attention to Blalok. "But for awhile, Evald, I'd suggest you keep an eye on our young man. I still don't like his reaction. It was too violent -- too defensive. I don't feel right about it. Perhaps Betans are more sensitive than most people but it seems to me that he's trying to conceal something. There was an undertone of fear -- and something else -- beneath his defenses."

"Couldn't you get any more than that?" Blalok asked. "You're pretty good at this mind-reading business."

"His defenses were remarkably good," Alexander said dryly.

* * *

Well he'd done it now, Kennon thought. He found the thought-screen circlet sandwiched between two books on comparative neuroanatomy which he hadn't bothered to unpack. He slipped it on and connected the lead wires to a portable battery pack. There was a half-forgotten tingling as the weak field heterodyned his thought waves. Kennon sighed. If Alexander wasn't suspicious of him now the man was a fool. He'd done as well as he could with confusion and outrage, but it was hardly possible to hide behind superficialities. Even the most disciplined mind couldn't do that without some preparation. Undoubtedly his concern about Copper had leaked through. He could only hope that other and more important things had not.

Well -- he could go back to the conference now, but he would have to be doubly careful from now on. He couldn't make daily trips to Olympus. His reaction had killed that plan. Alexander would be suspicious now -- and unusual actions would crystallize suspicion to certainty. Now he needed a reason to be in that area. And then he grinned. He had a reason -- a good one -- one that would fit in with Alexander's plans and his own. The only problem would be to make Alexander buy it -- and that might be difficult. He'd have to work carefully -- but with normal luck he could put the idea across. He crossed his fingers as he trudged back up the path to Alexandria.
The conference dragged on. Unlike most meetings, this one accomplished things -- which was a tribute to Alexander's ability to keep the subject in hand. Details of the expansion program presented by Alexander were rapidly reduced to workable plans. They involved some rearrangement of existing facilities, and the construction of others. But the obvious snags were rapidly disposed of, and the whole revamped operation was outlined on paper in surprisingly few hours. A deadline date was set, construction was authorized, and in the morning the first steps in the practical implementation of the new program would be taken.

"Well, that's that," Alexander said with a sigh. "I think this calls for a drink."

"There's one more thing," Kennon said. "I know it isn't much, but Jordan's remark started me thinking."

"What remark?" Jordan asked.

"The one you made at the beginning about Phoebe possibly being like the Olympus Station. I've often wondered why that particular location has been so difficult to operate. Sure, I know the accepted explanation, but I think we should learn why it works and how to break a tabu. If we don't, we might be in for trouble."

"That's a good thought," Alexander said. "I tried to find out once, but all I could discover was that it was tabu. The Lani simply didn't like it. And despite the fact that I can read minds, I didn't learn any more than that. There's a certain sex-linkage to telepathy, as you probably know."

Kennon nodded.

"All I could discover was that their dislike of Olympus was a basic emotion rather than reasoned thought. They were nervous, irritable, disobedient, and uncooperative while they were there -- and even they didn't know why. It was merely tabu. We even tried youngsters -- but the attitude was the same. I'd like to know more about that basic emotion."

"We should understand it," Kennon agreed. "If we transship a large number of Lani to a strange world, we should know their deepest motivations. We cannot take the chance that the transplant won't take, with all the money you're sinking into this project."

"You have a point there. Have you any suggestions about how to accomplish this?" Alexander's voice was interested.

"I have. Hire a psychologist. And reopen Olympus."

"I'll be the same story," Jordan said.

"Not if you apply experimental procedure," Kennon said. "Divide the place into a number of separate units in which groups of -- say ten -- Lani of various ages are kept. Let every group know where they are, but don't let them come in contact with one another. Observe them constantly. Put spy cells in the units. Couple them to recorders. Prepare a set of test situations and observe how each group performs. Question individuals under narcosynthesis. Observe and record any changes in physical condition -- give them the works. Maybe we can collect some basic data that will indicate the answer."

"Not a bad idea," Alexander said.

"I don't like it," Jordan said. "It sounds cumbersome."

"It is," Kennon agreed. "But it may save a great deal of trouble later."

"I think you're right, Kennon," Blalok said. "We should know everything we can."

"What would you do first if you were heading this program?" Alexander asked. He eyed Kennon critically.

"Nothing," Kennon said promptly. "I'm not qualified to run an investigation like this. You need a specialist. I am a practitioner."

"Hmm -- but you know experimental procedure."

"Naturally -- but I do not have the training to prepare a program or evaluate its results. The only thing I could do would be to check the physical condition of the experimental groups."

"Could you set up the physical facilities?" Alexander asked.

"Possibly -- I'd need a set of plans of the station, and I couldn't guarantee that the specialist wouldn't want to make changes. But the physical arrangements should be simple enough to construct."

"How long would it take you to prepare a plan?"

"I could have it by tomorrow, or perhaps a day later."

"If you can do it by then I'll stay over. I'd like to examine this proposal more closely. It has merit. That's the second constructive suggestion you've made tonight. Despite your peculiar desire for privacy, I'm glad you came back."

Alexander smiled.

Kennon smiled back. Apparently the entrepreneur had taken the bait. But it was too early to tell whether he had swallowed it without reservation. It all depended upon how much had been given away before he had discovered that Alexander was a telepath. Perhaps Alexander was merely leading him on. There were too many intangibles, and there was no way of predicting how it would turn out. But he felt mildly optimistic.

Alexander closed the meeting, and Kennon left promptly. He had a good excuse. There was plenty of work to
do if he was going to prepare an adequate plan for utilizing Olympus Station. Jordan went with him, but Blalok stayed behind. It was natural enough. Blalok was the administrator, but Kennon felt uneasy. Nor would he have felt any better if he could have heard what went on after he left.

Alexander looked quizzically at Blalok after the door closed behind the two men.

"Well, Evald, what do you think? Does it strike you that Kennon's sincere -- or does it sound as though he has something up his sleeve?"

"If he does," Blalok said, "I don't know what it could be. I wouldn't take a job on Olympus if you gave it to me."

"If he doesn't know about the place," Alexander said thoughtfully, "it's probable that his suggestion was honest. I think it is but I'm not sure. He worries me now that I can't read him. I think I'll send Douglas back here to watch him."

"Why? In my book that'd be a poor choice. After all, you said Kennon saved his life. He should be grateful."

"You don't know Douglas," Alexander said. "He hates Kennon's guts for what he did."

"What did he do?"

"He made Douglas feel inferior. And there's no surer way to gain my cousin's undying enmity." Alexander laughed. "I know," he said. "He'd like to kill me, too."

Blalok shrugged.

"But in the meantime I want you to keep an eye on Kennon. If his outline is all right, I'm going to authorize him to set up this experiment. I want to give him every possible chance. I like him -- and he's done good work. I wouldn't want him to feel that I distrust him."

"Which you do, of course," Blalok said dryly.

Alexander smiled. "Actually," he said with equal dryness, "I distrust everyone."

CHAPTER XVI

"If you think this job is easy, you have another think coming," Kennon said bitterly. "I hired out as a veterinarian, not as a nursemaid for a bunch of psychoneurotic humans and superstitious Lani. The place is jinxed, they tell me. -- Ha! Jinxed! Sure it's jinxed! What job wouldn't be with a bunch of goofballs like these I've got working on it.

"I can't keep a Lani here for two weeks without having her throw a catfit, and the superstitious idiots are affecting the men -- who ought to know better! I wish I'd never have opened my big mouth to Alexander! As far as I'm concerned he can take this job and--"

"Hey -- take it easy, man!" Blalok said. "You're heading straight for a nervous breakdown."

"And why shouldn't I?" Kennon asked. "Nothing goes right. There's always trouble. I order materials -- they don't arrive. There's worker trouble, equipment trouble, installation trouble. Everybody's cutting corners, trying to get done faster and away sooner -- and all they do is mess up work that should have been done right the first time. We should have been finished last week, but we have another week to go, at least unless some bumble-fingered beanbrain gets another bright idea that sets us back again. I'm sick to death of it!"

"I know, I know," Blalok said soothingly, "and I'm sorry."

"Sorry? What good is that? You and Jordan come up here in relays. Just what do you think you'll find? Or has Alexander dragged you into keeping an eye on me because I don't like someone snooping inside my skull?"

"It's not that," Blalok said. "It's just--"

"Oh, don't make excuses. You know and I know the Boss-man is suspicious." Kennon shrugged. "Normally I wouldn't blame him but it's a damned nuisance with things the way they are. All we have is one more bay and a hall to finish - but if----"

"Now wait a minute," Blalok said. "Get the kink out of your neck and simmer down. Sure -- the Boss-man told us to keep an eye on you -- but that's not why I'm here this time."

"Well?"

"Douglas came back this morning."

"What for?"

"I don't know." Blalok's face wore the noncommittal look it always wore when he was taking liberties with the truth.

"You're probably the worst liar in the galaxy," Kennon chuckled. "He's here to breathe down my neck, isn't he?"

Blalok nodded.

"Keep him off my back for another week and he can breathe all he wants to. I'll be done then."

"I can't promise a thing."

Kennon shrugged. "It's too much to ask, I guess."
"But I can try," Blalok added.
"That's enough for me," Kennon grinned. "Has he turned Alexandria into a shambles yet?"
"Not yet, but everyone's uneasy."
"I can't blame them. That young fellow's undiluted poison. By the way, how does he look?"
"About the same."
"The medics must have done a good job," Kennon said.
"The Boss-man shipped him to Beta for treatment," Blalok said. "He didn't trust the docs out here."
"That figures. At any rate Douglas couldn't have gone to a better place."
"What happened to him?"
"He stuck his nose where he shouldn't," Kennon said pointedly.
Blalok stiffened.
"I'm sorry, Evald. Even if you knew, I couldn't talk about it. What I know about Douglas is classified!"
"Well -- Douglas is doing plenty of talking. Claims his stay in the hospital was all your fault."
Kennon shrugged. "That's his opinion. And as long as he stays out of my way he's welcome to it."  
Blalok looked at Kennon's haggard face with mild concern, "Doc," he said, "you'd better take it easy. You're going to pieces."
"I'll be through here in another week, I'll have this all wrapped up."
"Providing you're not wrapped up first."
"Eh?"
"In a shroud. You look like a walking corpse."
Kennon chuckled wearily. "Sometimes I feel like one. But I'd like to get this job finished."
"Well, I'll do what I can," Blalok said. "I'll try to keep him down at Alexandria for a few days."
"It'll be enough," Kennon said. More than enough -- he added mentally. The coils of fuel wire were ready to load, and the power slugs for the ship's reactor were already stored in the power plant building here at Olympus. Three more days and the old spacer would be as ready to fly as she would ever be. And after that, it was in the lap of fate.

He ushered Blalok to his jeep and watched until he disappeared.
"I'm getting to be a first-class liar," he remarked wryly to himself as he turned back to the temporary quarters he was occupying at the station. "And the bad thing about it is that I'm actually enjoying it."

A few weeks ago an admission like that would have been inconceivable. It was odd, he thought, how one thing led to another and produced an end that could not be foreseen. Now he could lie and dissemble with the best. He had no compunction about falsifying a requisition, or stealing what he could not obtain with apparent honesty. His character had sunk to an all-time low, he reflected with grim humor as he walked into the shadow of the main building. Neither Blalok's nor Jordan's frequent visits bothered him. Both men were creatures of habit and both were married. They stayed home at night -- and it was nighttime that he worked on the spacer. The project afforded him a perfect cover and it was only minutes by jeep away from the crater.

Even so, the double duty was an appalling task. And it would have been impossible if it wasn't for Copper. Her quick fingers, keen eyesight, and uncanny memory made the work seem simple, and neither the tediousness of repairing miles of circuitry nor the depressing environment of Olympus Station seemed to bother her. While he worked with the men on the project she restored and reassembled circuits in his quarters and at night they replaced them in the old ship. And the God-Egg was rapidly becoming operational.

Kennon wondered what it was about Copper that made her so different from the rest. Olympus didn't bother her at all. In fact she seemed to thrive on the depressing atmosphere that filled the Station. Perhaps it was because she had violated the tabu about the God-Egg so often that ordinary superstition had no effect upon her. He shrugged. He had troubles enough without worrying about Copper's motivations, and not the least of these was taking the God-Egg into space.

Kennon looked forward to blast-off with distinct misgivings. There was too much about the ancient spacer that was strange -- and too much that was terrifying.

Basically the ship was an ion-jet job with atomic primaries and a spindizzy converter that might possibly take her up as high as middle yellow Cth -- far enough to give her a good turn of speed, but not enough to compensate for timelag. Her screens were monstrosities, double polyphase lattices that looked about as spacetight as so many sieves. There were no acceleration dampers, no temporal compensators, no autopilot, no four-space computer, and the primaries operated on nuclear rather than binding energy. The control chairs weren't equipped with forcefields, but instead had incredibly primitive safety webs that held one in place by sheer tensile strength. Taking a ship like that into space was an open invitation to suicide. A man needed a combination of foolhardy bravery and incredible fatalism to blast off in a can like this. He had the stimulus, but the knowledge of what he would face troubled him.
more than he cared to admit. More and more, as he understood the ship, he was amazed at the courage of the ancients who had blithely leaped into hyperspace in these flying coffins with no more motivation than to see what was beyond the nearest star. And in ships more primitive than this men had swept through the star systems nearest Earth in the outward expansion of the First Millennium.

He sighed. The breed of man must have been tough in the old days -- and he'd soon be finding out if any of that ancient toughness remained.

He opened the door to his quarters.

Copper was sitting in his favorite chair, a pile of completed assemblies neatly stacked beside her, and a disorderly file of crumpled cloth at her feet. Her face was sullen as she looked up at him. "I've had about all of this I'm going to take," she said mutiniously as she stirred the heap of cloth with a bare foot. "Not even you are going to make me wear those -- things!"

Kennon sighed. It was the same old story. For months he had been trying patiently to indoctrinate Copper with a minimum of civilized habits, but she was quite literally a savage. In her entire lifetime she had never worn clothing, and to encase her body in hose, kilts, blouse, and sandals was a form of torture. She scratched, wiggled, and twisted at the garments until she looked as bad as she felt, and would usually finish a session by tearing off the offending clothes and sulking. She was doing it now.

"You must act like a civilized human being," Kennon said mildly. "You're simply going to have to learn to wear these clothes properly."

"Why? I'm more comfortable as I am."

"That's not the point. You are going to be living in human society and you must act human. The only planet where you could get away with nudity is Santos, and we're not going there."

"Why not?"

"I've explained it time and again. We'll have to go to Beta. That's the only place I know where you'll have a fair hearing. And on Beta people wear clothes. They have to. It's cold, even in summer, and in the wintertime, there's snow."

"What's snow?"

"Ice crystals that fall like rain, but I've told you this before."

"And I still don't believe it."

"Believe it or not you're going to wear those things. Now put them on!"

She looked at him with mutiny on her face. "All right, slave driver," she muttered as she picked up the clothing, "but I hope you'll itch someday and be unable to scratch."

"And try to wear those garments more gracefully. You make them look like a sack."

"They feel like one. I keep thinking that all I need is a tag around my neck."

"You haven't much time to get used to them," Kennon said. "We're leaving this week."

"So soon?"

"Yes -- and you'll wear those things to the ship, into the ship, and all the time we're on the ship. You'll keep wearing clothing until it looks right."

"Slave driver!" Copper hissed.

"Slave," Kennon answered equably.

Copper giggled. The sound was utterly unexpected, and completely incongruous. That was the wonder of her, Kennon reflected. Her mercurial temperament made life something that was continually exciting. She was a never-ending delight.

CHAPTER XVII

It was the last trip. Kennon loaded the jeep with the last-minute items he would need. The four reactor cores in their lead cases went aboard last and were packed inside a pile of lead-block shielding.

He helped Copper in and looked back without regret as the bulk of Olympus Station vanished below him in the dusk. The last of the work crew had left that afternoon. The station was ready for occupancy. His assignment had been completed. He felt an odd pleasure at having finished the job. Alexander might not be happy about his subsequent actions, but he could have no complaint about what he did while he was here.

"Well -- say good-bye to Flora," he said to Copper.

"I don't want to," she said. "I don't want to leave."

"You can't stay. You know that."

She nodded. "But that doesn't make me any less regretful."

"Regretful?"

"All right -- scared. We're going to try to make the God-Egg fly again. Not only is it sacrilege, but as you've often said, it's dangerous. I have no desire to die."
"You have two courses---"

"I know -- you've pointed them out often enough," Copper said. "And since you decided to go I'd go with you even though I knew the Egg would blow up."

"You're quite a girl," Kennon said admiringly. "Did I ever tell you that I love you?"

"Not nearly often enough," Copper said. "You could do it every day and I'd never get tired of hearing it."

The jeep settled over the lava wall. "We'll leave it in the passageway when we're through," Kennon said. "Maybe it will survive blast-off."

"Why worry about it?" Copper asked.

"I hate destroying anything needlessly," Kennon said.

"And since we have plenty of time, we might as well be neat about our departure."

He was wrong, of course, but he didn't know that.

* * *

Douglas Alexander checked the radarscope and whistled in surprise at the picture it revealed. "So that's where he's going," he said softly to himself. "Cousin Alex was right as usual." He grimaced unpleasantly. "He's up to something -- that's for sure." His face twisted into an expression that was half sneer, half triumph. "This is going to be fun." He moved the control, and his airboat, hovering silently at five thousand meters, dropped toward the ground in free fall as Douglas loosened the Burkholzt in the holster at his waist. "But what is he doing?" he muttered. The question hung unanswered in the still air of the cabin as the airboat dropped downward.

Douglas hadn't been impressed with Blalok's attempt at a delaying action. Normally he might have been, but his fear of his cousin was greater than his respect for Blalok. The superintendent had only succeeded in accomplishing something he had not intended when he had tried to dissuade Douglas from visiting Kennon. He had made Douglas cautious. The airboat and long-range surveillance had been the result. For the past two nights Douglas had hung over Olympus Station, checking the place -- to leave at dawn when the new day's work began. For two nights Kennon had been lucky. He had departed for the Egg shortly before Douglas took up his station, and had returned after the watcher had called it a night and had returned home. But this last night, Kennon left late -- and his departure was noted.

"Wonder who's the girl with him?" Douglas said as the boat plunged down. "Well, I'll be finding out in a minute."

Kennon's head jerked upward at the sound of air whistling past the airboat's hull, and a wave of icy coldness swept through his chest. There was no question that he was discovered. His shoulders sagged.

"Well -- it was a good try," he said bitterly as Copper looked at him with sudden terror on her face.

"I don't want to die," she wailed.

"You won't -- not if I can help it," Kennon said. "Move away from me -- quickly!"

"But--"

"Do as I say!" Kennon's voice was sharp. "And keep that hood over your face."

The airboat settled softly on the ash in front of him, the door snapped open and Douglas dropped to the ground, Burkholzt jutting from his pudgy fist.

"My, my," Douglas said, "what have we here? Dr. Kennon and a woman! I thought better of you than that, Doctor. And all dressed up in antiradiation suits. This is interesting. Just what are you doing up here on the mountain so late at night -- prospecting?"

"You might call it that," Kennon said. His body sagged with relief. Douglas thank Ochsner it was Douglas! He was running true to form -- talking when he should have been shooting.

Douglas jerked his head toward Copper, standing a few feet to his left. "Who is she?"

"None of your business," Kennon snapped, hoping that his outburst covered Copper's gasp of surprise and fear, and knowing that it didn't.

"I'm making it my business. There's something funny going on around here."

Kennon blinked. Could it be that Douglas didn't know? Had he been watching them on radar? Durilium was radar-transparent. It absorbed and dissipated electromagnetic waves rather than reflecting them. For a second he felt a tiny surge of hope.

"Stand where you are," Douglas said as he stepped over to the half-paralyzed Copper and jerked the hood back from her face. For a moment he looked puzzled. "Just who are you?" he demanded. "I don't recall seeing you before." And then recognition dawned. "Old Doc's Lani!" he gasped.

"She works for me now," Kennon said.

Douglas laughed. It wasn't a nice sound. "All dressed up?" he asked. "Nice work."

"That's my fault," Kennon said.

"You know the rules," Douglas said. "I could blast you both."
"Go ahead," Kennon said, "but if you do, you'll never find out what we're doing up here."
Douglas hesitated. Kennon's voice was flat and filled with utter conviction.
"There's a reason why Copper's wearing that suit," Kennon continued, "and you won't know that either."
The Burkholz swiveled around to point at Kennon's belly. "I've had about enough of this. Let's have it. Tell me what you're doing here!"
"I'll do better than that," Kennon said promptly. "I'll show you. You'll be surprised at what we've uncovered."
He made his muscles relax, and forced himself to speak naturally. Copper, he noted, was still rigid with terror. The Alexanders -- any of them -- were everything he had said they were. They were the masters here. And despite Copper's boast, she was as susceptible to their influence as any other Lani.
"All right," Douglas said, "show me this thing I'd never be able to find without your help." He half turned to Copper. "Stay where you are, Lani," he said. "Don't move until I come back."
"Yes, Man Douglas," Copper replied. Her voice was flat, colorless, and submissive.
Kennon shuddered. He had never heard precisely that tone from her before. One word from Douglas and she had become a zombie -- a mindless muscle preparation that existed only to obey. Anger filled him -- anger that one he loved could be ordered by someone who wasn't worth a third of her -- anger that she obeyed -- anger at his own impotence and frustration. It wasn't a clean anger. It was a dark, red-splashed thing that struggled and writhed inside him, a fierce unreasoning rage that seethed and bubbled yet could not break free. For an instant, with blinding clarity, Kennon understood the feelings of the caged male Lani on Otpen One. And he sympathized.
"Follow me," he said and started around the ship.
"Stay -- no -- go ahead," Douglas said, "but remember, I'm right behind you."
Kennon walked straight up to the pit and pointed down at the dark bulk of the Egg, concealed in the shadows of the bottom.
"That's it!" he said.
"What? I don't see anything," Douglas said suspiciously.
"Here -- I'll shine a light." Kennon reached for his belt.
"No you don't! I know that trick. You're not going to blind me. Take that torch loose carefully -- that's it -- now hand it to me." Douglas' hand closed over the smooth plastic. Cautiously he turned on the beam and directed it downward.
"A spacer!" he gasped. "How did that get here?" He leaned forward to look into the pit as a dark shadow materialized behind him.
Kennon choked back the involuntary cry of warning that rose in his throat. Copper! His muscles tensed as her arm came up and down -- a shadow almost invisible in the starlight. The leaning figure of Douglas collapsed like a puppet whose strings had been suddenly released. The torch dropped from his hand and went bouncing and winking down the wall of the pit, followed by Douglas -- a limp bundle of arms and legs that rotated grotesquely as he disappeared down the slope. Starlight gleamed on the Burkholz lying on the lip of the crater, where it had fallen from his hand.
"I told you that not even Man Alexander could order me since I gave my love to you," Copper said smugly as she peered over the edge of the pit, a chunk of lava gripped in one small capable hand. "Maybe this proves it."
"Douglas isn't Alexander," Kennon said slowly as he picked up the blaster, "but I believe you."
"Didn't I act convincingly?" she said brightly.
"Very," he said. "You fooled me completely."
"The important thing was that I fooled Douglas."
"You did that all right. Now let's get him out of that pit."
"Why?"
"The jet blast will fry him when we take off."
"What difference would that make?"
"I told you," Kennon said, "that I never destroy things unnecessarily -- not even things like Douglas."
"But he would have destroyed you."
"That's no excuse for murder. Now go back to the jeep and fetch a rope. I'll go down and get him out."
"Do we have to bother with him?" Copper asked, and then shrugged. It was an eloquent gesture expressing disgust, resignation, and unwilling compliance in one lift of smoothly muscled shoulders.
"There's no question about it," Kennon said. "You're becoming more human every day."
He chuckled as he slid over the edge of the pit following the path Douglas had taken a moment before. He found him sitting on a pile of ashes, shaking his head.
"What happened?" Douglas asked querulously. There was fear in his voice.
"Copper hit you on the head with a rock," Kennon said as he bent over and retrieved the torch, still burning
near Douglas' feet.

"The Lani?" Douglas' voice was incredulous.

"Not a Lani," Kennon corrected. "She's as human as you or I."

"That's a lie," Douglas said.

"Maybe this spacer's a lie too. Her ancestors came in it -- a pair of humans named Alfred and Melissa Weygand. They were Christian missionaries from a planet called Heaven out in Ophiuchus Sector. Went out to convert aliens and landed here when their fuel ran out." Kennon paused. "That was about four millennia ago. Their descendants, naturally, reverted to barbarism in a few generations, but there's enough evidence in the ship to prove that the Lani were their children."

"But the tails -- the differences -- the failure of the test," Douglas said.

"Mutation," Kennon replied. "Those old spindizzy converters weren't too choosy about how they scattered radiation. And they had come a long way." He paused, looking down at Douglas, feeling a twinge of pity for the man. His world was crumbling. "And there was no other human blood available to filter out their peculiarities. It might have been done during the first couple of generations, but constant inbreeding fixed the genetic pattern."

"How did you discover this?" Douglas asked.

"Accident," Kennon said briefly.

"You'll never be able to prove they're human!" Douglas said.

"The ship's log will do that."

"Not without a humanity test -- they can't pass that."

"Sorry to disappoint you. Your grandfather used the wrong sort of sperm. Now if there had been a Betan in the crew--"

"You mean she's pregnant!"

Kennon nodded. "There's been mutation on Beta," he said. "And it's apparently a similar one to hers. Betan-Lani matings are fertile."

Douglas's shoulders sagged, and then straightened. "I don't believe it," he said. "You're just a damned sneaking spy. Somehow or other you got a spacer in here after you wormed your way into Cousin Alex's confidence -- and now you're going to space out with the nucleus of a new farm. Just wait. When Alex learns of this the galaxy'll be too small to hold you."

"Don't babble like a fool!" Kennon said with disgust. "How could I land a spacer here without being spotted? You sound like a two-credit novel. And even if I did -- would it be a can like this?" Kennon played the torch over the blue-black durilium protruding from the ashes.

Douglas' eyes widened as he took in the details of construction. "What an antique!" he blurted. "Where did you get this can?"

"I found it here."

"Tell me another one."

"You won't believe," Kennon said flatly, "because you don't dare believe. You have a mental block. You've killed, maimed, tortured -- treated them like animals -- and now your mind shrinks from admitting they're human. You know what will happen if the old court decision is reversed. It will wreck your little empire, dry up your money, break you -- and you can't stand the thought of that. You don't dare let us leave, yet you can't stop us because I have your blaster and I'd just as soon shoot you as look at your rotten face. Now get on your feet and start climbing if you want to stay alive. We're getting out of here, and you'll fry inside this pit."

"Where are you taking me?"

"Back to your airboat. I'm going to tie you up and set you off on autopilot. You'll be able to get loose quickly enough but it'll be too late to stop us. We'll be gone, and you can think of how you'll manage to face the human race."

"I hope you blow yourself and that antique clear out of space."

"We might. But you'll never know for sure. But mark this -- if I live I'll be back with the Brotherhood. You can count on it."

They struggled up the side of the pit and halted, panting, on the rim. "How much radiation was down there?" Douglas asked worriedly.

"Not enough to hurt you."

"That's good." Douglas accepted the statement at face value, a fact which failed to surprise Kennon. "You know," he said, "I've been around Lani all my life. And I know that they're not human. No self-respecting human would take a tenth of what they put up with."

"Their ancestors didn't," Kennon said. "They fought to the end. But your Grandfather was a smart man even though he was a Degrader."
"He wasn't!" Douglas exploded. "No Alexander is a Degrader."

"He realized," Kennon went on, "that he'd never succeed in enslaving the Lani unless he separated the sexes. And since women are more subjective in their outlook -- more pliable -- he picked them for his slaves. The males he retired to stud. Probably the fact that there were more women than men helped him make up his mind.

"In every society," Kennon went on inexorably, "there are potential freeman and potential slaves. The latter invariably outnumber the former. They're cowards: the timid, the unsacrificing -- the ones that want peace at any price -- the ones who will trade freedom for security. Those were the ones who hid rather than risk their lives fighting the aggressor. Those were the ones who survived. Old Alexander had a ready-made slave cadre when he finished off the last of the warriors. For four centuries the survivors have been bred and selected to perpetuate slave traits. And the system works. The men don't want freedom -- they want liberty to kill each other. The women don't want freedom -- they want males. And they'd serve them precisely as the Sarkian women serve their menfolk. You've killed any chance they had to become a civilization. It's going to take generations perhaps before they're reoriented. There's plenty you Alexanders should answer for."

"If there's any fault, it's yours," Douglas snarled. "We were doing all right until you came here. We'd still be doing all right if I had shot you both." His shoulders sagged. "I should have killed you when I had the chance," he said bitterly.

"But you didn't," Kennon said, "and to show my gratitude I'm letting you get away with a whole skin. I don't expect you to be grateful, but at least you'll not be on my conscience. I don't enjoy killing, not even things like you."

Douglas sneered. "You're soft -- a soft sentimental fool."

"Admitted," Kennon said, "but that's my nature."

"Yet you'd destroy the family, wreck Outworld Enterprises, and throw a whole world into chaos over a few thousand animals. I don't understand you."

"They're human," Kennon said flatly.

"Admitting they might once have been, they're not now."

"And whose fault is that?"

"Not ours," Douglas said promptly. "If there is any fault it's that of the court who decided they were humanoid."

"You didn't help any."

"Why should we? Does one treat a shrike like a brother? ---or a varl? ---or a dog? We treat them like the animals they are. And we've done no worse with the Lani. Our consciences are clear."

Kennon laughed humorlessly. "Yet this clear conscience makes you want to kill me, so you can keep on treating them as animals -- even though you know they're human."

"I know nothing of the sort. But you're right about the killing, I'd kill you cheerfully if I had the chance. It's our necks if you get away with this. Of course, you probably won't, but why take the chance. I like my neck more than I like yours."

"You're honest at any rate," Kennon admitted. "And in a way I don't blame you. To you it's probably better to be a rich slaver living off the legacy of a Degrader than a penniless humanitarian. But you've lost your chance.

Douglas screamed with rage. He whirled on Kennon, his face a distorted mask of hate.

"Hold it!" Kennon barked. "I don't want to kill you, but I'll burn a hole clear through your rotten carcass if you make another move. I have no love for your kind."

Douglas spat contemptuously. "You haven't got the guts," he snarled. But he didn't move.

"Just stand still -- very still," Kennon said softly. The iron in his voice was not hidden by the quiet tone.

Douglas shivered. "I'll get you yet," he said, but there was no force in the threat.

"Here's the rope you wanted," Copper said as she emerged abruptly from the darkness. "I had a hard time finding it."

"You haven't been too long," Kennon said. "Now tie Douglas' hands behind him while I keep him covered."

"It's a pleasure," Copper murmured.

CHAPTER XVIII

"I'm frightened," Copper said, twisting uncomfortably in the shock chair beside Kennon's.

"After you have been so brave?" Kennon asked. "That's nonsense. It's just nervous reaction. Now web in like I showed you. It's time for blast-off. We don't dare wait much longer."

"All right -- but I have a feeling that this isn't right. Something is going to go wrong."

"I hope you don't have precognition," Kennon smiled. "I've checked everything. The ship is as good as she'll ever be. There's nothing more that we can do."

"There's one consolation," Copper said wanly. "At we'll die together."

"There's a better chance that we'll live together."

"I hope so."
"Ready?" Kennon asked.
She nodded.

He flipped the switches that would send the fuel rods into the reactor. Below them a soft, barely audible whine ascended the sonic scale to a point of irritating inaudibility. Kennon smiled. The spindizzy was functioning properly. He flipped a second bank of switches and a dull roar came from the buried stem. Ashes and pumice heated to incandescence were blown through the air. Molten drops of radioactive lava skittered across the durilium hull as Kennon advanced the power. The whole stem of the ship was immersed in a seething lake of boiling rock as the Egg lifted slowly with ponderous dignity into the night sky.

"Hang on!" Kennon said. "I'm going to hyper." His hand moved a red lever and the Egg shimmered and vanished with a peculiar wrenching motion into an impossible direction that the mind could not grasp. And the interceptor missile from Otpen One nosed through the space the Egg had occupied.

* * *

"We made it!" Kennon said, looking across the writhing semifluid control board, shifting oddly in the harsh yellow monochromatic light that pervaded the cabin. The screens were leaking like sieves, but they were holding well enough to keep Cth yellow from being anything more than an annoyance. He glanced over at Copper, a fantastically elongated Copper who looked like a madman's dream of chaos.

And Copper screamed! The sound echoed and re-echoed, dying away with a lingering discordant reverberation that made his skin tingle.

"Copper! It's all right! It's all fight! Stop it!"

Copper screamed again and her elongated figure suddenly foreshortened and collapsed into a small writhing ball from which two small pink hands emerged clutching at a gelid mass of air that flowed sluggishly around them.

And Kennon knew what he had forgotten! Hyperspace with leaky screens was nothing to inflict upon an unprepared mind. It is one thing to endure partial exposure after months of training, with experienced medics standing by to help you through the shock phase, but quite another to be thrust from a safe and sheltered existence into the mind shattering distortions of the Cth continuum.

The Egg was old. Her screens, never good at best, were hardly more than filters. Through the hull, through the drive lattice, the viciously distorted Cth environment seeped into the ship turning prosaic shapes of controls and instruments into writhing masses of obscene horror that sent extensions wiggling off into nothingness at eye-aching angles. A spaceman could take this -- knowing it wasn't real -- but a tyro could not.

Copper collapsed. Her mind, assaulted by sensations no untrained person should experience, went into shock. But she wasn't granted the mercy of unconsciousness. Terrified by a pseudo reality that surpassed her wildest nightmares, she stared wide-eyed at the control room and the thing that had been Kennon. She screamed until her throat was raw, until the monster beside her touched her with Kennon's hands. Then, mercifully, she felt a stinging in her arm and all sensation ceased.

Kennon stared glumly at the controls. Fleming alone knew how many objective years were passing outside as they hurtled through four-space. Subjectively it would only be hours aboard the Egg, but a decade -- or maybe a century -- might pass outside this mad universe where neither time nor speed had meaning. The old ships didn't have temporal compensators, nor could they travel through upper bands of Cth where subjective and objective time were more nearly equal. They were trapped in a semi-stasis of time as the ship fled on through the distorted monochromatic regions that bypassed normal space.

The Egg slipped smoothly out of the hyper jump, back into the normal universe. Beta floated above them, the blue shield of her atmosphere shining softly in the light of Beta's sun.

"Couldn't hit it that good again in a hundred tries," Kennon gloated. "Halfway across the galaxy -- and right on the nose." He looked at the shock chair beside him. Copper was curled into a tight ball inside the confining safety web, knees drawn up, back bent, head down -- arms wrapped protectingly around her legs -- the fetal position of catatonic shock.

He shook her shoulder -- no response. Her pulse was thready and irregular. Her breathing was shallow. Her lips were blue. Her condition was obvious -- space shock -- extreme grade. She'd need medical attention if she was going to live. And she'd need it fast!

"Just why, you educated nitwit," he snarled at himself, "didn't you have sense enough to give her that injection of Sonmol before we hypered! You haven't the sense of a decerebrate Capellan grackle!"


"Identify yourself -- give your license. Over."

"What port are you?"

"Hunterstown -- will you please identify? Over."

"Your co-ordinates," Kennon snapped. "Over."
"280.45--67.29 plus. Repeat -- request your identification."
"Pilot Kennon, Jac, Beta 47M 26429. I have no I.D. for the ship -- and you'll see why when I land. Over."
"Hunterstown Port to Kennon. You are not -- repeat not - cleared to land. Go into orbit and report your position. Over."
"Sorry, Hunterstown. You wouldn't have checked in if you didn't have room, and a hospital. This is an emergency. I'm setting down. Out."
"But--" The words got no farther. Kennon was already spinning the ship.
"All right -- we have you on the scope. But this is a class one violation. You may come in on Landing Beam One."
"Sorry. I have no GCA."
"What? -- what sort of ship are you flying?" The voice was curious.
"I'm matching intrinsics over your port. Talk me in when I break through the overcast."
"Talk you in?"
"That's right. My instruments are obsolete."
"Great Halstead! What else?"
"I have an Ion drive. Plus two radioactive."
"Oh no! -- And you still want to come in?"
"I have to. My passenger's in shock. She's going to have a baby."
"All right -- I'll try to get you down in one piece."
"Have an ambulance ready," Kennon said.
Kennon lowered the Egg through the overcast. Ground control picked him up smoothly and took him down as though it had been rehearsed. The Egg touched down in the radioactive area of the port. Decontamination jets hissed, sluicing the ship to remove surface contamination.
"Ochsnerr! what sort of a ship is that?" Ground Control's startled voice came over the annunciator.
"It's an old one," Kennon said.
"That's a gross understatement. Stand by for boarders. Ambulance coming up."
Kennon opened the airlock and two radiation-suited men entered. "At least you had sense enough to wear protective clothing in this hotbox," one said as they carefully unwebbed Copper and carried her out of the lock. "You wait here. The Port Captain wants to see you."
"Where are you taking her? What Center?" Kennon asked.
"What should you care? You've nearly killed her. The idea of taking a pregnant woman up in this death trap! What in Fleming's name's the matter with your brain?"
"I had to," Kennon said. "I had to. It was a matter of life and death." For once, he thought wryly, the cliche was true.
The Betan's face behind the transparent helmet was disgusted and unbelieving. "I hear that sort of thing every day," he said. "Am I supposed to believe it?"
"You'd believe it if you'd have been where I was," Kennon muttered. "Now -- whe're are you taking her?" he demanded.
The man arched blond eyebrows. "To the local Medical Center -- where else? There's only one in this area."
"Thanks," Kennon said.
He watched the ambulance flit off as he waited for the Spaceport Patrol. There was no further need for the protection suit, so he peeled it off and hung it in the control-room locker. Copper was right, he mused. It did itch.
The Port Captain's men were late as usual - moving gingerly through the radiation area. A noncom gestured for him to enter their carryall. "Port Captain wants to see you," he said.
"I know," Kennon replied.
"You should have waited upstairs."
"I couldn't. It was a matter of medicine," Kennon said.
The noncom's face sobered. "Why didn't you say so? All you said was that it was an emergency."
"I've been away. I forgot."
"You shouldn't have done that. You're a Betan, aren't you?"
Kennon nodded.
They drove to the Port Office, where Kennon expected - and got -- a bad time from the port officials. He filled out numerous forms, signed affidavits, explained his unauthorized landing, showed his spaceman's ticket, defended his act of piloting without an up-to-date license, signed more forms, entered a claim for salvage rights to the Egg, and finally when the Legal Division, the Traffic Control Division, the Spaceport Safety Office, Customs, Immigration, and Travelers Aid had finished with him, he was ushered into the presence of the Port Captain.
The red-faced chunky officer eyed him with a cold stare. "You'll be lucky, young man, if you get out of this with a year in Correction. Your story doesn't hang together."

It didn't, Kennon thought. But there was no sense telling all of it to a Port Captain. Under no circumstances could the man be any help to him. He had neither the power nor the prestige to request a Brotherhood Board of Inquiry. In rank, he was hardly more than a glorified Traffic Control officer. It would do no good to tell him an improbable tale of slavery on a distant planet. The only thing to do was wait out the storm and hope it would pass. If worst came to worst he'd use his rank, but he'd made enough stir already. He doubted if the Captain had authority to order him into Detention -- but he was certain to get a lecture. These minor officials loved to tell someone off. He gritted his teeth. He'd endure it for Copper's sake -- and to get out of here quietly. Alexander would undoubtedly have agents posted by now, and his only chance for temporary freedom of action was to get out of here with as little fuss as possible.

He sat quietly, his flushed face and tight jaw muscles betraying his impatience as the Captain paced up and down and talked on and on. The man sounded like he could go for hours. With increasing impatience Kennon listened to the cadenced flow of complaint and condemnation, occasionally inserting a "Yes, sir" or "Sorry, sir" or "No, sir" as the words flowed around him.

However, there had to be a breaking point somewhere, and the monotony was beginning to wear his temper thin. Another five minutes, he reflected, was about all he could take.

The door chime rang softly.

"Come in," the Port Captain said, breaking off in mid-tirade. The change in his manner was so abrupt that Kennon couldn't help smiling.

A young blond man in an interne's gray uniform entered the room.

"Yes, Doctor," the Port Captain said. "What can I do for you?"

"Do you have a Jac Kennon here? Dr. Jac Kennon?"

"Did you say doctor?" the Port Captain said in a half-strangled voice.

"You never let me tell you," Kennon said mildly, "that my landing here was a matter of medicine. Technically you have contributed to a delay in treatment."

The Port Captain's face paled. "Why didn't you say something?" he said.

"Against your gale of wind I would be but a faint breeze," Kennon said coldly. He turned to the interne. 'Tm Dr. Kennon." They bowed formally to each other.

"I'm Smalley, sir, from the medical center. Dr. Brainard sends his compliments and requests that you join him for consultation."

"The Port Captain--" Kennon began.

"Don't worry about it, Doctor. I'll relinquish responsibility to Dr. Brainard," the Captain said.

"I have placed a formal written request with your office," Smalley said stiffly. "You are relieved of further charge. Dr. Kennon is urgently needed. It is a matter of medicine."

The Captain looked relieved. On Beta it was poor policy to interfere with the doings of doctors and engineers -- or even doctors of philosophy.

"Very well. He's yours -- and I'm glad to be rid of him." The Port Captain bowed to Kennon and Smalley and stalked out of the office.

"Pompous little man," Kennon observed, "but he certainly can talk."

"Oh -- you know these Administrative people," the interne said depreciatingly. "One mustn't mind them. They're necessary nuisances." He eyed Kennon curiously. "How is it that you didn't stand on your professional rights?"

"I have my reasons -- but they have nothing to do with medicine."

"Oh -- I see. Ethical." The interne's voice was faintly sarcastic.

"Manners, Doctor -- manners." Kennon's voice was gentle but the interne flushed a dull red.

"Sorry, sir."

"Don't mention it. It's normal for a graduate to confuse liberty with license." Kennon smiled. "Don't worry. I shan't report you."

"That's good of you, sir." Smalley's face registered relief. Demerits were difficult to erase -- particularly ones of courtesy.

Kennon wondered if the young man would report himself. He doubted it. The interne didn't look the type -- probably he was dated for some obscure job, like a general practitioner. He shrugged. It took all kinds to make a profession. Even the Smalleys had their place.

"That girl you brought in," Smalley said as they entered a white car emblazoned with the three crosses, red, blue, and green, that represented the three fields of medicine. "She's an interesting case. I've never seen space shock
before. And the patient herself -- one would hardly believe she was a Betan."
"She isn't," Kennon said.
"So?" Blond eyebrows rose in inverted U's of surprise. "But that's hardly possible. Our tests indicate." "Don't you think that this is a matter for Dr. Brainard?" Kennon said icily. "Protocol--"
"Of course. Stupid of me -- but the case is so interesting. Half the center staff have seen her already. I wasn't proposing to discuss the case. It wouldn't be proper. Even though you are only a veterinarian."
"Only?" Kennon's voice was hard. "I shouldn't have to remind you of this, Mr. Smalley -- but I have been for the past two years on a world of bad manners. I expected better here at home."
Smalley flushed to the roots of his straw-colored hair. "Sorry, Doctor," he muttered. "I don't know what's the matter with me."
"I can tell you," Kennon said. "You've just graduated."
"How did you know?" Smalley said.
"I was a graduate once, myself -- not too long ago."
"How long, sir?"
"Class of Eighty-seven."
"That's twelve years ago," Smalley said.
Kennon nodded. Ten years lost. Not bad -- not bad at all. But Alexander could have done a lot in ten years.
"I meant no disrespect," Smalley said worriedly.
"I know it. But if you intend to practice on Beta, you'd better polish your professional manner. Now where I was, it didn't make much difference. Laymen often called me 'Doc.'"
Smalley was properly shocked. "I hope you didn't encourage them, sir."
"It was impossible to discourage them," Kennon said. "After all, when the man who hires you----"
"Oh -- entrepreneurs," Smalley said in a tone that explained everything.
* * *
The car stopped in front of the Medical Center's staff entrance. "This way, sir," Smalley said. He led the way down a green-tiled corridor to an elevator -- then down another corridor past a pair of soft-footed nurses who eyed them curiously -- looking at Kennon's tunic and sandals with mild disapproval in their eyes. Smalley stopped and knocked softly on a closed door.
"Enter," said a pleasant baritone voice from the annunciator.
"Dr. Brainard -- Dr. Kennon," Smalley said.
Kennon liked the man instantly. A plump, pink-cheeked man of middle age, with prematurely white hair, Dr. Will Brainard combined a fatherly appearance with an impression of quick intelligence. The fat that sheathed his stocky body had obviously not touched his mind. Brainard rose from the deep chair near the window where he had been sitting, knocked the ashes from his pipe, and bowed stiffly. His eyes -- sharp points of blue in the smooth pinkness of his face - surveyed Kennon curiously.
"So you're the young man who takes untrained pregnant women for rides in old-fashioned spacers," he said. " Didn't you know what would happen?"
"I was in a hurry, Doctor," Kennon said.
"Obviously. Now tell me about it." Brainard looked at the eager-faced interne standing behind Kennon. "That will be all, Smalley," he said.
Kennon waited until the door closed. "Ordinarily," he said, "I'd never have done a thing like that, but there were some very pressing reasons. However, I should have given her an injection of Somnol before we started. I'm criminally liable. If anything happens to her----" His voice was tight with worry.
"You'd give her an injection?" Brainard said. "I hope you didn't mean that."
"But I did, sir. I've given thousands of Lani injections."
"What's a Lani?"
"She is, sir. The impression has been that her race isn't human."
"Nonsense -- it's obvious she is." "A Brotherhood Court of Inquiry didn't think so."
"Hmm. Is that so?"
"Yes, sir. -- But before I go on, tell me, how is she?"
"Oh, she'll be fine. A little mental therapy and plenty of rest are all she needs. She's a remarkably healthy young woman. But this is beside the point. There are a number of unusual features about this case that need investigation."
Brainard took a standard hospital form from his desk. "Mind if I ask you some questions, Doctor?"
"Not at all but you are due for some unpleasant shocks as you go through that form."
"I believe I can survive them," Brainard said dryly.
"This is professional confidence---" Kennon began.
"Of course, of course," Brainard said impatiently. "Now let's get on with it."

* * *

"This is the most amazing tale I've ever heard," Brainard said slowly. "Are you certain you are telling the truth?"

Kennon grinned. "I don't blame you for not believing me -- but the evidence is conclusive, and there is enough documentary evidence in the space ship -- and in the fact of the ship itself to prove what I am saying. Laboratory tests here will establish the fact that Copper's child is also mine. And as for Flora, a Brotherhood Investigation Team can prove that part."

"That will be attended to," Brainard said grimly.

"But how did you deduce she wasn't from a Betan colony?" Kennon asked.

Brainard smiled. "That wasn't hard. Her sun tan and the condition of her feet proved she was a practicing nudist. No Betan girl ever practices nudism to my knowledge. Besides, the I.D. tattoo under her left arm and the V on her hip are no marks of our culture. Then there was another thing -- the serological analysis revealed no gerontal antibodies. She had never received an injection of longevity compound in her life. This might occur, but it's highly improbable. The evidence indicates that she's extra-Betan."

Kennon nodded.

"But this business of her being fifteen years old! That's impossible. She has the development of a woman of twenty-five."

"Remember the Alpha V colony?" Kennon said.

"Of course -- oh -- I see! It could be something like that. Certainly -- strong yellow G-type sun -- an isolated colony serviced at twenty-year intervals -- there was a marked physical precocity."

"And if this had been continued for several millennia?" Kennon asked.

"Hmm -- I see. Yes, it's possible. On Alpha V the colonists grew from infancy to maturity in fifteen years."

"And wasn't Heaven one of our early colonies?"

"Yes -- it was established after the Great Schism near the end of the First Millennium -- when science and religion split irrevocably on this world. We packed the whole lot of them off to a world of their own where they could develop as they pleased. They called it Heaven -- odd name for a fogworld - but there's no accounting for tastes." Brainard chuckled.

"I thought that was the case, but I couldn't remember. My ancient history is pretty weak."

"You should read more," Brainard said. "But as I see it -- this girl is of Betan ancestry providing your theory and the facts coincide."

"Which could also explain why an outworld species of agerone would be toxic. They tried to prolong Lani life and met with failure. Our plants are mutant forms."

"Just as we are a mutant race," Brainard said, "or partly mutant." He sighed. "You have brought us a great deal of trouble, Kennon. You are bringing matters to a head. If our investigations prove your statements, we are morally bound to open the Lani question. And if those people are of Betan origin -- that fellow Alexander will have plenty to answer for."

"I don't believe it is really his fault," Kennon said slowly. "I don't think he has ever known the truth."

"Why didn't you tell him?"

"The answer to that should be obvious. Even though I trusted him completely, I could never be sure. He has a Free Trader background and those people can't be trusted where money's concerned. The whole Kardonian culture is an outgrowth of Free Traderism: small business, independent corporation, linear trusts, and all the cutthroat competition such a culture would naturally have. It's a regular jungle of Free Enterprise. I couldn't predict how he would react. He could either act in a moral manner and make restitution, or he could quietly cut our throats and go on with his business."

"I see. The temptation to cut a throat might be overwhelming."

"They fight commercial wars," Kennon said.

"Disgusting -- utterly uncivilized! Under the circumstances you had no other course. Still, they have no moral right to enslave human beings."

"There is always the element of doubt. Maybe they didn't know. After all, an impartial court declared the Lani alien - and the Betan mutation isn't known throughout the Brotherhood."

"One doesn't go around broadcasting data on the variations of one's germ plasm," Brainard said. "That's a private affair - a matter of personal privacy."

"And public safety?"

Brainard nodded. "We're no more courageous than any other civilization. We have no desire to borrow trouble.
"We are content to leave things alone."

"That's the trouble," Kennon said. "We're all content to leave things alone. If I hadn't found the spaceship I'd not have been able to lay aside my moral conditioning. And if I had not, Copper would not have become pregnant and forced me into these drastic actions. It's even possible that I would have done nothing." He grimaced. "And when I left Alexander's employment mnemonic erasure would have removed all memory of the Lani's human origin." He shrugged. "I still am not certain that it wouldn't have been the wiser course. Naturally, once I knew, I couldn't do anything else than what I did."

"Naturally," Brainard said. "Humanity reaches the heights when it faces questions of moral responsibility."

"To mankind," Kennon added heavily. "We have a convenient blind spot regarding our moral responsibility to other intelligent races."

"A harsh fact, but true -- and who is to judge whether it is right or wrong? We achieved dominance of Earth by our moral responsibility to family, tribe, and nation -- and we nearly exterminated ourselves when we forgot that this responsibility went beyond nations and embraced all mankind. We learned that after the Exodus. As for the other races - perhaps someday we will learn moral responsibility for all intelligence -- but we are not ready for that yet. That's too big a mental hurdle." Brainard sighed. "We are what we are, and we change slowly. But we change."

"True enough," Kennon said. "But it's hard to be philosophical about it."

"You're young. Live a couple of centuries and you will understand patience."

Kennon smiled.

"You know," Brainard said thoughtfully, "you still have plenty of things to do."

"I know. I'll have to make a transcript of this discussion, have it witnessed, and make a sealed record. I have to arrange for the reposition of the evidence inside the Egg, and a complete recording of the Egg itself."

"And to be safe you'll need several facsimiles, properly attested. The arms of these outworld entrepreneurs are long, and unfortunately not all Betans are models of honesty."

"I'd better get started then."

"Let me help you," Brainard said. "I have a little influence in this area - and your cause interests me." He picked up the phone on his desk.

Kennon sighed. He had found an ally.

CHAPTER XIX

"What are you going to do with that girl?" Brainard asked.

"Formalize our mating as soon as she is able to get out of bed," Kennon replied.

"She is an ignorant, untrained savage!" Brainard protested. "You should hear the stories the nurses tell about her!"

Kennon chuckled. "You don't have to tell me about those. I've lived with Lani for two years. But she's not stupid."

"What are your plans?"

"After we establish her humanity legally," Kennon said, "I'm going to send her to school."

"For twenty years?"

"If necessary. But I don't think it will take that long. She has some schooling."

"But no training -- and what of the Lani in the meantime?"

"I have plans for that. I'm going back to Kardon and give Alexander a chance to make restitution. I think he is an honorable man. Slavery may be as revolting to him as it is to any civilized human. He deserves a chance to rectify his grandfather's error."

"That is reasonable -- and in the best traditions of the Brotherhood."

"Furthermore, it's practical," Kennon said. "Alexander is the only one fully qualified to handle the problems of enfranchisement. He's known the Lani all his life, and he is an executive type. A Brotherhood committee would probably botch the whole affair. What with colonial jurisdiction, territorial rights, and all the legal quibbling that committees love, the Lani would get a poor deal. And there's no reason to wreck the lives of a couple of hundred million Kardonians because the rightful owners of Kardon were illegally enslaved. That happened too long ago to have any practical meaning. There are other and better solutions."

"What?"

"How should I know?" Kennon asked. "But I'm sure Alexander will. That's his field."

"All you have to worry about is whether he'll co-operate," Brainard said.

"He'll co-operate once he knows the score," Kennon said confidently. "And he'll have to make some form of restitution. But it shouldn't involve Kardon. Actually the Lani were never in a position to develop that world. They'd probably have remained on Flora indefinitely. The old court records showed no tendency for their culture to expand. They were an inbred group, a static, balanced society in harmony with their environment. In nearly thirty-five
hundred years their numbers increased only to a few thousand. Actually there is a good possibility that the race would ultimately have died out if Old Alexander hadn't enslaved them and instituted a controlled breeding program. There are more Lani alive today than there were at the height of their power. So in a way Old Alexander did them a favor. He kept their race alive. All we can expect is a fair and just settlement."

"But if Alexander doesn't co-operate?"

"That's where you come in. You'll be a watchdog. If you don't receive annual progress reports from me -- and see or talk to me personally every second year, you are released from our bond and can do what you wish with the evidence I've accumulated."

"We'd better get this into Private Record," Brainard said. "We can transcribe an agreement and place it in the Public Repository."

"A good idea and we'd better waste no time. Alexander might still be looking for me -- and if he is, it's merely a question of time before he catches up."

"Ten years have passed. It's doubtful. But we could keep you here at the Center."

Kennon shook his head. "Too dangerous. And besides it would compromise you. No -- we'll get everything possible done to make the Lani's case airtight, and then I'll return to Kardon. It will put our case in a better light if it ever comes to trial, if I go back voluntarily. Anyway -- I'm morally bound to return. Now let's make this record."

"It's your decision," Brainard said. "And it's your neck - but I must admit that I agree with you."

"I'll feel safer when we get the legal details clarified," Kennon said.

"And what of the girl?"

"Can you take care of her if I have to leave quickly?"

"Of course. I'll give her personal attention, and after she has her child I'll see that she is sent to you."

"That's decent of you, Doctor."

"It's my moral responsibility," Brainard said as he slipped a new tape into the recorder.

* * *

Copper responded quickly to rest and therapy. The space shock cleared up quickly. The gerontological treatments put her to bed again, but within a month she was completely normal, and her lifespan was now that of a normal human. She could look forward to some four hundred years with Kennon -- and the prospect was not unpleasant. The Center fascinated her. Never before had she seen a hospital devoted to the care and treatment of humans. It was a far cry, in its polished steel and stone magnificence, from the tiny primitive structure over which Kennon had presided. Yet both places served the same purpose. Perhaps Kennon was right -- that there was no difference between man and Lani. The idea was not nearly as unbelievable as it was at first.

"I never realized what it meant to be human," Copper said as she held Kennon's hand. "It is nice to feel important and to know that our child is a member of the race that rules the galaxy."

"So you're convinced?" Kennon chuckled.

"The serological identity--" she began.

"Hmm. You've been getting some education, I see."

"Well," Copper smiled, "I didn't think you wanted a stupid woman. I can read -- and since you are around so seldom nowadays, there is little else to do. I've been reading history, medicine, and novels," she finished proudly.

"A fine catholic selection," Kennon said, "Now if you add mathematics, sociology, and philosophy you'll have a well-rounded basic education."

"Dr. Brainard has been trying something he calls 'hypno.' He says it will help me learn faster. But I can't see that it's done much good."

"You won't until you need the information," Kennon said.

"That technique is only good for implanting basic knowledge, and much of that will merely suppleent or complete that which you already have. You won't be conscious of it."

"Oh -- I think I see what you mean."

"Of course, you'll have to continue your formal education. There's a great deal for you to learn. It should keep you busy while I'm away."

"Away? Where are you going?"

"Back to Kardon."

"But you can't! Alexander will destroy you."

"I think not. After all, ten years have elapsed since we left there and he's had plenty of time to think. Douglas must have told him about us. I wouldn't be surprised if he has already done something about your people."

She shivered. "He might -- but the question is what would he do? He could have killed them all!"

Kennon shook his head. "I don't think so. He never struck me as a mass murderer."

She shook her head. "You don't know the Alexanders like I do. I was raised by them. They're capable of
anything. But what is this business of ten years? That's silly. I haven't had my child yet -- and it doesn't take ten years of pregnancy to produce a baby."

"It's the difference between subjective and objective time," Kennon said. "We traveled here through hyperspace -- low Cth -- in an uncompensated ship, and there is little temporal flow in the levels below the blue."

"Oh -- of course."
Kennon chuckled. "That would have been Greek to you a couple of weeks ago. See where that basic data fits?"
"But I've always known that."
"You just think you have. Search your memory and see if I'm not right."
Copper shook her head. "It's very strange," she said. "But that's not important. This idea of going back to Kardon, though -- that's a different thing -- that is important."

"I have to do it. Not only because it's a personal moral obligation but also because of the Lani. They must have their freedom."

"Providing there are any still alive."
"Stop being a calamity howler. Whatever Alexander may be, he's not a butcher. He even loved a Lani once. You told me so yourself. And he couldn't kill where he loved."

She nodded. "I suppose you're right, but I've never lost my fear of the Man Alexander. He held the power of life and death over me. But if you must go then I should go too. My obligation is greater than yours."

"Later," Kennon said. "You're not ready to return. It will be time enough after you have learned some civilized habits."
Copper's face lengthened. "You mean like wrapping myself in cloth like these people do?"

"That's part of it."
"Why can't they be sensible -- or are they so ashamed of what the gods gave them that they must hide themselves?"

"No, it's not that. At least not exactly. It's custom. And you must learn to conform to customs -- outwardly at least -- no matter what you may really think."
"Isn't that a form of lying?" Copper asked.
"I suppose so."
"Isn't that strange. Your society exalts truth, honor, morality, and intelligence -- yet you lie about your attitude."
"It's called diplomacy," Kennon said. "It's part of respect for others' attitudes and beliefs, a necessary part of human relationships."

"Then you'd be a nudist on Santos?"
"Of course -- even though I think it isn't proper, I couldn't inflict my ideas and attitudes on the customs of an independent world."

"Oh -- you think I'm doing that?"
"Yes -- and it is a mark of barbarism."
"Sometimes you're not very nice," Copper said.
Kennon smiled wryly. "I suppose I'm not," he agreed.
"I'll try to be civilized," Copper said. "But if you go to Kardon -- I'm going with you."
"Perhaps," Kennon said. "We'll see how things turn out."
"You don't want me to go with you?"
"To be honest -- no," Kennon said. "You're safe here, and until your status is cleared by a Brotherhood court, I wouldn't care to place you in Alexander's hands. And clearing your status is going to take time."

"You mean that I am still his property?"

"Yes. But there is a legal doubt that will prevent him from exercising his claim as long as you stay on Beta. In the area where he has power, that doubt might not hold. So until your status is definitely proven to be human, you should not leave."

"And what happens if this court denies my claim?"

"Then we appeal to the Council. However, with the evidence we have, your claim cannot reasonably be denied. The only question is one of time. It may take years. Still, I don't think there is anything to worry about. I don't think Alexander will give us any trouble, but there's no sense in taking chances."

"You still think I'm a Lani," she said accusingly.
"I do not."
"Then you think that I'd obey Alexander, after what I did to Douglas."
"I can only repeat that Douglas isn't the Boss-man."
"I wish I knew what you really thought."
"That isn't hard. I think you should stay here until I get this business straightened out."
"That's all?" she asked suspiciously. "After all, I know I'm not very pretty now. And there's lots of Lani on Flora----"

Oh, for Ochsner's sake! Do you think that I'm---" He paused, speechless. "Just what do you think I am?"

"You're a man. And that's the trouble."
Kennon chuckled. "So that's it! You don't trust me."
"I love you," Copper said.

"Sometimes I wonder why men ever finalize their status with women," Kennon murmured. "It does no good. It doesn't convince the woman. She's still fearful, jealous, and suspicious--always belittling her ability to hold what she has, always alert for competition, clinging, holding, absorbing--when she should be working as part of a team."

"That's not true!"
"Then prove it."
"How--by staying here while you go to the end of the galaxy and play noble?"
"I'm only doing what I have to do."
"And so am I--and if you go I'm going with you."
Kennon shrugged. There was no sense arguing. The only thing to do was make his plans and leave quietly. If she was faced with an established fact, she might be more reasonable. He doubted it, but alone, she could do nothing--and Brainard would see that she was comfortable. The salvage money from the Egg would keep her from being a public charge. And he had more banked in Albertsville which he could send her once he got there. He'd start making plans to leave as soon as possible.

Copper looked up at him as he stood above her bed. Slowly she reached out and placed one slim hand in his. "I know what you are thinking," she said, "and--" her face twisted in a grimace of pain, and the hand in his clutched with convulsive strength at his fingers.

"What's the matter?" he said.

"Nothing--it's perfectly normal," she said. "I'm just going to give you a son. Now if you'd call for the doctor, perhaps we can get this over. That pain was only twenty minutes from the last. I think it's about time."

Kennon--who had attended several hundred Lani births and had developed a certain callousness about them--was suddenly frightened and helpless as he pushed the call button. He could feel the cold sweat form on his forehead. He had started this. It was his fault if anything went wrong. He wished that it was someone else rather than Copper who was going through this trial. He was nervous, unsure, and guilty. In a word, he felt like a man whose mate was giving birth to their first child.

* * *

"It's a boy," Dr. Brainard said. He smiled down at Kennon's haggard face.

"How is Copper?" Kennon asked.

"Fine--she's healthy as a horse."

Kennon winced at the cliche. It was so ancient that it had lost all meaning. Most Betans didn't know what a horse was, let alone whether it was healthy or not. From what Kennon could remember of veterinary history, the horse wasn't too healthy an animal. It was rather delicate, in fact.

"How is the child?" Kennon asked. It took a little courage to ask this question. The baby could be anything from normal to a monstrosity.

"Perfectly normal," Brainard said. "A true Betan type even down to the vestigial tail. We amputated that, of course."

"Thank Ochsner!" Kennon breathed. "I was afraid."

"Of course you were," Brainard said. "Do you want to see them now? When I left, Copper was asking for you."

Kennon sighed. Leaving, he realized, wasn't going to be as easy as he had thought.

"We'll have to keep them here for a couple of months," Brainard said. "We must take exhaustive tests if we expect the court to reverse its prior decision."

"I expected that," Kennon said. He shrugged, "It's probably best," he said. "Now show me where Copper is."

"She's back in the same room. You don't need a guide."

Kennon didn't. In fact, he behaved quite admirably.

CHAPTER XX

Longliners, Kennon reflected, didn't make Beta a port of call, and the Shortliner connections with other worlds were infrequent. Beta had done a good job separating from the rest of the Brotherhood. Too good. The spaceline schedules showed only one departure in the next month, a Shortliner for Earth, and from Earth the road to Kardon was long and tortuous, involving a series of short jumps from world to world and a final medium-range hop from Halsey to Kardon. If everything went right and he made every connection he would be in Kardon four months after he left Beta. Kennon sighed as he left Travelers Aid. Morality was a heavy load to carry.
He walked slowly down the road from the spaceport toward the Co-operative where he had been staying. He had left Huntersville and Copper a week ago, after he had seen his child. His child! The thought of being a father was oddly dismaying. It distorted his sense of values. But one thing was certain. He was returning to Kardon, and Copper was not coming with him. She had a duty to their son - and he had a duty to his contract with Alexander, to the Lani on Flora, and to Copper -- and none of these could be satisfied by further running. He had to return and settle the account.

A tall man in a conservative yellow-and-black suit was waiting patiently in front of his room. "My name is Richter," he said. " -- Art Richter. Are you Dr. Jac Kennon?"

"I could deny it, but I won't," Kennon said.

"Thank you, Doctor. It was just a formality anyway. You see, I know you by sight." He sighed. "One has to observe the formalities in this business." He drew a long white envelope from his tunic and handed it to Kennon.

"Most of my subjects try to deny their identity," he said.

"It's a refreshing change to find an honest man." He bowed formally. "I really thought this would be harder, considering the charges against you." He bowed again and walked away.

"Now -- what was that?" Kennon muttered as he opened the envelope. The man Richter was undoubtedly a process server -- but who had hired him? He unfolded the sheet and scanned the charges -- coercion, larceny, livestock theft, and breach of contract. He shrugged. This was Alexander's work. What was the man thinking of? It was insanity to bring the Lani matter into open court. Hadn't Douglas told him what had happened? Couldn't Alexander guess that he had fled with Copper for a good reason -- one that would stand up in court? Didn't he know about the spacer? Or had Douglas turned on his cousin? The pup had so many hates that it was possible. He was a natural troublemaker. Maybe Alexander didn't know. Maybe he was working in the dark. Kennon scanned the sheet quickly. Ah! here it was. Complaint - Mr. Alexander X. M. Alexander, Skyline Tower 1024, Beta City!

Alexander! Here on Beta! Kennon opened the door of his room, went straight to the phone beside the bed. He lifted the handset from its cradle and dialed the operator. "Get me Huntersville THU 2-1408. I want to speak to Dr. Brainard, Dr. Will Brainard. This is a priority call -- my name is Kennon. Dr. Jac Kennon D.V.M. I'm in the registry -- 47M 26429 -- yes -- of course, and thank you." He waited a moment. "Hello -- Dr. Brainard? -- Kennon here. I've just had some news. Alexander's on Beta! Yes -- he served me with a summons. Can you get a restraining order to prevent him from leaving? You can? Good! Here's his address." Kennon rattled off the location. "Yes -- I'm taking the next airboat to Beta City. This should simplify things considerably. -- Of course it should. He was a fool to have come here. Yes -- I suppose you should tell Copper. Oh! She is? I'm sorry to hear that, but there's no reason for her to be angry. She should realize that I did this for her -- not to make her miserable. Hmm.-- She -- she has? You think she should come with me? -- Yes, I realize she can be a problem when she wants to be. All right then -- tell her to pack a toothbrush and a few spare diapers. And see if you can get me a couple of tickets on the next flight to Beta City. I'll be over in a couple of hours and pick her up." He cradled the phone and dialed the operator again.

"I want the phone number of Skyline Tower 1024, Beta City, Mr. Alexander. Yes. I'll wait. This number is HUV 2-1278 and my name is Kennon, Dr. Jac Kennon 47M 26429. I called you before. No, I'm a transient. I can refer you to Dr. James Brainard, Huntersville Medical Center. Yes, I'll accept charges. Now will you give me that number? BCA 7-8941--thank you."

Kennon hung up, dialed the number, and waited.

"Hello," he said. "Mr. Alexander? This is Dr. Kennon. - Yes -- I suppose you do, but I've been trying to get back to Kardon for the past month. You are? Well, that's your privilege, but I'd advise you to go easy until I see you. Naturally -- I'm coming as soon as I can get there. We'll be seeing you tomorrow morning at the latest. We? -- I'm bringing Copper, of course. I just wanted you to know."

Kennon wiped his forehead. Alexander sounded angry and dangerous. Ten years hadn't served to cool him off. What had happened on Kardon after he had left? Kennon shook his head. There was something here he didn't understand. The entrepreneur should have been covering his tracks, not threatening jail and disaccreditation. It was obvious that a personal visit was more necessary than he had thought.

Alexander was waiting. His eyebrows rose at the sight of Copper in formal Betan dress -- and lifted a trifle more at the sight of the baby.

"What is this, Kennon?" he asked.

"Trouble," Kennon said. He took off his hat. "I came here to settle things before you took this case to court. You obviously do not understand what has happened. I suppose Douglas has double-crossed you. It would be characteristic of him. But before we go any further I think we should clear the air and let each other know where we stand. I don't want to make trouble if it's not necessary. You'll notice I'm not wearing a thought screen, so you'll be able to check everything I say, and know I'm telling the truth."

"It had better be good," Alexander said grimly. "I've been looking for you for ten years. I intend to throw the
book at you."

"I don't know whether my reason is good or not. Technically I'm guilty of breach of contract and larceny of corporation property, but there are extenuating circumstances."

Alexander chuckled mirthlessly. "There are a few other charges. And quite probably I can think of more if you beat these. I'm going to make an example of you, Kennon. I'm going to drag you down and stamp on you. You're going to be a horrible example to all smart operators who think they can break contracts. It's taken a million credits and ten years' time to hunt you down, but it's going to be worth it."

"Copper's child is a boy," Kennon said mildly. "My son."

Alexander froze. "You can prove that?" he asked in a half-strangled voice.

Kennon nodded. "You see the extenuating circumstance?" he asked. "Suppression of human slavery!"

Alexander sat down. It was as though some unseen hand had pulled his legs from under him. "You believe it," he said. "-- No -- you've proved it! Why -- why didn't you tell me? What sort of a man do you think I am?"

"I didn't know. I couldn't take the chance until Copper was protected. You see, sir, I love her."

"That isn't hard to do with Lani," Alexander said. He sank back in his chair, his face clouded, his expression troubled. It was obvious that the realization shocked him.

Kennon felt an odd sympathy for the entrepreneur. It wasn't a nice feeling, he suspected, to have the beliefs of a lifetime ripped apart and sent to the disposal chute.

"So the Lani are a human variant," Alexander said dully.

"The proof is here," Kennon said, "and the supporting evidence is conclusive."


"An innocent victim of circumstances," Kennon said. "You didn't know. None of us knew. And we still wouldn't know if the Lani weren't of Betan extraction." He grimaced painfully. "I've done some soul-searching myself, and it hasn't been a pleasant task."

"But it's nothing like mine," Alexander said in a low voice. "I suspected they were human when I was younger, but I denied my suspicions and accepted false facts instead of investigating."

"You would have found nothing."

"Unfortunately, that's not true. We discovered quite a bit from the experimental station you left us when you disappeared ten years ago. But we stopped when we found the age that was being indoctrinated with Lani tabus. We could have gone farther, but I didn't think it was necessary."

"Didn't Douglas tell you?" Kennon asked curiously. "I told him when I turned him loose."

"Douglas didn't tell anything except that you had somehow gotten a spaceship. I assumed it was one of those that were involved in that commercial raid a few decades ago, but I see it wasn't. No -- I knew nothing about this development. And Douglas, I guess, wanted to keep it hidden. He gave your co-ordinates and ordered Mullins to launch a missile. But he apparently forgot to turn on his IFF. At any rate the missile lost you -- but found Douglas. Douglas was still talking to Alexandria when it struck."

"He might have informed you," Kennon said. "If he had more time."

"I doubt it. He ordered the missile first. He was trying to destroy you before you could destroy Outworld Enterprises."

"His motives were selfish as usual." Alexander looked at Kennon with a haggard eye. "I owe you an apology," he said. "I've considered you responsible for Douglas's death for ten years. I've searched for you on a hundred worlds. My agents in every branch office have had standing orders to report any unusual arrivals. I have hunted you personally. I wanted to break you -- I wanted to kill you."

"I couldn't help the delay," Kennon said. "The ship was old."

"I know. You've told me more than you think. I'm a telepath, you know."

"I've never forgotten it," Kennon said. "That was one of the principal reasons I came here. I wanted to see how you'd react when you learned the whole truth."

"And I suppose you gloat -- no -- you're not doing that. But you are right. I could have checked it further. But I didn't. Outworld Enterprises is far bigger than Flora -- and I was busy. Galactic trade is a snake-pit. And, after all, there was Douglas's death -- and the Family with their never-ending clamor for money and their threats when it didn't come promptly. I like being an entrepreneur, but until I made Outworld independent of Family control, I couldn't do anything except run the business to their wishes. Actually the island was only a small part of the corporation. I tried to run it as humanely as possible under the circumstances." He shuddered. "I don't think I was ever needlessly cruel."

"No," Kennon said, "you were indifferent."

"Which is just as bad," Alexander said.
"Well -- what are you going to do about it?" Copper interjected. "You can beat yourself until you're blue, but that won't accomplish anything."

"What are you going to do?" Alexander countered. "You have the upper hand."

"Me?" Copper asked. "I have nothing. This is between you men." She lapsed into silence.

Alexander turned back to Kennon. "You have undoubtedly made some arrangements. You wouldn't come here -- oh! I see. Congratulations. Handling the evidence that way was a wise course. You have my admiration. But then I should have known that I was not dealing with a fool." He smiled wryly. "Subconsciously I think I did know -- but --"

"That's one consolation," Kennon grinned. "To be thought a rascal is bad enough, but to be considered a fool is intolerable."

"But your decision not to use the evidence unless you were forced to -- that's poor business."

"But good morals," Kennon said. "Neither the Brotherhood nor I could settle this affair. It is a matter only you can handle. There is no sense in killing Outworld or throwing Kardon into centuries of litigation. The Lani never were numerous enough to lay claim to an entire world. I'll admit the club is there, but I'll never use it unless it's necessary."

"Why not? -- it's sound business practice."

"I'm a professional -- not a businessman. And besides, I haven't the moral right to return evil for good. You have not been a bad boss."

"Thanks," Alexander said glumly. "I've always considered myself civilized."

"I wouldn't go so far as to say that," Kennon said. "Honorable, yes -- civilized, no. But none of us are really civilized."

"So?"

"We haven't changed much, despite our development. Perhaps we've varied a little physically -- and we've learned to use new tools, but our minds are still the minds of barbarians -- blood brothers against the enemy, and everything not of us is enemy. Savages -- hiding under a thin veneer of superficial culture. Savages with spaceships and the atom." Kennon looked down at Copper. Apparently her thoughts were miles away in an introspective world that was all her own. She had said her piece and having done that was content to let the two men develop it. Kennon looked at her with odd respect. Alexander eyed her with a mildly startled expression on his lean face. And both men smiled, but the smiles were not amused.

"Judging from Copper," Alexander said, "I don't think we'll have to worry about how the Lani will turn out."

He looked at Kennon with mild sympathy. "You are going to have quite a time with her," he said.

"I suppose so. I'll probably never know whether I'm guided or whether I'm doing the guiding. I've changed a lot of my opinions about Copper since the day I met her."

Copper looked up and smiled at them. It was an odd smile, hinting at secrets neither of them would ever know. Alexander chuckled. "It serves you right." He crossed his legs and looked up at Kennon standing before him. By some uncanny legerdemain he had gotten control of himself and the situation at the same time. Being telepathic was an unfair advantage, Kennon thought.

"You were equally unfair with your accusation," Alexander said. "Sure -- humanity makes mistakes, and like this one they're sometimes brutal mistakes. But we are capable of atonement. Morally we have come a long way from the brutality of the Interregnum. I shouldn't have to use examples, but look at that" -- he waved at the view wall at the panorama of gleaming fairy towers and greenery that made Beta City one of the most beautiful in the Brotherhood. "Don't tell me that five thousand years of peace and development haven't produced civilization. That's a concrete example out there."

"It isn't," Kennon said flatly. "Sure, it's pretty -- clean -- and beautifully designed for art and utility -- but it isn't civilization. You're confusing technology with culture. You look at this and say, 'What a great civilization man has built,' when you really mean, 'What a great technology mankind has developed.' There's all the difference in the world. Technology is of the mind and hands. Civilization is of the spirit -- and spiritually we are still in the Dark Ages.

"We conquer, kill, loot, and enslave. We establish standards to keep humanity a closed corporation, a special club in which men can live but aliens can't. We've made the standards for admission so rigid that we even enslave our own kind and call them animals. That's not civilization -- that's savagery!

"For nearly five hundred years your family has run a slave pen. Your fortune is based upon it. And you have perpetuated this traffic in flesh on the specious reasoning that a court judgment of half a millennium ago is as good today as when it was handed down. Never once did anyone have the moral courage to re-examine that old decision. Never once did any human question the rightness of that decision. None of us are immune. We all based our conduct upon an antiquated law and searched no further. Everyone was happy with the status quo -- or at least not so
unhappy that they wanted to change it. Even I would have been content had it not been for Copper."

"Yet I do not feel that it was bad that I hired you," Alexander said. "Even though you have shown me that I am a slaver, and made me see faults I never knew I had." His face was drawn -- harsh lines reached from nose to lips, from eyes to chin. Suddenly he looked old. "I can accept censure if censure is just. And this is just. No -- I'm not sorry I hired you even though the thought of what I have helped do to the Lani makes me sick to my stomach."

"Well--" Kennon said. "What are you going to do about it?"

"I don't know," Alexander said. "At the first smell of trouble, the Family will turn tail and run. You can break the company, and I won't stand in your way. It's only just. You're the one who's carrying the ball. Now run with it."

"That damned blind spot," Kennon said. "You realize, of course, that you're not legally liable. It was a mistake. All you have to do is admit the error and start from there. Naturally -- no reasonable intelligence would expect that you change the older Lani. They're too old for either agerone or change. It would be both cruel and inhuman to turn them loose. It's with the youngsters that you can work -- those who are physically and physiologically young enough to derive benefit from agerone and education.

"As I remember, you bought a planet called Phoebe. Now why don't you----"

"Phase out! Of course! But that means that you can't press charges."

"Why should I? I'm not one of these starry-eyed reformers who expect to change things overnight. It's the future of the Lani race that's important, And Brainard agrees with me. A phase-out is the proper solution. Change the education, let males be born -- teach the young to think instead of to obey. Give them Phoebe for a home -- they never owned all of Kardon anyway. And within a century or two we will have a new group of the human race -- and then we can tell the Brotherhood."

Kennon looked inquiringly at Copper. She smiled and nodded. "It would cause less trouble that way," she said.

"It would be more sure -- and there are never too many old ones."

Kennon shuddered, thinking of the euthanasia chambers on Otpen One. "There will be more from now on," he said.

"Outworld can afford it. It'll bend us a little but we won't break -- and besides, the Lani will need our help for some time to come." Alexander looked at Kennon. "Can we make an agreement that all parties will respect?" he asked.

"I think so -- providing there are no sleeper clauses in it," Kennon said.

"There won't be," Alexander said.

And there weren't.

* * *

It was a private ceremony. The Family, sulky and unwilling, faced with a choice of drastically reduced income or outright confiscation and preferring a portion of a loaf to none. Alexander -- grim but oddly peaceful of expression. Brainard -- pink-cheeked and emotionless. Kennon and Copper -- happily conscious that it was at last finished. It was an oddly assorted group of conspirators who planned to restore a segment of humanity to the human race.

Kennon signed last, and as he did, Alexander looked at him with a sly grin distorting the smooth pallor of his face.

"You forgot something," he said.

"What?" Kennon said -- aware suddenly that something was wrong.

"What do you plan to do, now that this is over?"

"Join the Medical Center here and practice veterinary medicine."

"You wouldn't care to work for me -- to help rebuild the wreckage you've helped create? I'll need a manager on Kardon to phase out the island while we phase in Phoebe."

"No, thank you. I've had enough of that."

"You just think you have," Alexander said gleefully. "That's what you have forgotten. You've gotten your agreement -- now you will satisfy me. As I see it you have breached your contract by leaving Flora without authorization."

"That is right," Kennon said. A small lump of lead began to grow rapidly larger in his stomach. Brainard was grinning and Copper's eyes were shining. "You've been jobbed!" his mind told him. He sighed. He knew what was coming next.

"The punitive clause for breach of contract," Alexander went on inexorably, "is very broad. Discretion is vested in the entrepreneur. I can obtain judgment against you in any court on any planet."

"I know," Kennon said glumly.

"But I am going to be civilized," Alexander said. "I am going to be merciful. I am going to extend your contract until phase-out has been completed. You are going to have control of the entire Kardon phase of the operation. It's
poetic justice -- you made the mess -- now you can clean it up."

"That's inhuman!"

"Humanity has nothing to do with it. It's justice," Alexander said. He smiled at Copper's radiant face. The thought of going home was good to her. "Good luck on your new job, Dr. Kennon," he said. "And welcome to the brotherhood of the ulcer."
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MIZORA: A PROPHECY
A Mss. Found Among The Private Papers Of The Princess Vera Zarovitch;
Being a true and faithful account of her Journey to the Interior of the Earth, with a careful description of the
Country and its Inhabitants, their Customs, Manners and Government.
WRITTEN BY HERSELF
By Mary E. Bradley

PREFACE

The narrative of Vera Zarovitch, published in the Cincinnati Commercial in 1880 and 1881, attracted a great
deal of attention. It commanded a wide circle of readers, and there was much more said about it than is usual when
works of fiction run through a newspaper in weekly installments. Quite a number of persons who are unaccustomed
to bestowing consideration upon works of fiction spoke of it, and grew greatly interested in it.

I received many messages about it, and letters of inquiry, and some ladies and gentlemen desired to know the
particulars about the production of the story in book form; and were inquisitive about it and the author who kept
herself in concealment so closely that even her husband did not know that she was the writer who was making this
stir in our limited literary world.

I was myself so much interested in it that it occurred to me to make the suggestion that the story ought to have
an extensive sale in book form, and to write to a publisher; but the lady who wrote the work seemed herself a shade
indifferent on the subject, and it passed out of my hands and out of my mind.

It is safe to say that it made an impression that was remarkable, and with a larger audience I do not doubt that it
would make its mark as an original production wrought out with thoughtful care and literary skill, and take high
rank.

Yours very truly,
Murat Halstead.
Nov. 14th, 1889.
PART FIRST
CHAPTER I.

Having little knowledge of rhetorical art, and possessing but a limited imagination, it is only a strong sense of
the duty I owe to Science and the progressive minds of the age, that induces me to come before the public in the
character of an author. True, I have only a simple narration of facts to deal with, and am, therefore, not expected
to present artistic effects, and poetical imagery, nor any of those flights of imagination that are the trial and test of
genius.

Yet my task is not a light one. I may fail to satisfy my own mind that the true merits of the wonderful and
mysterious people I discovered, have been justly described. I may fail to interest the public; which is the one
difficulty most likely to occur, and most to be regretted—not for my own sake, but theirs. It is so hard to get human
nature out of the ruts it has moved in for ages. To tear away their present faith, is like undermining their existence.
Yet others who come after me will be more aggressive than I. I have this consolation: whatever reception may be
given my narrative by the public, I know that it has been written solely for its good. That wonderful civilization I
met with in Mizora, I may not be able to more than faintly shadow forth here, yet from it, the present age may form
some idea of that grand, that ideal life that is possible for our remote posterity. Again and again has religious
enthusiasm pictured a life to be eliminated from the grossness and imperfections of our material existence. The
Spirit—the Mind—that mental gift, by or through which we think, reason, and suffer, is by one tragic and awful
struggle to free itself from temporal blemishes and difficulties, and become spiritual and perfect. Yet, who, sweeping
the limitless fields of space with a telescope, glancing at myriads of worlds that a lifetime could not count, or gazing
through a microscope at a tiny world in a drop of water, has dreamed that patient Science and practice could evolve
for the living human race, the ideal life of exalted knowledge: the life that I found in Mizora; that Science had made
real and practicable. The duty that I owe to truth compels me to acknowledge that I have not been solicited to write
this narrative by my friends; nor has it been the pastime of my leisure hours; nor written to amuse an invalid; nor, in
fact, for any of those reasons which have prompted so many men and women to write a book. It is, on the contrary,
the result of hours of laborious work, undertaken for the sole purpose of benefiting Science and giving
encouragement to those progressive minds who have already added their mite of knowledge to the coming future of
the race. "We owe a duty to posterity," says Junius in his famous letter to the king. A declaration that ought to be a
motto for every schoolroom, and graven above every legislative hall in the world. It should be taught to the child as soon as reason has begun to dawn, and be its guide until age has become its master.

It is my desire not to make this story a personal matter; and for that unavoidable prominence which is given one's own identity in relating personal experiences, an indulgence is craved from whomsoever may peruse these pages.

In order to explain how and why I came to venture upon a journey no other of my sex has ever attempted, I am compelled to make a slight mention of my family and nationality.

I am a Russian: born to a family of nobility, wealth, and political power. Had the natural expectations for my birth and condition been fulfilled, I should have lived, loved, married and died a Russian aristocrat, and been unknown to the next generation—and this narrative would not have been written.

There are some people who seem to have been born for the sole purpose of becoming the playthings of Fate—who are tossed from one condition of life to another without wish or will of their own. Of this class I am an illustration. Had I started out with a resolve to discover the North Pole, I should never have succeeded. But all my hopes, affections, thoughts, and desires were centered in another direction, hence—but my narrative will explain the rest.

The tongue of woman has long been celebrated as an unruly member, and perhaps, in some of the domestic affairs of life, it has been unnecessarily active; yet no one who gives this narrative a perusal, can justly deny that it was the primal cause of the grandest discovery of the age.

I was educated in Paris, where my vacations were frequently spent with an American family who resided there, and with whom my father had formed an intimate friendship. Their house, being in a fashionable quarter of the city and patriotically hospitable, was the frequent resort of many of their countrymen. I unconsciously acquired a knowledge and admiration for their form of government, and some revolutionary opinions in regard to my own. Had I been guided by policy, I should have kept the latter a secret, but on returning home, at the expiration of my school days, I imprudently gave expression to them in connection with some of the political movements of the Russian Government—and secured its suspicion at once, which, like the virus of some fatal disease, once in the system, would lose its vitality only with my destruction.

While at school, I had become attached to a young and lovely Polish orphan, whose father had been killed at the battle of Grochow when she was an infant in her mother's arms. My love for my friend, and sympathy for her oppressed people, finally drew me into serious trouble and caused my exile from my native land.

I married at the age of twenty the son of my father's dearest friend. Alexis and I were truly attached to each other, and when I gave to my infant the name of my father and witnessed his pride and delight, I thought to my cup of earthly happiness, not one more drop could be added.

A desire to feel the cheering air of a milder climate induced me to pay my Polish friend a visit. During my sojourn with her occurred the anniversary of the tragedy of Grochow, when, according to custom, all who had lost friends in the two dreadful battles that had been fought there, met to offer prayers for their souls. At her request, I accompanied my friend to witness the ceremonies. To me, a silent and sympathizing spectator, they were impressive and solemn in the extreme. Not less than thirty thousand people were there, weeping and praying on ground hallowed by patriot blood. After the prayers were said, the voice of the multitude rose in a mournful and pathetic chant. It was rudely broken by the appearance of the Russian soldiers.

A scene ensued which memory refuses to forget, and justice forbids me to deny. I saw my friend, with the song of sorrow still trembling on her innocent lips, fall bleeding, dying from the bayonet thrust of a Russian soldier. I clasped the lifeless body in my arms, and in my grief and excitement, poured forth upbraidings against the government of my country which it would never forgive nor condone. I was arrested, tried, and condemned to the mines of Siberia for life.

My father's ancient and princely lineage, my husband's rank, the wealth of both families, all were unavailing in procuring a commutation of my sentence to some less severe punishment. Through bribery, however, the cooperation of one of my jailors was secured, and I escaped in disguise to the frontier.

It was my husband's desire that I proceed immediately to France, where he would soon join me. But we were compelled to accept whatever means chance offered for my escape, and a whaling vessel bound for the Northern Seas was the only thing I could secure passage upon with safety. The captain promised to transfer me to the first southward bound vessel we should meet.

But none came. The slow, monotonous days found me gliding farther and farther from home and love. In the seclusion of my little cabin, my fate was more endurable than the horrors of Siberia could have been, but it was inexpressibly lonesome. On shipboard I sustained the character of a youth, exiled for a political offense, and of a delicate constitution.

It is not necessary to the interest of this narrative to enter into the details of shipwreck and disaster, which befel
us in the Northern Seas. Our vessel was caught between ice floes, and we were compelled to abandon her. The small boats were converted into sleds, but in such shape as would make it easy to re-convert them into boats again, should it ever become necessary. We took our march for the nearest Esquimaux settlement, where we were kindly received and tendered the hospitality of their miserable huts. The captain, who had been ill for some time, grew rapidly worse, and in a few days expired. As soon as the approach of death became apparent, he called the crew about him, and requested them to make their way south as soon as possible, and to do all in their power for my health and comfort. He had, he said, been guaranteed a sum of money for my safe conduct to France, sufficient to place his family in independent circumstances, and he desired that his crew should do all in their power to secure it for them.

The next morning I awoke to find myself deserted, the crew having decamped with nearly everything brought from the ship.

Being blessed with strong nerves, I stared my situation bravely in the face, and resolved to make the best of it. I believed it could be only a matter of time when some European or American whaling vessel should rescue me; and I had the resolution to endure, while hope fed the flame.

I at once proceeded to inure myself to the life of the Esquimaux. I habited myself in a suit of reindeer fur, and ate, with compulsory appetite, the raw flesh and fat that form their principal food. Acclimated by birth to the coldest region of the temperate zone, and naturally of a hardy constitution, I found it not so difficult to endure the rigors of the Arctic temperature as I had supposed.

I soon discovered the necessity of being an assistance to my new friends in procuring food, as their hospitality depends largely upon the state of their larder. A compass and a small trunk of instruments belonging to the Captain had been either over-looked or rejected by the crew in their flight. I secured the esteem of the Esquimaux by using the compass to conduct a hunting party in the right direction when a sudden snow-storm had obscured the landmarks by which they guide their course. I cheerfully assumed a share of their hardships, for with these poor children of the North life is a continual struggle with cold and starvation. The long, rough journeys which we frequently took over ice and ridges of snow in quest of animal food, I found monotonously destitute of everything I had experienced in former traveling, except fatigue. The wail of the winds, and the desolate landscape of ice and snow, never varied. The coruscations of the Aurora Borealis sometimes lighted up the dreary waste around us, and the myriad eyes of the firmament shone out with a brighter lustre, as twilight shrank before the gloom of the long Arctic night.

A description of the winter I spent with the Esquimaux can be of little interest to the readers of this narrative. Language cannot convey to those who have dwelt always in comfort the feeling of isolation, the struggle with despair, that was constantly mine. We were often confined to our ice huts for days while the blinding fury of the wind driven snow without made the earth look like chaos. Sometimes I crept to the narrow entrance and looked toward the South with a feeling of homesickness too intense to describe. Away, over leagues of perilous travel, lay everything that was dear or congenial; and how many dreary months, perhaps years, must pass before I could obtain release from associations more dreadful than solitude. It required all the courage I could command to endure it.

The whale-fishing opens about the first week in August, and continues throughout September. As it drew near, the settlement prepared to move farther north, to a locality where they claimed whales could be found in abundance. I cheerfully assisted in the preparations, for to meet some whaling vessel was my only hope of rescue from surroundings that made existence a living death.

The dogs were harnessed to sleds heavily laden with the equipments of an Esquimaux hut. The woman, as well as the men, were burdened with immense packs; and our journey begun. We halted only to rest and sleep. A few hours work furnished us a new house out of the ever present ice. We feasted on raw meat--sometimes a freshly killed deer; after which our journey was resumed.

As near as I could determine, it was close to the 85° north latitude, where we halted on the shore of an open sea. Wild ducks and game were abundant, also fish of an excellent quality. Here, for the first time in many months, I felt the kindly greeting of a mild breeze as it hailed me from the bosom of the water. Vegetation was not profuse nor brilliant, but to my long famished eyes, its dingy hue was delightfully refreshing.

Across this sea I instantly felt a strong desire to sail. I believed it must contain an island of richer vegetation than the shore we occupied. But no one encouraged me or would agree to be my companion. On the contrary, they intimated that I should never return. I believed that they were trying to frighten me into remaining with them, and declared my intention to go alone. Perhaps I might meet in that milder climate some of my own race. My friend smiled, and pointing to the South, said, as he designated an imaginary boundary:

"Across that no white man's foot has ever stepped."

So I was alone. My resolution, however, was not shaken. A boat was constructed, and bidding adieu to my humble companions, I launched into an unknown sea.

CHAPTER II.

On and on, and on I rowed until the shore and my late companions were lost in the gloomy distance. On and on,
and still on, until fatigued almost to exhaustion; and still, no land. A feeling of uncontrollable lonesomeness took possession of me. Silence reigned supreme. No sound greeted me save the swirl of the gently undulating waters against the boat, and the melancholy dip of the oars. Overhead, the familiar eyes of night were all that pierced the gloom that seemed to hedge me in. My feeling of distress increased when I discovered that my boat had struck a current and was beyond my control. Visions of a cataract and inevitable death instantly shot across my mind. Made passive by intense despair, I laid down in the bottom of the boat, to let myself drift into whatever fate was awaiting me.

I must have lain there many hours before I realized that I was traveling in a circle. The velocity of the current had increased, but not sufficiently to insure immediately destruction. Hope began to revive, and I sat up and looked about me with renewed courage. Directly before me rose a column of mist, so thin that I could see through it, and of the most delicate tint of green. As I gazed, it spread into a curtain that appeared to be suspended in mid-air, and began to sway gently back and forth, as if impelled by a slight breeze, while sparks of fire, like countless swarms of fire-flies, darted through it and blazed out into a thousand brilliant hues and flakes of color that chased one another across and danced merrily up and down with bewildering swiftness. Suddenly it drew together in a single fold, a rope of yellow mist, then instantly shook itself out again as a curtain of rainbows fringed with flame. Myriads of tassels, composed of threads of fire, began to dart hither and thither through it, while the rainbow stripes deepened in hue until they looked like gorgeous ribbons glowing with intensest radiance, yet softened by that delicate misty appearance which is a special quality of all atmospheric color, and which no pencil can paint, nor the most eloquent tongue adequately describe.

The swaying motion continued. Sometimes the curtain approached near enough, apparently, to flaunt its fiery fringe almost within my grasp. It hung one instant in all its marvelous splendor of colors, then suddenly rushed into a compact mass, and shot across the zenith, an arc of crimson fire that lit up the gloomy waters with a weird, unearthly glare. It faded quickly, and appeared to settle upon the water again in a circular wall of amber mist, round which the current was hurrying me with rapidly increasing speed. I saw, with alarm, that the circles were narrowing. A whirlpool was my instant conjecture, and I laid myself down in the boat, again expecting every moment to be swept into a seething abyss of waters. The spray dashed into my face as the boat plunged forward with frightful swiftness. A semi-stupor, born of exhaustion and terror, seized me in its merciful embrace.

It must have been many hours that I lay thus. I have a dim recollection of my boat going on and on, its speed gradually decreasing, until I was amazed to perceive that it had ceased its onward motion and was gently rocking on quiet waters. I opened my eyes. A rosy light, like the first blush of a new day, permeated the atmosphere. I sat up and looked about me. A circular wall of pale amber mist rose behind me; the shores of a new and beautiful country stretched before. Toward them, I guided my boat with reviving hope and strength.

I entered a broad river, whose current was from the sea, and let myself drift along its banks in bewildered delight. The sky appeared bluer, and the air balmier than even that of Italy's favored clime. The turf that covered the banks was smooth and fine, like a carpet of rich green velvet. The fragrance of tempting fruit was wafted by the zephyrs from numerous orchards. Birds of bright plumage flitted among the branches, anon breaking forth into wild and exultant melody, as if they rejoiced to be in so favored a clime.

And truly it seemed a land of enchantment. The atmosphere had a peculiar transparency, seemingly to bring out clearly objects at a great distance, yet veiling the far horizon in a haze of gold and purple. Overhead, clouds of the most gorgeous hues, like precious gems converted into vapor, floated in a sky of the serenest azure. The languorous atmosphere, the beauty of the heavens, the inviting shores, produced in me a feeling of contentment not easily described. To add to my senses another enjoyment, my ears were greeted with sounds of sweet music, in which I detected the mingling of human voices.

I wondered if I had really drifted into an enchanted country, such as I had read about in the fairy books of my childhood.

The music grew louder, yet wondrously sweet, and a large pleasure boat, shaped like a fish, glided into view. Its scales glittered like gems as it moved gracefully and noiselessly through the water. Its occupants were all young girls of the highest type of blonde beauty. It was their soft voices, accompanied by some peculiar stringed instruments they carried, that had produced the music I had heard. They appeared to regard me with curiosity, not unmixed with distrust, for their boat swept aside to give me a wide berth.

I uncovered my head, shook down my long black hair, and falling upon my knees, lifted my hands in supplication. My plea was apparently understood, for turning their boat around, they motioned me to follow them. This I did with difficulty, for I was weak, and their boat moved with a swiftness and ease that astonished me. What surprised me most was its lack of noise.

As I watched its beautiful occupants dressed in rich garments, adorned with rare and costly gems, and noted the noiseless, gliding swiftness of their boat, an uncomfortable feeling of mystery began to invade my mind, as though I...
really had chanced upon enchanted territory.

As we glided along, I began to be impressed by the weird stillness. No sound greeted me from the ripening orchards, save the carol of birds; from the fields came no note of harvest labor. No animals were visible, nor sound of any. No hum of life. All nature lay asleep in voluptuous beauty, veiled in a glorious atmosphere. Everything wore a dreamy look. The breeze had a loving, lingering touch, not unlike to the Indian Summer of North America. But no Indian Summer ever knew that dark green verdure, like the first robe of spring. Wherever the eye turned it met something charming in cloud, or sky, or water, or vegetation. Everything had felt the magical touch of beauty.

On the right, the horizon was bounded by a chain of mountains, that plainly showed their bases above the glowing orchards and verdant landscapes. It impressed me as peculiar, that everything appeared to rise as it gained in distance. At last the pleasure boat halted at a flight of marble steps that touched the water. Ascending these, I gained an eminence where a scene of surpassing beauty and grandeur lay spread before me. Far, far as the eye could follow it, stretched the stately splendor of a mighty city. But all the buildings were detached and surrounded by lawns and shade trees, their white marble and gray granite walls gleaming through the green foliage.

Upon the lawn, directly before us, a number of most beautiful girls had disposed themselves at various occupations. Some were reading, some sketching, and some at various kinds of needlework. I noticed that they were all blondes. I could not determine whether their language possessed a peculiarly soft accent, or whether it was an unusual melody of voice that made their conversation as musical to the ear as the love notes of some amorous wood bird to its mate.

A large building of white marble crowned a slight eminence behind them. Its porticos were supported upon the hands of colossal statues of women, carved out of white marble with exquisite art and beauty. Shade trees of a feathery foliage, like plumes of finest moss, guarded the entrance and afforded homes for brilliant-plumed birds that flew about the porticos and alighted on the hands and shoulders of the ladies without fear. Some of the trees had a smooth, straight trunk and flat top, bearing a striking resemblance to a Chinese umbrella. On either side of the marble-paved entrance were huge fountains that threw upward a column of water a hundred feet in height, which, dissolving into spray, fell into immense basins of clearest crystal. Below the rim of these basins, but covered with the crystal, as with a delicate film of ice, was a wreath of blood red roses, that looked as though they had just been plucked from the stems and placed there for a temporary ornament. I afterward learned that it was the work of an artist, and durable as granite.

I supposed I had arrived at a female seminary, as not a man, or the suggestion of one, was to be seen. If it were a seminary, it was for the wealth of the land, as house, grounds, adornments, and the ladies' attire were rich and elegant.

I stood apart from the groups of beautiful creatures like the genus of another race, enveloped in garments of fur that had seen much service. I presented a marked contrast. The evident culture, refinement, and gentleness of the ladies, banished any fear I might have entertained as to the treatment I should receive. But a singular silence that pervaded everything impressed me painfully. I stood upon the uplifted verge of an immense city, but from its broad streets came no sound of traffic, no rattle of wheels, no hum of life. Its marble homes of opulence shone white and grand through mossy foliage; from innumerable parks the fountains sparkled and statues gleamed like rare gems upon a costly robe; but over all a silence, as of death, reigned unbroken. The awe and the mystery of it pressed heavily upon my spirit, but I could not refuse to obey when a lady stepped out of the group, that had doubtless been discussing me, and motioned me to follow her.

She led me through the main entrance into a lofty hall that extended through the entire building, and consisted of a number of grand arches representing scenes in high relief of the finest sculpture. We entered a magnificent salon, where a large assembly of ladies regarded me with unmistakable astonishment. Every one of them was a blonde. I was presented to one, whom I instantly took to be the Lady Superior of the College, for I had now settled it in my mind that I was in a female seminary, albeit one of unheard of luxury in its appointments.

The lady had a remarkable majesty of demeanor, and a noble countenance. Her hair was white with age, but over her features, the rosy bloom of youth still lingered, as if loth to depart. She looked at me kindly and critically, as if to determine whether I was a brunette. My guide, having apparently received some instruction in regard to me, led me upstairs into a private apartment. She placed before me a complete outfit of female wearing apparel, and informed me by signs that I was to put it on. She then retired. The apartment was sumptuously furnished in two colors—amber and lazulite. A bath-room adjoining had a beautiful porcelain tank with scented water, that produced a delightful feeling of exhilaration.

Having donned my new attire, I descended the stairs and met my guide, who conducted me into a spacious dining-room. The walls were adorned with paintings, principally of fruit and flowers. A large and superb picture of a sylvan dell in the side of a rock, was one exception. Its deep, cool shadows, and the pellucid water, which a wandering sunbeam accidentally revealed, were strikingly realistic. Nearly all of the pictures were upon panels of
crystal that were set in the wall. The light shining through them gave them an exceedingly natural effect. One picture that I especially admired, was of a grape vine twining around the body and trunk of an old tree. It was inside of the crystal, and looked so natural that I imagined I could see its leaves and tendrils sway in the wind. The occupants of the dining-room were all ladies, and again I noted the fact that they were all blondes: beautiful, graceful, courteous, and with voices softer and sweeter than the strains of an eolian harp.

The table, in its arrangement and decoration, was the most beautiful one I had ever seen. The white linen cloth resembled brocaded satin. The knives and forks were gold, with handles of solid amber. The dishes were of the finest porcelain. Some of them, particularly the fruit stands, looked as though composed of hoar frost. Many of the fruit stands were of gold filigree work. They attracted my notice at once, not so much on account of the exquisite workmanship and unique design of the dishes, as the wonderful fruit they contained. One stand, that resembled a huge African lily in design, contained several varieties of plums, as large as hen's eggs, and transparent. They were yellow, blue and red. The centre of the table was occupied by a fruit stand of larger size than the others. It looked like a boat of sea foam fringed with gold moss. Over its outer edge hung clusters of grapes of a rich wine color, and clear as amethysts. The second row looked like globes of honey, the next were of a pale, rose color, and the top of the pyramid was composed of white ones, the color and transparency of dew.

The fruit looked so beautiful. I thought it would be a sacrilege to destroy the charm it had for the eye; but when I saw it removed by pink tipped fingers, whose beauty no art could represent, and saw it disappear within such tempting lips. I thought the feaster worthy of the feast. Fruit appeared to be the principal part of their diet, and was served in its natural state. I was, however, supplied with something that resembled beefsteak of a very fine quality. I afterward learned that it was chemically prepared meat. At the close of the meal, a cup was handed me that looked like the half of a soap bubble with all its iridescent beauty sparkling and glancing in the light. It contained a beverage that resembled chocolate, but whose flavor could not have been surpassed by the fabled nectar of the gods.

CHAPTER III.

I have been thus explicit in detailing the circumstances of my entrance into the land of Mizora, or, in other words, the interior of the earth, lest some incredulous person might doubt the veracity of this narrative.

It does seem a little astonishing that a woman should have fallen by accident, and without intention or desire, upon a discovery that explorers and scientists had for years searched for in vain. But such was the fact, and, in generosity, I have endeavored to make my accident as serviceable to the world in general, and Science in particular, as I could, by taking observations of the country, its climate and products, and especially its people.

I met with the greatest difficulty in acquiring their language. Accustomed to the harsh dialect of the North, my voice was almost intractable in obtaining their melodious accentuation. It was, therefore, many months before I mastered the difficulty sufficiently to converse without embarrassment, or to make myself clearly understood. The construction of their language was simple and easily understood, and in a short time I was able to read it with ease, and to listen to it with enjoyment. Yet, before this was accomplished, I had mingled among them for months, listening to a musical jargon of conversation, that I could neither participate in, nor understand. All that I could therefore discover about them during this time, was by observation. This soon taught me that I was not in a seminary—in our acceptance of the term—but in a College of Experimental Science. The ladies—girls I had supposed them to be—were, in fact, women and mothers, and had reached an age that with us would be associated with decrepitude, wrinkles and imbecility. They were all practical chemists, and their work was the preparation of food from the elements. No wonder that they possessed the suppleness and bloom of eternal youth, when the earthy matter and impurities that are ever present in our food, were unknown to theirs.

I also discovered that they obtained rain artificially when needed, by discharging vast quantities of electricity in the air. I discovered that they kept no cattle, nor animals of any kind for food or labor. I observed a universal practice of outdoor exercising; the aim seeming to be to develop the greatest capacity of lung or muscle. It was astonishing the amount of air a Mizora lady could draw into her lungs. They called it their brain stimulant, and said that their faculties were more active after such exercise. In my country, a cup of strong coffee, or some other agreeable beverage, is usually taken into the stomach to invigorate or excite the mind.

One thing I remarked as unusual among a people of such cultured taste, and that was the size of the ladies' waists. Of all that I measured not one was less than thirty inches in circumference, and it was rare to meet with one that small. At first I thought a waist that tapered from the arm pits would be an added beauty, if only these ladies would be taught how to acquire it. But I lived long enough among them to look upon a tapering waist as a disgusting deformity. They considered a large waist a mark of beauty, as it gave a greater capacity of lung power; and they laid the greatest stress upon the size and health of the lungs. One little lady, not above five feet in height, I saw draw into her lungs two hundred and twenty-five cubic inches of air, and smile proudly when she accomplished it. I measured five feet and five inches in height, and with the greatest effort I could not make my lungs receive more than two hundred cubic inches of air. In my own country I had been called an unusually robust girl, and knew, by
comparison, that I had a much larger and fuller chest than the average among women.

I noticed with greater surprise than anything else had excited in me, the marked absence of men. I wandered about the magnificent building without hindrance or surveillance. There was not a lock or bolt on any door in it. I frequented a vast gallery filled with paintings and statues of women, noble looking, beautiful women, but still—nothing but women. The fact that they were all blondes, singular as it might appear, did not so much impress me. Strangers came and went, but among the multitude of faces I met, I never saw a man's.

In my own country I had been accustomed to regard man as a vital necessity. He occupied all governmental offices, and was the arbitrator of domestic life. It seemed, therefore, impossible to me for a country or government to survive without his assistance and advice. Besides, it was a country over which the heart of any man must yearn, however insensible he might be to beauty or female loveliness. Wealth was everywhere and abundant. The climate as delightful as the most fastidious could desire. The products of the orchards and gardens surpassed description. Bread came from the laboratory, and not from the soil by the sweat of the brow. Toil was unknown; the toil that we know, menial, degrading and harassing. Science had been the magician that had done away all that. Science, so formidable and austere to our untutored minds, had been gracious to these fair beings and opened the door to nature's most occult secrets. The beauty of those women it is not in my power to describe. The Greeks, in their highest art, never rivalled it, for here was a beauty of mind that no art can represent. They enhanced their physical charms with attractive costumes, often of extreme elegance. They wore gems that flashed a fortune as they passed. The rarest was of a pale rose color, translucent as the clearest water, and of a brilliancy exceeding the finest diamond. Their voices, in song, could only be equalled by a celestial choir. No dryad queen ever floated through the leafy aisles of her forest with more grace than they displayed in every movement. And all this was for feminine eyes alone—and they of the most enchanting loveliness.

Among all the women that I met during my stay in Mizora—comprising a period of fifteen years—I saw not one homely face or ungraceful form. In my own land the voice of flattery had whispered in my ear praises of face and figure, but I felt ill-formed and uncouth beside the perfect symmetry and grace of these lovely beings. Their chief beauty appeared in a mobility of expression. It was the divine fire of Thought that illumined every feature, which, while gazing upon the Aphrodite of Praxitiles, we must think was all that the matchless marble lacked. Emotion passed over their features like ripples over a stream. Their eyes were limpid wells of loveliness, where every impulse of their natures were betrayed without reserve.

"It would be a paradise for man."

I made this observation to myself, and as secretly would I propound the question:

"Why is he not here in lordly possession?"

In my world man was regarded, or he had made himself regarded, as a superior being. He had constituted himself the Government, the Law, Judge, Jury and Executioner. He doled out reward or punishment as his conscience or judgment dictated. He was active and belligerent always in obtaining and keeping every good thing for himself. He was indispensable. Yet here was a nation of fair, exceedingly fair women doing without him, and practising the arts and sciences far beyond the imagined pale of human knowledge and skill.

Of their progress in science I will give some accounts hereafter. It is impossible to describe the feeling that took possession of me as months rolled by, and I saw the active employments of a prosperous people move smoothly and quietly along in the absence of masculine intelligence and wisdom. Cut off from all inquiry by my ignorance of their language, the singular absence of the male sex began to prey upon my imagination as a mystery. The more so after visiting a town at some distance, composed exclusively of schools and colleges for the youth of the country. Here I saw hundreds of children—and all of them were girls. Is it to be wondered at that the first inquiry I made, was:

"Where are the men?"

CHAPTER IV.

To facilitate my progress in the language of Mizora I was sent to their National College. It was the greatest favor they could have conferred upon me, as it opened to me a wide field of knowledge. Their educational system was a peculiar one, and, as it was the chief interest of the country. Here I saw hundreds of children—and all of them were girls. Is it to be wondered at that the first inquiry I made, was:

"Where are the men?"

All institutions for instruction were public, as were, also, the books and other accessories. The State was the beneficent mother who furnished everything, and required of her children only their time and application. Each pupil was compelled to attain a certain degree of excellence that I thought unreasonably high, after which she selected the science or vocation she felt most competent to master, and to that she then devoted herself.

The salaries of teachers were larger than those of any other public position. The Principal of the National College had an income that exceeded any royal one I had ever heard of; but, as education was the paramount interest of Mizora, I was not surprised at it. Their desire was to secure the finest talent for educational purposes, and as the
highest honors and emoluments belonged to such a position, it could not be otherwise. To be a teacher in Mizora was to be a person of consequence. They were its aristocracy.

Every State had a free college provided for out of the State funds. In these colleges every department of Science, Art, or Mechanics was furnished with all the facilities for thorough instruction. All the expenses of a pupil, including board, clothing, and the necessary traveling fares, were defrayed by the State. I may here remark that all railroads are owned and controlled by the General Government. The rates of transportation were fixed by law, and were uniform throughout the country.

The National College which I entered belonged to the General Government. Here was taught the highest attainments in the arts and sciences, and all industries practised in Mizora. It contained the very cream of learning. There the scientist, the philosopher and inventor found the means and appliances for study and investigation. There the artist and sculptor had their finest work, and often their studios. The principals and subordinate teachers and assistants were elected by popular vote. The State Colleges were free to those of another State who might desire to enter them, for Mizora was like one vast family. It was regarded as the duty of every citizen to lend all the aid and encouragement in her power to further the enlightenment of others, wisely knowing the benefits of such would accrue to her own and the general good. The National College was open to all applicants, irrespective of age, the only requirements being a previous training to enter upon so high a plane of mental culture. Every allurement was held out to the people to come and drink at the public fountain where the cup was inviting and the waters sweet.

"For," said one of the leading instructors to me, "education is the foundation of our moral elevation, our government, our happiness. Let us relax our efforts, or curtail the means and inducements to become educated, and we relax into ignorance, and end in demoralization. We know the value of free education. It is frequently the case that the greatest minds are of slow development, and manifest in the primary schools no marked ability. They often leave the schools unnoticed; and when time has awakened them to their mental needs, all they have to do is to apply to the college, pass an examination, and be admitted. If not prepared to enter the college, they could again attend the common schools. We realize in its broadest sense the ennobling influence of universal education. The higher the culture of a people, the more secure is their government and happiness. A prosperous people is always an educated one; and the freer the education, the wealthier they become." The Preceptress of the National College was the leading scientist of the country. Her position was more exalted than any that wealth could have given her. In fact, while wealth had acknowledged advantages, it held a subordinate place in the estimation of the people. I never heard the expression "very wealthy," used as a recommendation of a person. It was always: "She is a fine scholar, or mechanic, or artist, or musician. She excels in landscape gardening, or domestic work. She is a first-class chemist." But never "She is rich."

The idea of a Government assuming the responsibility of education, like a parent securing the interest of its children, was all so new to me; and yet, I confessed to myself, the system might prove beneficial to other countries than Mizora. In that world, from whence I had so mysteriously emigrated, education was the privilege only of the rich. And in no country, however enlightened, was there a system of education that would reach all. Charitable institutions were restricted, and benefited only a few. My heart beat with enthusiasm when I thought of the mission before me. And then I reflected that the philosophers of my world were but as children in progress compared to these. Still traveling in grooves that had been worn and fixed for posterity by bygone ages of ignorance and narrow-mindedness, it would require courage and resolution, and more eloquence than I possessed, to persuade them out of these trodden paths. To be considered the privileged class was an active characteristic of human nature. Wealth, and the powerful grip upon the people which the organizations of society and governments gave, made it hereditary. Yet in this country, nothing was hereditary but the prosperity and happiness of the whole people.

It was not a surprise to me that astronomy was an unknown science in Mizora, as neither sun, moon, nor stars were visible there. "The moon's pale beams" never afford material for a blank line in poetry; neither do scientific discussions rage on the formation of Saturn's rings, or the spots on the sun. They knew they occupied a hollow sphere, bounded North and South by impassible oceans. Light was a property of the atmosphere. A circle of burning mist shot forth long streamers of light from the North, and a similar phenomena occurred in the South.

The recitation of my geography lesson would have astonished a pupil from the outer world. They taught that a powerful current of electricity existed in the upper regions of the atmosphere. It was the origin of their atmospheric heat and light, and their change of seasons. The latter appeared to me to coincide with those of the Arctic zone, in one particular. The light of the sun during the Arctic summer is reflected by the atmosphere, and produces that mellow, golden, rapturous light that hangs like a veil of enchantment over the land of Mizora for six months in the year. It was followed by six months of the shifting iridescence of the Aurora Borealis.

As the display of the Aurora Borealis originated, and was most brilliant at what appeared to me to be the terminus of the pole, I believed it was caused by the meeting at that point of the two great electric currents of the earth, the one on its surface, and the one known to the inhabitants of Mizora. The heat produced by the meeting of
of food. But there was one other consideration that bore vitally upon it. The dignity and necessity of labor was early
poverty such as I knew existed in all civilized nations upon the face of the earth, was largely owing to the cheapness
no distinction of birth or position among themselves. Ignominy rested on any kind of labor, the whole community of Mizora was one immense family of sisters who knew custom of selecting whatever vocation they felt themselves competent to most worthily fill, and as no social favor or social rank, refined in manner and frequently of notable intellectual acquirements. It grew, or was the result of the accustomed to see accepted by the people of inferior birth and breeding, were there filled by women of the highest citizen, no matter how wealthy, had some regular trade, business or profession. I found those occupations we are accepted no pay.

I wrote out a careful description of the processes by which they converted food out of the valueless elements--valueless because of their abundance--and put it carefully away for use in my own country. There drouth, or excessive rainfalls, produced scarcity, and sometimes famine. The struggle of the poor was for food, to the exclusion of all other interests. Many of them knew not what proper and health-giving nourishment was. But here in Mizora, the daintiest morsels came from the chemists laboratory, cheap as the earth under her feet.

I now began to enjoy the advantages of conversation, which added greatly to my happiness and acquirements. I formed an intimate companionship with the daughter of the Preceptress of the National College, and to her was addressed the questions I asked about things that impressed me. She was one of the most beautiful beings that it had been my lot to behold. Her eyes were dark, almost the purplish blue of a pansy, and her hair had a darker tinge than is common in Mizora, as if it had stolen the golden edge of a ripe chestnut. Her beauty was a constant charm to me.

The National College contained a large and well filled gallery. Its pictures and statuary were varied, not confined to historical portraits and busts as was the one at the College of Experimental Science. Yet it possessed a number of portraits of women exclusively of the blonde type. Many of them were ideal in loveliness. This gallery also contained the masterpieces of their most celebrated sculptors. They were all studies of the female form. I am a connoisseur in art, and nothing that I had ever seen before could compare with these matchless marbles, bewitching in every delicate contour, alluring in softness, but grand and majestic in pose and expression.

But I haunted this gallery for other reasons than its artistic attractions. I was searching for the portrait of a man, or something suggesting his presence. I searched in vain. Many of the paintings were on a peculiar transparent substance that gave to the subject a startlingly vivid effect. I afterward learned that they were imperishable, the material being a translucent adamant of their own manufacture. After a picture was painted upon it, another piece of adamant was cemented over it.

Each day, as my acquaintance with the peculiar institutions and character of the inhabitants of Mizora increased, my perplexity and a certain air of mystery about them increased with it. It was impossible for me not to feel for them a high degree of respect, admiration, and affection. They were ever gentle, tender, and kind to solicitude. To accuse them of mystery were a paradox; and yet they were a mystery. In conversation, manners and habits, they were frank to singularity. It was just as common an occurrence for a poem to be read and commented on by its author, as to hear it done by another. I have heard a poetess call attention to the beauties of her own habits, they were frank to singularity. It was just as common an occurrence for a poem to be read and commented on

Ambition of the most intense earnestness was a natural characteristic, but was guided by a stern and inflexible justice. Envy and malice were unknown to them. It was, doubtless, owing to their elevated moral character that courts and legal proceedings had become unnecessary. If a discussion arose between parties involving a question of law, they repaired to the Public Library, where the statute books were kept, and looked up the matter themselves, and settled it as the law directed. Should they fail to interpret the law alike, a third party was selected as referee, but accepted no pay.

Indolence was as much a disgrace to them as is the lack of virtue to the women of my country, hence every citizen, no matter how wealthy, had some regular trade, business or profession. I found those occupations we are accustomed to see accepted by the people of inferior birth and breeding, were there filled by women of the highest social rank, refined in manner and frequently of notable intellectual acquirements. It grew, or was the result of the custom of selecting whatever vocation they felt themselves competent to most worthily fill, and as no social favor or ignominy rested on any kind of labor, the whole community of Mizora was one immense family of sisters who knew no distinction of birth or position among themselves.

There were no paupers and no charities, either public or private, to be found in the country. The absence of poverty such as I knew existed in all civilized nations upon the face of the earth, was largely owing to the cheapness of food. But there was one other consideration that bore vitally upon it. The dignity and necessity of labor was early
and diligently impressed upon the mind. The Preceptress said to me:

"Mizora is a land of industry. Nature has taught us the duty of work. Had some of us been born with minds fully matured, or did knowledge come to some as old age comes to all, we might think that a portion was intended to live without effort. But we are all born equal, and labor is assigned to all; and the one who seeks labor is wiser than the one who lets labor seek her."

Citizens, I learned, were not restrained from accumulating vast wealth had they the desire and ability to do so, but custom imposed upon them the most honorable processes. If a citizen should be found guilty of questionable business transactions, she suffered banishment to a lonely island and the confiscation of her entire estate, both hereditary and acquired. The property confiscated went to the public schools in the town or city where she resided; but never was permitted to augment salaries. I discovered this in the statute books, but not in the memory of any one living had it been found necessary to inflict such a punishment.

"Our laws," said Wauna, "are simply established legal advice. No law can be so constructed as to fit every case so exactly that a criminal mind could not warp it into a dishonest use. But in a country like ours, where civilization has reached that state of enlightenment that needs no laws, we are simply guided by custom."

The love of splendor and ornament was a pronounced characteristic of these strange people. But where gorgeous colors were used, they were always of rich quality. The humblest homes were exquisitely ornamented, and often displayed a luxury that, with us, would have been considered an evidence of wealth.

They took the greatest delight in their beauty, and were exceedingly careful of it. A lovely face and delicate complexion, they averred, added to one's refinement. The art of applying an artificial bloom and fairness to the skin, which I had often seen practiced in my own country, appeared to be unknown to them. But everything savoring of deception was universally condemned. They made no concealment of the practice they resorted to for preserving their complexions, and so universal and effectual were they, that women who, I was informed, had passed the age allotted to the grandmothers in my country, had the smooth brow and pink bloom of cheek that belongs to a more youthful period of life. There was, however, a distinction between youth and old age. The hair was permitted to whiten, but the delicate complexion of old age, with its exquisite coloring, excited in my mind as much admiration as astonishment.

I cannot explain why I hesitated to press my first inquiry as to where the men were. I had put the question to Wauna one day, but she professed never to have heard of such beings. It silenced me--for a time.

"Perhaps it is some extinct animal," she added, naively. "We have so many new things to study and investigate, that we pay but little attention to ancient history."

I bided my time and put the query in another form.

"Where is your other parent?"

"Where is your other parent?"

She regarded me with innocent surprise. "You talk strangely. I have but one parent. How could I have any more?"

"You ought to have two."

She laughed merrily. "You have a queer way of jesting. I have but one mother, one adorable mother. How could I have two?" and she laughed again.

I saw that there was some mystery I could not unravel at present, and fearing to involve myself in some trouble, refrained from further questioning on the subject. I nevertheless kept a close observance of all that passed, and seized every opportunity to investigate a mystery that began to harass me with its strangeness.

Soon after my conversation with Wauna, I attended an entertainment at which a great number of guests were present. It was a literary festival and, after the intellectual delicacies were disposed of, a banquet followed of more than royal munificence. Toasts were drank, succeeded by music and dancing and all the gayeties of a festive occasion, yet none but the fairest of fair women graced the scene. Is it strange, therefore, that I should have regarded with increasing astonishment and uneasiness a country in all respects alluring to the desires of man--yet found him not there in lordly possession?

Beauty and intellect, wealth and industry, splendor and careful economy, natures lofty and generous, gentle and loving--why has not Man claimed this for himself?

CHAPTER V.

The Preceptress of the National College appointed her daughter Wanna as a guide and instructor to me. I formed a deep and strong attachment for her, which, it pains me to remember, was the cause of her unhappy fate. In stature she was above the medium height, with a form of the fairest earthly loveliness and exquisite grace. Her eyes were so deep a blue, that at first I mistook them for brown. Her hair was the color of a ripe chestnut frosted with gold, and in length and abundance would cover her like a garment. She was vivacious and fond of athletic sports. Her strength amazed me. Those beautiful hands, with their tapering fingers, had a grip like a vise. They had discovered, in this wonderful land, that a body possessing perfectly developed muscles must, by the laws of nature,
shrubs. vines of ivy, grape and rose winding about them, carved and colored into perfect representations of the natural
porch floors were of clouded marble. The pillars supporting its roof were round shafts of the same material, with
residences in the country. She was the mother of eight children, and possessed one of the largest fortunes and most magnificent
resembl ing Man, never ceased to prey upon my curiosity. and perhaps penetrate its greatest mystery, for I must confess that the singular dearth of anything and everything
gratification, as it would afford me the opportunity I coveted to become acquainted with the domestic life of Mizora,
 punished by banishment. Corporal punishment was unknown. I would never give it expression, as any dereliction of duty would be severely rebuked by the whole community, if not
as so many afflictions is unknown to Mizora. If a mother should ever feel her children as burdens upon her, she
scholarly attainments and noble character is a credit to her mother. That selfish mother who looks upon her children
strong and deep. They consider the care of them a sacred duty, fraught with the noblest results of life. A daughter of
the curtain fell, I could scarcely believe it had only been a play. The love of Mizora women for their children is
thrilling beyond my power to describe. I lost control of my feelings. The audience wept and applauded; and when
watching the vessel break to pieces upon the rock and her child sink into the boiling water to rise no more, was
shore, the frightful carnival of wind and waves that no human power could still, and the agony of the mother
distracted mother. The scenery was managed with wonderful realism. The thunder of the surf as it beat upon the
district of its atmosphere, as we do to the material neatness of ours.
Mizora, I never saw a tear of sorrow fall from children's eyes. Admirable sanitary regulations exist in all the cities
physical. The result was plump limbs, healthy, happy faces and joyous spirits. In all the fifteen years that I spent in
manner of rearing children. The most scrupulous attention was paid to their diet and exercise, both mental and
be symmetrical and graceful. They rode a great deal on small, two-wheeled vehicles, which they propelled
themselves. They gave me one on which I accompanied Wauna to all of the places of interest in the Capital city and vicinity.
I must mention that Wauna's voice was exceedingly musical, even in that land of sweet voices, but she did not
excel as a singer.
The infant schools interested me more than all the magnificence and grandeur of the college buildings. The
quaint courtesy, gentle manners and affectionate demeanor of the little ones toward one another, was a surprise to me. I had visited infant schools of my own and other countries, where I had witnessed the display of human nature, un
restrained by mature discretion and policy. Fights, quarrels, kicks, screams, the unlawful seizure of toys and trinkets, and other misdemeanors, were generally the principal exhibits. But here it was all different. I thought, as I looked at them, that should a philanthropist from the outside world have chanced unknowingly upon the playground of a Mizora infant school, he would have believed himself in a company of little angels.
At first, a kindness so universal impressed me as studied; a species of refined courtesy in which the children were drilled. But time and observation proved to me that it was the natural impulse of the heart, an inherited trait of moral culture. In my world, kindness and affection were family possessions, extended occasionally to acquaintances. Beyond this was courtesy only for the great busy bustling mass of humanity called--"the world."
It must not be understood that there was no variety of character in Mizora. Just as marked a difference was to be found there as elsewhere; but it was elevated and ennobled. Its evil tendencies had been eliminated. There were many causes that had made this possible. The first, and probably the most influential, was the extreme cheapness of living. Food and fuel were items of so small consequence, that poverty had become unknown. Added to this, and to me by far the most vital reason, was their system of free education. In contemplating the state of enlightenment to which Mizora had attained, I became an enthusiast upon the subject of education, and resolved, should I ever again reach the upper world, to devote all my energies and ability to convincing the governments of its importance. I believe it is the duty of every government to make its schools and colleges, and everything appertaining to education--FREE. To be always starved for knowledge is a more pitiful craving than to hunger for bread. One dwarfs the body; the other the mind.
The utmost care was bestowed upon the training and education of the children. There was nothing that I met with in that beautiful and happy country I longed more to bring with me to the inhabitants of my world, than their manner of rearing children. The most scrupulous attention was paid to their diet and exercise, both mental and physical. The result was plump limbs, healthy, happy faces and joyous spirits. In all the fifteen years that I spent in Mizora, I never saw a tear of sorrow fall from children's eyes. Admirable sanitary regulations exist in all the cities and villages of the land, which insures them pure air. I may state here that every private-house looks as carefully to the condition of its atmosphere, as we do to the material neatness of ours.
The infant schools interested me more than all the magnificence and grandeur of the college buildings. The
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infant schools interested me more than all the magnificence and grandeur of the college buildings.

The only intense feeling that I could discover among these people was the love between parent and child. I visited the theater where the tragedy of the play was the destruction of a daughter by shipwreck in view of the distracted mother. The scenery was managed with wonderful realism. The thunder of the surf as it beat upon the shore, the frightful carnival of wind and waves that no human power could still, and the agony of the mother watching the vessel break to pieces upon the rock and her child sink into the boiling water to rise no more, was thrilling beyond my power to describe. I lost control of my feelings. The audience wept and applauded; and when the curtain fell, I could scarcely believe it had only been a play. The love of Mizora women for their children is strong and deep. They consider the care of them a sacred duty, fraught with the noblest results of life. A daughter of scholarly attainments and noble character is a credit to her mother. That selfish mother who looks upon her children as so many afflictions is unknown to Mizora. If a mother should ever feel her children as burdens upon her, she would never give it expression, as any dereliction of duty would be severely rebuked by the whole community, if not punished by banishment. Corporal punishment was unknown.
I received an invitation from a lady prominent in literature and science to make her a visit. I accepted with gratification, as it would afford me the opportunity I coveted to become acquainted with the domestic life of Mizora, and perhaps penetrate its greatest mystery, for I must confess that the singular dearth of anything and everything resembling Man, never ceased to prey upon my curiosity.
The lady was the editor and proprietor of the largest and most widely known scientific and literary magazine in the country. She was the mother of eight children, and possessed one of the largest fortunes and most magnificent residences in the country.
The house stood on an elevation, and was a magnificent structure of grey granite, with polished cornices. The porch floors were of clouded marble. The pillars supporting its roof were round shafts of the same material, with vines of ivy, grape and rose winding about them, carved and colored into perfect representations of the natural shrubs.
The drawing-room, which was vast and imposing in size and appearance, had a floor of pure white marble. The mantels and window-sills were of white onyx, with delicate vinings of pink and green. The floor was strewn with richly colored mats and rugs. Luxurious sofas and chairs comprised the only furniture. Each corner contained a piece of fine statuary. From the centre of the ceiling depended a large gold basin of beautiful design and workmanship, in which played a miniature fountain of perfumed water that filled the air with a delicate fragrance. The walls were divided into panels of polished and unpolished granite. On the unpolished panels hung paintings of scenery. The dull, gray color of the walls brought out in sharp and tasteful relief the few costly and elegant adornments of the room: a placid landscape with mountains dimly outlining the distance. A water scene with a boat idly drifting, occupied by a solitary figure watching the play of variegated lights upon the tranquil waters. Then came a wild and rugged mountain scene with precipices and a foaming torrent. Then a concert of birds amusingly treated.

The onyx marble mantel-piece contained but a single ornament—an orchestra. A coral vase contained a large and perfect tiger lily, made of gold. Each stamen supported a tiny figure carved out of ivory, holding a musical instrument. When they played, each figure appeared instinct with life, like the mythical fairies of my childhood; and the music was so sweet, yet faint, that I readily imagined the charmed ring and tiny dancers keeping time to its rhythm.

The drawing-room presented a vista of arches draped in curtains of a rare texture, though I afterward learned they were spun glass. The one that draped the entrance to the conservatory looked like sea foam with the faint blush of day shining through it. The conservatory was in the shape of a half sphere, and entirely of glass. From its dome, more than a hundred feet above our heads, hung a globe of white fire that gave forth a soft clear light. Terminating, as it did, the long vista of arches with their transparent hangings of cobweb texture, it presented a picture of magnificence and beauty indescribably.

The other apartments displayed the same taste and luxury. The sitting-room contained an instrument resembling a grand piano.

The grounds surrounding this elegant home were adorned with natural and artificial beauties, Grottoes, fountains, lakes, cascades, terraces of flowers, statuary, arbors and foliage in endless variety, that rendered it a miniature paradise. In these grounds, darting in and out among the avenues, playing hide-and-seek behind the statuary, or otherwise amusing themselves, I met eight lovely children, ranging from infancy to young maidenhood. The glowing cheeks and eyes, and supple limbs spoke of perfect health and happiness. When they saw their mother coming, they ran to meet her, the oldest carrying the two-year old baby. The stately woman greeted each with a loving kiss. She showed in loving glance and action how dear they all were to her. For the time being she unbent, and became a child herself in the interest she took in their prattle and mirth. A true mother and happy children.

I discovered that each department of this handsome home was under the care of a professional artist. I remarked to my hostess that I had supposed her home was the expression of her own taste.

"So it is," she replied; "but it requires an equally well educated taste to carry out my designs. The arrangement and ornamentation of my grounds were suggested by me, and planned and executed by my landscape artist."

After supper we repaired to the general sitting-room. The eldest daughter had been deeply absorbed in a book before we came in. She closed and left it upon a table. I watched for an opportunity to carelessly pick it up and examine it. It was a novel I felt sure, for she appeared to resign it reluctantly out of courtesy to her guest. I might, from it, gather some clue to the mystery of the male sex. I took up the book and opened it. It was The Conservation of Force and The Phenomena of Nature. I laid it down with a sigh of discomfiture.

The next evening, my hostess gave a small entertainment, and what was my amazement, not to say offense, to her presume that the cook, the chamber-maid, and in fact all the servants in the establishment, enter and join in the conversation and amusement. The cook was asked to sing, for, with the exception of myself—and I tried to conceal it—no one appeared to take umbrage at her presence. She sat down to the piano and sang a pretty ballad in a charming manner. Her voice was cultivated and musical, as are all the voices in Mizora, but it was lacking in the qualities that make a great singer, yet it had a plaintive sweetness that was very attractive.

I was dumbfounded at her presumption. In my country such a thing is unknown as a servant entertaining guests in such a capacity, and especially among people of my rank and position in the world.

I repelled some advances she made me with a hauteur and coldness that it mortified me afterward to remember. Instead of being my inferior, I was her's, and she knew it; but neither by look, tone nor action did she betray her consciousness of it. I had to acknowledge that her hands were more delicately modeled than mine, and her bearing had a dignity and elegance that might have been envied by the most aristocratic dame of my own land. Knowing that the Mizora people were peculiar in their social ideas, I essayed to repress my indignation at the time, but later I unburdened myself to Wauna who, with her usual sweetness and gentleness, explained to me that her occupation was a mere matter of choice with her.

"She is one of the most distinguished chemists of this nation. She solved the problem of making bread out of the..."
limestone of a much finer quality than had been in use before."

"Don't tell me that you gave me a stone when I asked for bread!" I exclaimed.

"We have not done that," replied Wauna; "but we have given you what you took for bread, but which is manufactured out of limestone and the refuse of the marble quarries."

I looked at her in such inane astonishment that she hastened to add:

"I will take you to one of the large factories some day. They are always in the mountains where the stone is abundant. You can there see loaves by the thousands packed in great glass tanks for shipment to the different markets. And they do not cost the manufacturer above one centime per hundred."

"And what royalty does the discoverer get for this wonder of chemistry?"

"None. Whenever anything of that kind is discovered in our country, it is purchased outright by the government, and then made public for the benefit of all. The competition among manufacturers consists in the care and exactness with which they combine the necessary elements. There is quite a difference in the taste and quality of our bread as it comes from different factories."

"Why doesn't such a talented person quit working in another woman's kitchen and keep herself like a lady?" I inquired, all the prejudice of indolent wealth against labor coming up in my thoughts.

"She has a taste for that kind of work," replied Wauna, "instead of for making dresses, or carving gems, or painting. She often says she could not make a straight line if she tried, yet she can put together with such nicety and chemical skill the elements that form an omelette or a custard, that she has become famous. She teaches all who desire to learn, but none seem to equal her. She was born with a genius for cooking and nothing else. Haven't you seen her with a long glass tube testing the vessels of vegetables and fruit that were cooking?"

"Yes," I answered. "It was from that that I supposed her occupation menial."

"Visitors from other cities," continued Wauna, "nearly always inquire for her first."

Perceiving the mistake that I had made, I ventured an apology for my behavior toward her, and Wauna replied, with a frankness that nearly crushed me:

"We all noticed it, but do not fear a retaliation," she added sweetly. "We know that you are from a civilization that we look back upon as one of barbarism."

I acknowledged that if any superciliousness existed in Mizora while I was there, I must have had it.

The guests departed without refreshments having been served. I explained the custom of entertainment in my country, which elicited expressions of astonishment. It would be insulting to offer refreshments of any kind to a guest between the regular hours for dining, as it would imply a desire on your part to impair their health. Such was the explanation of what in my country would be deemed a gross neglect of duty. Their custom was probably the result of two causes: an enlightened knowledge of the laws of health, and the extreme cheapness of all luxuries of the table which the skill of the chemist had made available to every class of people in the land.

The word "servant" did not exist in the language of Mizora; neither had they an equivalent for it in the sense in which we understand and use the word. I could not tell a servant—for I must use the word to be understood—from a professor in the National College. They were all highly-educated, refined, lady-like and lovely. Their occupations were always matters of choice, for, as there was nothing in them to detract from their social position, they selected the one they knew they had the ability to fill. Hence those positions we are accustomed to regard as menial, were there filled by ladies of the highest culture and refinement; consequently the domestic duties of a Mizora household moved to their accomplishment with the ease and regularity of fine machinery.

It was long before I could comprehend the dignity they attached to the humblest vocations. They had one proverb that embraced it all: "Labor is the necessity of life." I studied this peculiar phase of Mizora life, and at last comprehended that in this very law of social equality lay the foundation of their superiority. Their admirable system of adapting the mind to the vocation in which it was most capable of excelling, and endowing that with dignity and respect, and, at the same time, compelling the highest mental culture possible, had produced a nation in the enjoyment of universal refinement, and a higher order of intelligence than any yet known to the outside world.

The standard of an ordinary education was to me astonishingly high. The reason for it was easily understood when informed that the only aristocracy of the country was that of intellect. Scholars, artists, scientists, literateurs, all those excelling in intellectual gifts or attainments, were alone regarded as superiors by the masses.

In all the houses that I had visited I had never seen a portrait hung in a room thrown open to visitors. On inquiry, I was informed that it was a lack of taste to make a portrait conspicuous.

"You meet faces at all times," said my informant, "but you cannot at all times have a variety of scenery before you. How monotonous it would be with a drawing-room full of women, and the walls filled with their painted representatives. We never do it."

"Then where do you keep your family portraits?"

"Ours is in a gallery upstairs."
I requested to be shown this, and was conducted to a very long apartment on the third floor, devoted exclusively to relics and portraits of family ancestry. There were over three thousand portraits of blond women, which my hostess' daughter informed me represented her grandmothers for ages back. Not one word did she say about her grandfathers.

I may mention here that no word existed in their dictionaries that was equivalent to the word "man." I had made myself acquainted with this fact as soon as I had acquired sufficient knowledge of their language. My astonishment at it cannot be described. It was a mystery that became more and more perplexing. Never in the closest intimacy that I could secure could I obtain the slightest clue, the least suggestion relating to the presence of man. My friend's infant, scarcely two years old, prattled of everything but a father.

I cannot explain a certain impressive dignity about the women of Mizora that, in spite of their amiability and winning gentleness, forbade a close questioning into private affairs. My hostess never spoke of her business. It would have been a breach of etiquette to have questioned her about it. I could not bring myself to intrude the question of the marked absence of men, when not the slightest allusion was ever made to them by any citizen.

So time passed on, confirming my high opinion of them, and yet I knew and felt and believed that some strange and incomprehensible mystery surrounded them, and when I had abandoned all hope of a solution to it, it solved itself in the most unexpected and yet natural manner, and I was more astonished at the solution than I was at the mystery.

CHAPTER VI.

Their domestic life was so harmonious and perfect that it was a perpetual pleasure to contemplate.

Human nature finds its sweetest pleasure, its happiest content, within its own home circle; and in Mizora I found no exception to the rule. The arrangement and adornment of every house in Mizora were evidently for the comfort and happiness of its inmates. To purchase anything for merely outside show, or to excite the envy or jealousy of a neighbor, was never thought of by an inhabitant of Mizora.

The houses that were built to rent excited my admiration quite as much as did the private residences. They all seemed to have been designed with two special objects in view—beauty and comfort. Houses built to rent in large cities were always in the form of a hollow square, inclosing a commodious and handsomely decorated park. The back was adorned with an upper and lower piazza opening upon the park. The suites of rooms were so arranged as to exclusively separate their occupants from all others. The park was undivided. The center was occupied by a fountain large enough to shoot its spray as high as the uppermost piazza. The park was furnished with rustic seats and shade trees, frequently of immense size, branched above its smooth walks and promenades, where baby wagons, velocipedes and hobby horses on wheels could have uninterrupted sport.

Suburban residences, designed for rent, were on a similar but more amplified plan. The houses were detached, but the grounds were in common. Many private residences were also constructed on the same plan. Five or six acres would be purchased by a dozen families who were not rich enough to own large places separately. A separate residence would be built for each family, but the ground would be laid off and ornamented like a private park. Each of the dozen families would thus have a beautiful view and the privilege of the whole ground. In this way, cascades, fountains, rustic arbors, rockeries, aquariums, tiny lakes, and every variety of landscape ornamenting, could be supplied at a comparatively small cost to each family.

Should any one wish to sell, they disposed of their house and one-twelfth of the undivided ground, and a certain per cent. of the value of its ornaments. The established custom was never to remove or alter property thus purchased without the consent of the other shareholders. Where a people had been educated to regard justice and conscience as their law, such an arrangement could be beneficial to an entire city.

Financial ability does not belong to every one, and this plan of uniting small capitals gave opportunity to the less wealthy classes to enjoy all the luxuries that belong to the rich. In fact some of the handsomest parks I saw in Mizora were owned and kept up in this manner. Sometimes as many as twenty families united in the purchase of an estate, and constructed artificial lakes large enough to sail upon. Artificial cascades and fountains of wonderful size and beauty were common ornaments in all the private and public parks of the city. I noticed in all the cities that I visited the beauty and charm of the public parks, which were found in all sections.

The walks were smoothly paved and shaded by trees of enormous size. They were always frequented by children, who could romp and play in these sylvan retreats of beauty in perfect security.

The high state of culture arrived at by the Mizora people rendered a luxurious style of living a necessity to all. Many things that I had been brought up to regard as the exclusive privileges of the rich, were here the common pleasure of every one. There was no distinction of classes; no genteel-poverty people, who denied themselves necessities that they might appear to have luxuries. There was not a home in Mizora that I entered—and I had access to many—that did not give the impression of wealth in all its appointments.

I asked the Preceptress to explain to me how I might carry back to the people of my country this social
happiness, this equality of physical comfort and luxury; and she answered me with emphasis:

"Educate them. Convince the rich that by educating the poor, they are providing for their own safety. They will have fewer prisons to build, fewer courts to sustain. Educated Labor will work out its own salvation against Capital. Let the children of toil start in life with exactly the same educational advantages that are enjoyed by the rich. Give them the same physical and moral training, and let the rich pay for it by taxes."

I shook my head "They will never submit to it," was my reluctant admission.

"Appeal to their selfishness," urged the Preceptress "Get them to open their college doors and ask all to come and be taught without money and without price. The power of capital is great, but stinted and ignorant toil will rise against its oppression, and innocence and guilt will alike suffer from its fury. Have you never known such an occurrence?"

"Not in my day or country," I answered "But the city in which I was educated has such a history. Its gutters flowed with human blood, the blood of its nobles."

She inclined her head significantly. "It will be repeated," she said sadly, "unless you educate them. Give their bright and active minds the power of knowledge. They will use it wisely, for their own and their country's welfare."

I doubted my ability to do this, to contend against rooted and inherited prejudice, but I resolved to try. I did not need to be told that the rich and powerful had a monopoly of intellect: Nature was not partial to them, for the children of the poor, I well knew, were often handsomer and more intellectual than the offspring of wealth and aristocratic birth.

I have before spoken of the positions occupied by those who performed what I had been bred to regard as menial work. At first, the mere fact of the person who presided over the kitchen being presented to me as an equal, was outraging to all my hereditary dignity and pride of birth. No one could be more pronounced in a consciousness of inherited nobility than I. I had been taught from infancy to regard myself as a superior being, merely because the accident of birth had made me so, and the arrogance with which I had treated some of my less favored schoolmates reverted to me with mortifying regret, when, having asked Wauna to point out to me the nobly born, she looked at me with her sweet expression of candor and innocence and said:

"We have no nobility of birth. As I once before told you, intellect is our only standard of excellence. It alone occupies an exalted place and receives the homage of our people."

In a subsequent conversation with her mother, the Preceptress, she said:

"In remote ages, great honor and deference was paid to all who were born of rulers, and the designation 'noble blood,' was applied to them. At one time in the history of our country they could commit any outrage upon society or morals without fear of punishment, simply because they belonged to the aristocracy. Even a heinous murder would be unnoticed if perpetrated by one of them. Nature alone did not favor them Imbecile and immoral minds fell to the lot of the aristocrat as often as to the lowly born. Nature's laws are inflexible and swerve not for any human wish. They outraged them by the admixture of kindred blood, and degeneracy was often the result. A people should always have for their chief ruler the highest and noblest intellect among them, but in those dark ages they were too often compelled to submit to the lowest, simply because it had been born to the position. But," she added, with a sweet smile, "that time lies many centuries behind us, and I sometimes think we had better forget it entirely."

My first meeting with the domestics of my friend's house impressed me with their high mental culture, refinement and elegance. Certainly no "grande dame" of my own country but would have been proud of their beauty and graceful dignity.

Prejudice, however deeply ingrained, could not resist the custom of a whole country, and especially such a one as Mizora, so I soon found myself on a familiar footing with my friend's "artist"--for the name by which they were designated as a class had very nearly the same meaning.

Cooking was an art, and one which the people of Mizora had cultivated to the highest excellence. It is not strange, when their enlightenment is understood, that they should attach as much honor to it as the people of my country do to sculpture, painting and literature. The Preceptress told me that such would be the case with my people when education became universal and the poor could start in life with the same intellectual culture as the rich. The chemistry of food and its importance in preserving a youthful vigor and preventing disease, would then be understood and appreciated by all classes, and would receive the deference it deserved.

"You will never realize," said the Preceptress earnestly, "the incalculable benefit that will accrue to your people from educating your poor. Urge that Government to try it for just twenty years, long enough for a generation to be born and mature. The bright and eager intellects of poverty will turn to Chemistry to solve the problems of cheap Light, cheap Fuel and cheap Food. When you can clothe yourselves from the fibre of the trees, and warm and light your dwellings from the water of your rivers, and eat of the stones of the earth, Poverty and Disease will be as unknown to your people as it is to mine."

"If I should preach that to them, they would call me a maniac."
"None but the ignorant will do so. From your description of the great thinkers of your country, I am inclined to believe there are minds among you advanced enough to believe in it."

I remembered how steamboats and railroads and telegraphy had been opposed and ridiculed until proven practicable, and I took courage and resolved to follow the advice of my wise counselor.

I had long felt a curiosity to behold the inner workings of a domestic's life, and one day ventured to ask my friend's permission to enter her kitchen. Surprise was manifested at such a request, when I began to apologize and explain. But my hostess smiled and said:

"My kitchen is at all times as free to my guests as my drawing room."

Every kitchen in Mizora is on the same plan and conducted the same way. To describe one, therefore, is to describe all. I undertook to explain that in my country, good breeding forbade a guest entering the host's kitchen, and frequently its appearance, and that of the cook's, would not conduce to gastric enjoyment of the edibles prepared in it.

My first visit happened to be on scrubbing day, and I was greatly amused to see a little machine, with brushes and sponges attached, going over the floor at a swift rate, scouring and sponging dry as it went. Two vessels, one containing soap suds and the other clear water, were connected by small feed pipes with the brushes. As soon as the drying sponge became saturated, it was lifted by an ingenious yet simple contrivance into a vessel and pressed dry, and was again dropped to the floor.

I inquired how it was turned to reverse its progress so as to clean the whole floor, and was told to watch when it struck the wall. I did so, and saw that the jar not only reversed the machine, but caused it to spring to the right about two feet, which was its width, and again begin work on a new line, to be again reversed in the same manner when it struck the opposite wall. Carpeted floors were swept by a similar contrivance.

No wonder the "artists" of the kitchen had such a dainty appearance. They dipped their pretty hands in perfumed water and dried them on the finest and whitest damask, while machinery did the coarse work.

Mizora, I discovered, was a land of brain workers. In every vocation of life machinery was called upon to perform the arduous physical labor. The whole domestic department was a marvel of ingenious mechanical contrivances. Dishwashing, scouring and cleaning of every description were done by machinery.

The Preceptress told me that it was the result of enlightenment, and it would become the custom in my country to make machinery perform the laborious work when they learned the value of universal and advanced knowledge.

I observed that the most exact care was given to the preparation of food. Every cook was required to be a chemist of the highest excellence; another thing that struck me as radically different from the custom in vogue in my country.

Everything was cooked by hot air and under cover, so that no odor was perceptible in the room. Ventilating pipes conveyed the steam from cooking food out of doors. Vegetables and fruits appeared to acquire a richer flavor when thus cooked. The seasoning was done by exact weight and measure, and there was no stirring or tasting. A glass tube, on the principle of a thermometer, determined when each article was done. The perfection which they had attained as culinary chemists was a source of much gratification to me, both in the taste of food so delicious and palatable, and in its wholesome effect on my constitution. As to its deliciousness, a meal prepared by a Mizora cook could rival the fabled feasts of the gods. Its beneficial effects upon me were manifested in a healthier tone of body and an increase of animal spirits, a pleasurable feeling of content and amiability.

The Preceptress told me that the first step toward the eradication of disease was in the scientific preparation of food, and the establishment of schools where cooking was taught as an art to all who applied, and without charge. Placed upon a scientific basis it became respectable.

"To eliminate from our food the deleterious earthy matter is our constant aim. To that alone do we owe immunity from old age far in advance of that period of life when your people become decrepit and senile. The human body is like a lamp-wick, which filters the oil while it furnishes light. In time the wick becomes clogged and useless and is thrown away. If the oil could be made perfectly pure, the wick would not fill up."

She gave this homely explanation with a smile and the air of a grown person trying to convey to the immature mind of a child an explanation of some of Nature's phenomena.

I reflected upon their social condition and arrived at the conviction that there is no occupation in life but what has its usefulness and necessity, and, when united to culture and refinement, its dignity. A tree has a million leaves, yet each individual leaf, insignificant as it may appear, has its special share of work to perform in helping the tree to live and perfect its fruit. So should every citizen of a government contribute to its vitality and receive a share of its benefits.

"Will the time ever come," I asked myself, "when my own country will see this and rise to a social, if not intellectual equality." And the admonition of the Preceptress would recur to my mind:

"Educate them. Educate them, and enlightenment will solve for them every problem in Sociology."
My observations in Mizora led me to believe that while Nature will permit and encourage the outgrowth of equality in refinement, she gives birth to a more decided prominence in the leadership of intellect.

The lady who conducted me through the culinary department, and pointed out the machinery and explained its use and convenience, had the same grace and dignity of manner as the hostess displayed when exhibiting to me the rare plants in her conservatory.

The laundry was a separate business. No one unconnected with it as a profession had anything to do with its duties. I visited several of the large city laundries and was informed that all were conducted alike. Steam was employed in the cleaning process, and the drying was done by hot air impregnated with ozone. This removed from white fabrics every vestige of discoloration or stain. I saw twelve dozen fine damask table-cloths cleaned, dried and ironed in thirty minutes. All done by machinery. They emerged from the rollers that ironed them looking like new pieces of goods, so pure was their color, and so glossy their finish.

I inquired the price for doing them up, and was told a cent a piece. Twelve cents per dozen was the established price for doing up clothes. Table-cloths and similar articles were ironed between rollers constructed to admit their full width. Other articles of more complicated make, were ironed by machines constructed to suit them. Some articles were dressed by another, by having hot air forced rapidly through them. Lace curtains, shawls, veils, spreads, tidies and all similar articles, were by this process made to look like new, and at a cost that I thought ought certainly to reduce the establishment to beggary or insolvency. But here chemistry again was the magician that had made such cheap labor profitable. And such advanced knowledge of chemistry was the result of universal education.

Ladies sent their finest laces to be renewed without fear of having them reduced to shreds. In doing up the frailest laces, nothing but hot air impregnated with ozone was employed. These were consecutively forced through the fabric after it was carefully stretched. Nothing was ever lost or torn, so methodical was the management of the work.

I asked why cooking was not established as the laundry was, as a distinct public business, and was told that it had been tried a number of times, but had always been found impracticable. One kind of work in a laundry would suit everyone, but one course of cooking could not. Tastes and appetites differed greatly. What was palatable to one would be disliked by another, and to prepare food for a large number of customers, without knowing or being able to know exactly what the demand would be, had always resulted in large waste, and as the people of Mizora were the most rigid and exacting economists, it was not to be wondered at that they had selected the most economical plan. Every private cook could determine accurately the amount of food required for the household she prepared it for, and knowing their tastes she could cater to all without waste.

"We, as yet," said my distinguished instructor, "derive all our fruit and vegetables from the soil. We have orchards and vineyards and gardens which we carefully tend, and which our knowledge of chemistry enables us to keep in health and productiveness. But there is always more or less earthy matter in all food derived from cultivating the soil, and the laboratories are now striving to produce artificial fruit and vegetables that will satisfy the palate and be free from deleterious matter."

CHAPTER VII.

One of the most curious and pleasing sights in Mizora was the flower gardens and conservatories. Roses of all sizes and colors and shades of color were there. Some two feet across were placed by the side of others not exceeding the fourth of an inch in order to display the disparity in size.

To enter into a minute description of all the discoveries made by the Mizora people in fruit and floriculture, would be too tedious; suffice to say they had laid their hands upon the beautiful and compelled nature to reveal to them the secret of its formation. The number of petals, their color, shape and size, were produced as desired. The only thing they could neither create nor destroy was its perfume. I questioned the Preceptress as to the possibility of its ever being discovered? She replied:

"It is the one secret of the rose that Nature refuses to reveal. I do not believe we shall ever possess the power to increase or diminish the odor of a flower. I believe that Nature will always reserve to herself the secret of its creation. The success that we enjoy in the wonderful cultivation of our fruits and flowers was one of our earliest scientific conquests."

I learned that their orchards never failed to yield a bounteous harvest. They had many fruits that were new to me, and some that were new and greatly improved species of kinds that I had already seen and eaten in my own or other countries. Nothing that they cultivated was ever without its own peculiar beauty as well as usefulness. Their orchards, when the fruit was ripe, presented a picture of unique charm. Their trees were always trained into graceful shapes, and when the ripe fruit gleamed through the dark green foliage, every tree looked like a huge bouquet. A cherry tree that I much admired, and the fruit of which I found surpassingly delicious, I must allow myself to describe. The cherries were not surprisingly large, but were of the colors and transparency of honey. They were seedless, the tree having to be propagated from slips. When the fruit was ripe the tree looked like a huge ball of pale
Their grape arbors were delightful pictures in their season of maturity. Some vines had clusters of fruit three feet long; but these I was told were only to show what they could do in grape culture. The usual and marketable size of a bunch was from one to two pounds weight. The fruit was always perfect that was offered for sale.

Science had provided the fruit growers of Mizora with permanent protections from all kinds of blight or decay. When I considered the wholesomeness of all kinds of food prepared for the inhabitants of this favored land. I began to think they might owe a goodly portion of their exceptional health to it, and a large share of their national amiability to their physical comfort. I made some such observation to the Preceptress, and she admitted its correctness.

"The first step that my people made toward the eradication of disease was in the preparation of healthy food; not for the rich, who could obtain it themselves, but for the whole nation."

I asked for further information and she added:

"Science discovered that mysterious and complicated diseases often had their origin in adulterated food. People suffered and died, ignorant of what produced their disease. The law, in the first place, rigidly enforced the marketing of clean and perfect fruit, and a wholesome quality of all other provisions. This was at first difficult to do, as in those ancient days, (I refer to a very remote period of our history) in order to make usurious profit, dealers adulterated all kinds of food; often with poisonous substances. When every state took charge of its markets and provided free schools for cooking, progress took a rapid advance. Do you wonder at it? Reflect then. How could I force my mind into complete absorption of some new combination of chemicals, while the gastric juice in my stomach was battling with sour or adulterated food? Nature would compel me to pay some attention to the discomfort of my digestive organs, and it might happen at a time when I was on the verge of a revelation in science, which might be lost. You may think it an insignificant matter to speak of in connection with the grand enlightenment that we possess; but Nature herself is a mass of little things. Our bodies, strong and supple as they are, are nothing but a union of tiny cells. It is by the investigation of little things that we have reached the great ones."

I felt a keen desire to know more about their progress toward universal health, feeling assured that the history of the extirpation of disease must be curious and instructive. I had been previously made acquainted with the fact that disease was really unknown to them, save in its historical existence. To cull this isolated history from their vast libraries of past events, would require a great deal of patient and laborious research, and the necessary reading of a great deal of matter that I could not be interested in, and that could not beside be of any real value to me, so I requested the Preceptress to give me an epitomized history of it in her own language, merely relating such facts as might be useful to me, and that I could comprehend, for I may as well bring forward the fact that, in comparison to their libraries of past events, would require a great deal of patient and laborious research, and the necessary reading of a great deal of matter that I could not be interested in, and that could not beside be of any real value to me, so I requested the Preceptress to give me an epitomized history of it in her own language, merely relating such facts as might be useful to me, and that I could comprehend, for I may as well bring forward the fact that, in comparison to theirs, my mind was as a savages would be to our civilization.

Their brain was of a finer intellectual fiber. It possessed a wider, grander, more majestic receptivity. They absorbed ideas that passed over me like a cloud. Their imaginations were etherealized. They reached into what appeared to be materialless space, and brought from it substances I had never heard of before, and by processes I could not comprehend. They divided matter into new elements and utilized them. They disintegrated matter, added to it new properties and produced a different material. I saw the effects and uses of their chemistry, but that was all.

There are minds belonging to my own age, as there have been to all ages, that are intellectually in advance of it. They live in a mental and prophetic world of their own, and leave behind them discoveries, inventions and teachings that benefit and ennoble the generations to come. Could such a mind have chanced upon Mizora, as I chanced upon it, it might have consorted with its intellect, and brought from the companionship ideas that I could not receive, and sciences that I can find no words in my language to represent. The impression that my own country might make upon a savage, may describe my relation to Mizora. What could an uncivilized mind say of our railroads, or magnificent cathedrals, our palaces, our splendor, our wealth, our works of art. They would be as difficult of representation as were the lofty aims, the unselfishness in living, the perfect love, honor and intellectual grandeur, and the universal comfort and luxury found in Mizora, were to me. To them the cultivation of the mind was an imperative duty, that neither age nor condition retarded. To do good, to be approved by their own conscience, was their constant pleasure.

CHAPTER VIII.

It was during my visit at my friend’s house that I first witnessed the peculiar manner in which the markets in Mizora are conducted. Everything, as usual, was fastidiously neat and clean. The fruit and vegetables were fresh and perfect. I examined quantities of them to satisfy myself, and not a blemish or imperfection could be found on any. None but buyers were attending market. Baskets of fruit, bunches of vegetables and, in fact, everything exhibited for sale, had the quality and the price labeled upon it. Small wicker baskets were near to receive the change. When a buyer had selected what suited her, she dropped the label and the change in the basket. I saw one basket filled with gold and silver coin, yet not one would be missing when the owner came to count up the sales. Sometimes a
purchaser was obliged to change a large piece of money, but it was always done accurately.

There was one singular trait these people possessed that, in conjunction with their other characteristics, may seem unnatural: they would give and exact the last centime (a quarter of a cent) in a trade. I noticed this peculiarity so frequently that I inquired the reason for it, and when I had studied it over I decided that, like all the other rules that these admirable people had established, it was wise. Said my friend:

"We set a just value on everything we prepare for sale. Anything above or below that, would be unjust to buyer or seller."

The varieties of apples, pears, peaches and other fruits had their names attached, with the quality, sweet, sour, or slightly acid. In no instance was it found to be incorrectly stated. I came to one stall that contained nothing but glass jars of butter and cream. The butter was a rich buff color, like very fine qualities I had seen in my own country. The cream, an article I am fond of drinking, looked so tempting I longed to purchase a glass for that purpose. The lady whom I accompanied (my hostess' cook) informed me that it was artificially prepared. The butter and cheese were chemical productions. Different laboratories produced articles of varying flavor, according to the chemist's skill. Although their construction was no secret, yet some laboratories enjoyed special reputation for their butter and cheese owing to the accuracy with which their elements were combined.

She gave me quite a history about artificial food, also how they kept fruits and vegetables in their natural state for years without decaying or losing their flavor, so that when eaten they were nearly as fine as when freshly gathered. After hearing that the cream was manufactured, I resolved to taste it. Dropping my coin into the basket, I took up a glass and drank it. A look of disgust crossed the countenance of my companion.

"Do you not drink this?" I asked in surprise, as I set down the empty vessel. "It is truly delicious."

"At regular meal times we all use it, and sometimes drink it in preference to other beverages--but never in public. You will never see a citizen of Mizora eating in public. Look all over this market and you will not discover one person, either adult or child, eating or drinking, unless it be water."

I could not; and I felt keenly mortified at my mistake. Yet in my own country and others that, according to our standard, are highly civilized, a beverage is made from the juice of the corn that is not only drank in public places, but its effects, which are always unbecoming, are exhibited also, and frequently without reproof. However, I said nothing to my companion about this beverage. It bears no comparison in color or taste to that made in Mizora. I could not have distinguished the latter from the finest dairy cream.

The next place of interest that I visited were their mercantile bazars or stores. Here I found things looking quite familiar. The goods were piled upon shelves behind counters, and numerous clerks were in attendance. It was the regular day for shopping among the Mizora ladies, and the merchants had made a display of their prettiest and richest goods. I noticed the ladies were as elegantly dressed as if for a reception, and learned that it was the custom. They would meet a great many friends and acquaintances, and dressed to honor the occasion.

It was my first shopping experience in Mizora, and I quite mortified myself by removing my glove and rubbing and examining closely the goods I thought of purchasing. I entirely ignored the sweet voice of the clerk that was gently informing me that it was "pure linen" or "pure wool," so habituated had I become in my own country to being my own judge of the quality of the goods I was purchasing, regardless always of the seller's recommendation of it. I found it difficult, especially in such circumstances, to always remember their strict adherence to honesty and fair dealing. I felt rebuked when I looked around and saw the actions of the other ladies in buying.

In manufactured goods, as in all other things, not the slightest cheaterly is to be found. Woolen and cotton mixtures were never sold for pure wool. Nobody seemed to have heard of the art of glossing muslin cuffs and collars and selling them for pure linen.

Fearing that I had wounded the feelings of the lady in attendance upon me, I hastened to apologize by explaining the peculiar methods of trade that were practiced in my own country. They were immediately pronounced barbarous.

I noticed that ladies in shopping examined colors and effects of trimmings or combinations, but never examined the quality. Whatever the attendant said about that was received as a fact.

The reason for the absence of attendants in the markets and the presence of them in mercantile houses was apparent at once. The market articles were brought fresh every day, while goods were stored.

Their business houses and their manner of shopping were unlike anything I had ever met with before. The houses were all built in a hollow square, enclosing a garden with a fountain in the center. These were invariably roofed over with glass, as was the entire building. In winter the garden was as warm as the interior of the store. It was adorned with flowers and shrubs. I often saw ladies and children promenading in these pretty inclosures, or sitting on their rustic sofas conversing, while their friends were shopping in the store. The arrangement gave perfect light and comfort to both clerks and customers, and the display of rich and handsome fabrics was enhanced by the bit of scenery beyond. In summer the water for the fountain was artificially cooled.
Every clerk was provided with a chair suspended by pulleys from strong iron rods fastened above. They could be raised or lowered at will; and when not occupied, could be drawn up out of the way. After the goods were purchased, they were placed in a machine that wrapped and tied them ready for delivery.

A dining-room was always a part of every store. I desired to be shown this, and found it as tasteful and elegant in its appointments as a private one would be. Silver and china and fine damask made it inviting to the eye, and I had no doubt the cooking corresponded as well with the taste.

The streets of Mizora were all paved, even the roads through the villages were furnished an artificial cover, durable, smooth and elastic. For this purpose a variety of materials were used. Some had artificial stone, in the manufacture of which Mizora could surpass nature's production. Artificial wood they also made and used for pavements, as well as cement made of fine sand. The latter was the least durable, but possessed considerable elasticity and made a very fine driving park. They were experimenting when I came away on sanded glass for road beds. The difficulty was to overcome its susceptibility to attrition. After business hours every street was swept by a machine. The streets and sidewalks, in dry weather, were as free from soil as the floor of a private-house would be.

Animals and domestic fowls had long been extinct in Mizora. This was one cause of the weird silence that so impressed me on my first view of their capital city. Invention had superseded the usefulness of animals in all departments: in the field and the chemistry of food. Artificial power was utilized for all vehicles.

The vehicle most popular with the Mizora ladies for shopping and culling purposes, was a very low carriage, sometimes with two seats, sometimes with one. They were upholstered with the richest fabrics, were exceedingly light and graceful in shape, and not above three feet from the ground. They were strong and durable, though frequently not exceeding fifty pounds in weight. The wheel was the curious and ingenious part of the structure, for in its peculiar construction lay the delight of its motion. The spokes were flat bands of steel, curved outward to the tire. The carriage had no spring other than these spokes, yet it moved like a boat gliding down stream with the current. I was fortunate enough to preserve a drawing of this wheel, which I hope some day to introduce in my own land. The carriages were propelled by compressed air or electricity; and sometimes with a mechanism that was simply pressed with the foot. I liked the compressed air best. It was most easily managed by me. The Mizora ladies preferred electricity, of which I was always afraid. They were experimenting with a new propelling power during my stay that was to be acted upon by light, but it had not come into general use, although I saw some vehicles that were propelled by it. They moved with incredible speed, so rapid indeed, that the upper part of the carriage had to be constructed of glass, and securely closed while in motion, to protect the occupant. It was destined, I heard some of their scientists say, to become universal, as it was the most economical power yet discovered. They patiently tried to explain it to me, but my faculties were not receptive to such advanced philosophy, and I had to abandon the hope of ever introducing it into my own country.

There was another article manufactured in Mizora that excited my wonder and admiration. It was elastic glass. I have frequently mentioned the unique uses that they made of it, and I must now explain why. They had discovered a process to render it as pliable as rubber. It was more useful than rubber could be, for it was almost indestructible. It had surpassed iron in many ways. All cooking utensils were made of it. It entered largely into the construction and decoration of houses. All cisterns and cellars had an inner lining of it. All underground pipes were made of it, and many things that are the necessities and luxuries of life.

They spun it into threads as fine and delicate as a spider's gossamer, and wove it into a network of clear or variegated colors that dazzled the eye to behold. Innumerable were the lovely fabrics made of it. The frailest lace, in the most intricate and aerial patterns, that had the advantage of never soiling, never tearing, and never wearing out. Curtains for drawing-room arches were frequently made of it. Some of them looked like woven dew drops.

One set of curtains that I greatly admired, and was a long time ignorant of what they were made of, were so unique, I must do myself the pleasure to describe them. They hung across the arch that led to the glass conservatory attached to my friend's handsome dwelling. Three very thin sheets of glass were woven separately and then joined at the edges so ingeniously as to defy detection. The inside curtain was one solid color: crimson. Over this was a

The wonderful water scene that I beheld at the theatre was produced by waves made of glass and edged with foam, a milky glass spun into tiny bubbles. They were agitated by machinery that caused them to roll with a terribly
natural look. The blinding flashes of lightning had been the display of genuine electricity.

Nothing in the way of artistic effect could call forth admiration or favorable comment unless it was so exact an imitation of nature as to not be distinguished from the real without the closest scrutiny. In private life no one assumed a part. All the acting I ever saw in Mizora was done upon the stage.

I could not appreciate their mental pleasures, any more than a savage could delight in a nocturne of Chopin. Yet one was the intellectual ecstasy of a sublime intelligence, and the other the harmonious rapture of a divinely melodious soul. I must here mention that the processes of chemical experiment in Mizora differed materially from those I had known. I had once seen and tasted a preparation called artificial cream that had been prepared by a friend of my fathers, an eminent English chemist. It was simply a combination of the known properties of cream united in the presence of gentle heat. But in Mizora they took certain chemicals and converted them into milk, and cream, and cheese, and butter, and every variety of meat, in a vessel that admitted neither air nor light. They claimed that the elements of air and light exercised a material influence upon the chemical production of foods, that they could not be made successfully by artificial processes when exposed to those two agents. Their earliest efforts had been unsuccessful of exact imitation, and a perfect result had only been obtained by closely counterfeiting the processes of nature.

The cream prepared artificially that I had tasted in London, was the same color and consistency as natural cream, but it lacked its relish. The cream manufactured in Mizora was a perfect imitation of the finest dairy product.

It was the same with meats; they combined the elements, and the article produced possessed no detrimental flavor. It was a more economical way of obtaining meat than by fattening animals.

They were equally fortunate in the manufacture of clothing. Every mountain was a cultivated forest, from which they obtained every variety of fabric; silks, satins, velvets, laces, woolen goods, and the richest articles of beauty and luxury, in which to array themselves, were put upon the market at a trifling cost, compared to what they were manufactured at in my own country. Pallid and haggard women and children, working incessantly for a pittance that barely sustained existence, was the ultimatum that the search after the cause of cheap prices arrived at in my world, but here it traveled from one bevy of beautiful workwoman to another until it ended at the Laboratory where Science sat throned, the grand, majestic, humane Queen of this thrice happy land.

CHAPTER IX.

Whenever I inquired: "From whence comes the heat that is so evenly distributed throughout the dwellings and public buildings of Mizora?" they invariably pointed to the river. I asked in astonishment:

"From water comes fire?"

And they answered: "Yes."

I had long before this time discovered that Mizora was a nation of very wonderful people, individually and collectively; and as every revelation of their genius occurred, I would feel as though I could not be surprised at any marvellous thing that they should claim to do, but I was really not prepared to believe that they could set the river on fire. Yet I found that such was, scientifically, the fact. It was one of their most curious and, at the same time, useful appliances of a philosophical discovery.

They separated water into its two gases, and then, with their ingenious chemical skill, converted it into an economical fuel.

Their coal mines had long been exhausted, as had many other of nature's resources for producing artificial heat. The dense population made it impracticable to cultivate forests for fuel. Its rapid increase demanded of Science the discovery of a fuel that could be consumed without loss to them, both in the matter consumed and in the expense of procuring it. Nothing seemed to answer their purpose so admirably as water. Water, when decomposed, becomes gas. Convert the gas into heat and it becomes water again. A very great heat produces only a small quantity of water: hence the extreme utility of water as a heat producing agent.

The heating factories were all detached buildings, and generally, if at all practicable, situated near a river, or other body of water. Every precaution against accident was stringently observed.

There were several processes for decomposing the water explained to me, but the one preferred, and almost universally used by the people of Mizora, was electricity. The gases formed at the opposite poles of the electrical current, were received in large glass reservoirs, especially constructed for them.

In preparing the heat that gave such a delightful temperature to the dwellings and public buildings of their vast cities, glass was always the material used in the construction of vessels and pipes. Glass pipes conveyed the separate gases of hydrogen and oxygen into an apartment especially prepared for the purpose, and united them upon ignited carbon. The heat produced was intense beyond description, and in the hands of less experienced and capable chemists, would have proved destructive to life and property. The hardest rock would melt in its embrace; yet, in the hands of these wonderful students of Nature, it was under perfect control and had been converted into one of the
most healthful and agreeable agents of comfort and usefulness known. It was regulated with the same ease and convenience with which we increase or diminish the flames of a gas jet. It was conducted, by means of glass pipes, to every dwelling in the city. One factory supplied sufficient heat for over half a million inhabitants.

I thought I was not so far behind Mizora in a knowledge of heating with hot air; yet, when I saw the practical application of their method, I could see no resemblance to that in use in my own world. In winter, every house in Mizora had an atmosphere throughout as balmy as the breath of the young summer. Country-houses and farm dwellings were all supplied with the same kind of heat.

In point of economy it could not be surpassed. A city residence, containing twenty rooms of liberal size and an immense conservatory, was heated entire, at a cost of four hundred centimes a year. One dollar per annum for fuel.

There was neither smoke, nor soot, nor dust. Instead of entering a room through a register, as I had always seen heated air supplied, it came through numerous small apertures in the walls of a room quite close to the floor, thus rendering its supply imperceptible, and making a draft of cold air impossible.

The extreme cheapness of artificial heat made a conservatory a necessary luxury of every dwelling. The same pipes that supplied the dwelling rooms with warmth, supplied the hot-house also, but it was conveyed to the plants by a very different process.

They used electricity in their hot-houses to perfect their fruit, but in what way I could not comprehend; neither could I understand their method of supplying plants and fruits with carbonic acid gas. They manufactured it and turned it into their hot-houses during sleeping hours. No one was permitted to enter until the carbon had been absorbed. They had an instrument resembling a thermometer which gave the exact condition of the atmosphere. They were used in every house, as well as in the conservatories. The people of Mizora were constantly experimenting with those two chemical agents, electricity and carbonic acid gas, in their conservatories. They confidently believed that with their service, they could yet produce fruit from their hot-houses, that would equal in all respects the season grown article.

They produced very fine hot-house fruit. It was more luscious than any artificially ripened fruit that I had ever tasted in my own country, yet it by no means compared with their season grown fruit. Their preserved fruit I thought much more natural in flavor than their hot-house fruit.

Many of their private greenhouses were on a grand scale and contained fruit as well as flowers. A family that could not have a hot-house for fresh vegetables, with a few fruit trees in it, would be poor indeed. Where a number of families had united in purchasing extensive grounds, very fine conservatories were erected, their expense being divided among the property holders, and their luxuries enjoyed in common.

So methodical were all the business plans of the Mizora people, and so strictly just were they in the observance of all business and social duties that no ill-feeling or jealousy could arise from a combination of capital in private luxuries. Such combinations were formed and carried out upon strictly business principles.

If the admirable economy with which every species of work was carried on in Mizora could be thoroughly comprehended, the universality of luxuries need not be wondered at. They were drilled in economy from a very early period. It was taught them as a virtue.

Machinery, with them, had become the slave of invention. I lived long enough in Mizora to comprehend that the absence of pauperism, genteel and otherwise, was largely due to the ingenious application of machinery to all kinds of physical labor. When the cost of producing luxuries decreases, the value of the luxuries produced must decrease with it. The result is they are within reach of the narrowest incomes. A life surrounded by refinement must absorb some of it.

I had a conversation with the Preceptress upon this subject, and she said:

"Some natures are so undecided in character that they become only what their surroundings make them. Others only partially absorb tastes and sentiments that form the influence about them. They maintain a decided individuality; yet they are most always noticeably marked with the general character of their surroundings. It is very, very seldom that a nature is fixed from infancy in one channel."

I told her that I knew of a people whose minds from infancy to mature age, never left the grooves they were born in. They belonged to every nationality, and had palaces built for them, and attendants with cultivated intelligences employed to wait upon them.

"Are their minds of such vast importance to their nation? You have never before alluded to intellect so elevated as to command such royal homage." My friend spoke with awakened interest.

"They are of no importance at all," I answered, humiliated at having alluded to them. "Some of them have not sufficient intelligence to even feed themselves."

"And what are they?" she inquired anxiously.

"They are idiots; human vegetables."

"And you build palaces for them, and hire servants to feed and tend them, while the bright, ambitious children
of the poor among you, struggle and suffer for mental advancement. How deplorably short-sighted are the wise ones of your world. Truly it were better in your country to be born an idiot than a poor genius." She sighed and looked grave.

"What should we do with them?" I inquired.

"What do you do with the useless weeds in your garden," she asked significantly. "Do you carefully tend them, while drouth and frost and lack of nourishment cause your choice plants to wither and die?"

"We are far behind you," I answered humbly. "But barbarous as you think we are, no epithet could be too scathing, too comprehensive of all that was vicious and inhuman, to apply to a person who should dare to assail the expense of those institutions, or suggest that they be converted to the cultivation of intellect that could be improved."

My friend looked thoughtful for a long time, then she resumed her discourse at the point where I had so unfortunately interrupted it.

"No people," she said, "can rise to universal culture as long as they depend upon hand labor to produce any of the necessities of life. The absence of a demand for hand labor gives rise to an increasing demand for brain labor, and the natural and inevitable result is an increased mental activity. The discovery of a fuel that is furnished at so small a cost and with really no labor but what machinery performs, marks one grand era in our mental progress."

In mentioning the numerous uses made of glass in Mizora, I must not forget to give some notice to their water supply in large cities. Owing to their cleanly advantages, the filtering and storing of rain-water in glass-lined cisterns supplied many family uses. But drinking water was brought to their large cities in a form that did not greatly differ from those I was already familiar with, excepting in cleanliness. Their reservoirs were dug in the ground and lined with glass, and a perfectly fitting cover placed on the top. They were constructed so that the water that passed through the glass feed pipes to the city should have a uniform temperature, that of ordinary spring water. The water in the covered reservoirs was always filtered and tested before passing into the distributing pipes.

No citizen of Mizora ever hied to the country for pure water and fresh air. Science supplied both in a densely populated city.

CHAPTER X.

When a question as to the existence of social distinctions would be asked the citizens of Mizora, the invariable answer would be—there were none; yet a long and intimate acquaintance with them assured me that there were. They had an aristocracy; but of so peculiar and amiable a kind that it deserves a special mention. It took a long time for me to comprehend the exact condition of their society in this respect. That there were really no dividing lines between the person who superintended the kitchen and the one who paid her for it, in a social point of view, I could plainly see; yet there were distinctions; and rather sharply defined ones too.

In order to explain more lucidly the peculiar social life of Mizora, I will ask you to remember some Charity Fair you have attended, perhaps participated in, and which had been gotten up and managed by women of the highest social rank. If in a country where titles and social positions were hereditary, it then represented the highest aristocracy of blood. Grand dames there departed from the routine of their daily lives and assumed the lowlier occupations of others. They stood behind counters, in booths, and sold fancy articles, or dispensed ices and lemonade, or waited upon customers at the refreshment tables; bringing in trays of eatables, gathering up and removing empty dishes; performing labor that, under the ordinary circumstances of life, they would not perform in their own homes, and for their own kindred. It was all done with the same conscious dignity and ease that characterized the statelier duties of their every day life. One fact was apparent to all: they were gentlewomen still. The refinement of their home education, and the charm of nourished beauty were, perhaps, more prominent in contrast with their assumed avocation.

The Charity Fair, with its clerks and waiter girls and flower sellers called from the highest society, was a miniature picture of the actual every-day social life of Mizora. The one who ordered a dinner at their finest hotel, had it served to her by one who occupied the same social standing. Yet there was a difference; but it was the difference of mind.

The student in Sociology discovers that in all grades of society, congenial natures gravitate to a center. A differentiation of the highest mental quality was the result of this law in Mizora, and its co-ordinate part, their aristocracy.

The social organism did not need legislation to increase its benefits; it turned to Science, and, through Science, to Nature. The Laboratory of the Chemist was the focus that drew the attention of all minds. Mizora might be called a great school of Nature, whose pupils studied her every phase, and pried into her secrets with persistent activity, and obeyed her instructions as an imperative duty. They observed Nature to be an economist, and practiced economy with scrupulous exactness.

They had observed that in all grades of animal life, from the lowest form to the highest, wherever sociality had produced unity a leader was evolved, a superiority that differed in power according to the grade of development. In
the earlier histories, the leaders were chosen for their prowess in arms. Great warriors became rulers, and soldiers were the aristocracy of the land. As civilization progressed and learning became more widely disseminated, the military retired before the more intellectual aristocracy of statemanship. Politics was the grand entrance to social eminence.

"But," said my friend, "we have arrived at a higher, nobler, grander age. The military and political supremacies lived out their usefulness and decayed. A new era arrived. The differentia of mind evolved an aristocracy."

Science has long been recognized as the greatest benefactor of our race. Its investigators and teachers are our only acknowledged superiors and leaders.

Generally the grandest intellects and those which retain their creative power the longest, are of exceptionally slow development. Preccocity is short lived, and brilliant rather than strong. This I knew to be true of my own race.

In Mizora, a mind that developed late lost none of the opportunities that belong exclusively to the young of my own and other countries of the outer world. Their free schools and colleges were always open: always free. For this reason, it was no unusual thing for a person in Mizora to begin life at the very lowest grade and rise to its supreme height. Whenever the desire awakened, there was a helping hand extended on every side.

The distinction between the aristocracy and the lower class, or the great intellects and the less, was similar to the relative positions of teacher and pupil. I recognized in this social condition the great media of their marvelous approach to perfection. This aristocracy was never arrogant, never supercilious, never aggressive. It was what the philosophers of our world are: tolerant, humane, sublime.

In all communities of civilized nations marked musical talent will form social relations distinct from, but not superior to, other social relations. The leader of a musical club might also be the leader of another club devoted to exclusive literary pursuits; and both clubs possess equal social respect. Those who possess musical predilections, seek musical associations; those who are purely literary, seek their congenials. This is true of all other mental endowments or tastes; that which predominates will seek its affinity; be it in science, literature, politics, music, painting, or sculpture. Social organizations naturally grow out of other business pursuits and vocations of all grades and kinds. The society of Mizora was divided only by such distinctions. The scientific mind had precedence of all others. In the social world, they found more congenial pleasure in one another, and they mingled more frequently among themselves. Other professions and vocations followed their example for the same reason. Yet neither was barred by social caste from seeking society where she would. If the artisan sought social intercourse with a philosopher, she was expected to have prepared herself by mental training to be congenial. When a citizen of Mizora became ambitious to rise, she did not have to struggle with every species of opposition, and contend against rebuff and repulse. Correct language, refined tastes, dignified and graceful manners were the common acquirements of all. Mental culture of so high an order--I marveled that a lifetime should be long enough to acquire it in--was universal.

Under such conditions social barriers could not be impregnable. In a world divided by poverty and opulence into all their intermediate grades, wealth must inevitably be pre-eminent. It represents refined and luxurious environments, and, if mind be there, intellectual pre-eminence also. Where wealth alone governs society it has its prerogatives.

The wealth that affords the most luxurious entertainments must be the wealth that rules. Its privilege--its duty rather--is to ignore all applicants to fraternization that cannot return what it receives. Where mind is the sole aristocracy it makes demands as rigid, though different, and mind was the aristocracy of Mizora. With them education is never at an end. I spoke of having graduated at a renowned school for young ladies, and when I explained that to graduate meant to finish one's education, it elicited a peal of silvery mirth.

"We never graduate," said Wauna. "There is my mamma's mother, two centuries old, and still studying. I paid her a visit the other day and she took me into her laboratory. She is a manufacturer of lenses, and has been experimenting on microscopes. She has one now that possesses a truly wonderful power. The leaf of a pear tree, that she had allowed to become mouldy, was under the lens, and she told me to look.

"A panorama of life and activity spread out before me in such magnitude that I can only compare it to the feeling one must possess who could be suspended in air and look down upon our world for a cycle of time.

"Immense plains were visible with animals grazing upon them, that fought with and devoured one another. They perished and sank away and immense forests sprang up like magic. They were inhabited by insects and tiny creatures resembling birds. A sigh of air moved the leaf and a tiny drop of water, scarcely discernible to the naked eye rolled over the forests and plains, and before it passed to the other side of the leaf a great lake covered the spot. My great-great-grandmother has an acute conductor of sound that she has invented, so exquisite in mechanism as to reveal the voice of the tiniest insect. She put it to my ear, and the bellowing of the animals in battle, the chirp of the insects and the voices of the feathered mites could be clearly heard, but attenuated like the delicate note of two threads of spun glass clashed together."

"And what good," I asked, "can all this knowledge do you? Your great-great-grandmother has condensed the
learning of two centuries to evolve this one discovery. Is it not so?"

"Yes," replied Wauna, and her look and tone were both solemn. "You ask me what good it can do? Reflect! If the history of a single leaf is so vast and yet ephemeral, what may not be the history of a single world? What, after all, are we when such an infinitesimal space can contain such wonderful transactions in a second of time."

I shuddered at the thought she raised in my mind. But inherited beliefs are not easily dissipated, so I only sought to change the subject.

"But what is the use of studying all the time. There should be some period in your lives when you should be permitted to rest from your labors. It is truly irksome to me to see everybody still eager to learn more. The artist of the kitchen was up to the National College yesterday attending a lecture on chemistry. The artist who arranges my rooms is up there to-day listening to one on air. I can not understand why, having learned to make beds and cook to perfection, they should not be content with their knowledge and their work."

"If you were one of us you would know," said Wauna. "It is a duty with us to constantly seek improvement. The culinary artist at the house where you are visiting, is a very fine chemist. She has a predilection for analyzing the construction of food. She may some day discover how to produce vegetables from the elements.

"The artist who arranges your room is attending a lecture on air because her vocation calls for an accurate knowledge of it. She attends to the atmosphere in the whole house, and sees that it is in perfect health sustaining condition. Your hostess has a particular fondness for flowers and decorates all her rooms with them. All plants are not harmless occupants of livingrooms. Some give forth exhalations that are really noxious. That artist has so accurate a knowledge of air that she can keep the atmosphere of your home in a condition of perfect purity; yet she knows that her education is not finished. She is constantly studying and advancing. The time may come when she, too, will add a grand discovery to science."

"Had my ancestors thought as you do, and rested on an inferior education, I should not represent the advanced stage of development that I do. As it is, when my mind reaches the age of my mother's, it will have a larger comprehensiveness than hers. She already discerns it. My children will have intellects of a finer grade than mine. This is our system of mind culture. The intellect is of slower development than the body, and takes longer to decay. The gradations of advancement from one intellectual basis to another, in a social body, requires centuries to mark a distinct change in the earlier ages of civilization, but we have now arrived at a stage when advancement is clearly perceptible between one generation and the next."

Wauna's mother added:

"Universal education is the great destroyer of castes. It is the conqueror of poverty and the foundation of patriotism. It purifies and strengthens national, as well as individual character. In the earlier history of our race, there were social conditions that rendered many lives wretched, and that the law would not and, in the then state of civilization, could not reach. They were termed "domestic miseries," and disappeared only under the influence of our higher intellectual development. The nation that is wise will educate its children."

"Alas! alas!" was my own silent thought. "When will my country rise to so grand an idea. When will wealth open the doors of colleges, academies, and schools, and make the Fountain of Knowledge as free as the God-given water we drink."

And there rose a vision in my mind--one of those day dreams when fancy upon the wing takes some definite course--and I saw in my own land a Temple of Learning rise, grand in proportion, complete in detail, with a broad gateway, over whose wide-open majestic portal was the significant inscription: "ENTER WHO WILL: NO WARDER STANDS WATCH AT THE GATE."

CHAPTER XI.

The Government of Mizora not being of primary importance in the estimation of the people, I have not made more than a mere mention of it heretofore. In this respect I have conformed to the generally expressed taste of the Mizora people. In my own country the government and the aristocracy were identical. The government offices and emoluments were the highest pinnacles of ambition.

I mentioned the disparity of opinion between Mizora and all other countries I had known in regard to this. I could not understand why politics in Mizora should be of so small importance. The answer was, that among an educated and highly enlightened people, the government will take care of itself. Having been perfected by wise experience, the people allow it to glide along in the grooves that time has made for it.

In form, the government of Mizora was a Federal Republic. The term of office in no department exceeded the limit of five years. The Presidential term of office was for five years.

They had one peculiar--exceedingly peculiar--law in regard to politics. No candidate could come before the public seeking office before having a certificate from the State College to which she belonged, stating her examination and qualifications to fill such an office.

Just like examining for school-teachers, I thought. And why not? Making laws for a State is of far more
importance than making them for a few dozen scholars. I remembered to have heard some of my American acquaintances say that in their country it was not always qualifications that get a candidate into office. Some of the ways were devious and not suitable for publicity. Offices were frequently filled by incompetent men. There had been congressmen and other offices of higher and more responsible duties, filled by persons who could not correctly frame a sentence in their native language, who could not spell the simplest words as they were spelled in the dictionary, unless it were an accident.

To seek the office of President, or any other position under the General Government, required an examination and certificate from the National College. The examinations were always public, and conducted in such a manner that imposture was impossible. Constituents could attend if they chose, and decide upon the qualifications of a favorite candidate. In all the public schools, politics—to a certain extent—formed part of the general education of every child. Beyond that, any one having a predilection for politics could find in the State Colleges and National Colleges the most liberal advantages for acquiring a knowledge of political economy, political arithmetic, and the science of government.

Political campaigns, (if such a term could be applicable to the politics of Mizora) were of the mildest possible character. The papers published the names of the candidates and their examinations in full. The people read and decided upon their choice, and, when the time came, voted. And that was the extent of the campaign enthusiasm.

I must mention that the examinations on the science of government were not conducted as are ordinary examinations in any given study that consists of questions and answers. That was the preliminary part. There followed a thorough, practical test of their ability to discharge the duties of office with wisdom. No matter which side the sympathies or affections might be enlisted upon, the stern decree of justice was what the Mizorean abided by. From earliest infancy their minds were trained in that doctrine. In the discharge of all public duties especially, it seemed to be the paramount consideration. Certainly no government machinery ever could move with more ease, or give greater satisfaction to the people, than that of Mizora.

They never appeared to be excited or uneasy about the result of the elections. I never heard an animated political argument, such as I used to read about in America. I asked a politician one day what she thought of the probable success of the opposite party. She replied that it would not make any difference to the country as both candidates were perfectly competent to fill the office.

"Do you never make disparaging statements about the opposing candidate?" was my inquiry.
"How could we?" she asked in surprise, "when there are none to make."
"You might assume a few for the time being; just to make her lose votes."
"That would be a crime worthy of barbarians."
"Do you never have any party issues?"
"No. There is never anything to make an issue of. We all work for the good of the people, and the whole people. There is no greed of glory or gain; no personal ambition to gratify. Were I to use any artifice to secure office or popularity, I should be instantly deprived of public esteem and notice. I do my duty conscientiously; that is the aim of public life. I work for the public good and my popularity comes as it is earned and deserved. I have no fear of being slighted or underrated. Every politician feels and acts the same way."

"Have politicians ever bought votes with money, or offered bribes by promising positions that it would be in their official power to grant when elected?"

"Never! There is not a citizen of Mizora who would not scorn an office obtained in such a way. The profession of politics, while not to be compared in importance with the sciences, is yet not devoid of dignity. It is not necessary to make new laws. They were perfected long ago, and what has been proven good we have no desire to change. We manage the government according to a conscientious interpretation of the law. We have repealed laws that were in force when our Republic was young, and dropped them from the statute books. They were laws unworthy of our civilization. We have laws for the protection of property and to regulate public morals, and while our civilization is in a state of advancement that does not require them, yet we think it wisdom to let them remain. The people know that we have such laws and live up to them without surveillance. They would abide by the principles of justice set forth in them just as scrupulously if we should repeal them.

"You spoke of bribes. In remote ages, when our country was emerging from a state of semi-barbarism, such things were in common practice. Political chicanery was a name given to various underhand and dishonest maneuvers to gain office and public power. It was frequently the case that the most responsible positions in the Government would be occupied by the basest characters, who used their power only for fraud to enrich themselves and their friends by robbing the people. They deceived the masses by preaching purity. They were never punished. If they were accused and brought to trial, the wealth they had stolen from the government purchased their acquittal, and then they posed as martyrs. The form of government was then, as now, a Federal Republic, but the people had very little to do with it. They were merely the tools of unscrupulous politicians. In those days a sensitively honest
By this means the occupant of a Government office was freed from every care but those of state. so, at last, the Government assumed all the expenses contingent upon every office, from the highest to the lowest. to it were often but niggardly requited. Sometimes business embarrassments and real necessity demanded economy; those early days, when a penurious character became an incumbent of public office, the social obligations belonging treasury, the salaries might be considered as net profit. This custom had originated many centuries in the past. In all the personal expenses, excepting clothing, were paid by the Government. The salaries of Government positions been able to discover.

Capitol building had its home-like appointments, was a Nation of women exclusively—at least as far as I had as yet goes, she endeavors to surround herself with its comforts and pleasures. That was the reason that the splendid Capitols were similarly accommodated. In Mizora the home is the heart of all joy, and wherever a Mizora woman dining and sleeping accommodations for the stateswoman were all in the Capitol building. I observed that the State compare it to, especially when lighted up by great globes of white fire suspended from every ceiling. crystal glass, with facing and cornices of marble onyx. It looked more like a gigantic gem than anything I could compare it to, especially when lighted up by great globes of white fire suspended from every ceiling.

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Taste. Their public buildings might all be called works of art. Their government buildings, especially, were on a scale of magnificent splendor. The hollow square seemed to be a favorite form. One very beautiful capitol building was of magnificent splendor. The hollow square seemed to be a favorite form. One very beautiful capitol building was of crystal glass, with facing and cornices of marble onyx. It looked more like a gigantic gem than anything I could compare it to, especially when lighted up by great globes of white fire suspended from every ceiling.

I visited with Wauna a number of the States’ Capitals. In architecture the Mizora people display an excellent taste. Their public buildings might all be called works of art. Their government buildings, especially, were on a scale of magnificent splendor. The hollow square seemed to be a favorite form. One very beautiful capitol building was of crystal glass, with facing and cornices of marble onyx. It looked more like a gigantic gem than anything I could compare it to, especially when lighted up by great globes of white fire suspended from every ceiling.

Upon my entrance into Mizora, I was led into the belief that I had arrived at a female seminary, because the dining and sleeping accommodations for the stateswoman were all in the Capitol building. I observed that the State Capitol buildings were similarly accommodated. In Mizora the home is the heart of all joy, and wherever a Mizora woman goes, she endeavors to surround herself with its comforts and pleasures. That was the reason that the splendid Capitol building had its home-like appointments, was a Nation of women exclusively—at least as far as I had as yet been able to discover.

Another reason for the homes of all officials of the Government being within the public buildings, was because all the personal expenses, excepting clothing, were paid by the Government. The salaries of Government positions were not large, compared with those of the sciences; but as their social and political dues were paid out of the public treasury, the salaries might be considered as net profit. This custom had originated many centuries in the past. In those early days, when a penurious character became an incumbent of public office, the social obligations belonging to it were often but niggardly required. Sometimes business embarrassments and real necessity demanded economy; so, at last, the Government assumed all the expenses contingent upon every office, from the highest to the lowest. By this means the occupant of a Government office was freed from every care but those of state.

The number and style of all social entertainments that were obligatory of the occupant of a public office, were
regulated by law. As the people of Mizora believed in enjoyment, the entertainments provided by the Government as
the necessary social dues of its officers, were not few, nor scantily furnished.

CHAPTER XII.

The artificial light in Mizora puzzled me longest to understand. When I first noticed it, it appeared to me to
have no apparent source. At the touch of a delicate hand, it blazed forth like a star in the center of the ceiling. It
diffused a soft and pleasing brilliancy that lent a charm to everything it revealed. It was a dreamy daylight, and was
produced by electricity.

In large halls, like a theatre or opera house, the light fell in a soft and penetrating radiance from the center of
the dome. Its source was not visible to either audience or actresses, and, in consequence, occasioned no discomfort
to the eyes. The light that illuminated the stage was similarly arranged. The footlights were not visible. They were in
the rear of the stage. The light came upward like the rays of the setting sun, revealing the setting of the stage with
vivid distinctness. I can best describe the effect of this singular arrangement by calling attention to the appearance of
the sun when declining behind a small elevation. How sharply every object is outlined before it? How soft and
delicate is the light in which everything is bathed? Every cloud that floats has all of its fleecy loveliness limned with
a radiant clearness.

I was very desirous to know how this singular effect was produced, and at my request was taken to the stage.
An opening in the back part of it was covered with pink colored glass. Powerful electric lights from below the stage
were reflected through this glass upon it. The glass was highly refractive and so perfectly translucent, I at first
thought there was none there, and when I stood upon its edge, and looked down into a fiery gulf below, I
instinctively thought of the "Lost People," who are said to wander amid torturing yet unconsumable flames. But,
happily, the ones I gazed upon were harmless ones.

The street lights of Mizora were at a considerable elevation from the ground. They were in, or over, the center
of the street, and of such diffuse brilliancy as to render the city almost as light as day. They were in the form of
immense globes of soft, white fire, and during the six months that answered to the Mizora night, were kept
constantly burning. It was during this period that the Aurora Borealis shone with such marvelous brilliancy.

Generally, its display was heralded by an arc of delicate green-tinted light, that spanned the heavens. The green
tint deepened into emerald, assuming a delicate rose hue as it faded upward into rays that diverged from the top until
the whole resembled a gigantic crown. Every ray became a panorama of gorgeous colors, resembling tiny sparks,
moving hither and thither with inconceivable swiftness. Sometimes a veil of mist of delicate green hue depended
from the base of the crown, and swayed gently back and forth. As soon as the swaying motion commenced, the most
gorgeous colors were revealed. Myriads of sparks, no larger than snow-flakes, swarmed across the delicate green
curtain in every conceivable color and shade, but always of that vapory, vivid softness that is indescribable. The
dancing colors resembled gems encased in a film of mist.

One display that I witnessed I shall attempt to describe. The arc of delicate green appeared first, and shot
upward diverging rays of all the warm, rich hues of red. They formed a vast crown, outlined with a delicate halo of
fire. A veil of misty green fluttered down from its base, and, instantly, tiny crowns, composed of every brilliant
color, with a tracery of fire defining every separate one, began to chase one another back and forth with bewildering
rapidity. As the veil swayed to and fro, it seemed to shake the crowns into skeins of fire, each thread strung with
countless minute globes of every conceivable color and hue. Those fiery threads, aerial as thistle down, wove
themselves in and out in a tangled mass of gorgeous beauty. Suddenly the beads of color fell in a shower of gems,
topaz and emerald, ruby and sapphire, amethyst and pearly crystals of dew. I looked upward, where the rays of
variegated colors were sweeping the zenith, and high above the first crown was a second more vivid still. Myriads of
rainbows, the colors broad and intense, fluttered from its base, the whole outlined by a halo of fire. It rolled together
in a huge scroll, and, in an instant, fell apart a shower of flakes, minute as snow, but of all the gorgeous, dazzling
hues of earth and sky combined. They disappeared in the mystery of space to instantly form into a fluttering, waving
banner of delicate green mist and--vanish! only to repeat itself.

The display of the Aurora Borealis was always an exhibition of astonishing rapidity of motion of intense colors.
The most glorious sunset--where the vapory billows of the sky have caught the bloom of the dying Autumn--cannot
rival it. All the precious gems of earth appear to have dissolved into mist, to join in a wild and aerial dance. The
people of Mizora attributed it entirely to electricity.

Although the sun never rose or set in Mizora, yet for six months in a year, that country had the heart of a
voluptuous summer. It beat with a strong, warm pulse of life through all nature. The orchards budded and bloomed,
and mellowed into perfect fruition their luscious globes. The fields laughed in the warm, rich light, and smiled on
the harvest. I could feel my own blood bound as with a new lease of life at the first breath of spring.

The winters of Mizora had clouds and rain and sleet and snow, and sometimes, especially near the circular sea,
the fury of an Arctic snow storm; but so well prepared were they that it became an amusement. Looking into the
chaos of snow flakes, driven hither and thither by fierce winds, the pedestrians in the street presented no painful contrast to the luxury of your own room, with its balmy breath and cheerful flowers. You saw none but what were thoroughly clad, and you knew that they were hurrying to homes that were bright and attractive, if not as elegant as yours; where loving welcomes were sure to greet them and happiness would sit with them at the feast; for the heart that is pure has always a kingly guest for its company.

A wonderful discovery that the people of Mizora had made was the power to annihilate space as an impediment to conversation. They claimed that the atmosphere had regular currents of electricity that were accurately known to them. They talked to them by means of simply constructed instruments, and the voice would be as audible and as easily recognized at three thousand miles distant as at only three feet. Stations were built similar to our telegraph offices, but on high elevations. I understood that they could not be used upon the surface. Every private and public house, however, had communication with the general office, and could converse with friends at a distance whenever desirable. Public speakers made constant use of it, but in connection with another extraordinary apparatus which I regret my inability to perfectly describe.

I saw it first from the dress circle of a theater. It occupied the whole rear of the stage, and from where I sat, looked like a solid wall of polished metal. But it had a wonderful function, for immediately in front of it, moving, speaking and gesturing, was the figure of a popular public lecturer, so life-like in appearance that I could scarcely be convinced that it was only a reflection. Yet such it was, and the original was addressing an audience in person more than a thousand miles distant.

It was no common thing for a lecturer to address a dozen or more audiences at the same time, scattered over an area of thousands of miles, and every one listening to and observing what appeared to be the real speaker. In fact, public speakers in Mizora never traveled on pure professional business. It was not necessary. They prepared a room in their own dwelling with the needful apparatus, and at the time specified delivered a lecture in twenty different cities.

I was so interested in this very remarkable invention that I made vigorous mental exertions to comprehend it sufficiently to explain its mechanism and philosophical principles intelligently; but I can only say that it was one of the wonders those people produced with electricity. The mechanism was simple, but the science of its construction and workings I could not comprehend. The grasp of my mind was not broad enough. The instrument that transmitted the voice was entirely separate.

I must not neglect to mention that all kinds of public entertainments, such as operas, concerts and dramas, could be and were repeated to audiences at a distance from where the real transaction was taking place. I attended a number of operas that were only the reflection of others that were being presented to audiences far distant.

These repetitions were always marvels of accuracy of vividness.

Small reflecting apparatus were to be found in every dwelling and business house. It is hardly necessary to state that letter-writing was an unknown accomplishment in Mizora. The person who desired to converse with another, no matter how far distant, placed herself in communication with her two instruments and signaled. Her friend appeared upon the polished metal surface like the figure in a mirror, and spoke to her audibly, and looked at her with all the naturalness of reality.

I have frequently witnessed such interviews between Wauna and her mother, when we were visiting distant cities. It was certainly a more satisfactory way of communicating than by letter. The small apparatus used by private families and business houses were not like those used in public halls and theaters. In the former, the reflection was exactly similar to the image of a mirror; in the latter, the figure was projected upon the stage. It required more complicated machinery to produce, and was not practicable for small families or business houses. I now learned that on my arrival in Mizora I had been taken to one of the largest apparatus and put in communication with it. I was informed by Wauna that I had been exhibited to every college and school in the country by reflex representation. She said that she and her mother had seen me distinctly and heard my voice. The latter had been so uncongenial in accent and tone that she had hesitated about becoming my instructor on that account. It was my evident appreciation of my deficiencies as compared to them that had enlisted her sympathy.

Now, in my own country, my voice had attracted attention by its smoothness and modulation, and I was greatly surprised to hear Wauna speak of its unmusical tone as really annoying. But then in Mizora there are no voices but what are sweet enough to charm the birds.

In the journeys that Wauna and I took during the college vacation, we were constantly meeting strangers, but they never appeared the least surprised at my dark hair and eyes, which were such a contrast to all the other hair and eyes to be met with in Mizora, that I greatly wondered at it until I learned of the power of the reflector. I requested permission to examine one of the large ones used in a theater, and it was granted me. Wauna accompanied me and signaled to a friend of hers. As if by magic a form appeared and moved across the stage. It bowed to me, smiled and motioned with its hand, to all appearances a material body. I asked Wauna to approach it, which she did, and passed
her hand through it. There was nothing that resisted her touch, yet I plainly saw the figure, and recognized it as the perfect representation of a friend of Wauna's, an actress residing in a distant city. When I ascended the stage, the figure vanished, and I understood that it could be visible only at a certain distance from the reflector.

In traveling great distances, or even short ones where great speed was desired, the Mizoraens used air ships; but only for the transportation of passengers and the very lightest of freight. Heavy articles could not be as conveniently carried by them as by railroads. Their railroads were constructed and conducted on a system so perfect that accidents were never known. Every engineer had an electric signal attached to the engine, that could signal a train three miles distant.

The motive power for nearly all engines was compressed air. Electricity, which was recognized by Mizora scientists as a force of great intensity, was rarely used as a propelling power on railroads. Its use was attended by possible danger, but compressed air was not. Electricity produced the heat that supplied the air ships and railroads with that very necessary comfort. In case there should be an accident, as a collision, or thrown from the track, heat could not be a source of danger when furnished by electricity. But I never heard of a railroad accident during the whole fifteen years that I spent in Mizora.

Air-ships, however, were not exempt from danger, although the precautions against it were ingenious and carefully observed. The Mizora people could tell the approach of a storm, and the exact time it would arrive. They had signal stations established for the purpose, all over the country.

But, though they were skilled mechanics, and far in advance of my own world, and the limits of my comprehension in their scientific discoveries and appliances, they had not yet discovered the means of subduing the elements, or driving unharmed through their fury. When nature became convulsed with passion, they guarded themselves against it, but did not endeavor to thwart it.

Their air-ships were covered, and furnished with luxurious seats. The whole upper part of the car was composed of very thin glass. They traveled with, to me, astonishing rapidity. Towns and cities flew away beneath us like birds upon the wing. I grew frightened and apprehensive, but Wauna chatted away with her friends with the most charming unconcern.

I was looking down, when I perceived, by the increasing size of objects below, that we were descending. The conductor entered almost immediately, and announced that we were going down to escape an approaching storm. A signal had been received and the ship was at once lowered.

I felt intensely relieved to step again on solid earth, and hoped I might escape another trial of the upper regions. But after waiting until the storm was over we again entered the ship. I was ashamed to refuse when everyone else showed no fear.

In waiting for the storm to pass we were delayed so long that our journey could have been performed almost as speedily by rail. I wondered why they had not invented some means by which they could drive through a tempest in perfect safety. As usual, I addressed my inquiries to Wauna. She answered:

"So frail a thing as an air-ship must necessarily be, when compared with the strength of a storm, is like a leaf in the wind. We have not yet discovered, and we have but little expectation of discovering, any means by which we can defy the storms that rage in the upper deeps.

"The electricity that we use for heat is also a source of danger during a storm. Our policy is to evade a peril we cannot control or destroy. Hence, when we receive a signal that a storm is approaching we get out of its way. Our railroad carriages, having no danger to fear from them, ride right through the storm."

The people of Mizora, I perceived, possessed a remarkable acuteness of vision. They could see the odor emanating from flowers and fruit. They described it to me as resembling attenuated mist. They also named other colors in the solar spectrum than those known to me. When I first heard them speak of them, I thought it a freak of the imagination; but I afterward noticed artists, and persons who had a special taste for colors, always detected them with greater readiness. The presence of these new colors were apparent to all with whom I spoke upon the subject. When I mentioned my own inability to discern them, Wauna said that it was owing to my inferior mental development.

"A child," she said, "if you will observe, is first attracted by red, the most glaring color known. The untutored mind will invariably select the gaudiest colors for personal adornment. It is the gentle, refined taste of civilization that chooses the softened hues and colors."

"But you, as a nation, are remarkable for rich warm colors in your houses and often in your dress," I said.

"But they are never glaring," she replied. "If you will notice, the most intense colors are always so arranged as to present a halo, instead of sharply defined brilliancy. If a gorgeous color is worn as a dress, it will be covered with filmy lace. You have spoken of the splendor of the Aurora Borealis. It is nature's most gorgeous robe, and intense as the primal colors are, they are never glaring. They glow in a film of vapor. We have made them our study. Art, with us, has never attempted to supercede nature."
The sense of smell was also exceedingly sensitive with the Mizora people. They detected odors so refined that I was not aware of them. I have often seen a chemist take a bottle of perfumery and name its ingredients from the sense of smell only. No one appeared surprised at the bluntness of my senses. When I spoke of this Wauna tried to explain it.

"We are a more delicately organized race of beings than you are. Our intellects, and even sense that we possess, is of a higher and finer development. We have some senses that you do not possess, and are unable to comprehend their exquisite delicacy. One of them I shall endeavor to explain to you by describing it as impression. We possess it in a highly refined state, both mentally and physically. Our sensitiveness to changes of temperature, I have noticed, is more marked than yours. It is acute with all of my people. For this reason, although we are free from disease, our bodies could not sustain, as readily as yours could, a sudden and severe shock to their normal temperature, such as a marked change in the atmosphere would occasion. We are, therefore, extremely careful to be always appropriately clothed. That is a physical impression. It is possessed by you also, but more obtusely.

"Our sensitiveness to mental pleasure and pain you would pronounce morbid on account of its intensity. The happiness we enjoy in the society of those who are congenial, or near and dear to us through family ties, is inconceivable to you. The touch of my mother's hand carries a thrill of rapture with it.

"We feel, intuitively, the happiness or disappointment of those we are with. Our own hopes impress us with their fulfillment or frustration, before we know what will actually occur. This feeling is entirely mental, but it is evidence of a highly refined mentality. We could not be happy unless surrounded, as we are, by cultivated and elegant pleasures. They are real necessities to us.

"Our appreciation of music, I notice, has a more exquisite delicacy than yours. You desire music, but it is the simpler operas that delight you most. Those fine and delicate harmonies that we so intensely enjoy, you appear incapable of appreciating."

I have previously spoken of their elegance in dress, and their fondness for luxury and magnificence. On occasions of great ceremony their dresses were furnished with very long trains. The only prominent difference that I saw in their state dresses, and the rare and costly ones I had seen in my own and other countries, was in the waist. As the women of Mizora admired a large waist, their dresses were generally loose and flowing. Ingenuity, however, had fashioned them into graceful and becoming outlines. On occasions of great state and publicity, comfortably fitting girdles confined the dress at the waist.

I attended the Inaugural of a Professor of Natural History in the National College. The one who had succeeded to this honor was widely celebrated for her erudition. It was known that the ceremony would be a grand affair, and thousands attended it.

I there witnessed another of these marvelous achievements in science that were constantly surprising me in Mizora. The inauguration took place in a large hall, the largest I had ever seen. It would accommodate two hundred thousand people, and was filled to repletion. I was seated far back in the audience, and being a little short-sighted anyway, I expected to be disappointed both in seeing and hearing the ceremonies. What was my astonishment then, when they began, to discover that I could see distinctly every object upon the stage, and hear with perfect accuracy every word that was uttered.

Upon expressing myself to Wauna as being greatly pleased that my eyesight and hearing had improved so wonderfully and unexpectedly, she laughed merrily, and asked me if I had noticed a curious looking band of polished steel that curved outward from the proscenium, and encircled its entire front? I had noticed it, but supposed it to be connected with some different arrangement they might have made concerning the footlights. Wauna informed me that I owed my improved hearing to that.

"But my eyesight," I asked, "how do you account for its unusual penetrativeness?"

"Have you ever noticed some seasons of the year display a noticeably marked transparency of the atmosphere that revealed objects at great distances with unusual clearness? Well, we possess a knowledge of air that enables us to qualify it with that peculiar magnifying condition. On occasions like this we make use of it. This hall was built after the discovery, and was specially prepared for its use. It is seldom employed in smaller halls."

Just then a little flutter of interest upon the stage attracted my attention, and I saw the candidate for the professorship entering, accompanied by the Faculty of the National College.

She wore a sea-green velvet robe with a voluminous train. The bottom of the dress was adorned with a wreath or band of water lilies, embroidered in seed pearls. A white lace overdress of filmiest texture fell over the velvet, almost touching the wreath of lilies, and looked as though it was made of sea foam. A girdle of large pink pearls confined the robe at the waist. Natural flowers were on her bosom and in her hair.

The stage was superbly decorated with flowers and shells. A large chair, constructed of beautiful shells and cushioned with green velvet, rested upon a dais of coral. It was the chair of honor. Behind it was a curtain of seaweed. I afterward learned that the moss was attached to a film of glass too delicate to detect without handling.
In the midst of these charming surroundings stood the applicant for honor. Her deep blue eyes glowed with the joy of triumph. On the delicate cheek and lip burned the carmine hue of perfect health. The golden hair even seemed to have caught a brighter lustre in its coiled masses. The uplifted hand and arm no marble goddess could have matched, for this had the color and charm of life. As she stood revealed by the strong light that fell around her, every feature ennobled with the glory of intellect, she appeared to me a creature of unearthly loveliness, as something divine.

I spoke to Wauna of the rare beauty and elegance of her dress.
"She looks like a fabled Naiad just risen from the deep," was my criticism on her.
"Her dress," answered Wauna, "is intended to be emblematical of Nature. The sea-green robe, the water lilies of pearls, the foamy lace are all from Nature's Cradle of Life."
"How poetical!" I exclaimed.
But then Mizora is full of that charming skill that blends into perfect harmony the beautiful and useful in life.

CHAPTER XIII.

On my return to college, after the close of vacation, I devoted myself exclusively to history. It began with their first President; and from the evidence of history itself, I knew that the Nation was enjoying a high state of culture when its history began.

No record of a more primitive race was to be found in all the Library, assiduously as I searched for it. I read with absorbing interest their progress toward perfect enlightenment, their laborious searchings into science that had resulted in such marvelous achievements. But earnestly as I sought for it, and anxiously as I longed for it, I found and heard no mention of a race of men. From the most intimate intercourse with the people of Mizora, I could discover no attempt at concealment in anything, yet the inquiry would crowd itself upon me. "Where are the men?" And as constantly would I be forced to the conclusion that Mizora was either a land of mystery beyond the scope of the wildest and weirdest fancy, or else they were utterly oblivious of such a race. And the last conclusion was most improbable of all.

Man, in my country, was a necessity of government, law, and protection. His importance, (as I viewed it from inherited ideas) was incalculable. It could not be possible that he had no existence in a country so eminently adapted to his desires and ability.

The expression, "domestic misery," that the Preceptress made use of one day in conversation with me, haunted my imagination with a persistent suspicion of mystery. It had a familiar sound to me. It intimated knowledge of a world I knew so well; where ill-nature, malice, spite, envy, deceit, falsehood and dishonesty, made life a continual anxiety.

Locks, bolts and bars shut out the thief who coveted your jewels; but no bolts nor bars, however ingeniously constructed or strongly made, could keep out the thief who coveted your character. One little word from a pretended friend might consummate the sorrow of your whole life, and be witnessed by the perpetrator without a pang--nay, even with exultation.
There were other miseries I thought of that were common in my country. There were those we love. Some who are woven into our lives and affections by the kinship of blood; who grow up weak and vacillating, and are won away, sometimes through vice, to estrangement. Our hearts ache not the less painfully that they have ceased to be worthy of a throb; or that they have been weak enough to become estranged, to benefit some selfish alien.

There were other sorrows in that world that I had come from, that brought anguish alike to the innocent and the guilty. It was the sorrow of premature death. Diseases of all kinds made lives wretched; or tore them asunder with death. How many hearts have ached with cankering pain to see those who are vitally dear, wasting away slowly, but surely, with unrelievable suffering; and to know that life but prolongs their misery, and death relieves it only with inconsolable grief for the living.

Who has looked into a pair of youthful eyes, so lovely that imagination could not invent for them another charm, and saw the misty film of death gather over them, while your heart ached with regret as bitter as it was unavailing. The soft snows of winter have fallen--a veil of purity--over the new made graves of innocence and youth, and its wild winds have been the saddest requiem. The dews of summer have wept with your tears, and its zephyrs have sighed over the mouldering loveliness of youth.

I had known no skill in my world that could snatch from death its unlawful prey of youth. But here, in this land so eminently blessed, no one regarded death as a dreaded invader of their household.

"We cannot die until we get old," said Wauna, naively.

And looking upon their bounding animal spirits, their strong supple frames, and the rich, red blood of perfect health, mantling their cheeks with its unsurpassable bloom, one would think that disease must have strong grasp indeed that could destroy them.

But these were not all the sorrows that my own country knew. Crimes, with which we had no personal connection, shocked us with their horrible details. They crept, like noxious vapors, into the moral atmosphere of the pure and good; tainting the weak, and annoying the strong.

There were other sorrows in my country that were more deplorable still. It was the fate of those who sought to relieve the sufferings of the many by an enforced government reform. Misguided, imprudent and fanatical they might be, but their aim at least was noble. The wrongs and sufferings of the helpless and oppressed had goaded them to action for their relief.

But, alas! The pale and haggard faces of thousands of those patriot souls faded and wasted in torturing slowness in dungeons of rayless gloom. Or their emaciated and rheumatic frames toiled in speechless agony amid the horrors of Siberia's mines.

In this land they would have been recognized as aspiring natures, spreading their wings for a nobler flight, seeking a higher and grander life. The smile of beauty would have urged them on. Hands innumerable would have given them a cordial and encouraging grasp. But in the land they had sought to benefit and failed, they suffered in silence and darkness, and died forgotten or cursed.

My heart and my brain ached with memory, and the thought again occurred: "Could the Preceptress ever have known such a race of people?"

I looked at her fair, calm brow, where not a wrinkle marred the serene expression of intellect, although I had been told that more than a hundred years had touched with increasing wisdom its broad surface. The smile that dwelt in her eyes, like the mystic sprite in the fountain, had not a suspicion of sadness in them. A nature so lofty as hers, where every feeling had a generous and noble existence and aim, could not have known without anguish the race of people I knew so well. Their sorrows would have tinged her life with a continual sadness.

The words of Wauna had awakened a new thought. I knew that their mental life was far above mine, and that in all the relations of life, both business and social, they exhibited a refinement never attained by my people. I had supposed these qualities to be an endowment of nature, and not a development sought and labored for by themselves. But my conversation with Wauna had given me a different impression, and the thought of a future for my own country took possession of me.

"Could it ever emerge from its horrors, and rise through gradual but earnest endeavor to such perfection? Could a higher civilization crowd its sufferings out of existence and, in time, memory?"

I had never thought of my country having a claim upon me other than what I owed to my relatives and society. But in Mizora, where the very atmosphere seemed to feed one's brain with grander and nobler ideas of life and humanity, my nature had drank the inspiration of good deeds and impulses, and had given the desire to work for something beside myself and my own kindred. I resolved that if I should ever again behold my native country, I would seek the good of all its people along with that of my nearest and dearest of kin. But how to do it was a matter I could not arrange. I felt reluctant to ask either Wauna or her mother. The guileless frankness of Wauna's nature was an impassable barrier to the confidence of crimes and wretchedness. One glance of horror from her dark, sweet eyes, would have chilled me into painful silence and sorrowful regret.
The mystery that had ever surrounded these lovely and noble blonde women had driven me into an unnatural reserve in regard to my own people and country. I had always perceived the utter absence of my allusion to the masculine gender, and conceiving that it must be occasioned by some more than ordinary circumstances, I refrained from intruding my curiosity.

That the singular absence of men was connected with nothing criminal or ignoble on their part I felt certain; but that it was associated with something weird and mysterious I had now become convinced. My efforts to discover their whereabouts had been earnest and untiring. I had visited a number of their large cities, and had enjoyed the hospitality of many private homes. I had examined every nook and corner of private and public buildings, (for in Mizora nothing ever has locks) and in no place had I ever discovered a trace or suggestion of man.

Women and girls were everywhere. Their fair faces and golden heads greeted me in every town and city. Sometimes a pair of unusually dark blue eyes, like the color of a velvet-leaved pansy, looked out from an exquisitely tinted face framed in flossy golden hair, startling me with its unnatural loveliness, and then I would wonder anew:

"Why is such a paradise for man so entirely devoid of him?"

I even endeavored to discover from the conversation of young girls some allusion to the male sex. But listen as attentively and discreetly as I could, not one allusion did I hear made to the mysteriously absent beings. I was astonished that young girls, with cheeks like the downy bloom of a ripe peach, should chatter and laugh merrily over every conversational topic but that of the lords of society. The older and the wiser among women might acquire a depreciating idea of their worth, but innocent and inexperienced girlhood was apt to surround that name with a halo of romance and fancied nobility that the reality did not always possess. What, then, was my amazement to find them indifferent and wholly neglectful of that (to me) very important class of beings.

Conjecture at last exhausted itself, and curiosity became indifferent. Mizora, as a nation, or an individual representative, was incapable of dishonor. Whatever their secret I should make no farther effort to discover it. Their hospitality had been generous and unreserved. Their influence upon my character--morally--had been an incalculable benefit. I had enjoyed being among them. The rhythm of happiness that swept like a strain of sweet music through all their daily life, touched a chord in my own nature that responded.

And when I contrasted the prosperity of Mizora--a prosperity that reached every citizen in its vast territory--with the varied phases of life that are found in my own land, it urged me to inquire if there could be hope for such happiness within its borders.

To the Preceptress, whose sympathies I knew were broad as the lap of nature, I at last went with my desire and perplexities. A sketch of my country's condition was the inevitable prelude. I gave it without once alluding to the presence of Man. She listened quietly and attentively. Her own land lay like a charming picture before her. I spoke of its peaceful happiness, its perfected refinement, its universal wealth, and paramount to all its other blessings, its complete ignorance of social ills. With them, love did not confine itself to families, but encircled the Nation in one embrace. How dismal, in contrast, was the land that had given me birth.

"But one eminent distinction exists among us as a people," I added in conclusion. "We are not all of one race."

I paused and looked at the Preceptress. She appeared lost in reverie. Her expression was one of solicitude and approached nearer to actual pain than anything I had ever noticed upon it before. She looked up and caught my eye regarding her. Then she quietly asked:

"Are there men in your country?"

PART SECOND.

CHAPTER I.

I answered in the affirmative, and further added that I had a husband and a son.

The effect of a confession so simple, and so natural, wounded and amazed me.

The Preceptress started back with a look of loathing and abhorrence; but it was almost instantly succeeded by one of compassion.

"You have much to learn," she said gently, "and I desire not to judge you harshly. You are the product of a people far back in the darkness of civilization. We are a people who have passed beyond the boundary of what was once called Natural Law. But, more correctly, we have become mistresses of Nature's peculiar processes. We influence or control them at will. But before giving you any further explanation I will show you the gallery containing the portraits of our very ancient ancestors."

She then conducted me into a remote part of the National College, and sliding back a panel containing a magnificent painting, she disclosed a long gallery, the existence of which I had never suspected, although I knew their custom of using ornamented sliding panels instead of doors. Into this I followed her with wonder and increasing surprise. Paintings on canvas, old and dim with age; paintings on porcelain, and a peculiar transparent material, of which I have previously spoken, hung so thick upon the wall you could not have placed a hand between them. They were all portraits of men. Some were represented in the ancient or mediaeval costumes of my own
ancestry, and some in garbs resembling our modern styles.

Some had noble countenances, and some bore on their painted visages the unmistakable stamp of passion and vice. It is not complimentary to myself to confess it, but I began to feel an odd kind of companionship in this assembly of good and evil looking men, such as I had not felt since entering this land of pre-eminently noble and lovely women.

As I gazed upon them, arrayed in the armor of some stern warrior, or the velvet doublet of some gay cavalier, the dark eyes of a debonair knight looked down upon me with familiar fellowship. There was pride of birth, and the passion of conquest in every line of his haughty, sensuous face. I seemed to breathe the same moral atmosphere that had surrounded me in the outer world.

They had lived among noble and ignoble deeds I felt sure. They had been swayed by conflicting desires. They had known temptation and resistance, and reluctant compliance. They had experienced the treachery and ingratitude of humanity, and had dealt in it themselves. They had known joy as I had known it, and their sorrow had been as my sorrows. They had loved as I had loved, and sinned as I had sinned, and suffered as I had suffered.

I wept for the first time since my entrance into Mizora, the bitter tears of actual experience, and endeavored to convey to the Preceptress some idea of the painful emotion that possessed me.

"I have noticed," she said, "in your own person and the descriptions you have given of your native country, a close resemblance to the people and history of our nation in ages far remote. These portraits are very old. The majority of them were painted many thousands of years ago. It is only by our perfect knowledge of color that we are enabled to preserve them. Some have been copied by expert artists upon a material manufactured by us for that purpose. It is a transparent adamant that possesses no refractive power, consequently the picture has all the advantage of a painting on canvas, with the addition of perpetuity. They can never fade nor decay."

"I am astonished at the existence of this gallery," I exclaimed. "I have observed a preference for sliding panels instead of doors, and that they were often decorated with paintings of rare excellence, but I had never suspected the existence of this gallery behind one of them."

"Any student," said the Preceptress, "who desires to become conversant with our earliest history, can use this gallery. It is not a secret, for nothing in Mizora is concealed; but we do not parade its existence, nor urge upon students an investigation of its history. They are so far removed from the moral imbecility that dwarfed the nature of these people, that no lesson can be learned from their lives; and their time can be so much more profitably spent in scientific research and study."

"You have not, then, reached the limits of scientific knowledge?" I wonderingly inquired, for, to me, they had already overstepped its imaginary pale.

"When we do we shall be able to create intellect at will. We govern to a certain extent the development of physical life; but the formation of the brain--its intellectual force, or capacity I should say--is beyond our immediate skill. Genius is yet the product of long cultivation."

I had observed that dark hair and eyes were as indiscriminately mingled in these portraits as I had been accustomed to find them in the living people of my own and other countries. I drew the Preceptress' attention to it.

"We believe that the highest excellence of moral and mental character is alone attainable by a fair race. The elements of evil belong to the dark race."

"And were the people of this country once of mixed complexions?"
"As you see in the portraits? Yes," was the reply.
"And what became of the dark complexions?"
"We eliminated them."

I was too astonished to speak and stood gazing upon the handsome face of a young man in a plumed hat and lace-frilled doublet. The dark eyes had a haughty look, like a man proud of his lineage and his sex.

"Let us leave this place," said the Preceptress presently. "It always has a depressing effect upon me."
"In what way?" I asked.
"By the degradation of the human race that they force me to recall."

I followed her out to a seat on one of the small porticoes.

In candidly expressing herself about the dark complexions, my companion had no intention or thought of wounding my feelings. So rigidly do they adhere to the truth in Mizora that it is of all other things pre-eminent, and is never supposed to give offense. The Preceptress but gave expression to the belief inculcated by centuries of the teachings and practices of her ancestors. I was not offended. It was her conviction. Besides, I had the consolation of secretly disagreeing with her. I am still of the opinion that their admirable system of government, social and political, and their encouragement and provision for universal culture of so high an order, had more to do with the formation of superlative character than the elimination of the dark complexion.

The Preceptress remained silent a long time, apparently absorbed in the beauty of the landscape that stretched
before us. The falling waters of a fountain was all the sound we heard. The hour was auspicious. I was so eager to
develop a revelation of the mystery about these people that I became nervous over my companion's protracted
silence. I felt a delicacy in pressing inquiries concerning information that I thought ought to be voluntarily given.
Inquisitiveness was regarded as a gross rudeness by them, and I could frame no question that I did not fear would
sound impertinent. But at last patience gave way and, at the risk of increasing her commiseration for my barbarous
mental condition, I asked:
"Are you conversant with the history of the times occupied by the originals of the portraits we have just seen?"
"I am," she replied.
"And would you object to giving me a condensed recital of it?"
"Not if it can do you any good?"
"What has become of their descendants--of those portraits?"
"They became extinct thousands of years ago."

She became silent again, lost in reverie. The agitation of my mind was not longer endurable. I was too near the
acme of curiosity to longer delay. I threw reserve aside and not without fear and trembling faltered out:
"Where are the men of this country? Where do they stay?"
"There are none," was the startling reply. "The race became extinct three thousand years ago."

CHAPTER II.

I trembled at the suggestion of my own thoughts. Was this an enchanted country? Where the lovely blonde
women fairies--or some weird beings of different specie, human only in form? Or was I dreaming?
"I do not believe I understand you," I said. "I never heard of a country where there were no men. In my land
they are so very, very important."
"Possibly," was the placid answer.
"And you are really a nation of women?"
"Yes," she said. "And have been for the last three thousand years."
"Will you tell me how this wonderful change came about?"
"Certainly. But in order to do it, I must go back to our very remote ancestry. The civilization that I shall begin
with must have resembled the present condition of your own country as you describe it. Prisons and punishments
were prevalent throughout the land."

I inquired how long prisons and places of punishment had been abolished in Mizora.
"For more than two thousand years," she replied. "I have no personal knowledge of crime. When I speak of it, it
is wholly from an historical standpoint. A theft has not been committed in this country for many many centuries.
And those minor crimes, such as envy, jealousy, malice and falsehood, disappeared a long time ago. You will not
find a citizen in Mizora who possesses the slightest trace of any of them.
"Did they exist in earlier times?"
"Yes. Our oldest histories are but records of a succession of dramas in which the actors were continually
striving for power and exercising all of those ancient qualities of mind to obtain it. Plots, intrigues, murders and
wars, were the active employments of the very ancient rulers of our land. As soon as death laid its inactivity upon
one actor, another took his place. It might have continued so; and we might still be repeating the old tragedy but for
one singular event. In the history of your own people you have no doubt observed that the very thing plotted,
intrigued and labored for, has in accomplishment proved the ruin of its projectors. You will remark this in the
history I am about to relate.

"Main ages ago this country was peopled by two races--male and female. The male race were rulers in public
and domestic life. Their supremacy had come down from pre-historic time, when strength of muscle was the only
master. Woman was a beast of burden. She was regarded as inferior to man, mentally as well as physically. This
idea prevailed through centuries of the earlier civilization, even after enlightenment had brought to her a chivalrous
regard from men. But this regard was bestowed only upon the women of their own household, by the rich and
powerful. Those women who had not been fortunate enough to have been born in such a sphere of life toiled early
and late, in sorrow and privation, for a mere pittance that was barely sufficient to keep the flame of life from going
out. Their labor was more arduous than men's, and their wages lighter.

"The government consisted of an aristocracy, a fortunate few, who were continually at strife with one another
to gain supremacy of power, or an acquisition of territory. Wars, famine and pestilence were of frequent occurrence.
Of the subjects, male and female, some had everything to render life a pleasure, while others had nothing. Poverty,
oppression and wretchedness was the lot of the many. Power, wealth and luxury the dower of the few.
Children came into the world undesired even by those who were able to rear them, and often after an attempt
had been made to prevent their coming alive. Consequently numbers of them were deformed, not only physically,
but mentally. Under these conditions life was a misery to the larger part of the human race, and to end it by self-
destruction was taught by their religion to be a crime punishable with eternal torment by quenchless fire.

"But a revolution was at hand. Stinted toil rose up, armed and wrathful, against opulent oppression. The struggle was long and tragical, and was waged with such rancor and desperate persistence by the insurrectionists, that their women and children began to supply the places vacated by fallen fathers, husbands and brothers. It ended in victory for them. They demanded a form of government that should be the property of all. It was granted, limiting its privileges to adult male citizens.

"The first representative government lasted a century. In that time civilization had taken an advance far exceeding the progress made in three centuries previous. So surely does the mind crave freedom for its perfect development. The consciousness of liberty is an ennobling element in human nature. No nation can become universally moral until it is absolutely FREE.

"But this first Republic had been diseased from its birth. Slavery had existed in certain districts of the nation. It was really the remains of a former and more degraded state of society which the new government, in the exultation of its own triumphant inauguration, neglected or lacked the wisdom to remedy. A portion of the country refused to admit slavery within its territory, but pledged itself not to interfere with that which had. Enmities, however, arose between the two sections, which, after years of repression and useless conciliation, culminated in another civil war. Slavery had resolved to absorb more territory, and the free territory had resolved that it should not. The war that followed in consequence severed forever the fetters of the slave and was the primary cause of the extinction of the male race.

"The inevitable effect of slavery is enervating and demoralizing. It is a canker that eats into the vitals of any nation that harbors it, no matter what form it assumes. The free territory had all the vigor, wealth and capacity for long endurance that self-dependence gives. It was in every respect prepared for a long and severe struggle. Its forces were collected in the name of the united government.

"Considering the marked inequality of the combatants the war would necessarily have been of short duration. But political corruption had crept into the trust places of the government, and unscrupulous politicians and office-seekers saw too many opportunities to harvest wealth from a continuation of the war. It was to their interest to prolong it, and they did. They placed in the most responsible positions of the army, military men whose incapacity was well known to them, and sustained them there while the country wept its maimed and dying sons.

"The slave territory brought to the front its most capable talent. It would have conquered had not the resources against which it contended been almost unlimited. Utterly worn out, every available means of supply being exhausted, it collapsed from internal weakness.

"The general government, in order to satisfy the clamors of the distressed and impatient people whose sons were being sacrificed, and whose taxes were increasing, to prolong the war had kept removing and reinstating military commanders, but always of reliable incapacity.

"A man of mediocre intellect and boundless self-conceit happened to be the commander-in-chief of the government army when the insurrection collapsed. The politicians, whose nefarious scheming had prolonged the war, saw their opportunity for furthering their own interests by securing his popularity. They assumed him to be the greatest military genius that the world had ever produced; as evidenced by his success where so many others had failed. It was known that he had never risked a battle until he was assured that his own soldiers were better equipped and outnumbered the enemy. But the politicians asserted that such a precaution alone should mark him as an extraordinary military genius. The deluded people accepted him as a hero.

"The politicians exhausted their ingenuity in inventing honors for him. A new office of special military eminence, with a large salary attached, was created for him. He was burdened with distinctions and emoluments, always worked by the politicians, for their benefit. The nation, following the lead of the political leaders, joined in their adulation. It failed to perceive the dangerous path that leads to anarchy and despotism--the worship of one man. It had unfortunately selected one who was cautious and undemonstrative, and who had become convinced that he really was the greatest prodigy that the world had ever produced.

"He was made President, and then the egotism and narrow selfishness of the man began to exhibit itself. He assumed all the prerogatives of royalty that his position would permit. He elevated his obscure and numerous relatives to responsible offices. Large salaries were paid them and intelligent clerks hired by the Government to perform their official duties.

"Corruption spread into every department, but the nation was blind to its danger. The few who did perceive the weakness and presumption of the hero were silenced by popular opinion.

"A second term of office was given him, and then the real character of the man began to display itself before the people. The whole nature of the man was selfish and stubborn. The strongest mental trait possessed by him was cunning.

"His long lease of power and the adulation of his political beneficiaries, acting upon a superlative self-conceit,
been rigorously closed against them. The professional pursuits of life were denied them. But a few, with sublime

They had been hampered in educational progress. Colleges and all avenues to higher intellectual development had

in vain. They now remembered it, and resolved to keep the Government that their wisdom and power had restored.

society, and they had suffered most. They had long pleaded for an equality of citizenship with men, but had pleaded

effectively. With consummate skill and energy they gathered the reins of Government in their own hands.

direct effect upon them. At first, they organized for mutual protection from the lawlessness that prevailed. The

chivalry or kindness of the men permitted. In law, their rights were greatly inferior. The evils of anarchy fell with

extermination of the race became imminent, when a new and unsuspected power arose and mastered.

over the land, each with a leader ambitious and hopeful of subduing the whole to his rule. They fought until the

turn upon him with the fury of treacherous natures when foiled of their prey. Innumerable factions sprung up all

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public life was distasteful to him, yet he was willing to sacrifice himself for the good of his country.

his inaugural address he declared that nothing but the will of the people governed him. He had not desired the office;

with unavailing regret. The undeserved popularity bestowed upon a narrow and selfish nature had been its ruin. In

published, the hero was declared President for life. When too late the deluded people discovered that they had

defeat his election. But they were unavailing. The politicians had arranged the ballot, and when the counts were

They succeeded, by practices that were common with politicians in those days, in getting him nominated for a third

term. The Empire party proposed to amend it, permitting the people to elect a President for any number of terms, or

for life if they choose. They tried to persuade the people that the country owed the greatest General of all time so

distinctive an honor. They even claimed that it was necessary to the preservation of the Government; that his

popularity could command an army to sustain him if he called for it.

But the people had begun to penetrate the designs of the hero, and bitterly denounced his resolution to seek a

third term of power. The terrible corruptions that had been openly protected by him, had advertised him as

criminally unfit for so responsible an office. But, alas! the people had delayed too long. They had taken a young

elephant into the palace. They had petted and fed him and admired his bulky growth, and now they could not

remove him without destroying the building.

"The politicians who had managed the Government so long, proved that they had more power than the people

They succeeded, by practices that were common with politicians in those days, in getting him nominated for a third

term. The people, now thoroughly alarmed, began to see their past folly and delusion. They made energetic efforts to

defeat his election. But they were unavailing. The politicians had arranged the ballot, and when the counts were

published, the hero was declared President for life. When too late the deluded people discovered that they had

helped dig the grave for the corpse of their civil liberty, and those who were loyal and had been misled saw it buried

with unavailing regret. The undeserved popularity bestowed upon a narrow and selfish nature had been its ruin. In

his inaugural address he declared that nothing but the will of the people governed him. He had not desired the office;

public life was distasteful to him, yet he was willing to sacrifice himself for the good of his country.

"Had the people been less enlightened, they might have yielded without a murmur; but they had enjoyed too

long the privileges of a free Government to see it usurped without a struggle. Tumult and disorder prevailed over the

country. Soldiers were called out to protect the new Government, but numbers of them refused to obey. The

consequence was they fought among themselves. A dissolution of the Government was the result. The General they

had lauded so greatly failed to bring order out of chaos; and the schemers who had foisted him into power, now

turned upon him with the fury of treacherous natures when foiled of their prey. Innumerable factions sprung up all

over the land, each with a leader ambitious and hopeful of subduing the whole to his rule. They fought until the

extermination of the race became imminent, when a new and unsuspected power arose and mastered.

"The female portion of the nation had never had a share in the Government. Their privileges were only what the

chivalry or kindness of the men permitted. In law, their rights were greatly inferior. The evils of anarchy fell with

direct effect upon them. At first, they organized for mutual protection from the lawlessness that prevailed. The

organizations grew, united and developed into military power. They used their power wisely, discreetly, and

effectively. With consummate skill and energy they gathered the reins of Government in their own hands.

"Their first aim had been only to force the country into peace. The anarchy that reigned had demoralized

society, and they had suffered most. They had long pleaded for an equality of citizenship with men, but had pleaded

in vain. They now remembered it, and resolved to keep the Government that their wisdom and power had restored.

They had been hampered in educational progress. Colleges and all avenues to higher intellectual development had

been rigorously closed against them. The professional pursuits of life were denied them. But a few, with sublime
courage and energy, had forced their way into them amid the revilings of some of their own sex and opposition of the men. It was these brave spirits who had earned their liberal cultivation with so much difficulty, that had organized and directed the new power. They generously offered to form a Government that should be the property of all intelligent adult citizens, not criminal.

"But these wise women were a small minority. The majority were ruled by the remembrance of past injustice. They were now the power, and declared their intention to hold the Government for a century.

"They formed a Republic, in which they remedied many of the defects that had marred the Republic of men. They constituted the Nation an integer which could never be disintegrated by States' Rights ideas or the assumption of State sovereignty.

"They proposed a code of laws for the home government of the States, which every State in the Union ratified as their State Constitution, thus making a uniformity and strength that the Republic of men had never known or suspected attainable.

"They made a law of every State that criminals could be arrested in any State they might flee to, without legal authority, other than that obtained in the vicinity of the crime. They made a law that criminals, tried and convicted of crime, could not be pardoned without the sanction of seventy-five out of one hundred educated and disinterested people, who should weigh the testimony and render their decision under oath. It is scarcely necessary to add that few criminals ever were pardoned. It removed from the office of Governor the responsibility of pardoning, or rejecting pardons as a purely personal privilege. It abolished the power of rich criminals to bribe their escape from justice; a practice that had secretly existed in the former Republic.

"In forming their Government, the women, who were its founders, profited largely by the mistakes or wisdom displayed in the Government of men. Neither the General Government, nor the State Government, could be independent of the other. A law of the Union could not become such until ratified by every State Legislature. A State law could not become constitutional until ratified by Congress.

"In forming the State Constitutions, laws were selected from the different State Constitutions that had proven wise for State Government during the former Republic. In the Republic of men, each State had made and ratified its own laws, independent of the General Government. The consequence was, no two States possessed similar laws.

"To secure strength and avoid confusion was the aim of the founders of the new Government. The Constitution of the National Government provided for the exclusion of the male sex from all affairs and privileges for a period of one hundred years.

"At the end of that time not a representative of the sex was in existence."

CHAPTER III.

I expressed my astonishment at her revelation. Their social life existed under conditions that were incredible to me. Would it be an impertinence to ask for an explanation that I might comprehend? Or was it really the one secret they possessed and guarded from discovery, a mystery that must forever surround them with a halo of doubt, the suggestion of uncanny power? I spoke as deprecatingly as I could. The Preceptress turned upon me a calm but penetrating gaze.

"Have we impressed you as a mysterious people?" she asked.

"Very, very much!" I exclaimed. "I have at times been oppressed by it."

"You never mentioned it," she said, kindly.

"I could not find an opportunity to," I said.

"It is the custom in Mizora, as you have no doubt observed, never to make domestic affairs a topic of conversation outside of the family, the only ones who would be interested in them; and this refinement has kept you from the solution of our social system. I have no hesitancy in gratifying your wish to comprehend it. The best way to do it is to let history lead up to it, if you have the patience to listen."

I assured her that I was anxious to hear all she chose to tell. She then resumed:

"The prosperity of the country rapidly increased under the rule of the female Presidents. The majority of them were in favor of a high state of morality, and they enforced it by law and practice. The arts and sciences were liberally encouraged and made rapid advancement. Colleges and schools flourished vigorously, and every branch of education was now open to women.

"During the Republic of men, the government had founded and sustained a military and naval academy, where a limited number of the youth of the country were educated at government expense. The female government re-organized the institutions, substituting the youth of their own sex. They also founded an academy of science, which was supplied with every facility for investigation and progress. None but those having a marked predilection for scientific research could obtain admission, and then it was accorded to demonstrated ability only. This drew to the college the best female talent in the country. The number of applicants was not limited.

"Science had hitherto been, save by a very few, an untrodden field to women, but the encouragement and rare
facilities offered soon revealed latent talent that developed rapidly. Scarcely half a century had elapsed before the pupils of the college had effected by their discoveries some remarkable changes in living, especially in the prevention and cure of diseases.

"However prosperous they might become, they could not dwell in political security with a portion of the citizens disfranchised. The men were resolved to secure their former power. Intrigues and plots against the government were constantly in force among them. In order to avert another civil war, it was finally decided to amend the constitution, and give them an equal share in the ballot. They had no sooner obtained that than the old practices of the former Republic were resorted to to secure their supremacy in government affairs. The women looked forward to their former subjugation as only a matter of time, and bitterly regretted their inability to prevent it. But at the crisis, a prominent scientist proposed to let the race die out. Science had revealed the Secret of Life."

She ceased speaking, as though I fully understood her.

"I am more bewildered than ever," I exclaimed. "I cannot comprehend you."

"Come with me," she said.

I followed her into the Chemist’s Laboratory. She bade me look into a microscope that she designated, and tell her what I saw.

"An exquisitely minute cell in violent motion," I answered.

"Daughter," she said, solemnly, "you are now looking upon the germ of all Life, be it animal or vegetable, a flower or a human being, it has that one common beginning. We have advanced far enough in Science to control its development. Know that the MOTHER is the only important part of all life. In the lowest organisms no other sex is apparent."

I sat down and looked at my companion in a frame of mind not easily described. There was an intellectual grandeur in her look and mien that was impressive. Truth sat, like a coronet, upon her brow. The revelation I had so longed for, I now almost regretted. It separated me so far from these beautiful, companionable beings.

"Science has instructed you how to supercede Nature," I said, finally.

"By no means. It has only taught us how to make her obey us. We cannot create Life. We cannot develop it. But we can control Nature's processes of development as we will. Can you deprecate such a power? Would not your own land be happier without idiots, without lunatics, without deformity and disease?"

"You will give me little hope of any radical change in my own lifetime when I inform you that deformity, if extraordinary, becomes a source of revenue to its possessor."

"All reforms are of slow growth," she said. "The moral life is the highest development of Nature. It is evolved by the same slow processes, and like the lower life, its succeeding forms are always higher ones. Its ultimate perfection will be mind, where all happiness shall dwell, where pleasure shall find fruition, and desire its ecstasy."

"It is the duty of every generation to prepare the way for a higher development of the next, as we see demonstrated by Nature in the fossilized remains of long extinct animal life, a preparatory condition for a higher form in the next evolution. If you do not enjoy the fruit of your labor in your own lifetime, the generation that follows you will be the happier for it. Be not so selfish as to think only of your own narrow span of life."

"By what means have you reached so grand a development?" I asked.

"By the careful study of, and adherence to, Nature's laws. It was long years--I should say centuries--before the influence of the coarser nature of men was eliminated from the present race.

"We devote the most careful attention to the Mothers of our race. No retarding mental or moral influences are ever permitted to reach her. On the contrary, the most agreeable contacts with nature, all that can cheer and ennoble in art or music surround her. She is an object of interest and tenderness to all who meet her. Guarded from unwholesome agitation, furnished with nourishing and proper diet--both mental and physical--the child of a Mizora mother is always an improvement upon herself. With us, childhood has no sorrows. We believe, and the present condition of our race proves, that a being environed from its birth with none but elevating influences, will grow up amiable and intelligent though inheriting unfavorable tendencies.

"On this principle we have ennobled our race and discovered the means of prolonging life and youthful loveliness far beyond the limits known by our ancestors.

"Temptation and necessity will often degrade a nature naturally inclined and desirous to be noble. We early recognized this fact, and that a nature once debased by crime would transmit it to posterity. For this reason we never permitted a convict to have posterity."

"But how have you become so beautiful?" I asked. "For, in all my journeys, I have not met an uncomely face or form. On the contrary, all the Mizora women have perfect bodies and lovely features."

"We follow the gentle guidance of our mother, Nature. Good air and judicious exercise for generations and generations before us have helped. Our ancestors knew the influence of art, sculpture, painting and music, which they were trained to appreciate."
"But has not nature been a little generous to you?" I inquired.
"Not more so than she will be to any people who follow her laws. When you first came here you had an idea that you could improve nature by crowding your lungs and digestive organs into a smaller space than she, the maker of them, intended them to occupy.

"If you construct an engine, and then cram it into a box so narrow and tight that it cannot move, and then crowd on the motive power, what would you expect?

"Beautiful as you think my people, and as they really are, yet, by disregarding nature's laws, or trying to thwart her intentions, in a few generations to come, perhaps even in the next, we could have coarse features and complexion, stoop shoulders and deformity.

"It has required patience, observation and care on the part of our ancestors to secure to us the priceless heritage of health and perfect bodies. Your people can acquire them by the same means."

CHAPTER IV.

As to Physical causes, I am inclined to doubt altogether of their operation in this particular; nor do I think that men owe anything of their temper or genius to the air, food, or climate.--Bacon.

I listened with the keenest interest to this curious and instructive history; and when the Preceptress had ceased speaking. I expressed my gratitude for her kindness. There were many things about which I desired information, but particularly their method of eradicating disease and crime. These two evils were the prominent afflictions of all the civilized nations I knew. I believed that I could comprehend enough of their method of extirpation to benefit my own country. Would she kindly give it?

"I shall take Disease first," she said, "as it is a near relative of Crime. You look surprised. You have known life-long and incurable invalids who were not criminals. But go to the squalid portion of any of your large cities, where Poverty and Disease go hand in hand, where the child receives its life and its first nourishment from a haggard and discontented mother. Starvation is her daily dread. The little tenderness that make home the haven of the heart, are never known to her. Ill-fed, ill-clothed, ill-cherished, all that might be refined and elevated in her nature, if properly cultivated, is choked into starveling shapes by her enemy--Want.

"If you have any knowledge of nature, ask yourself if such a condition of birth and infancy is likely to produce a noble, healthy human being? Do your agriculturists expect a stunted, neglected tree to produce rare and luscious fruit?"

I was surprised at the Preceptress' graphic description of wretchedness, so familiar to all the civilized nations that I knew, and asked:

"Did such a state of society ever exist in this country?"

"Ages ago it was as marked a social condition of this land as it is of your own to-day. The first great move toward eradicating disease was in providing clean and wholesome food for the masses. It required the utmost rigor of the law to destroy the pernicious practice of adulteration. The next endeavor was to crowd poverty out of the land. In order to do this the Labor question came first under discussion, and resulted in the establishment in every state of a Board of Arbitration that fixed the price of labor on a per cent, of the profits of the business. Public and private charities were forbidden by law as having an immoral influence upon society. Charitable institutions had long been numerous and fashionable, and many persons engaged in them as much for their own benefit as that of the poor. It was not always the honest and benevolent ones who became treasurers, nor were the funds always distributed among the needy and destitute, or those whom they were collected for. The law put a stop to the possibility of such frauds, and of professional impostors seeking alms. Those who needed assistance were supplied with work--respectable, independent work--furnished by the city or town in which they resided. A love of industry, its dignity and independence, was carefully instilled into every young mind. There is no country but what ought to provide for everyone of its citizens a comfortable, if not luxurious, home by humane legislation on the labor question.

"The penitentiaries were reconstructed by the female government. One half the time formerly allotted to labor was employed in compulsory education. Industrial schools were established in every State, where all the mechanical employments were taught free. Objects of charity were sent there and compelled to become self supporting. These industrial schools finally became State Colleges, where are taught, free, all the known branches of knowledge, intellectual and mechanical.

"Pauperism disappeared before the wide reaching influence of these industrial schools, but universal affluence had not come. It could not exist until education had become universal.

"With this object in view, the Government forbade the employment of any citizen under the age of twenty-one, and compelled their attendance at school up to that time. At the same time a law was passed that authorized the furnishing of all school-room necessaries out of the public funds. If a higher education were desired the State Colleges furnished it free of all expenses contingent.

"All of these measures had a marked influence in improving the condition of society, but not all that was
required. The necessity for strict sanitary laws became obvious. Cities and towns and even farms were visited, and
everything that could breed malaria, or produce impure air, was compelled to be removed. Personal and household
cleanliness at last became an object of public interest, and inspectors were appointed who visited families and
reported the condition of their homes. All kinds of out-door sports and athletic exercises were encouraged and
became fashionable.

"All of these things combined, made a great improvement in the health and vigor of our race, but still hereditary
diseases lingered.

"There were many so enfeebled by hereditary disease they had not enough energy to seek recuperation, and
died, leaving offspring as wretched, who in turn followed their parents' example.

"Statistics were compiled, and physician's reports circulated, until a law was passed prohibiting the perpetuity
of diseased offspring. But, although disease became less prevalent, it did not entirely disappear. The law could only
reach the most deplorable afflictions, and was eventually repealed.

"As the science of therapeutics advanced, all diseases--whether hereditary or acquired--were found to be
associated with abnormal conditions of the blood. A microscopic examination of a drop of blood enabled the
scientist to determine the character and intensity of any disease, and at last to effect its elimination from the system.

"The blood is the primal element of the body. It feeds the flesh, the nerves, the muscles, the brain. Disease
cannot exist when it is in a natural condition. Countless experiments have determined the exact properties of healthy
blood and how to produce it. By the use of this knowledge we have eliminated hereditary diseases, and developed
into a healthy and moral people. For people universally healthy is sure of being moral. Necessity begets crime. It is the
wants of the ignorant and debased that suggests theft. It is a diseased fancy, or a mind ignorant of the laws that
govern the development of human nature, that could attribute to offspring hated before birth: infancy and childhood
neglected; starved, ill-used in every way, a disposition and character, amiable and humane and likely to become
worthy members of society. The reverse is almost inevitable. Human nature relapses into the lower and baser
instincts of its earlier existence, when neglected, ill-used and ignorant. All of those lovely traits of character which
excite the enthusiast, such as gratitude, honor, charity are the results of education only. They are not the natural
instincts of the human mind, but the cultivated ones.

"The most rigid laws were passed in regard to the practice of medicine. No physician could become a
practitioner until examined and authorized to do so by the State Medical College. In order to prevent favoritism, or
the furnishing of diplomas to incompetent applicants, enormous penalties were incurred by any who would sign
such. The profession long ago became extinct. Every mother is a family physician. That is, she obeys the laws of
nature in regard to herself and her children, and they never need a doctor.

"Having become healthy and independent of charity, crime began to decrease naturally. The conditions that had
bred and fostered petty crimes having ceased to exist, the natures that had inherited them rose above their influence
in a few generations, and left honorable posterity.

"But crime in its grossest form is an ineradicable hereditary taint. Generation after generation may rise and
disappear in a family once tainted with it, without displaying it, and then in a most unexpected manner it will spring
up in some descendant, violent and unconquerable.

"We tried to eliminate it as we had disease, but failed. It was an inherited molecular structure of the brain.
Science could not reconstruct it. The only remedy was annihilation. Criminals had no posterity."

"I am surprised," I interrupted, "that possessing the power to control the development of the body, you should
not do so with the mind."

"If we could we would produce genius that could discover the source of all life. We can control Cause and
Effect, but we cannot create Cause. We do not even know its origin. What the perfume is to the flower, the intellect
is to the body; a secret that Nature keeps to herself. For a thousand years our greatest minds have sought to discover
its source, and we are as far from it to-day as we were a thousand years ago."

"How then have you obtained your mental superiority?" I inquired.

"By securing to our offspring perfect, physical and mental health. Science has taught us how to evolve intellect
by following demonstrated laws. I put a seed into the ground and it comes up a little green slip, that eventually
becomes a tree. When I planted the seed in congenial soil, and watered and tended the slip, I assisted Nature. But I
did not create the seed nor supply the force that made it develop into a tree, nor can I define that force."

"What has produced the exquisite refinement of your people?"

"Like everything else, it is the result of gradual development aiming at higher improvement. By following
strictly the laws that govern the evolution of life, we control the formation of the body and brain. Strong mental
traits become intensified by cultivation from generation to generation and finally culminate in one glorious outburst
of power, called Genius. But there is one peculiarity about mind. It resembles that wonderful century plant which,
after decades of developing, flowers and dies. Genius is the long unfolding bloom of mind, and leaves no posterity.
We carefully prepare for the future development of Genius. We know that our children will be neither deformed nor imbecile, but we watch the unfolding of their intellects with the interest of a new revelation. We guide them with the greatest care.

"I could take a child of your people with inherited weakness of body and mind. I should rear it on proper food and exercise--both mental and physical--and it would have, when matured, a marked superiority to its parents. It is not what Nature has done for us, it is what we have done for her, that makes us a race of superior people."

"The qualities of mind that are the general feature of your people," I remarked, "are so very high, higher than our estimate of Genius. How was it arrived at?"

"By the processes I have just explained. Genius is always a leader. A genius with us has a subtlety of thought and perception beyond your power of appreciation. All organized social bodies move intellectually in a mass, with their leader just ahead of them."

"I have visited, as a guest, a number of your families, and found their homes adorned with paintings and sculpture that would excite wondering admiration in my own land as rare works of art, but here they are only the expression of family taste and culture. Is that a quality of intellect that has been evolved, or is it a natural endowment of your race?"

"It is not an endowment, but has been arrived at by the same process of careful cultivation. Do you see in those ancient portraits a variety of striking colors? There is not a suggestion of harmony in any of them. On the contrary, they all display violent contrasts of color. The originals of them trod this land thousands of years ago. Many of the colors, we know, were unknown to them. Color is a faculty of the mind that is wholly the result of culture. In the early ages of society, it was known only in the coarsest and most brilliant hues. A conception and appreciation of delicate harmonies in color is evidence of a superior and refined mentality. If you will notice it, the illiterate of your own land have no taste for or idea of the harmony of color. It is the same with sound. The higher we rise in culture, the more difficult we are to please in music. Our taste becomes critical."

I had been revolving some things in my mind while the Preceptress was speaking, and I now ventured to express them. I said:

"You tell me that generations will come and go before a marked change can occur in a people. What good then would it do me or mine to study and labor and investigate in or to teach my people how to improve? They can not comprehend progress. They have not learned by contact, as I have in Mizora, how to appreciate it. I should only waste life and happiness in trying to persuade them to get out of the ruts they have traveled so long; they think there are no other roads. I should be reviled, and perhaps persecuted. My doctrines would be called visionary and impracticable. I think I had better use my knowledge for my own kindred, and let the rest of the world find out the best way it can."

The Preceptress looked at me with mild severity. I never before had seen so near an approach to rebuke in her grand eyes.

"What a barbarous, barbarous idea!" she exclaimed. "Your country will never rise above its ignorance and degradation, until out of its mental agony shall be evolved a nature kindled with an ambition that burns for Humanity instead of self. It will be the nucleus round which will gather the timid but anxious, and then will be lighted that fire which no waters can quench. It burns for the liberty of thought. Let human nature once feel the warmth of its beacon fires, and it will march onward, defying all obstacles, braving all perils till it be won. Human nature is ever reaching for the unattained. It is that little spark within us that has an undying life. When we can no longer use it, it flies elsewhere."

CHAPTER V.

I had long contemplated a trip to the extreme southern boundary of Mizora. I had often inquired about it, and had always been answered that it was defined by an impassable ocean. I had asked them to describe it to me, for the Mizora people have a happy faculty of employing tersely expressive language when necessary; but I was always met with the surprising answer that no tongue in Mizora was eloquent enough to portray the wonders that bounded Mizora on the south. So I requested the Preceptress to permit Wauna to accompany me as a guide and companion; a request she readily complied with.

"Will you be afraid or uneasy about trusting her on so long a journey with no companion or protector but me?" I asked.

The Preceptress smiled at my question.

"Why should I be afraid, when in all the length and breadth of our land there is no evil to befall her, or you either. Strangers are friends in Mizora, in one sense of the word, when they meet. You will both travel as though among time endeared associates. You will receive every attention, courtesy and kindness that would be bestowed upon near and intimate acquaintances. No, in this land, mothers do not fear to send their daughters alone and unrecommended among strangers."
When speed was required, the people of Mizora traveled altogether by air ships. But when the pleasure of landscape viewing, and the delight and exhilaration of easy progress is desired, they use either railroad cars or carriages.

Wauna and I selected an easy and commodious carriage. It was propelled by compressed air, which Wauna said could be obtained whenever we needed a new supply at any village or country seat.

Throughout the length and breadth of Mizora the roads were artificially made. Cities, towns, and villages were provided with paved streets, which the public authorities kept in a condition of perfect cleanliness. The absence of all kinds of animals rendered this comparatively easy. In alluding to this once in the presence of the Preceptress, she startled me by the request that I should suggest to my people the advantage to be derived from substituting machinery for animal labor.

"The association of animals is degrading," she asserted. "And you, who still live by tilling the soil, will find a marked change economically in dispensing with your beasts of burden. Fully four-fifths that you raise on your farms is required to feed your domestic animals. If your agriculture was devoted entirely to human food, it would make it more plentiful for the poor."

I did not like to tell her that I knew many wealthy people who housed and fed their domestic animals better than they did their tenants. She would have been disgusted with such a state of barbarism.

Country roads in Mizora were usually covered with a cement that was prepared from pulverized granite. They were very durable and very hard. Owing to their solidity, they were not as agreeable for driving as another kind of cement they manufactured. I have previously spoken of the peculiar style of wheel that was used on all kinds of light conveyances in Mizora, and rendered their progress over any road the very luxury of motion.

In our journey, Wauna took me to a number of factories, where the wonderful progress they had made in science continually surprised and delighted me. The spider and the silkworm had yielded their secret to these indefatigable searchers into nature's mysteries. They could spin a thread of gossamer, or of silk from their chemicals, of any width and length, and with a rapidity that was magical. Like everything else of that nature in Mizora, these discoveries had been purchased by the Government, and then made known to all.

They also manufactured ivory that I could not tell from the real article. I have previously spoken of their success in producing various kinds of marble and stone. A beautiful table that I saw made out of artificial ivory, had a painting upon the top of it. A deep border, composed of delicate, convoluted shells, extended round the top of the table and formed the shores of a mimic ocean, with coral reefs and tiny islands, and tangled sea-weeds and shining fishes sporting about in the pellucid water. The surface was of highly polished smoothness, and I was informed that the picture was not a painting but was formed of colored particles of ivory that had been worked in before the drying or solidifying process had been applied. In the same way they formed main beautiful combinations of marbles. The magnificent marble columns that supported the portico of my friend's house were all of artificial make. The delicate green leaves and creeping vines of ivy, rose, and eglantine, with their spray-like blossoms, were colored in the manufacturing process and chiseled out of the solid marble by the skillful hand of the artist.

It would be difficult for me to even enumerate all the beautiful arts and productions of arts that I saw in Mizora. Our journey was full of incidents of this kind.

Every city and town that we visited was like the introduction of a new picture. There was no sameness between any of them. Each had aimed at picturesqueness or stately magnificence, and neither had failed to obtain it. Looking back as I now do upon Mizora, it presents itself to me as a vast and almost limitless landscape, variegated with grand cities, lovely towns and villages, majestic hills and mountains crowned with glittering snows, or deep, delightful valleys veiled in scented vines.

Kindness, cordiality and courtesy met us on every side. It was at first quite novel for me to mingle among previously unheard-of people with such sociability, but I did as Wauna did, and I found it not only convenient but quite agreeable.

"I am the daughter of the Preceptress of the National College," said Wauna; and that was the way she introduced herself.

I noticed with what honor and high esteem the name of the Preceptress was regarded. As soon as it was known that the daughter of the Preceptress had arrived, the citizens of whatever city we had stopped in hastened to extend to her every courtesy and favor possible for them to bestow. She was the daughter of the woman who held the highest and most enviable position in the Nation. A position that only great intellect could secure in that country.

As we neared the goal of our journey, I noticed an increasing warmth of the atmosphere, and my ears were soon greeted with a deep, reverberating roar like continuous thunder. I have seen and heard Niagara, but a thousand Niagaras could not equal that deafening sound. The heat became oppressive. The light also from a cause of which I shall soon speak.

We ascended a promontory that jutted out from the main land a quarter of a mile, perhaps more. Wauna
conducted me to the edge of the cliff and told me to look down. An ocean of whirlpools was before us. The madened dashing and thundering of the mighty waters, and the awe they inspired no words can paint. Across such an abyss of terrors it was certain no vessel could sail. We took our glasses and scanned the opposite shore, which appeared to be a vast cataract as though the ocean was pouring over a precipice of rock. Wauna informed me that where the shore was visible it was a perpendicular wall of smooth rock.

Over head an arc of fire spanned the zenith from which depended curtains of rainbows waving and fluttering, folding and floating out again with a rapid and incessant motion. I asked Wauna why they had not crossed in air-ships, and she said they had tried it often but had always failed.

"In former times," she said, "when air-ships first came into use it was frequently attempted, but no voyager ever returned. We have long since abandoned the attempt, for now we know it to be impossible."

I looked again at that display of uncontrollable power. As I gazed it seemed to me I would be drawn down by the resistless fascination of terror. I grasped Wauna and she gently turned my face to the smiling landscape behind us. Hills and valleys, and sparkling cities veiled in foliage, with their numberless parks and fountains and statues sleeping in the soft light, gleaming lakes and wandering rivers that glittered and danced in the glorious atmosphere like imprisoned sunbeams, greeted us like the alluring smile of love, and yet, for the first time since entering this lovely land, I felt myself a prisoner. Behind me was an impassable barrier. Before me, far beyond this gleaming vision of enchantment, lay another road whose privations and dangers I dreaded to attempt.

I felt as a bird might feel who has been brought from the free expanse of its wild forest-home, and placed in a golden cage where it drinks from a jeweled cup and eats daintier food than it could obtain in its own rude haunts. It pines for that precarious life; its very dangers and privations fill its breast with desire. I began to long with utterable impatience to see once more the wild, rough scenes of my own nativity. Memory began to recall them with softening touches. My heart yearned for my own; debased as compared with Mizora though they be, there was the congeniality of blood between us. I longed to see my own little one whose dimpled hands I had unclasped from my neck in that agonized parting. Whenever I saw a Mizora mother fondling her babe, my heart leapt with quick desire to once more hold my own in such loving embrace. The mothers of Mizora have a devotional love for their children. Their smiles and prattle and baby wishes are listened to with loving tenderness, and treated as matters of importance.

I was sitting beside a Mizora mother one evening, listening to some singing that I truly thought no earthly melody could surpass. I asked the lady if ever she had heard anything sweeter, and she answered, earnestly:

"Yes, the voices of my own children."

On our homeward journey, Wauna took me to a lake from the center of which we could see, with our glasses, a green island rising high above the water like an emerald in a silver setting.

"That," said Wauna, directing my attention to it, "is the last vestige of a prison left in Mizora. Would you like to visit it?"

I expressed an eager willingness to behold so curious a sight, and getting into a small pleasure boat, we started toward it. Boats are propelled in Mizora either by electricity or compressed air, and glide through the water with soundless swiftness.

As we neared the island I could perceive the mingling of natural and artificial attractions. We moored our boat at the foot of a flight of steps, hewn from the solid rock. On reaching the top, the scene spread out like a beautiful painting. Grottos, fountains, and cascades, winding walks and vine-covered bowers charmed us as we wandered about. In the center stood a medium-sized residence of white marble. We entered through a door opening on a wide piazza. Art and wealth and taste had adorned the interior with a generous hand. A library studded with books closely shut behind glass doors had a wide window that commanded an enchanting view of the lake, with its rippling waters sparkling and dimpling in the light. On one side of the mantel-piece hung a full length portrait of a lady, painted with startling naturalness.

"That," said Wauna, solemnly, "was the last prisoner in Mizora."

I looked with interested curiosity at a relic so curious in this land. It was a blonde woman with lighter colored eyes than is at all common in Mizora. Her long, blonde hair hung straight and unconfined over a dress of thick, white material. Her attitude and expression were dejected and sorrowful. I had visited prisons in my own land where red-handed murder sat smiling with indifference. I had read in newspapers, labored eloquence that described the stoicism of some hardened criminal as a trait of character to be admired. I had read descriptions where mistaken eloquence exerted itself to waken sympathy for a criminal who had never felt sympathy for his helpless and innocent victims, and I had felt nothing but creeping horror for it all. But gazing at this picture of undeniable repentance, tears of sympathy started to my eyes. Had she been guilty of taking a fellow-creature's life?

"Is she still living?" I asked by way of a preface.

"Oh, no, she has been dead for more than a century," answered Wauna.
"Was she confined here very long?"
"For life," was the reply.
"I should not believe," I said, "that a nature capable of so deep a repentance could be capable of so dark a crime as murder."
"Murder!" exclaimed Wauna in horror. "There has not been a murder committed in this land for three thousand years."
It was my turn to be astonished.
"Then tell me what dreadful crime she committed."
"She struck her child," said Wauna, sadly; "her little innocent, helpless child that Nature gave her to love and cherish, and make noble and useful and happy."
"Did she inflict a permanent injury?" I asked, with increased astonishment at this new phase of refinement in the Mizora character.
"No one can tell the amount of injury a blow does to a child. It may immediately show an obvious physical one; it may later develop a mental one. It may never seem to have injured it at all, and yet it may have shocked a sensitive nature and injured it permanently. Crime is evolved from perverted natures, and natures become perverted from ill-usage. It merges into a peculiar structure of the brain that becomes hereditary."
"What became of the prisoner's child?"
"It was adopted by a young lady who had just graduated at the State College of the State in which the mother resided. It was only five years old, and its mother's name was never mentioned to it or to anyone else. Long before that, the press had abolished the practice of giving any prominence to crime. That pernicious eloquence that in uncivilized ages had helped to nourish crime by a maudlin sympathy for the criminal, had ceased to exist. The young lady called the child daughter, and it called her mother."
"Did the real mother never want to see her child?"
"That is said to be a true picture of her," said Wauna; "and who can look at it and not see sorrow and remorse."
"How could you be so stern?" I asked, in wondering astonishment.
"Pity has nothing to do with crime," said Wauna, firmly. "You must look to humanity, and not to the sympathy one person excites when you are aiding enlightenment. That woman wandered about these beautiful grounds, or sat in this elegant home a lonely and unsympathized-with prisoner. She was furnished with books, magazines and papers, and every physical comfort. Sympathy for her lot was never offered her. Childhood is regarded by my people as the only period of life that is capable of knowing perfect happiness, and among us it is a crime greater than the heinousness of murder in your country, to deprive a human being of its childhood--in which cluster the only unalloyed sweets of life."
"A human being who remembers only pain, rebukes treatment in childhood, has lost the very flavor of existence, and the person who destroyed it is a criminal indeed."

CHAPTER VI.
There was one peculiarity about Mizora that I noticed soon after my arrival, but for various reasons have refrained from speaking of before now. It was the absence of houses devoted to religious worship.
In architecture Mizora displayed the highest perfection. Their colleges, art galleries, public libraries, opera houses, and all their public buildings were grand and beautiful. Never in any country, had I beheld such splendor in design and execution. Their superior skill in this respect, led me to believe that their temples of worship must be on a scale of magnificence beyond all my conceiving. I was eager to behold them. I looked often upon my first journeyings about their cities to discover them, but whenever I noticed an unusually imposing building, and asked what it was, it was always something else. I was frequently on the point of asking them to conduct me to some church that resembled my own in worship, (for I was brought up in strict compliance with the creeds, dogmas, and regulations of the Russo Greek Church) but I refrained, hoping that in time, I should be introduced to their religious ceremonies.
When time passed on, and no invitation was extended me, and I saw no house nor preparation for religious worship, nor even heard mention of any, I asked Wauna for an explanation. She appeared not to comprehend me, and I asked the question:
"Where do you perform your religious rites and ceremonies?"
She looked at me with surprise.
"You ask me such strange questions that sometimes I am tempted to believe you a relic of ancient mythology that has drifted down the centuries and landed on our civilized shores, or else have been gifted with a marvelous prolongation of life, and have emerged upon us from some cavern where you have lived, or slept for ages in unchanged possession of your ancient superstition."
"Have you, then," I asked in astonishment, "no religious temples devoted to worship?"
"Oh, yes, we have temples where we worship daily. Do you see that building?" nodding toward the majestic granite walls of the National College. "That is one of our most renowned temples, where the highest and the noblest in the land meet and mingle familiarly with the humblest in daily worship."

"I understand all that you wish to imply by that," I replied. "But have you no building devoted to divine worship; no temple that belongs specially to your Deity; to the Being that created you, and to whom you owe eternal gratitude and homage?"

"We have," she answered grandly, with a majestic wave of her hand, and in that mellow, musical voice that was sweeter than the chanting of birds, she exclaimed:

"This vast cathedral, boundless as our wonder; Whose shining lamps yon brilliant mists[A] supply; Its choir the winds, and waves; its organ thunder; Its dome the sky."

[Footnote A: Aurora Borealis]

"Do you worship Nature?" I asked.

"If we did, we should worship ourselves, for we are a part of Nature."

"But do you not recognize an invisible and incomprehensible Being that created you, and who will give your spirit an abode of eternal bliss, or consign it to eternal torments according as you have glorified and served him?"

"I am an atom of Nature;" said Wauna, gravely. "If you want me to answer your superstitious notions of religion, I will, in one sentence, explain, that the only religious idea in Mizora is: Nature is God, and God is Nature. She is the Great Mother who gathers the centuries in her arms, and rocks their children into eternal sleep upon her bosom."

"But how," I asked in bewildered astonishment, "how can you think of living without creeds, and confessionals? How can you prosper without prayer? How can you be upright, and honest, and true to yourselves and your friends without praying for divine grace and strength to sustain you? How can you be noble, and keep from envying your neighbors, without a prayer for divine grace to assist you to resist such temptation?"

"Oh, daughter of the dark ages," said Wauna, sadly, "turn to the benevolent and ever-willing Science. She is the goddess who has led us out of ignorance and superstition; out of degradation and disease, and every other wretchedness that superstitious, degraded humanity has known. She has lifted us above the low and the little, the narrow and mean in human thought and action, and has placed us in a broad, free, independent, noble, useful and grandly happy life."

"You have been favored by divine grace," I reiterated, "although you refuse to acknowledge it."

She smiled compassionately as she answered:

"She is the divinity who never turned a deaf ear to earnest and persistent effort in a sensible direction. But prayers to her must be work, resolute and conscientious work. She teaches that success in this world can only come to those who work for it. In your superstitious belief you pray for benefits you have never earned, possibly do not deserve, but expect to get simply because you pray for them. Science never betrays such partiality. The favors she bestows are conferred only upon the industrious."

"And you deny absolutely the efficacy of prayer?" I asked.

"If I could obtain anything by prayer alone, I would pray that my inventive faculty should be enlarged so that I might conceive and construct an air-ship that could cleave its way through that chaos of winds that is formed when two storms meet from opposite directions. It would rend to atoms one of our present make. But prayer will never produce an improved air-ship. We must dig into science for it. Our ancestors did not pray for us to become a race of symmetrically-shaped and universally healthy people, and expect that to effect a result. They went to work on scientific principles to root out disease and crime and want and wretchedness, and every degrading and retarding influence."

"Prayer never saved one of my ancestors from premature death," she continued, with a resolution that seemed determined to tear from my mind every fabric of faith in the consolations of divine interposition that had been a special part of my education, and had become rooted into my nature. "Disease, when it fastened upon the vitals of the young and beautiful and dearly-loved was stronger and more powerful than all the agonized prayers that could be poured from breaking hearts. But science, when solicited by careful study and experiment and investigation, offered the remedy. And now, we defy disease and have no fear of death until our natural time comes, and then it will be the welcome rest that the worn-out body meets with gratitude."

"But when you die," I exclaimed, "do you not believe you have an after life?"

"When I die," replied Wauna, "my body will return to the elements from whence it came. Thought will return to the force which gave it. The power of the brain is the one mystery that surrounds life. We know that the brain is a mechanical structure and acted upon by force; but how to analyze that force is still beyond our reach. You see that huge engine? We made it. It is a fine piece of mechanism. We know what it was made to do. We turn on the motive power, and it moves at the rate of a mile a minute if we desire it. Why should it move? Why might it not stand still?
CHAPTER VII.

Not long after my conversation with Wauna, mentioned in the previous chapter, an event happened in Mizora
of so singular and unexpected a character for that country that it requires a particular description. I refer to the death
of a young girl, the daughter of the Professor of Natural History in the National College, whose impressive inaugural
ceremonies I had witnessed with so much gratification. The girl was of a venturesome disposition, and, with a
number of others, had gone out rowing. The boats they used in Mizora for that purpose were mere cockle shells. A
sudden squall arose from which all could have escaped, but the reckless daring of this young girl cost her her life.
Her boat was capsized, and despite the exertions made by her companions, she was drowned.

Their lot was so barren of beauty and happiness, and the desire for it is, now and always has been, a strong trait of
human character. The conditions of society in those earlier ages rendered it impossible to enjoy this life perfectly,
and hope and longing pictured an imaginary one for an imaginary part of the body called the Soul. Progress and
civilization have brought to us the ideal heaven of the ancients, and we receive from Nature no evidence of any
other.

"But I do believe there is another," I declared. "And we ought to be prepared for it."
Wauna smiled. "What better preparation could you desire, then, than good works in this?" she asked.
"You should pray, and do penance for your sins," was my reply.
"Then," said Wauna, "we are doing the wisest penance every day. We are studying, investigating,
experimenting in order that those who come after us may be happier than we. Every day Science is yielding us some
new knowledge that will make living in the future still easier than now."
"I cannot conceive," I said, "how you are to be improved upon."
"When we manufacture fruit and vegetables from the elements, can you not perceive how much is to be gained?
Old age and death will come later, and the labor of cultivation will be done away. Such an advantage will not be
enjoyed during my lifetime. But we will labor to effect it for future generations."
"Your whole aim in life, then, is to work for the future of your race, instead of the eternal welfare of your own
soul?" I questioned, in surprise.

"If Nature," said Wauna, "has provided us a future life, if that mysterious something that we call Thought is to
be clothed in an etherealized body, and live in a world where decay is unknown, I have no fear of my reception
there. Live this life usefully and nobly, and no matter if a prayer has never crossed your lips your happiness will be
assured. A just and kind action will help you farther on the road to heaven than all the prayers that you can utter, and
all the pains and sufferings that you can inflict upon the flesh, for it will be that much added to the happiness of this
world. The grandest epitaph that could be written is engraved upon a tombstone in yonder cemetery. The subject
was one of the pioneers of progress in a long-ago century, when progress fought its way with difficulty through
ignorance and superstition. She suffered through life for the boldness of her opinions, and two centuries after, when
they had become popular, a monument was erected to her memory, and has been preserved through thousands of
years as a motto for humanity. The epitaph is simply this: 'The world is better for her having lived in it.'"
never expect and sincerely hope never to witness again. It made the deeper impression upon me because I knew the expressions of grief were all genuine.

I asked Wauna if any of the dead girl's companions feared that her mother might censure them for not making sufficient effort to save her when her boat capsized. She looked at me with astonishment.

"Such a thought," she said, "will never occur to her nor to any one else in Mizora. I have not asked the particulars, but I know that everything was done that could have been done to save her. There must have been something extraordinarily unusual about the affair for all Mizora girls are expert swimmers, and there is not one but would put forth any exertion to save a companion."

I afterward learned that such had really been the case.

It developed upon the Preceptress to break the news to the afflicted mother. It was done in the seclusion of her own home. There was no manifestation of morbid curiosity among acquaintances, neighbors and friends. The Preceptress and one or two others of her nearest and most intimate friends called at the house during the first shock of her bereavement.

After permission had been given to view the remains, Wauna and I called at the house, but only entered the drawing-room. On a low cot, in an attitude of peaceful repose, lay the breathless sleeper. Her mother and sisters had performed for her the last sad offices of loving duty, and lovely indeed had they made the last view we should have of their dear one.

There was to be no ceremony at the house, and Wauna and I were in the cemetery when the procession entered. As we passed through the city, I noticed that every business house was closed. The whole city was sympathizing with sorrow. I never before saw so vast a concourse of people. The procession was very long and headed by the mother, dressed and veiled in black. Behind her were the sisters carrying the body. It rested upon a litter composed entirely of white rosebuds. The sisters wore white, their faces concealed by white veils. Each wore a white rosebud pinned upon her bosom. They were followed by a long procession of young girls, schoolmates and friends of the dead. They were all dressed in white, but were not veiled. Each one carried a white rosebud.

The sisters placed the litter upon rests at the side of the grave, and clasping hands with their mother, formed a semicircle about it. They were all so closely veiled that their features could not be seen, and no emotion was visible. The procession of young girls formed a circle inclosing the grave and the mourners, and began chanting a slow and sorrowful dirge. No words can paint the pathos and beauty of such a scene. My eye took in every detail that displayed that taste for the beautiful that compels the Mizora mind to mingle it with every incident of life. The melody sounded like a chorus of birds chanting, in perfect unison, a weird requiem over some dead companion.

**DIRGE**

She came like the Spring in its gladness We received her with joy--we rejoiced in her promise Sweet was her song as the bird's, Her smile was as dew to the thirsty rose. But the end came ere morning awakened, While Dawn yet blushed in its bridal veil, The leafy music of the woods was hushed in snowy shrouds. Spring withered with the perfume in her hands; A winter sleet has fallen upon the buds of June; The ice-winds blow where yesterday zephyrs disported: Life is not consummated The rose has not blossomed, the fruit has perished in the flower, The bird lies frozen under its mother's breast Youth sleeps in round loveliness when age should lie withered and weary, and full of honor. Then the grave would be welcome, and our tears would fall not. The grave is not for the roses of youth; We mourn the early departed. Youth sleeps without dreams-- Without an awakening.

At the close of the chant, the mother first and then each sister took from her bosom the white rosebud and dropped it into the grave. Then followed her schoolmates and companions who each dropped in the bud she carried. A carpet of white rosebuds was thus formed, on which the body, still reclining upon its pillow of flowers, was gently lowered.

The body was dressed in white, and over all fell a veil of fine white tulle. A more beautiful sight I can never see than that young, lovely girl in her last sleep with the emblems of youth, purity and swift decay forming her pillow, and winding-sheet. Over this was placed a film of glass that rested upon the bottom and sides of the thin lining that covered the bottom and lower sides of the grave. The remainder of the procession of young girls then came forward and dropped their rosebuds upon it, completely hiding from view the young and beautiful dead.

The eldest sister then took a handful of dust and casting it into the grave, said in a voice broken, yet audible: "Mingle ashes with ashes, and dust with its original dust. To the earth whence it was taken, consign we the body of our sister." Each sister then threw in a handful of dust, and then with their mother entered their carriage, which immediately drove them home.

A beautiful silver spade was sticking in the soft earth that had been taken from the grave. The most intimate of the dead girls friends took a spadeful of earth and threw it into the open grave. Her example was followed by each one of the remaining companions until the grave was filled. Then clasping hands, they chanted a farewell to their departed companion and playmate. After which they strewed the grave with flowers until it looked like a bed of
beauty, and departed. I was profoundly impressed by the scene. Its solemnity, its beauty, and the universal expression of sorrow it had called forth. A whole city mourned the premature death of gifted and lovely youth. Alas! In my own unhappy country such an event would have elicited but a passing phrase of regret from all except the immediate family of the victim; for there sorrow is a guest at every heart, and leaves little room for sympathy with strangers.

The next day the mother was at her post in the National College; the daughters were at their studies, all seemingly calm and thoughtful, but showing no outward signs of grief excepting to the close observer. The mother was performing her accustomed duties with seeming cheerfulness, but now and then her mind would drop for a moment in sorrowful abstraction to be recalled with resolute effort and be fastened once more upon the necessary duty of life.

The sisters I often saw in those abstracted moods, and frequently saw them wiping away silent but unobtrusive tears. I asked Wauna for the meaning of such stoical reserve, and the explanation was as curious as all the other things that I met with in Mizora.

"If you notice the custom of different grades of civilization in your own country," said Wauna, "you will observe that the lower the civilization the louder and more ostentatious is the mourning. True refinement is unobtrusive in everything, and while we do not desire to repress a natural and inevitable feeling of sorrow, we do desire to conceal and conquer it, for the reason that death is a law of nature that we cannot evade. And, although the death of a young person has not occurred in Mizora in the memory of any living before this, yet it is not without precedent. We are very prudent, but we cannot guard entirely against accident. It has cast a gloom over the whole city, yet we refrain from speaking of it, and strive to forget it because it cannot be helped."

"And can you see so young, so fair a creature perish without wanting to meet her again?"

"Whatever sorrow we feel," replied Wauna, solemnly, "we deeply realize how useless it is to repine. We place implicit faith in the revelations of Nature, and in no circumstances does she bid us expect a life beyond that of the body. That is a life of individual consciousness."

"How much more consoling is the belief of my people," I replied, triumphantly. "Their belief in a future reunion would sustain them through the sorrow of parting in this. It has been claimed that some have lived pure lives solely in the hope of meeting some one whom they loved, and who had died in youth and innocence."

Wauna smiled.

"You do not all have then the same fate in anticipation for your future life?" she asked.

"Oh, no!" I answered. "The good and the wicked are divided."

"Tell me some incident in your own land that you have witnessed, and which illustrates the religious belief of your country."

"The belief that we have in a future life has often furnished a theme for the poets of my own and other countries. And sometimes a quaint and pretty sentiment is introduced into poetry to express it."

"I should like to hear some such poetry. Can you recite any?"

"I remember an incident that gave birth to a poem that was much admired at the time, although I can recall but the two last stanzas of it. A rowing party, of which I was a member, once went out upon a lake to view the sunset. After we had returned to shore, and night had fallen upon the water in impenetrable darkness, it was discovered that one of the young men who had rowed out in a boat by himself was not with us. A storm was approaching, and we all knew that his safety lay in getting ashore before it broke. We lighted a fire, but the blaze could not be seen far in such inky darkness. We hallooed, but received no answer, and finally ceased our efforts. Then one of the young ladies who possessed a very high and clear soprano voice, began singing at the very top of her power. It reached the wanderer in the darkness, and he rowed straight toward it. From that time on he became infatuated with the singer, declaring that her voice had come to him in his despair like an angel's straight from heaven.

"She died in less than a year, and her last words to him were: 'Meet me in heaven.' He had always been recklessly inclined, but after that he became a model of rectitude and goodness. He wrote a poem that was dedicated to her memory. In it he described himself as a lone wanderer on a strange sea in the darkness of a gathering storm and no beacon to guide him, when suddenly he hears a voice singing which guides him safe to shore. He speaks of the beauty of the singer and how dear she became to him, but he still hears the song calling him across the ocean of death."

"Repeat what you remember of it," urged Wauna.

"That face and form, have long since gone Beyond where the day was lifted: But the beckoning song still lingers on, An angels earthward drifted.

And when death's waters, around me roar And cares, like the birds, are winging: If I steer my bark to Heaven's shore 'Twill be by an angel's singing."

"Poor child of superstition," said Wauna, sadly. "Your belief has something pretty in it, but for your own
welfare, and that of your people, you must get rid of it as we have got rid of the offspring of Lust. Our children come to us as welcome guests through portals of the holiest and purest affection. That love which you speak of, I know nothing about. I would not know. It is a degradation which mars your young life and embitters the memories of age. We have advanced beyond it. There is a cruelty in life," she added, compassionately, "which we must accept with stoicism as the inevitable. Justice to your posterity demands of you the highest and noblest effort of which your intellect is capable."

CHAPTER VIII.

The conversation that I had with Wauna gave me so much uneasiness that I sought her mother. I cannot express the shock I felt at hearing such youthful and innocent lips speak of the absurdity of religious forms, ceremonies, and creeds. She regarded my belief in them as a species of barbarism. But she had not convinced me. I was resolved not to be convinced. I believed she was in error.

Surely, I thought, a country so far advanced in civilization, and practicing such unexampled rectitude, must, according to my religious teaching, have been primarily actuated by religious principles which they had since abandoned. My only surprise was that they had not relapsed into immorality, after destroying church and creed, and I began to feel anxious to convince them of the danger I felt they were incurring in neglecting prayer and supplication at the throne to continue them in their progress toward perfection of mental and moral culture.

I explained my feelings to the Preceptress with great earnestness and anxiety for their future, intimating that I believed their immunity from disaster had been owing to Divine sufferance. "For no nation," I added, quoting from my memory of religious precepts, "can prosper without acknowledging the Christian religion."

She listened to me with great attention, and when I had finished, asked:

"How do you account for our long continuance in prosperity and progress, for it is more than a thousand years since we rooted out the last vestige of what you term religion, from the mind. We have had a long immunity from punishment. To what do you attribute it?"

I hesitated to explain what had been in my mind, but finally faltered out something about the absence of the male sex. I then had to explain that the prisons and penitentiaries of my own land, and of all other civilized lands that I knew of, were almost exclusively occupied by the male sex. Out of eight hundred penitentiary prisoners, not more than twenty or thirty would be women; and the majority of them could trace their crimes to man's infidelity.

"And what do you do to reform them?" inquired the Preceptress.

"We offer them the teachings of Christianity. All countries, however, differ widely in this respect. The government of my country is not as generous to prisoners as that of some others. In the United States every penitentiary is supplied with a minister who expounds the Gospel to the prisoners every Sunday; that is once every seven days."

"And what do they do the rest of the time?"

"They work."

"Are they ignorant?"

"Oh, yes, indeed;" I replied, earnestly. "You could not find one scholar in ten thousand of them. Their education is either very limited, or altogether deficient."

"Do the buildings they are confined in cost a great deal?"

"Vast sums of money are represented by them; and it often costs a community a great deal of money to send a criminal to the penitentiary. In some States the power to pardon rests entirely with the governor, and it frequently occurs that a desperate criminal, who has cost a county a great deal of money to get rid of him, will be pardoned by the governor, to please a relative, or, as it is sometimes believed, for a bribe."

"And do the people never think of educating their criminals instead of working them?"

"That would be an expense to the government," I replied.

"If they would divide the time, and compel them to study half a day as rigorously as they make them work, it would soon make a vast change in their morals. Nothing so ennobles the mind as a broad and thorough education."

"They are all compelled to listen to religious instruction once a week," I answered. "That surely ought to make some improvement in them. I remember hearing an American lady relate her attendance at chapel service in a State penitentiary one Sunday. The minister's education was quite limited, as she could perceive from the ungrammatical language he used, but he preached sound orthodox doctrine. The text selected had a special application to his audience: 'Depart from me ye accursed, into everlasting torment prepared for the Devil and his angels.' There were eight hundred prisoners, and the minister assured them, in plain language, that such would surely be their sentence unless they repented."

"And that is what you call the consolations of religion, is it?" asked the Preceptress with an expression that rather disconcerted me; as though my zeal and earnestness entirely lacked the light of knowledge with which she viewed it.
"That is religious instruction;" I answered. "The minister exhorted the prisoners to pray and be purged of their sins. And it was good advice."

"But they might aver," persisted the Preceptress, "that they had prayed to be restrained from crime, and their prayers had not been answered."

"They didn't pray with enough faith, then;" I assured her in the confidence of my own belief. "That is wherein I think my own church is so superior to the other religions of the world," I added, proudly. "We can get the priest to absolve us from sin, and then we know we are rid of it, when he tells us so."

"But what assurance have you that the priest can do so?" asked the Preceptress.

"Because it is his duty to do so.

"Education will root out more sin than all your creeds can," gravely answered the Preceptress. "Educate your convict and train them into controlling and subduing their criminal tendencies by their own will, and it will have more effect on their morals than all the prayers ever uttered. Educate them up to that point where they can perceive for themselves the happiness of moral lives, and then you may trust them to temptation without fear. The ideas you have expressed about dogmas, creeds and ceremonies are not new to us, though, as a nation, we do not make a study of them. They are very, very ancient. They go back to the first records of the traditionary history of man. And the farther you go back the deeper you plunge into ignorance and superstition.

"The more ignorant the human mind, the more abject was its slavery to religion. As history progresses toward a more diffuse education of the masses, the forms, ceremonies and beliefs in religion are continually changing to suit the advancement of intelligence; and when intelligence becomes universal, they will be renounced altogether. What is true of the history of one people will be true of the history of another. Religions are not necessary to human progress. They are really clogs. My ancestors had more trouble to extirpate these superstitious ideas from the mind than they had in getting rid of disease and crime. There were several reasons for this difficulty. Disease and crime were self-evident evils, that the narrowest intelligence could perceive; but beliefs in creeds and superstitions were perversions of judgment, resulting from a lack of thorough mental training. As soon, however, as education of a high order became universal, it began to disappear. No mind of philosophical culture can adhere to such superstitions.

"Many ages the people made idols, and, decked them with rich ornaments, placed them in magnificent temples specially built for them and the rites by which they worshipped them. There have existed many variations of this kind of idolatry that are marked by the progressive stages of civilization. Some nations of remote antiquity were highly cultured in art and literature, yet worshipped gods of their own manufacture, or imaginary gods, for everything. Light and darkness, the seasons, earth, air, water, all had a separate deity to preside over and control their special services. They offered sacrifices to these deities as they desired their co-operation or favor in some enterprise to be undertaken.

"In remote antiquity, we read of a great General about to set out upon the sea to attack the army of another nation. In order to propitiate the god of the ocean, he had a fine chariot built to which were harnessed two beautiful white horses. In the presence of a vast concourse of people collected to witness the ceremony, he drove them into the sea. When they sank out of sight it was supposed that the god had accepted the present, and would show his gratitude for it by favoring winds and peaceful weather.

"A thousand years afterward history speaks of the occurrence derisively, as an absurd superstition, and at the same time they believed in and lauded a more absurd and cruel religion. They worshipped an imaginary being who had created and possessed absolute control of everything. Some of the human family it had pleased him to make eminently good, while others he made eminently bad. For those whom he had created with evil desires, he prepared a lake of molten fire into which they were to be cast after death to suffer endless torture for doing what they had been expressly created to do. Those who had been created good were to be rewarded for following out their natural inclinations, by occupying a place near the Deity, where they were to spend eternity in singing praises to him.

"He could, however, be persuaded by prayer from following his original intentions. Very earnest prayer had caused him to change his mind, and send rain when he had previously concluded to visit the country with drouth.

"Two nations at war with each other, and believing in the same Deity, would pray for a pestilence to visit their enemy. Death was universally regarded as a visitation of Providence for some offense committed against him instead of against the laws of nature.

"Some believed that prayer and donations to the church or priest, could induce the Deity to take their relatives from the lake of torment and place them in his own presence. The Deity was prayed to on every occasion, and for every trivial object. The poor and indolent prayed for him to send them food and clothes. The sick prayed for health, the foolish for wisdom, and the revengeful besought the Deity to consign all their enemies to the burning lake.

"The intelligent and humane began to doubt the necessity of such dreadful and needless torment for every conceivable misdemeanor, and it was modified, and eventually dropped altogether. Education finally rooted out every phase of superstition from the minds of the people, and now we look back and smile at the massive and
magnificent structures erected to the worship of a Deity who could be coaxed to change his mind by prayer."

I did not tell the Preceptress that she had been giving me a history of my own ancestry; but I remarked the resemblance with the joyous hope that in the future of my own unhappy country lay the possibility of a civilization so glorious, the ideal heaven of which every sorrowing heart had dreamed. But always with the desire to believe it had a spiritual eternity.

CHAPTER IX.

I have described the peculiar ceremony attending the burial of youth in Mizora. Old age, in some respects, had a similar ceremony, but the funeral of an aged person differed greatly from what I had witnessed at the grave of youth. Wauna and I attended the funeral of a very aged lady. Death in Mizora was the gradual failing of mental and physical vigor. It came slowly, and unaccompanied with pain. It was received without regret, and witnessed without tears.

The daughters performed the last labor that the mother required. They arrayed her body for burial and bore it to the grave. If in that season of the year, autumn leaves hid the bier, and formed the covering and pillow of her narrow bed. If not in the fall, full-blown roses and matured flowers were substituted.

The ceremony was conducted by the eldest daughter, assisted by the others. No tears were shed; no mourning worn; no sorrowful chanting. A solemn dirge was sung indicative of decay. A dignified solemnity befitting the farewell to a useful life was manifest in all the proceedings; but no demonstrations of sorrow were visible. The mourners were unveiled, and performed the last services for their mother with calmness. I was so astonished at the absence of mourning that I asked an explanation of Wauna.

"Why should we mourn," was the surprising answer, "for what is inevitable? Death must come, and, in this instance, it came in its natural way. There is nothing to be regretted or mourned over, as there was in the drowning of my young friend. Her life was suddenly arrested while yet in the promise of its fruitfulness. There was cause for grief, and the expressions and emblems of mourning were proper and appropriate. But here, mourning would be out of place, for life has fulfilled its promises. Its work is done, and nature has given the worn-out body rest. That is all."

That sympathy and regret which the city had expressed for the young dead was manifested only in decorum and respectful attendance at the funeral. No one appeared to feel that it was an occasion for mourning. How strange it all seemed to me, and yet there was a philosophy about it that I could not help but admire. Only I wished that they believed as I did, that all of those tender associations would be resumed beyond the grave. If only they could be convinced. I again broached the subject to Wauna. I could not relinquish the hope of converting her to my belief. She was so beautiful, so pure, and I loved her so dearly. I could not give up my hope of an eternal reunion. I appealed to her sympathy.

"What hope," I asked, "can you offer those whose lives have been only successive phases of unhappiness? Why should beings be created only to live a life of suffering, and then die, as many, very many, of my people do? If they had no hope of a spiritual life, where pain and sorrow are to be unknown, the burdens of this life could not be borne."

"You have the same consolation," replied Wauna, "as the Preceptress had in losing her daughter. That daring spirit that cost her her life, was the pride of her mother. She possessed a promising intellect, yet her mother accepts her death as one of the sorrowful phases of life, and bravely tries to subdue its pain. Long ages behind us, as my mother has told you, the history of all human life was but a succession of woes. Our own happy state has been evolved by slow degrees out of that sorrowful past. Human progress is marked by blood and tears, and the heart's bitterest anguish. We, as a people, have progressed almost beyond the reach of sorrow, but you are in the midst of it. You must work for the future, though you cannot be of it."

"I cannot," I declared, "reconcile myself to your belief. I am separated from my child. To think I am never to see it in this world, nor through endless ages, would drive me insane with despair. What consolation can your belief offer me?"

"In this life, you may yearn for your child, but after this life you sleep," answered Wauna, sententiously. "And how sweet that sleep! No dreams; no waking to work and trial; no striving after perfection; no planning for the morrow. It is oblivion than which there can be no happier heaven."

"Would not meeting with those you have loved be happier?" I asked, in amazement.

"There would be happiness; and there would be work, too."

"But my religion does not believe in work in heaven," I answered.

"Then it has not taken the immutable laws of Nature into consideration," said Wauna. "If Nature has prepared a conscious existence for us after this body decays, she has prepared work for us, you may rest assured. It might be a grander, nobler work; but it would be work, nevertheless. Then, how restful, in contrast, is our religion. It is eternal, undisturbable rest for both body and brain. Besides, as you say yourself, you cannot be sure of meeting those whom you desire to meet in that other country. They may be the ones condemned to eternal suffering for their sins. Think
you I could enjoy myself in any surroundings, when I knew that those who were dear to me in this life, were enduring torment that could have no end. Give me oblivion rather than such a heaven.

"Our punishment comes in this world; but it is not so much through sin as ignorance. The savages lived lives of misery, occasioned by their lack of intelligence. Humanity must always suffer for the mistakes it makes. Misery belongs to the ignorant; happiness to the wise. That is our doctrine of reward and punishment."

"And you believe that my people will one day reject all religions?"

"When they are advanced enough," she answered. "You say you have scholars among you already, who preach their inconsistencies. What do you call them?"

"Philosophers," was my reply.

"They are your prophets," said Wauna. "When they break the shackles that bind you to creeds and dogmas, they will have done much to advance you. To rely on one's own will power to do right is the only safe road to morality, and your only heaven."

I left Wauna and sought a secluded spot by the river. I was shocked beyond measure at her confession. It had the earnestness, and, to me, the cruelty of conviction. To live without a spiritual future in anticipation was akin to depravity, to crime and its penalty of prison life forever. Yet here was a people, noble, exalted beyond my conceiving, living in the present, and obeying only a duty to posterity. I recalled a painting I had once seen that always possessed for me a horrible fascination. In a cave, with his foot upon the corpse of a youth, sat the crowned and sceptered majesty of Death. The waters of oblivion encompassed the throne and corpse, which lay with its head and feet bathed in its waters—for out of the Unknown had life come, and to the Unknown had it departed. Before me, in vision, swept the mighty stream of human life from which I had been swept to these strange shores. All its sufferings, its delusions; its baffled struggles; its wrongs, came upon me with a sense of spiritual agony in them that religion—my religion, which was their only consolation—must vanish in the crucible of Science. And that Science was the magician that was to purify and exalt the world. To live in the Present; to die in it and become as the dust; a mere speck, a flash of activity in the far, limitless expanse of Nature, of Force, of Matter in which a spiritual ideal had no part. It was horrible to think of. The prejudices of inherited religious faith, the contracted forces of thought in which I had been born and reared could not be uprooted or expanded without pain.

CHAPTER X.

I had begun to feel an intense longing to return to my own country, but it was accompanied by a desire, equally as strong, to carry back to that woe-burdened land some of the noble lessons and doctrines I had learned in this. I saw no means of doing it that seemed so available as a companion,—a being, born and bred in an atmosphere of honor and grandly humane ideas and actions.

My heart and my judgment turned to Wauna. She was endeared to me by long and gentle association. She was self-reliant and courageous, and possessed a strong will. Who, of all my Mizora acquaintances, was so well adapted to the service I required.

When I broached the subject to her, Wauna expressed herself as really pleased with the idea; but when we went to the Preceptress, she acknowledged a strong reluctance to the proposition. She said:

"Wauna can form no conception of the conditions of society in your country. They are far, very far, behind our own. They will, I fear, chafe her own nature more than she can improve theirs. Still, if I thought she could lead your people into a broader intelligence, and start them on the way upward to enlightenment and real happiness, I would let her go. The moment, however, that she desires to return she must be aided to do so."

I pledged myself to abide by any request the Preceptress might make of me. Wauna's own inclinations greatly influenced her mother, and finally we obtained her consent. Our preparations were carefully made. The advanced knowledge of chemistry in Mizora placed many advantages in our way. Our boat was an ingenious contrivance with a thin glass top that could be removed and folded away until needed to protect us from the rigors of the Arctic climate.

I had given an accurate description of the rapids that would oppose us, and our boat was furnished with a motive power sufficient to drive us through them at a higher rate of speed than what they moved at. It was built so as to be easily converted into a sled, and runners were made that could be readily adjusted. We were provided with food and clothing prepared expressly for the severe change to and rigors of the Arctic climate through which we must pass.

I was constantly dreading the terrors of that long ice-bound journey, but the Preceptress appeared to be little concerned about it. When I spoke of its severities, she said for us to observe her directions, and we should not suffer. She asked me if I had ever felt uncomfortable in any of the air-ship voyages I had taken, and said that the cold of the upper regions through which I had passed in their country was quite as intense as any I could meet within a lower atmosphere of my own.

The newspapers had a great deal to say about the departure of the Preceptress' daughter on so uncertain a
mission, and to that strange land of barbarians which I represented. When the day arrived for our departure, immense throngs of people from all parts of the country lined the shore, or looked down upon us from their anchored air-ships.

The last words of farewell had been spoken to my many friends and benefactors. Wauna had bidden a multitude of associates good-by, and clasped her mother's hand, which she held until the boat parted from the shore. Years have passed since that memorable parting, but the look of yearning love in that Mizora mother's eyes haunts me still. Long and vainly has she watched for a boat's prow to cleave that amber mist and bear to her arms that vision of beauty and tender love I took away from her. My heart saddens at the thought of her grief and long, long waiting that only death will end.

We pointed the boat's prow toward the wide mysterious circle of amber mists, and then turned our eyes for a last look at Mizora. Wauna stood silent and calm, earnestly gazing into the eyes of her mother, until the shore and the multitude of fair faces faded like a vision of heaven from our views.

"O beautiful Mizora!" cried the voice of my heart. "Shall I ever again see a land so fair, where natures so noble and aims so lofty have their abiding place? Memory will return to you though my feet may never again tread your delightful shores. Farewell, sweet ideal land of my Soul, of Humanity, farewell!"

My thoughts turned to that other world from which I had journeyed so long. Would the time ever come when it, too, would be a land of universal intelligence and happiness? When the difference of nations would be settled by argument instead of battle? When disease, deformity and premature death would be unknown? When locks, and bolts and bars would be useless?

I hoped so much from the personal influence of Wauna. So noble, so utterly unconscious of wrong, she must surely revolutionize human nature whenever it came in contact with her own.

I pictured to myself my own dear land--dear, despite its many phases of wretchedness--smiling in universal comfort and health. I imagined its political prisons yawning with emptiness, while their haggard and decrepit and sorrowful occupants hobbled out into the sunshine of liberty, and the new life we were bringing to them. Fancy flew abroad on the wings of hope, dropping the seeds of progress wherever it passed.

The poor should be given work, and justly paid for it, instead of being supported by charity. The charity that had fostered insolence in its mistaken efforts to do good, should be employed to train poverty to skillful labor and economy in living. And what a world of good that one measure would produce! The poor should possess exactly the same educational advantages that were supplied to the rich. In this one measure, if I could only make it popular, I would see the golden promise of the future of my country. "Educate your poor and they will work out their own salvation. Educated Labor can dictate its rights to Capital."

How easy of accomplishment it all seemed to me, who had seen the practical benefits arising to a commonwealth that had adopted these mottoes. I doubted not that the wiser and better of my own people would aid and encourage me. Free education would lead to other results.

Riches should be accumulated only by vast and generous industries that reached a helping hand to thousands of industrious poor, instead of grinding them out of a few hundred of poorly-paid and over-worked artisans. Education in the hands of the poor would be a powerful agent with which they would alleviate their own condition, and defend themselves against oppression and knavery.

The prisons should be supplied with schools as well as work-rooms, where the intellect should be trained and cultivated, and where moral idiocy, by the stern and rigorous law of Justice to Innocence, should be forced to deny itself posterity.

No philanthropical mind ever spread the wings of its fancy for a broader flight.

CHAPTER XI.

Our journey was a perilous one with all our precautions. The passage through the swiftest part of the current almost swamped our boat. The current that opposed us was so strong, that when we increased our speed our boat appeared to be cleaving its way through a wall of waters. Wauna was perfectly calm, and managed the motor with the steadiest nerves. Her courage inspired me, though many a time I despaired of ever getting out of the rapids. When we did, and looked up at the star-gemmed canopy that stretches above my own world, and abroad over the dark and desolate waste of waters around us, it gave me an impression of solemn and weird magnificence. It was such a contrast to the vivid nights of Mizora, to which my eyes had so long been accustomed, that it came upon me like a new scene.

The stars were a source of wonder and ceaseless delight to Wauna. "It looks," she said, "as though a prodigal hand had strewn the top of the atmosphere with diamonds."

The journey over fields of ice and snow was monotonous, but, owing to the skill and knowledge of Mizora displayed in our accoutrements, it was deprived of its severities. The wind whistled past us without any other greeting than its melancholy sound. We looked out from our snug quarters on the dismal hills of snow and ice
without a sensation of distress. The Aurora Borealis hung out its streamers of beauty, but they were pale compared
to what Wauna had seen in her own country. The Esquimaux she presumed were animals.

We traveled far enough south to secure passage upon a trading-vessel bound for civilized shores. The sun came
up with his glance of fire and his banners of light, laying his glorious touch on cloud and water, and kissing the
cheek with his warmth. He beamed upon us from the zenith, and sank behind the western clouds with a lingering
glance of beauty. The moon came up like the ghost of the sun, casting a weird yet tender beauty on every object. To
Wauna it was a revelation of magnificence in nature beyond her contriving.

"How grand," she exclaimed, "are the revelations of nature in your world! To look upon them, it seems to me,
would broaden and deepen the mind with the very vastness of their splendor. Nature has been more bountiful to you
than to Mizora. The day with its heart of fire, and the night with its pale beauty are grander than ours. They speak of
vast and incomprehensible power."

When I took Wauna to the observatory, and she looked upon the countless multitudes of worlds and suns
revolving in space so far away that a sun and its satellites looked like a ball of mist, she said that words could not
describe her sensations.

"To us," she said, "the leaves of Nature's book are the winds and waves, the bud and bloom and decay of
seasons. But here every leaf is a world. A mighty hand has sprinkled the suns like fruitful seeds across the limitless
fields of space. Can human nature contemplate a scene so grand that reaches so far beyond the grasp of mind, and
not feel its own insignificance, and the littleness of selfish actions? And yet you can behold these myriads of worlds
and systems of worlds wheeling in the dim infinity of space—a spectacle awful in its vastness—and turn to the
practice of narrow superstitions?"

At last the shores of my native land greeted my longing eyes, and the familiar scenes of my childhood drew
near. But when, after nearly twenty years absence, I stood on the once familiar spot, the graves of my heart's dear
ones were all that was mine. My little one had died soon after my exile. My father had soon followed. Suspected,
and finally persecuted by the government, my husband had fled the country, and, nearly as I could discover, had
sought that universal asylum for the oppressed of all nations—the United States. And thither I turned my steps.

In my own country and in France, the friends who had known me in girlhood were surprised at my youthful
appearance. I did not explain the cause of it to them, nor did I mention the people or country from whence I had
come. Wauna was my friend and a foreigner—that was all.

The impression she made was all that I had anticipated. Her unusual beauty and her evident purity attracted
attention wherever she went. The wonderful melody of her singing was much commented upon, but in Mizora she
had been considered but an indifferent singer. But I had made a mistake in my anticipation of her personal influence.
The gentleness and delicacy of her character received the tenderest respect. None who looked upon that face or met
the glance of the dark soft eyes ever doubted that the nature that animated them was pure and beautiful. Yet it was
the respect felt for a character so exceptionably superior that imitation and emulation would be impossible.

"She is too far above the common run of human nature," said one observer. "I should not be surprised if her
spirit were already pluming its wings for a heavenly flight. Such natures never stay long among us."

The remark struck my heart with a chill of depression. I looked at Wauna and wondered why I had noticed
sooner the shrinking outlines of the once round cheek. Too gentle to show disgust, too noble to ill-treat, the spirit of
Wauna was chafing under the trying associations. Men and women alike regarded her as an impossible character,
and I began to realize with a sickening regret that I had made a mistake. In my own country, in France and England,
her beauty was her sole attraction to men. The lofty ideal of humanity that she represented was smiled at or gently
ignored.

"The world would be a paradise," said one philosopher, "if such characters were common. But one is like a
seed in the ocean; it cannot do much good."

When we arrived in the United States, its activity and evident progress impressed Wauna with a feeling more
nearly akin to companionship. Her own character received a juster appreciation.

"The time is near," she said, "when the New World will be the teacher of the Old in the great lesson of
Humanity. You will live to see it demonstrate to the world the justice and policy of giving to every child born under
its flag the highest mental, moral and physical training known to the present age. You can hardly realize what
twenty-five years of free education will bring to it. They are already on the right path, but they are still many
centuries behind my own country in civilization, in their government and modes of dispensing justice. Yet their free
schools, as yet imperfect, are, nevertheless, fruitful seeds of progress."

Yet here the nature of Wauna grew restless and homesick, and she at last gave expression to her longing for
home.

"I am not suited to your world," she said, with a look of deep sorrow in her lovely eyes. "None of my people
are. We are too finely organized. I cannot look with any degree of calmness upon the practices of your civilization.
It is a common thing to see mothers ill-treat their own helpless little ones. The pitiful cries of the children keep ringing in my ears. Cannot mothers realize that they are whipping a mean spirit into their offspring instead of out. I have heard the most enlightened deny their own statements when selfishness demanded it. I cannot mention the half of the things I witness daily that grates upon my feelings. I cannot reform them. It is not for such as I to be a reformer. Those who need reform are the ones to work for it.

Sorrowfully I bade adieu to my hopes and my search for Alexis, and prepared to accompany Wauna's return. We embarked on a whaling vessel, and having reached its farthest limit, we started on our perilous journey north; perilous for the lack of our boat, of which we could hear nothing. It had been left in charge of a party of Esquimaux, and had either been destroyed, or was hidden. Our progress, therefore, depended entirely upon the Esquimaux. The tribe I had journeyed so far north with had departed, and those whom I solicited to accompany us professed to be ignorant of the sea I mentioned. Like all low natures, the Esquimaux are intensely selfish. Nothing could induce them to assist us but the most apparent benefit to themselves; and this I could not assure them. The homesickness, and coarse diet and savage surroundings told rapidly on the sensitive nature of Wauna. In a miserable Esquimaux hut, on a pile of furs, I saw the flame of a beautiful and grandly noble life die out. My efforts were hopeless; my anguish keen. O Humanity, what have I sacrificed for you!

"Oh, Wauna," I pleaded, as I saw the signs of dissolution approaching, "shall I not pray for you?"

"Prayers cannot avail me," she replied, as her thin hands reached and closed over one of mine. "I had hoped once more to see the majestic hills and smiling valleys of my own sweet land, but I shall not. If I could only go to sleep in the arms of my mother. But the Great Mother of us all will soon receive me in her bosom. And oh! my friend, promise me that her dust shall cover me from the sight of men. When my mother rocked me to slumber on her bosom, and soothed me with her gentle lullaby, she little dreamed that I should suffer and die first. If you ever reach Mizora, tell her only that I sleep the sleep of oblivion. She will know. Let the memory of my suffering die with me."

"Oh, Wauna," I exclaimed, in anguish, "you surely have a soul. How can anything so young, so pure, so beautiful, be doomed to annihilation?"

"We are not annihilated," was the calm reply. "And as to beauty, are the roses not beautiful? Yet they die and you say it is the end of the year's roses. The birds are harmless, and their songs make the woods melodious with the joy of life, yet they die, and you say they have no after life. We are like the roses, but our lives are for a century and more. And when our lives are ended, the Great Mother gathers us in. We are the harvest of the centuries."

When the dull, gray light of the Arctic morning broke, it fell gently upon the presence of Death.

With the assistance of the Esquimaux, a grave was dug, and a rude wooden cross erected on which I wrote the one word "Wauna," which, in the language of Mizora, means "Happiness."

The world to which I have returned is many ages behind the civilization of Mizora.

Though we cannot hope to attain their perfection in our generation, yet many, very many, evils could be obliterated were we to follow their laws. Crime is as hereditary as disease.

No savant now denies the transmittable taint of insanity and consumption. There are some people in the world now, who, knowing the possibility of afflicting offspring with hereditary disease, have lived in ascetic celibacy. But where do we find a criminal who denies himself offspring, lest he endow posterity with the horrible capacity for murder that lies in his blood?

The good, the just, the noble, close heart and eyes to the sweet allurements of domestic life, lest posterity suffer physically or mentally by them. But the criminal has no restraints but what the law enforces. Ignorance, poverty and disease, huddled in dens of wretchedness, where they multiply with reckless improvidence, sometimes fostered by mistaken charity.

The future of the world, if it be grand and noble, will be the result of UNIVERSAL EDUCATION, FREE AS THE GOD-GIVEN WATER WE DRINK.

In the United States I await the issue of universal liberty. In this refuge for oppression, my husband found a grave. Childless, homeless and friendless, in poverty and obscurity, I have written the story of my wanderings. The world's fame can never warm a heart already dead to happiness; but out of the agony of one human life, may come a lesson for many. Life is a tragedy even under the most favorable conditions.

THE END
THE DOOR THROUGH SPACE
By Marion Zimmer Bradley

...across half a Galaxy, the Terran Empire maintains its sovereignty with the consent of the governed. It is a peaceful reign, held by compact and not by conquest. Again and again, when rebellion threatens the Terran Peace, the natives of the rebellious world have turned against their own people and sided with the men of Terra; not from fear, but from a sense of dedication.

There has never been open war. The battle for these worlds is fought in the minds of a few men who stand between worlds; bound to one world by interest, loyalties and allegiance; bound to the other by love.

Such a world is Wolf. Such a man was Race Cargill of the Terran Secret Service.

Author's Note:
I've always wanted to write. But not until I discovered the old pulp science-fantasy magazines, at the age of sixteen, did this general desire become a specific urge to write science-fantasy adventures.

I took a lot of detours on the way. I discovered s-f in its golden age: the age of Kuttner, C.L. Moore, Leigh Brackett, Ed Hamilton and Jack Vance. But while I was still collecting rejection slips for my early efforts, the fashion changed. Adventures on faraway worlds and strange dimensions went out of fashion, and the new look in science-fiction--emphasis on the science--came in.

So my first stories were straight science-fiction, and I'm not trying to put down that kind of story. It has its place. By and large, the kind of science-fiction which makes tomorrow's headlines as near as this morning's coffee, has enlarged popular awareness of the modern, miraculous world of science we live in. It has helped generations of young people feel at ease with a rapidly changing world.

But fashions change, old loves return, and now that Sputniks clutter up the sky with new and unfamiliar moons, the readers of science-fiction are willing to wait for tomorrow to read tomorrow's headlines. Once again, I think, there is a place, a wish, a need and hunger for the wonder and color of the world way out. The world beyond the stars. The world we won't live to see. That is why I wrote THE DOOR THROUGH SPACE.

--MARION ZIMMER BRADLEY

CHAPTER ONE

Beyond the spaceport gates, the men of the Kharsa were hunting down a thief. I heard the shrill cries, the pad-padding of feet in strides just a little too long and loping to be human, raising echoes all down the dark and dusty streets leading up to the main square.

But the square itself lay empty in the crimson noon of Wolf. Overhead the dim red ember of Phi Coronis, Wolf's old and dying sun, gave out a pale and heatless light. The pair of Spaceforce guards at the gates, wearing the black leathers of the Terran Empire, shockers holstered at their belts, were drowsing under the arched gateway where the star-and-rocket emblem proclaimed the domain of Terra. One of them, a snub-nosed youngster only a few weeks out from Earth, cocked an inquisitive ear at the cries and scuffling feet, then jerked his head at me.

"Hey, Cargill, you can talk their lingo. What's going on out there?"

I stepped out past the gateway to listen. There was still no one to be seen in the square. It lay white and windswept, a barricade of emptiness; to one side the spaceport and the white skyscraper of the Terran Headquarters, and at the other side, the clutter of low buildings, the street-shrine, the little spaceport cafe smelling of coffee and jaco, and the dark opening mouths of streets that rambled down into the Kharsa--the old town, the native quarter. But I was alone in the square with the shrill cries--closer now, raising echoes from the enclosing walls--and the loping of many feet down one of the dirty streets.

Then I saw him running, dodging, a hail of stones flying round his head; someone or something small and cloaked and agile. Behind him the still-faceless mob howled and threw stones. I could not yet understand the cries; but they were out for blood, and I knew it.

I said briefly, "Trouble coming," just before the mob spilled out into the square. The fleeing dwarf stared about wildly for an instant, his head jerking from side to side so rapidly that it was impossible to get even a fleeting impression of his face--human or nonhuman, familiar or bizarre. Then, like a pellet loosed from its sling, he made straight for the gateway and safety.

And behind him the loping mob yelled and howled and came pouring over half the square. Just half. Then by
that sudden intuition which permeates even the most crazed mob with some semblance of reason, they came to a ragged halt, heads turning from side to side.

I stepped up on the lower step of the Headquarters building, and looked them over.

Most of them were chaks, the furred man-tall nonhumans of the Kharsa, and not the better class. Their fur was unkempt, their tails naked with filth and disease. Their leather aprons hung in tatters. One or two in the crowd were humans, the dregs of the Kharsa. But the star-and-rocket emblem blazoned across the spaceport gates sobered even the wildest blood-lust somewhat; they milled and shifted uneasily in their half of the square.

For a moment I did not see where their quarry had gone. Then I saw him crouched, not four feet from me, in a patch of shadow. Simultaneously the mob saw him, huddled just beyond the gateway, and a howl of frustration and rage went ringing round the square. Someone threw a stone. It zipped over my head, narrowly missing me, and landed at the feet of the black-leathered guard. He jerked his head up and gestured with the shocker which had suddenly come unholstered.

The gesture should have been enough. On Wolf, Terran law has been written in blood and fire and exploding atoms; and the line is drawn firm and clear. The men of Spaceforce do not interfere in the old town, or in any of the native cities. But when violence steps over the threshold, passing the blazon of the star and rocket, punishment is swift and terrible. The threat should have been enough.

Instead a howl of abuse went up from the crowd.

"Terranan!"
"Son of the Ape!"

The Spaceforce guards were shoulder to shoulder behind me now. The snub-nosed kid, looking slightly pale, called out. "Get inside the gates, Cargill! If I have to shoot--"


I nodded to show that I heard.

"You talk their lingo. Tell them to haul off! Damned if I want to shoot!"

I stepped down and walked into the open square, across the crumbled white stones, toward the ragged mob. Even with two armed Spaceforce men at my back, it made my skin crawl, but I flung up my empty hand in token of peace:

"Take your mob out of the square," I shouted in the jargon of the Kharsa. "This territory is held in compact of peace! Settle your quarrels elsewhere!"

There was a little stirring in the crowd. The shock of being addressed in their own tongue, instead of the Terran Standard which the Empire has forced on Wolf, held them silent for a minute. I had learned that long ago: that speaking in any of the languages of Wolf would give me a minute's advantage.

But only a minute. Then one of the mob yelled, "We'll go if you give'em to us! He's no right to Terran sanctuary!"

I walked over to the huddled dwarf, miserably trying to make himself smaller against the wall. I nudged him with my foot.

"Get up. Who are you?"

The hood fell away from his face as he twitched to his feet. He was trembling violently. In the shadow of the hood I saw a furred face, a quivering velvety muzzle, and great soft golden eyes which held intelligence and terror.

"What have you done? Can't you talk?"

He held out the tray which he had shielded under his cloak, an ordinary peddler's tray. "Toys. Sell toys. Children. You got'm?"

I shook my head and pushed the creature away, with only a glance at the array of delicately crafted manikins, tiny animals, prisms and crystal whirligigs. "You'd better get out of here. Scram. Down that street." I pointed.

A voice from the crowd shouted again, and it had a very ugly sound. "He is a spy of Nebran!"

"Nebran--" The dwarfish nonhuman gabbled something then doubled behind me. I saw him dodge, feint in the direction of the gates, then, as the crowd surged that way, run for the street-shrine across the square, slipping from recess to recess of the wall. A hail of stones went flying in that direction. The little toy-seller dodged into the street-shrine.

Then there was a hoarse "Ah, aah!" of terror, and the crowd edged away, surged backward. The next minute it had begun to melt away, its entity dissolving into separate creatures, slipping into the side alleys and the dark streets that disgorged into the square. Within three minutes the square lay empty again in the pale-crimson noon.

The kid in black leather let his breath go and swore, slipping his shocker into its holster. He stared and demanded profanely, "Where'd the little fellow go?"

"Who knows?" the other shrugged. " Probably sneaked into one of the alleys. Did you see where he went, Cargill?"
I came slowly back to the gateway. To me, it had seemed that he ducked into the street-shrine and vanished into thin air, but I've lived on Wolf long enough to know you can't trust your eyes here. I said so, and the kid swore again, gulping, more upset than he wanted to admit. "Does this kind of thing happen often?"

"All the time," his companion assured him soberly, with a sidewise wink at me. I didn't return the wink.

The kid wouldn't let it drop. "Where did you learn their lingo, Mr. Cargill?"

"I've been on Wolf a long time," I said, spun on my heel and walked toward Headquarters. I tried not to hear, but their voices followed me anyhow, discreetly lowered, but not lowered enough.

"Kid, don't you know who he is? That's Cargill of the Secret Service! Six years ago he was the best man in Intelligence, before--" The voice lowered another decibel, and then there was the kid's voice asking, shaken, "But what the hell happened to his face?"

I should have been used to it by now. I'd been hearing it, more or less behind my back, for six years. Well, if my luck held, I'd never hear it again. I strode up the white steps of the skyscraper, to finish the arrangements that would take me away from Wolf forever. To the other end of the Empire, to the other end of the galaxy--anywhere, so long as I need not wear my past like a medallion around my neck, or blazoned and branded on what was left of my ruined face.

CHAPTER TWO

The Terran Empire has set its blazon on four hundred planets circling more than three hundred suns. But no matter what the color of the sun, the number of moons overhead, or the geography of the planet, once you step inside a Headquarters building, you are on Earth. And Earth would be alien to many who called themselves Earthmen, judging by the strangeness I always felt when I stepped into that marble-and-glass world inside the skyscraper. I heard the sound of my steps ringing into thin resonance along the marble corridor, and squinted my eyes, readjusting them painfully to the cold yellowness of the lights.

The Traffic Division was efficiency made insolent, in glass and chrome and polished steel, mirrors and windows and looming electronic clerical machines. Most of one wall was taken up by a TV monitor which gave a view of the spaceport; a vast open space lighted with blue-white mercury vapor lamps, and a chained-down skyscraper of a starship, littered over with swarming ants. The process crew was getting the big ship ready for skylift tomorrow morning. I gave it a second and then a third look. I'd be on it when it lifted.

Turning away from the monitored spaceport, I watched myself stride forward in the mirrored surfaces that were everywhere; a tall man, a lean man, bleached out by years under a red sun, and deeply scarred on both cheeks and around the mouth. Even after six years behind a desk, my neat business clothes--suitable for an Earthman with a desk job--didn't fit quite right, and I still rose unconsciously on the balls of my feet, approximating the lean stooping walk of a Dry-towner from the Coronis plains.

The clerk behind the sign marked TRANSPORTATION was a little rabbit of a man with a sunlamp tan, barricaded by a small-sized spaceport of desk, and looking as if he liked being shut up there. He looked up in civil inquiry.

"Can I do something for you?"

"My name's Cargill. Have you a pass for me?"

He stared. A free pass aboard a starship is rare except for professional spacemen, which I obviously wasn't. "Let me check my records," he hedged, and punched scanning buttons on the glassy surface. Shadows came and went, and I saw myself half-reflected, a tipsy shadow in a flurry of racing colors. The pattern finally stabilized and the clerk read off names.

"Brill, Cameron ... ah, yes. Cargill, Race Andrew, Department 38, transfer transportation. Is that you?"

I admitted it and he started punching more buttons when the sound of the name made connection in whatever desk-clerks use for a brain. He stopped with his hand halfway to the button.

"Are you Race Cargill of the Secret Service, sir? The Race Cargill?"

"It's right there," I said, gesturing warily at the projected pattern under the glassy surface. "Why, I thought--I mean, everybody took it for granted--that is, I heard--"

"You thought Cargill had been killed a long time ago because his name never turned up in news dispatches any more?" I grinned sourly, seeing my image dissolve in blurring shadows, and feeling the long-healed scar on my mouth draw up to make the grin hideous. "I'm Cargill, all right. I've been up on Floor 38 for six years, holding down a desk any clerk could handle. You for instance."

He gaped. He was a rabbit of a man who had never stepped out of the safe familiar boundaries of the Terran Trade City. "You mean you're the man who went to Charin in disguise, and routed out The Lisse? The man who scouted the Black Ridge and Shainsa? And you've been working at a desk upstairs all these years? It's--hard to
believe, sir."

My mouth twitched. It had been hard for me to believe while I was doing it. "The pass?"

"Right away, sir." He punched buttons and a printed chip of plastic extruded from a slot on the desk top. "Your fingerprint, please?" He pressed my finger into the still-soft surface of the plastic, indelibly recording the print; waited a moment for it to harden, then laid the chip in the slot of a pneumatic tube. I heard it whoosh away.

"They'll check your fingerprint against that when you board the ship. Skylift isn't till dawn, but you can go aboard as soon as the process crew finishes with her." He glanced at the monitor screen, where the swarming crew were still doing inexplicable things to the immobile spacecraft. "It will be another hour or two. Where are you going, Mr. Cargill?"

"Some planet in the Hyades Cluster. Vainwal, I think, something like that."

"What's it like there?"

"How should I know?" I'd never been there either. I only knew that Vainwal had a red sun, and that the Terran Legate could use a trained Intelligence officer. And not pin him down to a desk.

There was respect, and even envy in the little man's voice. "Could I--buy you a drink before you go aboard, Mr. Cargill?"

"Thanks, but I have a few loose ends to tie up." I didn't, but I was damned if I'd spend my last hour on Wolf under the eyes of a deskbound rabbit who preferred his adventure safely secondhand.

But after I'd left the office and the building, I almost wished I'd taken him up on it. It would be at least an hour before I could board the starship, with nothing to do but hash over old memories, better forgotten.

The sun was lower now. Phi Coronis is a dim star, a dying star, and once past the crimson zenith of noon, its light slants into a long pale-reddish twilight. Four of Wolf's five moons were clustered in a pale bouquet overhead, mingling thin violet moonlight into the crimson dusk.

The shadows were blue and purple in the empty square as I walked across the stones and stood looking down one of the side streets.

A few steps, and I was in an untidy slum which might have been on another world from the neat bright Trade City which lay west of the spaceport. The Kharsa was alive and reeking with the sounds and smells of human and half-human life. A naked child, diminutive and golden-furred, darted between two of the chinked pebble-houses, and disappeared, spilling fragile laughter like breaking glass.

A little beast, half snake and half cat, crawled across a roof, spread leathery wings, and flapped to the ground.

The sour pungent reek of incense from the open street-shrine made my nostrils twitch, and a hulked form inside, not human, cast me a surly green glare as I passed.

I turned, retracing my steps. There was no danger, of course, so close to the Trade City. Even on such planets as Wolf, Terra's laws are respected within earshot of their gates. But there had been rioting here and in Charin during the last month. After the display of mob violence this afternoon, a lone Terran, unarmed, might turn up as a solitary corpse flung on the steps of the HQ building.

There had been a time when I had walked alone from Shainsa to the Polar Colony. I had known how to melt into this kind of night, shabby and inconspicuous, a worn shirtcloak hunched round my shoulders, weaponless except for the razor-sharp skean in the clasp of the cloak; walking on the balls of my feet like a Dry-towner, not looking or sounding or smelling like an Earthman.

That rabbit in the Traffic office had stirred up things I'd be wiser to forget. It had been six years; six years of slow death behind a desk, since the day when Rakhal Sensar had left me a marked man; death-warrant written on my scared face anywhere outside the narrow confines of the Terran law on Wolf.

Rakhal Sensar--my fists clenched with the old impotent hate. If I could get my hands on him!

It had been Rakhal who first led me through the byways of the Kharsa, teaching me the jargon of a dozen tribes, the chirping call of the Ya-men, the way of the catmen of the rain-forests, the argot of thieves markets, the walk and step of the Dry-towners from Shainsa and Daillon and Ardcaran--the parched cities of dusty, salt stone which spread out in the bottoms of Wolf's vanished oceans. Rakhal was from Shainsa, human, tall as an Earthman, weathered by salt and sun, and he had worked for Terran Intelligence since we were boys. We had traveled all over our world together, and found it good.

And then, for some reason I had never known, it had come to an end. Even now I was not wholly sure why he had erupted, that day, into violence and a final explosion. Then he had disappeared, leaving me a marked man. And a lonely one: Juli had gone with him.

I strode the streets of the slum unseeing, my thoughts running a familiar channel. Juli, my kid sister, clinging around Rakhal's neck, her gray eyes hating me. I had never seen her again.

That had been six years ago. One more adventure had shown me that my usefulness to the Secret Service was over. Rakhal had vanished, but he had left me a legacy: my name, written on the sure scrolls of death anywhere
outside the safe boundaries of Terran law. A marked man, I had gone back to slow stagnation behind a desk. I’d stood it as long as I could.

When it finally got too bad, Magnusson had been sympathetic. He was the Chief of Terran Intelligence on Wolf, and I was next in line for his job, but he understood when I quit. He’d arranged the transfer and the pass, and I was leaving tonight.

I was nearly back to the spaceport by now, across from the street-shrine at the edge of the square. It was here that the little toy-seller had vanished. But it was exactly like a thousand, a hundred thousand other such street-shrines on Wolf, a smudge of incense reeking and stinking before the squatting image of Nebran, the Toad God whose face and symbol are everywhere on Wolf. I stared for a moment at the ugly idol, then slowly moved away.

The lighted curtains of the spaceport cafe attracted my attention and I went inside. A few spaceport personnel in storm gear were drinking coffee at the counter, a pair of furred chaks, lounging beneath the mirrors at the far end, and a trio of Dry-towners, rangy, weathered men in crimson and blue shirt cloaks, were standing at a wall shelf, eating Terran food with aloof dignity.

In my business clothes I felt more conspicuous than the chaks. What place had a civilian here, between the uniforms of the spacemen and the colorful brilliance of the Dry-towners?

A snub-nosed girl with alabaster hair came to take my order. I asked for jaco and bunlets, and carried the food to a wall shelf near the Dry-towners. Their dialect fell soft and familiar on my ears. One of them, without altering the expression on his face or the easy tone of his voice, began to make elaborate comments on my entrance, my appearance, my ancestry and probably personal habits, all defined in the colorfully obscene dialect of Shainsa.

That had happened before. The Wolfan sense of humor is only half-human. The finest joke is to criticize and insult a stranger, preferably an Earthman, to his very face, in an unknown language, perfectly deadpan. In my civilian clothes I was obviously fair game.

A look or gesture of resentment would have lost face and dignity—what the Dry-towners call their kihar—permanently. I leaned over and remarked in their own dialect that I would, at some future and unspecified time, appreciate the opportunity to return their compliments.

By rights they should have laughed, made some barbed remark about my command of language and crossed their hands in symbol of a jest decently reversed on themselves. Then we would have bought each other a drink, and that would be that.

But it didn't happen that way. Not this time. The tallest of the three whirled, upsetting his drink in the process. I heard its thin shatter through the squeal of the alabaster-haired girl, as a chair crashed over. They faced me three abreast, and one of them fumbled in the clasp of his shirtcloak.

I edged backward, my own hand racing up for a skean I hadn't carried in six years, and fronted them squarely, hoping I could face down the prospect of a roughhouse. They wouldn't kill me, this close to the HQ, but at least I was in for an unpleasant mauling. I couldn't handle three men; and if nerves were this taut in the Kharsa, I might get knifed. Quite by accident, of course.

The chaks moaned and gibbered. The Dry-towners glared at me and I tensed for the moment when their steady stare would explode into violence.

Then I became aware that they were gazing, not at me, but at something or someone behind me. The skeans snicked back into the clasps of their cloaks.

Then they broke rank, turned and ran. They ran, blundering into stools, leaving havoc of upset benches and broken crockery in their wake. One man barged into the counter, swore and ran on, limping. I let my breath go. Something had put the fear of God into those brutes, and it wasn't my own ugly mug. I turned and saw the girl.

She was slight, with waving hair like spun black glass, circled with faint tracery of stars. A black glass belt bound her narrow waist like clasped hands, and her robe, stark white, bore an ugly embroidery across the breasts, the flat sprawl of a conventionalized Toad God, Nebran. Her features were delicate, chiseled, pale; a Dry-town face, all human, all woman, but set in an alien and unearthly repose. The great eyes gleamed red. They were fixed, almost unseeing, but the crimson lips were curved with inhuman malice.

She stood motionless, looking at me as if wondering why I had not run with the others. In half a second, the smile flickered off and was replaced by a startled look of—recognition?

Whoever and whatever she was, she had saved me a mauling. I started to phrase formal thanks, then broke off in astonishment. The cafe had emptied and we were entirely alone. Even the chaks had leaped through an open window—I saw the whisk of a disappearing tail.

We stood frozen, looking at one another while the Toad God sprawled across her breasts rose and fell for half a dozen breaths.

Then I took one step forward, and she took one step backward, at the same instant. In one swift movement she was outside in the dark street. It took me only an instant to get into the street after her, but as I stepped across the
door there was a little stirring in the air, like the rising of heat waves across the salt flats at noon. Then the street-shrine was empty, and nowhere was there any sign of the girl. She had vanished. She simply was not there.

I gaped at the empty shrine. She had stepped inside and vanished, like a wraith of smoke, like--

--Like the little toy-seller they had hunted out of the Kharsa.

There were eyes in the street again and, becoming aware of where I was, I moved away. The shrines of Nebran are on every corner of Wolf, but this is one instance when familiarity does not breed contempt. The street was dark and seemed empty, but it was packed with all the little noises of living. I was not unobserved. And meddling with a street-shrine would be just as dangerous as the skeans of my three loud-mouthed Dry-town roughnecks.

I turned and crossed the square for the last time, turning toward the loom of the spaceship, filing the girl away as just another riddle of Wolf I'd never solve.

How wrong I was!

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CHAPTER THREE

From the spaceport gates, exchanging brief greetings with the guards, I took a last look at the Kharsa. For a minute I toyed with the notion of just disappearing down one of those streets. It's not hard to disappear on Wolf, if you know how. And I knew, or had known once. Loyalty to Terra? What had Terra given me except a taste of color and adventure, out there in the Dry-towns, and then taken it away again?

If an Earthman is very lucky and very careful, he lasts about ten years in Intelligence. I had had two years more than my share. I still knew enough to leave my Terran identity behind like a worn-out jacket. I could seek out Rakhal, settle our blood-feud, see Juli again....

How could I see Juli again? As her husband's murderer? No other way. Blood-feud on Wolf is a terrible and elaborate ritual of the code duello. And once I stepped outside the borders of Terran law, sooner or later Rakhal and I would meet. And one of us would die.

I looked back, just once, at the dark rambling streets away from the square. Then I turned toward the blue-white lights that hurt my eyes, and the starship that loomed, huge and hateful, before me.

A steward in white took my fingerprint and led me to a coffin-sized chamber. He brought me coffee and sandwiches--I hadn't, after all, eaten in the spaceport cafe--then got me into the skyhook and strapped me, deftly and firmly, into the acceleration cushions, tugging at the Garensen belts until I ached all over. A long needle went into my arm--the narcotic that would keep me safely drowsy all through the terrible tug of interstellar acceleration.

Doors clanged, buzzers vibrated lower down in the ship, men tramped the corridors calling to one another in the language of the spaceports. I understood one word in four. I shut my eyes, not caring. At the end of the trip there would be another star, another world, another language. Another life.

I had spent all my adult life on Wolf. Juli had been a child under the red star. But it was a pair of wide crimson eyes and black hair combed into ringlets like spun black glass that went down with me into the bottomless pit of sleep....

* * * * *

Someone was shaking me.

"Ah, come on, Cargill. Wake up, man. Shake your boots!"

My mouth, foul-tasting and stiff, fumbled at the shapes of words. "Wha' happened? Wha' y' want?" My eyes throbbed. When I got them open I saw two men in black leathers bending over me. We were still inside gravity.

"Get out of the skyhook. You're coming with us."

"Wha'--" Even through the layers of the sedative, that got to me. Only a criminal, under interstellar law, can be removed from a passage-paid starship once he has formally checked in on board. I was legally, at this moment, on my "planet of destination."

"I haven't been charged--"

"Did I say you had?" snapped one man.

"Shut up, he's doped," the other said hurriedly. "Look," he continued, pronouncing every word loudly and distinctly, "get up now, and come with us. The co-ordinator will hold up blastoff if we don't get off in three minutes, and Operations will scream. Come on, please."

Then I was stumbling along the lighted, empty corridor, swaying between the two men, foggily realizing the crew must think me a fugitive caught trying to leave the planet.

The locks dilated. A uniformed spaceman watched us, fussily regarding a chronometer. He fretted. "The dispatcher's office--"

"We're doing the best we can," the Spaceforce man said. "Can you walk, Cargill?"

I could, though my feet were a little shaky on the ladders. The violet moonlight had deepened to mauve, and...
gusty winds spun tendrils of grit across my face. The Spaceforce men shepherded me, one on either side, to the gateway.

"What the hell is all this? Is something wrong with my pass?"

The guard shook his head. "How would I know? Magnusson put out the order, take it up with him."

"Believe me," I muttered, "I will."

They looked at each other. "Hell," said one, "he's not under arrest, we don't have to haul him around like a convict. Can you walk all right now, Cargill? You know where the Secret Service office is, don't you? Floor 38. The Chief wants you, and make it fast."

I knew it made no sense to ask questions, they obviously knew no more than I did. I asked anyhow.

"Are they holding the ship for me? I'm supposed to be leaving on it."

"Not that one," the guard answered, jerking his head toward the spaceport. I looked back just in time to see the dust-dimmed ship leap upward, briefly whitened in the field searchlights, and vanish into the surging clouds above.

My head was clearing fast, and anger speeded up the process. The HQ building was empty in the chill silence of just before dawn. I had to rout out a dozing elevator operator, and as the lift swooped upward my anger rose with it. I wasn't working for Magnusson any more. What right had he, or anybody, to grab me off an outbound starship like a criminal? By the time I barged into his office, I was spoiling for a fight.

The Secret Service office was full of grayish-pink morning and yellow lights left on from the night before. Magnusson, at his desk, looked as if he'd slept in his rumpled uniform. He was a big bull of a man, and his littered desk looked, as always, like the track of a typhoon in the salt flats.

The clutter was weighted down, here and there, with solidopic cubes of the five Magnusson youngsters, and as usual, Magnusson was fiddling with one of the cubes. He said, not looking up, "Sorry to pull this at the last minute, Race. There was just time to put out a pull order and get you off the ship, but no time to explain."

I glared at him. "Seems I can't even get off the planet without trouble! You raised hell all the time I was here, but when I try to leave--what is this, anyhow? I'm sick of being shoved around!"

Magnusson made a conciliating gesture. "Wait until you hear--" he began, and broke off, looking at someone who was sitting in the chair in front of his desk, somebody whose back was turned to me. Then the person twisted and I stopped cold, blinking and wondering if this were a hallucination and I'd wake up in the starship's skyhook, far out in space.

Then the woman cried, "Race, Race! Don't you know me?"

I took one dazed step and another. Then she flew across the space between us, her thin arms tangling around my neck, and I caught her up, still disbelieving.

"Juli!"

"Oh, Race, I thought I'd die when Mack told me you were leaving tonight. It's been the only thing that's kept me alive, knowing--knowing I'd see you." She sobbed and laughed, her face buried in my shoulder.

I let her cry for a minute, then held my sister at arm's length. For a moment I had forgotten the six years that lay between us. Now I saw them, all of them, printed plain on her face. Juli had been a pretty girl. Six years had fined her face into beauty, but there was tension in the set of her shoulders, and her gray eyes had looked on horrors.

She looked tiny and thin and unbearably frail under the scanty folds of her fur robe, a Dry-town woman's robe. Her wrists were manacled, the jeweled tight bracelets fastened together by the links of a long fine chain of silvered gilt that clashed a little, thinly, as her hands fell to her sides.

"What's wrong, Juli? Where's Rakhal?"

She shivered and now I could see that she was in a state of shock.

"Gone. He's gone, that's all I know. And--oh, Race, Race, he took Rindy with him!"

From the tone of her voice I had thought she was sobbing. Now I realized that her eyes were dry; she was long past tears. Gently I unclasped her clenched fingers and put her back in the chair. She sat like a doll, her hands falling to her sides with a thin clash of chains. When I picked them up and laid them in her lap she let them lie there motionless. I stood over her and demanded, "Who's Rindy?" She didn't move.

"My daughter, Race. Our little girl."

Magnusson broke in, his voice harsh. "Well, Cargill, should I have let you leave?"

"Don't be a damn fool!"

"I was afraid you'd tell the poor kid she had to live with her own mistakes," growled Magnusson. "You're capable of it."

For the first time Juli showed a sign of animation. "I was afraid to come to you, Mack. You never wanted me to marry Rakhal, either."

"Water under the bridge," Magnusson grunted. "And I've got lads of my own, Miss Cargill--Mrs.--" he stopped in distress, vaguely remembering that in the Dry-towns an improper form of address can be a deadly insult.
But she guessed his predicament.
"You used to call me Juli, Mack. It will do now."
"You've changed," he said quietly. "Juli, then. Tell Race what you told me. All of it."
She turned to me. "I shouldn't have come for myself--"

I knew that. Juli was proud, and she had always had the courage to live with her own mistakes. When I first saw her, I knew this wouldn't be anything so simple as the complaint of an abused wife or even an abandoned or deserted mother. I took a chair, watching her and listening.

She began, "You made a mistake when you turned Rakhal out of the Service, Mack. In his way he was the most loyal man you had on Wolf."

Magnusson had evidently not expected her to take this tack. He scowled and looked disconcerted, shifting uneasily in his big chair, but when Juli did not continue, obviously awaiting his answer, he said, "Juli, he left me no choice. I never knew how his mind worked. That final deal he engineered--have you any idea how much that cost the Service? And have you taken a good look at your brother's face, Juli girl?"

Juli raised her eyes slowly, and I saw her flinch. I knew how she felt. For three years I had kept my mirror covered, growing an untidy straggle of beard because it hid the scars and saved me the ordeal of facing myself to shave.

Juli whispered, "Rakhal's is just as bad. Worse."
"That's some satisfaction," I said, and Mack stared at us, baffled. "Even now I don't know what it was all about."

"And you never will," I said for the hundredth time. "We've been over this before. Nobody could understand it unless he'd lived in the Dry-towns. Let's not talk about it. You talk, Juli. What brought you here like this? What about the kid?"

"There's no way I can tell you the end without telling you the beginning," she said reasonably. "At first Rakhal worked as a trader in Shainsa."

I wasn't surprised. The Dry-towns were the core of Terran trade on Wolf, and it was through their cooperation that Terra existed here peaceably, on a world only half human, or less.

The men of the Dry-towns existed strangely poised between two worlds. They had made dealings with the first Terran ships, and thus gave entrance to the wedge of the Terran Empire. And yet they stood proud and apart. They alone had never yielded to the Terranizing which overtakes all Empire planets sooner or later.

There were no Trade Cities in the Dry-towns; an Earthman who went there unprotected faced a thousand deaths, each one worse than the last. There were those who said that the men of Shainsa and Daillon and Ardcarran had sold the rest of Wolf to the Terrans, to keep the Terrans from their own door.

Even Rakhal, who had worked with Terra since boyhood, had finally come to a point of decision and gone his own way. And it was not Terra's way.

That was what Juli was saying now.

"He didn't like what Terra was doing on Wolf. I'm not so sure I like it myself--"

Magnusson interrupted her again. "Do you know what Wolf was like when we came here? Have you seen the Slave Colony, the Idiot's Village? Your own brother went to Shainsa and routed out The Lisse."

"And Rakhal helped him!" Juli reminded him. "Even after he left you, he tried to keep out of things. He could have told them a good deal that would hurt you, after ten years in Intelligence, you know."

I knew. It was, although I wasn't going to tell Juli this, one reason why, at the end--during that terrible explosion of violence which no normal Terran mind could comprehend--I had done my best to kill him. We had both known that after this, the planet would not hold the two of us. We could both go on living only by dividing it unevenly. I had been given the slow death of the Terran Zone. And he had all the rest.

"But he never told them anything! I tell you, he was one of the most loyal--"

Mack grunted, "Yeah, he's an angel. Go ahead."

She didn't, not immediately. Instead she asked what sounded like an irrelevant question. "Is it true what he told me? That the Empire has a standing offer of a reward for a working model of a matter transmitter?"

"That offer's been standing for three hundred years, Terran reckoning. One million credits cash. Don't tell me he was figuring to invent one?"

"I don't think so. But I think he heard rumors about one. He said with that kind of money he could bargain the Terrans right out of Shainsa. That was where it started. He began coming and going at odd times, but he never said any more about it. He wouldn't talk to me at all."

"When was all this?"

"About four months ago."

"In other words, just about the time of the riots in Charin."
She nodded. "Yes. He was away in Charin when the Ghost Wind blew, and he came back with knife cuts in his thigh. I asked if he had been mixed-up in the anti-Terran rioting, but he wouldn't tell me. Race, I don't know anything about politics. I don't really care. But just about that time, the Great House in Shainsa changed hands. I'm sure Rakhal had something to do with that.

"And then--" Juli twisted her chained hands together in her lap--"he tried to mix Rindy up in it. It was crazy, awful! He'd brought her some sort of nonhuman toy from one of the lowland towns, Charin I think. It was a weird thing, scared me. But he'd sit Rindy down in the sunlight and have her look into it, and Rindy would gabble all sorts of nonsense about little men and birds and a toymaker."

The chains about Juli's wrists clashed as she twisted her hands together. I stared somberly at the fetters. The chain, which was long, did not really hamper her movements much. Such chains were symbolic ornaments, and most Dry-town women went all their lives with fettered hands. But even after the years I'd spent in the Dry-towns, the sight still brought an uneasiness to my throat, a vague discomfort.

"We had a terrible fight over that," Juli went on. "I was afraid, afraid of what it was doing to Rindy. I threw it out, and Rindy woke up and screamed--" Juli checked herself and caught at vanishing self-control.

"But you don't want to hear about that. It was then I threatened to leave him and take Rindy. The next day--" Suddenly the hysteria Juli had been forcing back broke free, and she rocked back and forth in her chair, shaken and strangled with sobs. "He took Rindy! Oh, Race, he's crazy, crazy. I think he hates Rindy, he--he, Race, he smashed her toys. He took every toy the child had and broke them one by one, smashed them into powder, every toy the child had--"

"Juli, please, please," Magnusson pleaded, shaken. "If we're dealing with a maniac--"

"I don't dare think he'd harm her! He warned me not to come here, or I'd never see her again, but if it meant war against Terra I had to come. But Mack, don't do anything against him, please, please. He's got my baby, he's got my little girl...." Her voice failed and she buried her face in her hands.

Mack picked up the solidopic cube of his five-year-old son, and turned it between his pudgy fingers, saying unhappily, "Juli, we'll take every precaution. But can't you see, we've got to get him? If there's a question of a matter transmitter, or anything like that, in the hands of Terra's enemies--"

I could see that, too, but Juli's agonized face came between me and the picture of disaster. I clenched my fist around the chair arm, not surprised to see the fragile plastic buckle, crack and split under my grip. If it had been Rakhal's neck....

"Mack, let me handle this. Juli, shall I find Rindy for you?"

A hope was born in her ravaged face, and died, while I looked. "Race, he'd kill you. Or have you killed."

"He'd try," I admitted. The moment Rakhal knew I was outside the Terran zone, I'd walk with death. I had accepted the code during my years in Shainsa. But now I was an Earthman and felt only contempt.

"Can't you see? Once he knows I'm at large, that very code of his will force him to abandon any intrigue, whatever you call it, conspiracy, and come after me first. That way we do two things: we get him out of hiding, and we get him out of the conspiracy, if there is one."

I looked at the shaking Juli and something snapped. I stooped and lifted her, not gently, my hands biting her shoulders. "And I won't kill him, do you hear? He may wish I had; by the time I get through with him--I'll beat the living hell out of him; I'll cram my fists down his throat. But I'll settle it with him--catch him and let him live afterward!"

Magnusson stepped toward me and pried my crushing hands off her arms. Juli rubbed the bruises mechanically, not knowing she was doing it. Mack said, "You can't do it, Cargill. You wouldn't get as far as Daillon. You haven't been out of the zone in six years. Besides--"

"His eyes rested full on my face. "I hate to say this, Race, but damn it, man, go and take a good look at yourself in a mirror. Do you think I'd ever have pulled you off the Secret Service otherwise? How in hell can you disguise yourself now?"

"There are plenty of scarred men in the Dry-towns," I said. "Rakhal will remember my scars, but I don't think anyone else would look twice."

Magnusson walked to the window. His huge form bulked against the light, perceptibly darkening the office. He looked over the faraway panorama, the neat bright Trade City below and the vast wilderness lying outside. I could almost hear the wheels grinding in his head. Finally he swung around.

"Race, I've heard these rumors before. But you're the only man I could have sent to track them down, and I wouldn't send you out in cold blood to be killed. I won't now. Spaceforce will pick him up."

I heard the harsh inward gasp of Juli's breath and said, "Damn it, no. The first move you make--" I couldn't finish. Rindy was in his hands, and when I knew Rakhal, he hadn't been given to making idle threats. We all three knew what Rakhal might do at the first hint of the long arm of Terran law reaching out for him.
I said, "For God's sake let's keep Spaceforce out of it. Let it look like a personal matter between Rakhal and me, and let us settle it on those terms. Remember he's got the kid."

Magnusson sighed. Again he picked up one of the cubes and stared into the clear plastic, where the three-dimensional image of a nine-year-old girl looked out at him, smiling and innocent. His face was transparent as the plastic cube. Mack acts tough, but he has five kids and he is as soft as a dish of pudding where a kid is concerned.

"I know. Another thing, too. If we send out Spaceforce, after all the riots--how many Terrans are on this planet? A few thousand, no more. What chance would we have, if it turned into a full-scale rebellion? None at all, unless we wanted to order a massacre. Sure, we have bombs and dis-guns and all that.

"But would we dare to use them? And where would we be after that? We're here to keep the pot from boiling over, to keep out of planetary incidents, not push them along to a point where bluff won't work. That's why we've got to pick up Rakhal before this gets out of hand."

I said, "Give me a month. Then you can move in, if you have to. Rakhal can't do much against Terra in that time. And I might be able to keep Rindy out of it."

Magnusson stared at me, hard-eyed. "If you do this against my advice, I won't be able to step in and pull you out of a jam later on, you know. And God help you if you start up the machines and can't stop them."

I knew that. A month wasn't much. Wolf is forty thousand miles of diameter, at least half unexplored; mountain and forest swarming with nonhuman and semi-human cities where Terrans had never been.

Finding Rakhal, or any one man, would be like picking out one star in the Andromeda nebula. Not impossible. Not quite impossible.

Mack's eyes wandered again to his child's face, deep in the transparent cube. He turned it in his hands. "Okay, Cargill," he said slowly, "so we're all crazy. I'll be crazy too. Try it your way."

CHAPTER FOUR
By sunset I was ready to leave. I hadn't had any loose ends to tie up in the Trade City, since I'd already disposed of most of my gear before boarding the starship. I'd never been in better circumstances to take off for parts unknown.

Mack, still disapproving, had opened the files to me, and I'd spent most of the day in the back rooms of Floor 38, searching Intelligence files to refresh my memory, scanning the pages of my own old reports sent years ago from Shainsa and Daillon. He had sent out one of the nonhumans who worked for us, to buy or acquire somewhere in the Old Town a Dry-towner's outfit and the other things I would wear and carry.

I would have liked to go myself. I felt that I needed the practice. I was only now beginning to realize how much I might have forgotten in the years behind a desk. But until I was ready to make my presence known, no one must know that Race Cargill had not left Wolf on the starship.

Above all, I must not be seen in the Kharsa until I went there in the Dry-town disguise which had become, years ago, a deep second nature, almost an alternate personality.

About sunset I walked through the clean little streets of the Terran Trade City toward the Magnusson home where Juli was waiting for me.

Most of the men who go into Civil Service of the Empire come from Earth, or from the close-in planets of Proxima and Alpha Centaurus. They go out unmarried, and they stay that way, or marry women native to the planets where they are sent.

But Joanna Magnusson was one of the rare Earth women who had come out with her husband, twenty years ago. There are two kinds of Earthwomen like that. They make their quarterings a little bit of home, or a little bit of hell. Joanna had made their house look like a transported corner of Earth.

I never knew quite what to think of the Magnusson household. It seemed to me almost madness to live under a red sun, yet come inside to yellow light, to live on a world with the wild beauty of Wolf and yet live as they might have lived on their home planet. Or maybe I was the one who was out of step. I had done the reprehensible thing they called "going native." Possibly I had done just that, and in absorbing myself into the new world, had lost the ability to fit into the old.

Joanna, a chubby comfortable woman in her forties, opened the door and gave me her hand. "Come in, Race. Juli's expecting you."

"It's good of you." I broke off, unable to express my gratitude. Juli and I had come from Earth--our father had been an officer on the old starship Landfall when Juli was only a child. He had died in a wreck off Procyon, and Mack Magnusson had found me a place in Intelligence because I spoke four of the Wolf languages and haunted the Kharsa with Rakhal whenever I could get away.

They had also taken Juli into their own home, like a younger sister. They hadn't said much--because they had
liked Rakhal—when the breakup came. But that terrible night when Rakhal and I nearly killed each other, and Rakhal came with his face bleeding and took Juli away with him, had hurt them hard. Yet it had made them all the kinder to me.

Joanna said forthrightly, "Nonsense, Race! What else could we do?" She drew me along the hall. "You can talk in here."

I delayed a minute before going through the door she indicated. "How is Juli?"

"Better, I think. I put her to bed in Meta's room, and she slept most of the day. She'll be all right. I'll leave you to talk." Joanna opened the door, and went away.

Juli was awake and dressed, and already some of the terrible frozen horror was gone from her face. She was still tense and devil-ridden, but not hysterical now.

The room, one of the children's bedrooms, wasn't a big one. Even at the top of the Secret Service, a cop doesn't live too well. Not on Terra's Civil Service pay scale. Not, with five youngsters. It looked as if all five of the kids had taken it to pieces, one at a time.

I sat down on a too-low chair and said, "Juli, we haven't much time, I've got to be out of the city before dark. I want to know about Rakhal, what he does, what he's like now. Remember, I haven't seen him for years. Tell me everything—his friends, his amusements, everything you know."

"I always thought you knew him better than I did." Juli had a fidgety little way of coiling the links of the chain around her wrists and it made me nervous.

"It's routine, Juli. Police work. Mostly I play by ear, but I try to start out by being methodical."

She answered everything I asked her, but the sum total wasn't much and it wouldn't help much. As I said, it's easy to disappear on Wolf. Juli knew he had been friendly with the new holders of the Great House on Shainsa, but she didn't even know their name.

I heard one of the Magnusson children fly to the street door and return, shouting for her mother. Joanna knocked at the door of the room and came in.

"There's a chak outside who wants to see you, Race."

I nodded. "Probably my fancy dress. Can I change in the back room, Joanna? Will you keep my clothes here till I get back?"

I went to the door and spoke to the furred nonhuman in the sibilant jargon of the Kharsa and he handed me what looked like a bundle of rags. There were hard lumps inside. The chak said softly, "I hear a rumor in the Kharsa, Raiss. Perhaps it will help you. Three men from Shainsa are in the city. They came here to seek a woman who has vanished, and a toymaker. They are returning at sunrise. Perhaps you can arrange to travel in their caravan."

I thanked him and carried the bundle inside. In the empty back room I stripped to the skin and unrolled the bundle. There was a pair of baggy striped breeches, a worn and shabby shirtcloak with capacious pockets, a looped belt with half the gilt rubbed away and the base metal showing through, and a scuffed pair of ankle-boots tied with frayed thongs of different colors. There was a little cluster of amulets and seals. I chose two or three of the commonest kind, and strung them around my neck.

One of the lumps in the bundle was a small jar, holding nothing but the ordinary spices sold in the market, with which the average Dry-towner flavors food. I rubbed some of the powder on my body, put a pinch in the pocket of my shirtcloak, and chewed a few of the buds, wrinkling my nose at the long-unfamiliar pungency.

The second lump was a skean, and unlike the worn and shabby garments, this was brand-new and sharp and bright, and its edge held a razor glint. I tucked it into the clasp of my shirtcloak, a reassuring weight. It was the only weapon I could dare to carry.

The last of the solid objects in the bundle was a flat wooden case, about nine by ten inches. I slid it open. It was divided carefully into sections cushioned with sponge-absorbent plastic, and in them lay tiny slips of glass, on Wolf as precious as jewels. They were lenses—camera lenses, microscope lenses, even eyeglass lenses. Packed close, there were nearly a hundred of them nestled by the shock-absorbent stuff.

They were my excuse for travel to Shainsa. Over and above the necessities of trade, a few items of Terran manufacture—vacuum tubes, transistors, lenses for cameras and binoculars, liquors and finely forged small tools—are literally worth their weight in platinum.

Even in cities where Terrans have never gone, these things bring exorbitant prices, and trading in them is a Dry-town privilege. Rakhal had been a trader, so Juli told me, in fine wire and surgical instruments. Wolf is not a mechanized planet, and has never developed any indigenous industrial system; the psychology of the nonhuman seldom runs to technological advances.

I went down the hallway again to the room where Juli was waiting. Catching a glimpse in a full-length mirror, I was startled. All traces of the Terran civil servant, clumsy and uncomfortable in his ill-fitting clothes, had dropped away. A Dry-towner, rangy and scarred, looked out at me, and it seemed that the expression on his face was one of
Joanna whirled as I came into the room and visibly paled before, recovering her self-control, she gave a nervous little giggle. "Goodness, Race, I didn't know you!"

Juli whispered, "Yes, I--I remember you better like that. You're--you look so much like--"

The door flew open and Mickey Magnusson scurried into the room, a chubby little boy browned by a Terra-type sunlamp and glowing with health. In his hand he held some sparkling thing that gave off tiny flashes and glints of color.

I gave the kid a grin before I realized that I was disguised anyhow and probably a hideous sight. The little boy backed off, but Joanna put her plump hand on his shoulder, murmuring soothing things.

Mickey toddled toward Juli, holding up the shining thing in his hands as if to display something very precious and beloved. Juli bent and held out her arms, then her face contracted and she snatched at the plaything.

"Mickey, what's that?"

He thrust it protectively behind his back. "Mine!"

"Mickey, don't be naughty," Joanna chided.

"Please let me see," Juli coaxed, and he brought it out, slowly, still suspicious. It was an angled prism of crystal, star-shaped, set in a frame which could get the star spinning like a solidopic. But it displayed a new and comical face every time it was turned.

Mickey turned it round and round, charmed at being the center of attention. There seemed to be dozens of faces, shifting with each spin of the prism, human and nonhuman, all dim and slightly distorted. My own face, Juli's, Joanna's came out of the crystal surface, not a reflection but a caricature.

A choked sound from Juli made me turn in dismay. She had let herself drop to the floor and was sitting there, white as death, supporting herself with her two hands.

"Race! Find out where he got that--that thing!"

I bent and shook her. "What's the matter with you?" I demanded. She had lapsed into the dazed, sleepwalking horror of this morning. She whispered, "It's not a toy. Rindy had one. Joanna, where did he get it?" She pointed at the shining thing with an expression of horror which would have been laughable had it been less real, less filled with terror.

Joanna cocked her head to one side and wrinkled her forehead, reflectively. "Why, I don't know, now you come to ask me. I thought maybe one of the chaks had given it to Mickey. Bought it in the bazaar, maybe. He loves it. Do get up off the floor, Juli!"

Juli scrambled to her feet. She said, "Rindy had one. It--it terrified me. She would sit and look at it by the hour, and--I told you about it, Race. I threw it out once, and she woke up and screamed. She shrieked for hours and hours and she ran out in the dark and dug for it in the trash pile, where I'd buried it. She went out in the dark, broke all her fingernails, but she dug it out again." She checked herself, staring at Joanna, her eyes wide in appeal.

"Well, dear," said Joanna with mild, rebuking kindness, "you needn't be so upset. I don't think Mickey's so attached to it as all that, and anyhow I'm not going to throw it away." She patted Juli reassuringly on the shoulder, then gave Mickey a little shove toward the door and turned to follow him. "You'll want to talk alone before Race leaves. Good luck, wherever you're going, Race." She held out her hand forthrightly.

"And don't worry about Juli," she added in an undertone. "We'll take good care of her."

When I came back to Juli she was standing by the window, looking through the oddly filtered glass that dimmed the red sun to orange. "Joanna thinks I'm crazy, Race."

"She thinks you're upset."

"Rindy's an odd child, a real Dry-towner. But it's not my imagination, Race, it's not. There's something--"

Suddenly she sobbed aloud again.

"Homesick, Juli?"

"I was, a little, the first years. But I was happy, believe me." She turned her face to me, shining with tears. "You've got to believe I never regretted it for a minute."

"I'm glad," I said dully. That made it just fine.

"Only that toy--"

"Who knows? It might be a clue to something." The toy had reminded me of something, too, and I tried to remember what it was. I'd seen nonhuman toys in the Kharsa, even bought them for Mack's kids. When a single man is invited frequently to a home with five youngsters, it's about the only way he can repay that hospitality, by bringing the children odd trifles and knickknacks. But I had never seen anything quite like this one, until--

--Until yesterday. The toy-seller they had hunted out of the Kharsa, the one who had fled into the shrine of Nebran and vanished. He had had half a dozen of those prism-and-star sparklers.

I tried to call up a mental picture of the little toy-seller. I didn't have much luck. I'd seen him only in that one
swift glance from beneath his hood. "Juli, have you ever seen a little man, like a chak only smaller, twisted, hunchbacked? He sells toys--"

She looked blank. "I don't think so, although there are dwarf chaks in the Polar Cities. But I'm sure I've never seen one."

"It was just an idea." But it was something to think about. A toy-seller had vanished. Rakhal, before disappearing, had smashed all Rindy's toys. And the sight of a plaything of cunningly-cut crystal had sent Juli into hysterics.

"I'd better go before it's too dark," I said. I buckled the final clasp of my shirtcloak, fitted my skean another notch into it, and counted the money Mack had advanced me for expenses. "I want to get into the Kharsa and hunt up the caravan to Shainsa."

"You're going there first?"

"Where else?"

Juli turned, leaning one hand against the wall. She looked frail and ill, years older than she was. Suddenly she flung her thin arms around me, and a link of the chain on her fettered hands struck me hard, as she cried out, "Race, Race, he'll kill you! How can I live with that on my conscience too?"

"You can live with a hell of a lot on your conscience." I disengaged her arms firmly from my neck. A link of the chain caught on the clasp of my shirtcloak, and again something snapped inside me. I grasped the chain in my two hands and gave a mighty heave, bracing my foot against the wall. The links snapped asunder. A flying end struck Juli under the eye. I ripped at the seals of the jeweled cuffs, tore them from her arms, and threw the whole assembly into a corner, where it fell with a clash.

"Damn it," I roared, "that's over! You're never going to wear those things again!" Maybe after six years in the Dry-towns, Juli was beginning to guess what those six years behind a desk had meant to me.

"Juli, I'll find your Rindy for you, and I'll bring Rakhal in alive. But don't ask more than that. Just alive. And don't ask me how."

He'd be alive when I got through with him. Sure, he'd be alive.

CHAPTER FIVE

It was getting dark when I slipped through a side gate, shabby and inconspicuous, into the spaceport square. Beyond the yellow lamps, I knew that the old city was beginning to take on life with the falling night. Out of the chinked pebble-houses, men and woman, human and nonhuman, came forth into the moonlit streets.

If anyone noticed me cross the square, which I doubted, they took me for just another Dry-town vagabond, curious about the world of the strangers from beyond the stars, and who, curiosity satisfied, was drifting back where he belonged. I turned down one of the dark alleys that led away, and soon was walking in the dark.

The Kharsa was not unfamiliar to me as a Terran, but for the last six years I had seen only its daytime face. I doubted if there were a dozen Earthmen in the Old Town tonight, though I saw one in the bazaar, dirty and lurching drunk; one of those who run renegade and homeless between worlds, belonging to neither. This was what I had nearly become.

I went further up the hill with the rising streets. Once I turned, and saw below me the bright-lighted spaceport, the black many-windowed loom of the skyscraper like a patch of alien shadow in the red-violet moonlight. I turned my back on them and walked on.

At the fringe of the thieves market I paused outside a wineshop where Dry-towners were made welcome. A golden nonhuman child murmured something as she pattered by me in the street, and I stopped, gripped by a spasm of stagefright. Had the dialect of Shainsa grown rusty on my tongue? Spies were given short shrift on Wolf, and a mile from the spaceport, I might as well have been on one of those moons. There were no spaceport shockers at my back now. And someone might remember the tale of an Earthman with a scarred face who had gone to Shainsa in disguise....

I shrugged the shirtcloak around my shoulders, pushed the door and went in. I had remembered that Rakhal was waiting for me. Not beyond this door, but at the end of the trail, behind some other door, somewhere. And we have a byword in Shainsa: A trail without beginning has no end.

Right there I stopped thinking about Juli, Rindy, the Terran Empire, or what Rakhal, who knew too many of Terra's secrets, might do if he had turned renegade. My fingers went up and stroked, musingly, the ridge of scar tissue along my mouth. At that moment I was thinking only of Rakhal, of an unsettled blood-feud, and of my revenge.

Red lamps were burning inside the wineshop, where men reclined on frowsy couches. I stumbled over one of
them, found an empty place and let myself sink down on it, arranging myself automatically in the sprawl of Dry-towners indoors. In public they stood, rigid and formal, even to eat and drink. Among themselves, anything less than a loose-limbed sprawl betrayed insulting watchfulness; only a man who fears secret murder keeps himself on guard.

A girl with a tangled rope of hair down her back came toward me. Her hands were unchained, meaning she was a woman of the lowest class, not worth safeguarding. Her fur smock was shabby and matted with filth. I sent her for wine. When it came it was surprisingly good, the sweet and treacherous wine of Ardcarran. I sipped it slowly, looking round.

If a caravan for Shainsa were leaving tomorrow, it would be known here. A word dropped that I was returning there would bring me, by ironbound custom, an invitation to travel in their company.

When I sent the woman for wine a second time, a man on a nearby couch got up, and walked over to me. He was tall even for a Dry-towner, and there was something vaguely familiar about him. He was no riffraff of the Kharsa, either, for his shirtcloak was of rich silk interwoven with metallic threads, and crusted with heavy embroideries. The hilt of his skean was carved from a single green gem. He stood looking down at me for some time before he spoke.

"I never forget a voice, although I cannot bring your face to mind. Have I a duty toward you?"

I had spoken a jargon to the girl, but he addressed me in the lilting, sing-song speech of Shainsa. I made no answer, gesturing him to be seated. On Wolf, formal courtesy requires a series of polite non sequiturs, and while a direct question merely borders on rudeness, a direct answer is the mark of a simpleton.

"A drink?"

"I joined you unasked," he retorted, and summoned the tangle-headed girl. "Bring us better wine than this swill!"

With that word and gesture I recognized him and my teeth clamped hard on my lip. This was the loudmouth who had shown fight in the spaceport cafe, and run away before the dark girl with the sign of Nebran sprawled on her breast.

But in this poor light he had not recognized me. I moved deliberately into the full red glow. If he did not know me for the Terran he had challenged last night in the spaceport cafe, it was unlikely that anyone else would. He stared at me for some minutes, but in the end he only shrugged and poured wine from the bottle he had ordered.

Three drinks later I knew that his name was Kyral and that he was a trader in wire and fine steel tools through the nonhuman towns. And I had given him the name I had chosen, Rascar.

He asked, "Are you thinking of returning to Shainsa?"

Wary of a trap, I hesitated, but the question seemed harmless, so I only countered, "Have you been long in the Kharsa?"

"Several weeks."

"Trading?"

"No," he applied himself to the wine again. "I was searching for a member of my family."

"Did you find him?"

"Her," said Kyral, and ceremoniously spat. "No, I didn't find her. What is your business in Shainsa?"

I chuckled briefly. "As a matter of fact, I am searching for a member of my family."

He narrowed his eyelids as if he suspected me of mocking him, but personal privacy is the most rigid convention of the Dry-towns and such mockery showed a sensible disregard for prying questions if I did not choose to answer them. He questioned no further.

"I can use an extra man to handle the loads. Are you good with pack animals? If so, you are welcome to travel under the protection of my caravan."

I agreed. Then, reflecting that Juli and Rakhal must, after all, be known in Shainsa, I asked, "Do you know a trader who calls himself Sensar?"

He started slightly; I saw his eyes move along my scars. Then reserve, like a lowered curtain, shut itself over his face, concealing a brief satisfied glimmer. "No," he lied, and stood up.

"We leave at first daylight. Have your gear ready." He flipped something at me, and I caught it in midair. It was a stone incised with Kyral's name in the ideographs of Shainsa. "You can sleep with the caravan if you care to. Show that token to Cuinn."

*Kyral's caravan was encamped in a barred field past the furthest gates of the Kharsa. About a dozen men were busy loading the pack animals—horses shipped in from Darkover, mostly. I asked the first man I met for Cuinn. He pointed out a burly fellow in a shiny red shirtcloak, who was busy at chewing out one of the young men for the way he'd put a packsaddle on his beast.*

Shainsa is a good language for cursing, but Cuinn had a special talent at it. I blinked in admiration while I
waited for him to get his breath so I could hand him Kyral's token.

In the light of the fire I saw what I'd half expected: he was the second of the Dry-towners who'd tried to rough me up in the spaceport cafe. Cuinn barely glanced at the cut stone and tossed it back, pointing out one of the packhorses. "Load your personal gear on that one, then get busy and show this mush-headed wearer of sandals"—an insult carrying particularly filthy implications in Shainsa—"how to fasten a packstrap."

He drew breath and began to swear at the luckless youngster again, and I relaxed. He evidently hadn't recognized me, either. I took the strap in my hand, guiding it through the saddle loop. "Like that," I told the kid, and Cuinn stopped swearing long enough to give me a curt nod of acknowledgment and point out a heap of boxed and crated objects.

"Help him load up. We want to get clear of the city by daybreak," he ordered, and went off to swear at someone else.

Kyral turned up at dawn, and a few minutes later the camp had vanished into a small scattering of litter and we were on our way.

Kyral's caravan, in spite of Cuinn's cursing, was well-managed and well-handled. The men were Dry-towners, eleven of them, silent and capable and most of them very young. They were cheerful on the trail, handled the pack animals competently, during the day, and spent most of the nights grouped around the fire, gambling silently on the fall of the cut-crystal prisms they used for dice.

Three days out of the Kharsa I began to worry about Cuinn.

It was of course a spectacular piece of bad luck to find all three of the men from the spaceport cafe in Kyral's caravan. Kyral had obviously not known me, and even by daylight he paid no attention to me except to give an occasional order. The second of the three was a gangling kid who probably never gave me a second look, let alone a third.

But Cuinn was another matter. He was a man my own age, and his fierce eyes had a shrewdness in them that I did not trust. More than once I caught him watching me, and on the two or three occasions when he drew me into conversation, I found his questions more direct than Dry-town good manners allowed. I weighed the possibility that I might have to kill him before we reached Shainsa.

We crossed the foothills and began to climb upward toward the mountains. The first few days I found myself short of breath as we worked upward into thinner air, then my acclimatization returned and I began to fall into the pattern of the days and nights on the trail. The Trade City was still a beacon in the night, but its glow on the horizon grew dimmer with each day's march.

Higher we climbed, along dangerous trails where men had to dismount and let the pack animals pick their way, foot by foot. Here in these altitudes the sun at noonday blazed redder and brighter, and the Dry-towners, who come from the parched lands in the sea-bottoms, were burned and blistered by the fierce light. I had grown up under the blazing sun of Terra, and a red sun like Wolf, even at its hottest, caused me no discomfort. This alone would have made me suspect. Once again I found Cuinn's fierce eyes watching me.

As we crossed the passes and began to descend the long trail through the thick forests, we got into nonhuman country. Racing against the Ghost Wind, we skirted the country around Charin, and the woods inhabited by the terrible Ya-men, birdlike creatures who turn cannibal when the Ghost Wind blows.

Later the trail wound through thicker forests of indigo trees and grayish-purple brushwood, and at night we heard the howls of the catmen of these latitudes. At night we set guards about the caravan, and the dark spaces and shadows were filled with noises and queer smells and rustlings.

Nevertheless, the day's marches and the night watches passed without event until the night I shared guard with Cuinn. I had posted myself at the edge of the camp, the fire behind me. The men were sleeping rolls of snores, huddled close around the fire. The animals, hobbled with double ropes, front feet to hind feet, shifted uneasily and let out long uncanny whines.

I heard Cuinn pacing behind me. I heard a rustle at the edge of the forest, a stir and whisper beyond the trees, and turned to speak to him, then saw him slipping away toward the outskirts of the clearing.

For a moment I thought nothing of it, thinking that he was taking a few steps toward the gap in the trees where he had disappeared. I suppose I had the idea that he had slipped away to investigate some noise or shadow, and that I should be at hand.

Then I saw the flicker of lights beyond the trees--light from the lantern Cuinn had been carrying in his hand! He was signaling!

I slipped the safety clasp from the hilt of my skean and went after him. In the dimming glow of the fire I fancied I saw luminous eyes watching me, and the skin on my back crawled. I crept up behind him and leaped. We went down in a tangle of flailing legs and arms, and in less than a second he had his skean out and I was gripping his wrist, trying desperately to force the blade away from my throat.
I gasped, "Don't be a fool! One yell and the whole camp will be awake! Who were you signaling?"

In the light of the fallen lantern, lips drawn back in a snarl, he looked almost inhuman. He strained at the knife for a moment, then dropped it. "Let me up," he said.

I got up and kicked the fallen skean toward him. "Put that away. What in hell were you doing, trying to bring the catmen down on us?"

For a moment he looked taken aback, then his fierce face closed down again and he said wrathfully, "Can't a man walk away from the camp without being half strangled?"

I glared at him, but realized I really had nothing to go by. He might have been answering a call of nature, and the movement of the lantern accidental. And if someone had jumped me from behind, I might have pulled a knife on him myself. So I only said, "Don't do it again. We're all too jumpy."

There were no other incidents that night, or the next. The night after, while I lay huddled in my shirtcloak and blanket by the fire, I saw Cuinn slip out of his bedroll and steal away. A moment later there was a gleam in the darkness, but before I could summon the resolve to get up and face it out with him, he returned, looked cautiously at the snoring men, and crawled back into his blankets.

While we were unpacking at the next camp, Kyral halted beside me. "Heard anything queer lately? I've got the notion we're being trailed. We'll be out of these forests tomorrow, and after that it's clear road all the way to Shainsa. If anything's going to happen, it will happen tonight."

I debated speaking to him about Cuinn's signals. No, I had my own business waiting for me in Shainsa. Why mix myself up in some other, private intrigue?

He said, "I'm putting you and Cuinn on watch again. The old men doze off, and the young fellows get to daydreaming or fooling around. That's all right most of the time, but I want someone who'll keep his eyes open tonight. Did you ever know Cuinn before this?"

"Never set eyes on him."

"Funny, I had the notion--" He shrugged, turned away, then stopped.

"Don't think twice about rousing the camp if there's any disturbance. Better a false alarm than an ambush that catches us all in our blankets. If it came to a fight, we might be in a bad way. We all carry skeans, but I don't think there's a shocker in the whole camp, let alone a gun. You don't have one by any chance?"

After the men had turned in, Cuinn patrolling the camp, halted a minute beside me and cocked his head toward the rustling forest.

"What's going on in there?"

"Who knows? Catmen on the prowl, probably, thinking the horses would make a good meal, or maybe that we would."

"Think it will come to a fight?"

"I wouldn't know."

He surveyed me for a moment without speaking. "And if it did?"

"We'd fight." Then I sucked in my breath, for Cuinn had spoken Terran Standard, and I, without thinking had answered in the same language. He grinned, showing white teeth filed to a point.

"I thought so!"

I seized his shoulder and demanded roughly, "And what are you going to do about it?"

"That depends on you," he answered, "and what you want in Shainsa. Tell me the truth. What were you doing in the Terran Zone?" He gave me no chance to answer. "You know who Kyral is, don't you?"

"A trader," I said, "who pays my wages and minds his own affairs." I moved backward, hand on my skean, braced for a sudden rush. He made no aggressive motion, however.

"Kyral told me you'd been asking questions about Rakhal Sensar," he said. "Clever. Now I, for one, could have told you he'd never set eyes on Rakhal. I--"

He broke off, hearing a noise in the forest, a long eerie howl. I muttered, "If you've brought them down on us--"

He shook his head urgently. "I had to take that chance, to get word to the others. It won't work. Where's the girl?"

I hardly heard him. I was hearing twigs snap, and silent sneaking feet. I turned for a yell that would rouse the camp and Cuinn grabbed me hard, saying insistently, "Quick! Where's the girl! Go back and tell her it won't work! If Kyral suspected--"

He never finished the sentence. Just behind us came another of the long eerie howls. I knocked Cuinn away, and suddenly the night was filled with crouching forms that came down on us like a whirlwind.

I shouted madly as the camp came alive with men struggling out of blankets, fighting for life itself. I ran hard, still shouting, for the enclosure where we had tied the horses. A catman, slim and black-furred, was crouched and cutting the hobble-strings of the nearest animal. I hurled myself on him. He exploded, clawing, raking my shoulder
with talons that ripped the rough cloth like paper. I whipped out my skean and slashed upward. The talons
contracted in my shoulder and I gasped with pain. Then the thing howled and fell away, clawing at the air. It
twitched and lay still.

Four shots in rapid succession cracked in the clearing. Kyral to the contrary, someone must have had a pistol. I
heard one of the cat-things wail, a hoarse dying rattle. Something dark clawed my arm and I slashed with the knife,
going down as another set of talons fastened in my back, rolling and clutching.

I managed to get the thing’s forelimbs wedged under my elbow, my knee in its spine. I heaved, bent it
backward, backward till it screamed, a high wail.

Then I felt the spine snap and the dead thing mewed once, just air escaping from collapsing lungs, and slid
limp from my thigh. Erect it had not been over four feet tall and in the light of the dying fire it might have been a
dead lynx.

"Rascar...." I heard a gasp, a groan. I whirled and saw Kyral go down, struggling, drowning in half a dozen or
more of the fierce half-humans. I leaped at the smother of bodies, ripped one away with a stranglehold, slashed at its
throat.

They were easy to kill.

I heard a high, urgent scream in their meowing tongue. Then the furred black things seemed to melt into the
forest as silently as they had come. Kyral, dazed, his forehead running blood, his arm slashed to the bone, was sitting
on the ground, still stunned.

Somebody had to take charge. I bellowed, "Lights! Get lights. They won't come back if we have enough light,
you can only see well in the dark."

Someone stirred the fire. It blazed up as they piled on dead branches, and I roughly commanded one of the kids
to fill every lantern he could find, and get them burning. Four of the dead things were lying in the clearing. The
youngster I’d helped loading horses, the first day, gazed down at one of the catmen, half-disemboweled by
somebody’s skean, and suddenly bolted for the bushes, where I heard him retching.

I set the others with stronger stomachs to dragging the bodies away from the clearing, and went back to see
how badly Kyral was hurt. He had the rip in his arm and his face was covered with blood from a shallow scalp
wound, but he insisted on getting up to inspect the hurts of the others.

There was no one without a claw-wound in leg or back or shoulder, but none were serious, and we were all
feeling fairly cheerful when someone demanded, "Where’s Cuinn?"

He didn't seem to be anywhere. Kyral, staggering slightly, insisted on searching, but I felt we wouldn't find

"You should have told me," he began, but shouts from the far end of the clearing sent us racing there. We
nearly stumbled over a single, solitary, motionless form, outstretched and lifeless, blind eyes staring upward at the
moons.

It was Cuinn. And his throat had been torn completely out.

CHAPTER SIX

Once we were free of the forest, the road to the Dry-towns lay straight before us, with no hidden dangers. Some
of us limped for a day or two, or favored an arm or leg clawed by the catmen, but I knew that what Kyral said was
true; it was a lucky caravan which had to fight off only one attack.

Cuinn haunted me. A night or two of turning over his cryptic words in my mind had convinced me that
whoever, or whatever he'd been signaling, it wasn't the catmen. And his urgent question "Where's the girl?" swam
endlessly in my brain, making no more sense than when I had first heard it. Who had he mistaken me for? What did
he think I was mixed up in? And who, above all, were the "others" who had to be signaled, at the risk of an attack by
catmen which had meant his own death?

With Cuinn dead, and Kyral thinking I'd saved his life, a large part of the responsibility for the caravan now fell
on me. And strangely I enjoyed it, making the most of this interval when I was separated from the thought of blood-
feud or revenge, the need of spying or the threat of exposure. During those days and nights on the trail I grew back
slowly into the Dry-towner I once had been. I knew I would be sorry when the walls of Shainsa rose on the horizon,
bringing me back inescapably to my own quest.

We swung wide, leaving the straight trail to Shainsa, and Kyral announced his intention of stopping for half a
day at Canarsa, one of the walled nonhuman cities which lay well off the traveled road. To my inadvertent show of
surprise, he returned that he had trading connections there.

"We all need a day's rest, and the Silent Ones will buy from me, though they have few dealings with men. Look
here, I owe you something. You have lenses? You can get a better price in Canarsa than you’d get in Ard carran or
Shainsa. Come along with me, and I'll vouch for you."

Kyral had been most friendly since the night I had dug him out from under the catmen, and I knew no way to refuse without exposing myself for the sham trader I was. But I was deathly apprehensive. Even with Rakhal I had never entered any of the nonhuman towns.

On Wolf, human and nonhuman have lived side by side for centuries. And the human is not always the superior being. I might pass, among the Dry-towners and the relatively stupid humanoid chaks, for another Dry-towner. But Rakhal had cautioned me I could not pass among nonhumans for native Wolfan, and warned me against trying.

Nevertheless, I accompanied Kyral, carrying the box which had cost about a week's pay in the Terran Zone and was worth a small fortune in the Dry-towns.

Canarsa seemed, inside the gates, like any other town. The houses were round, beehive fashion, and the streets totally empty. Just inside the gates a hooded figure greeted us, and gestured us by signs to follow him. He was covered from head to foot with some coarse and shiny fiber woven into stuff that looked like sacking.

But under the thick hooling was horror. It slithered and it had nothing like a recognizable human shape or walk, and I felt the primeval ape in me cowering and gibbering in a corner of my brain. Kyral muttered, close to my ear, "No outsider is ever allowed to look on the Silent Ones in their real form. I think they're deaf and dumb, but be damn careful."

"You bet," I whispered, and was glad the streets were empty. I walked along, trying not to look at the gliding motion of that shrouded thing up ahead.

The trading was done in an open hut of reeds which looked as if it had been built in a hurry, and was not square, round, hexagonal or any other recognizable geometrical shape. It formed a pattern of its own, presumably, but my human eyes couldn't see it. Kyral said in a breath of a whisper, "They'll tear it down and burn it after we leave. We're supposed to have contaminated it too greatly for any of the Silent Ones ever to enter again. My family has traded with them for centuries, and we're almost the only ones who have ever entered the city."

Then two of the Silent Ones of Canarsa, also covered with that coarse shiny stuff, slithered into the hut, and Kyral choked off his words as if he had swallowed them.

It was the strangest trading I had ever done. Kyral laid out the small forged-steel tools and the coils of thin fine wire, and I unpacked my lenses and laid them out in neat rows. The Silent Ones neither spoke nor moved, but through a thin place in the gray veiling I saw a speck which might have been a phosphorescent eye, moving back and forth as if scanning the things laid out for their inspection.

Then I smothered a gasp, for suddenly blank spaces appeared in the rows of merchandise. Certain small tools--wirecutters, calipers, surgical scissors--had vanished, and all the coils of wire had disappeared. Blanks equally had appeared in the rows of lenses; all of my tiny, powerful microscope lenses had vanished. I cast a quick glance at Kyral, but he seemed unsurprised. I recalled vague rumors of the Silent Ones, and concluded that, eerie though it seemed, this was merely their way of doing business.

Kyral pointed at one of the tools, at an exceptionally fine pair of binocular lenses, at the last of the coils of wire. The shrouded ones did not move, but the lenses and the wire vanished. The small tool remained, and after a moment Kyral dropped his hand.

I took my cue from Kyral and remained motionless, awaiting whatever surprise was coming. I had halfway expected what happened next. In the blank spaces, little points of light began to glimmer, and after a moment, blue and red and green gem-stones appeared there. To me the substitution appeared roughly equitable and fair, though I am no judge of the fine points of gems.

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Kyral scowled slightly and pointed to one of the green gems, and after a moment it whisked away and a blue one took its place. In another spot where a fine set of surgical instruments had lain, Kyral pointed at the blue gem which now lay there, shook his head and held out three fingers. After a moment, a second blue stone lay winking beside the first.

Kyral did not move, but inexorably held out the three fingers. There was a little swirling in the air, and then both gems vanished, and the case of surgical instruments lay in their place.

Still Kyral did not move, but held the three fingers out for a full minute. Finally he dropped them and bent to pick up the case instruments. Again the little swirl in the air, and the instruments vanished. In their place lay three of the blue gems. My mouth twitched in the first amusement I had felt since we entered this uncanny place. Evidently bargaining with the Silent Ones was not a great deal different than bargaining with anyone anywhere. Nevertheless, under the eyes of those shrouded but horrible forms--if they had eyes, which I doubted--I had no impulse to protest their offered prices.

I gathered up the rejected lenses, repacked them neatly, and helped Kyral recreate the tools and instruments the Silent Ones had not wanted. I noticed that in addition to the microscope lenses and surgical instruments, they had taken all the fine wire. I couldn't imagine, and didn't particularly want to imagine, what they intended to do with it.
On our way back through the streets, unshepherded this time, Kyral's tongue was loosened as if with a great release from tension. "They're psychokinetics," he told me. "Quite a few of the nonhuman races are. I guess they have to be, having no eyes and no hands. But sometimes I wonder if we of the Dry-towns ought to deal with them at all."

"What do you mean?" I asked, not really listening. I was thinking mostly about the way the small objects had melted away and reappeared. The sight had stirred some uncomfortable memory, a vague sense of danger. It was not tangible enough for me to know why I feared it, but just a subliminal uneasiness that kept prodding at me, like a tooth that isn't quite aching yet.

Kyral said, "We of Shainsa live between fire and flood. Terra on the one hand, and on the other maybe something worse, who knows? We know so little about the Silent Ones, and those like them. Who knows, maybe we're giving them the weapons to destroy us--" He broke off, with a gasp, and stood staring down one of the streets.

It lay open and bare between two rows of round houses, and Kyral was staring fixedly at a doorway which had opened there. I followed his paralyzed gaze, and saw the girl.

Hair like spun black glass fell in hard waves around her shoulders, and the red eyes smiled with alien malice, alien mischief, beneath the dark crown of little stars. And the Toad God sprawled in hideous embroideries across the white folds of her breast.

Kyral gulped hoarsely. His hand flew up as he clutched the charms strung about his neck. I imitated the gesture mechanically, watching Kyral, wondering if he would turn and run again. But he stood frozen for a minute. Then the spell broke and he took one step toward the girl, arms outstretched.

"Miellyn!" he cried, and there was heartbreak in his voice. And again, the cry making ringing echoes in the strange street:

"Miellyn! Miellyn!"

This time it was the girl who whirled and fled. Her white robes fluttered and I saw the twinkle of her flying feet as she vanished into a space between the houses and was gone.

Kyral took one blind step down the street, then another. But before he could burst into a run I had him by the arm, dragging him back to sanity.

"Man, you've gone mad! Chase, in a nonhuman town?"

He struggled for a minute, then, with a harsh sigh, he said, "It's all right, I won't--" and shook loose from my arm.

He did not speak again until we reached the gates of Canarsa and they closed, silently and untouched, behind us. I had forgotten the place already. I had space only to think of the girl, whose face I had not forgotten since the moment when she saved me and disappeared. Now she had appeared again to Kyral. What did it all mean?

I asked, as we walked toward the camp, "Do you know that girl?" But I knew the question was futile. Kyral's face was closed, conceding nothing, and his friendliness had vanished completely.

He said, "Now I know you. You saved me from the catmen, and again in Canarsa, so my hands are bound from harming you. But it is evil to have dealings with those who have been touched by the Toad God." He spat noisily on the ground, looked at me with loathing, and said, "We will reach Shainsa in three days. Stay away from me."

CHAPTER SEVEN

Shainsa, first in the chain of Dry-towns that lie in the bed of a long-dried ocean, is set at the center of a great alkali plain; a dusty, parched city bleached by a million years of sun. The houses are high, spreading buildings with many rooms and wide windows. The poorer sort were made of sun-dried brick, the more imposing being cut from the bleached salt stone of the cliffs that rise behind the city.

News travels fast in the Dry-towns. If Rakhal were in the city, he'd soon know that I was here, and guess who I was or why I'd come. I might disguise myself so that my own sister, or the mother who bore me, would not know me. But I had no illusions about my ability to disguise myself from Rakhal. He had created the disguise that was me.

When the second sun set, red and burning, behind the salt cliffs, I knew he was not in Shainsa, but I stayed on, waiting for something to happen. At night I slept in a cubbyhole behind a wineshop, paying an inordinate price for that very dubious privilege. And every day in the sleepy silence of the blood-red noon I paced the public square of Shainsa.

This went on for four days. No one took the slightest notice of another nameless man in a shabby shirtcloak, without name or identity or known business. No one appeared to see me except the dusty children, with pale fleecy hair, who played their patient games on the windswept curbing of the square. They surveyed my scarred face with neither curiosity or fear, and it occurred to me that Rindy might be such another as these.

If I had still been thinking like an Earthman, I might have tried to question one of the children, or win their
confidence. But I had a deeper game in hand.

On the fifth day I was so much a fixture that my pacing went unnoticed even by the children. On the gray moss of the square, a few dried-looking old men, their faces as faded as their shirtcloaks and bearing the knife scars of a hundred forgotten fights, drowsed on the stone benches. And along the flagged walk at the edge of the square, as suddenly as an autumn storm in the salt flats, a woman came walking.

She was tall, with a proud swinging walk, and a metallic clashing kept rhythm to her swift steps. Her arms were fettered, each wrist bound with a jeweled bracelet and the bracelets linked together by a long, silver-gilt chain passed through a silken loop at her waist. From the loop swung a tiny golden padlock, but in the lock stood an even tinier key, signifying that she was a higher caste than her husband or consort, that her fettering was by choice and not command.

She stopped directly before me and raised her arm in formal greeting like a man. The chain made a tinkling sound in the hushed square as her other hand was pulled up tight against the silken loop at her waist. She stood surveying me for some moments, and finally I raised my head and returned her gaze. I don't know why I had expected her to have hair like spun black glass and eyes that burned with a red reflection of the burning star.

This woman's eyes were darker than the poison-berries of the salt cliffs, and her mouth was a cut berry that looked just as dangerous. She was young, the slimness of her shoulders and the narrow steel-chained wrists told me how very young she was, but her face had seen weather and storms, and her dark eyes had weathered worse psychic storms than that. She did not flinch at the sight of my scars, and met my gaze without dropping her eyes.

"You are a stranger. What is your business in Shainsa?"

I met the direct question with the insolence it demanded, hardly moving my lips. "I have come to buy women for the brothels of Ardcarran. Perhaps when washed you might be suitable. Who could arrange for your sale?"

She took the rebuke impassively, though the bitter crimson of her mouth twitched a little in mischief or rage. But she made no sign. The battle was joined between us, and I knew already that it would be fought to the end.

From somewhere in her draperies, something fell to the ground with a little tinkle. But I knew that trick too and I did not move. Finally she went away without bending to retrieve it and when I looked around I saw that all the fleece-haired children had stolen away, leaving their playthings lying on the curbing. But one or two of the gaffers on the stone benches, who were old enough to show curiosity without losing face, were watching me with impassive eyes.

I could have asked the woman's name then, but I held back, knowing it could only lessen the prestige I had gained from the encounter. I glanced down, without seeming to do so, at the tiny mirror which had fallen from the recesses of the fur robe. Her name might have been inscribed on the reverse.

But I left it lying there to be picked up by the children when they returned, and went back to the wineshop. I had accomplished my first objective; if you can't be inconspicuous, be so damned conspicuous that nobody can miss you. And that in itself is a fair concealment. How many people can accurately describe a street riot?

I was finishing off a bad meal with a stone bottle of worse wine when the chak came in, disregarding the proprietor, and made straight for me. He was furred immaculately white. His velvet muzzle wascontracted as if the very smells might soil it, and he kept a dainty paw outstretched to ward off accidental contact with greasy counters or tables or tapestries. His fur was scented, and his throat circled with a collar of embroidered silk. This pampered minion surveyed me with the innocent malice of an uninvolved nonhuman for merely human intrigues.

"You are wanted in the Great House of Shanitha, thcarred man." He spoke the Shainsa dialect with an affected lisp. "Will it pleathe you, come wis' me?"

I came, with no more than polite protest, but was startled. I had not expected the encounter to reach the Great House so soon. Shainsa's Great House had changed hands four times since I had last been in Shainsa. I wasn't overly anxious to appear there.

The white chak, as out of place in the rough Dry-town as a jewel in the streets or a raindrop in the desert, led me along a winding boulevard to an outlying district. He made no attempt to engage me in conversation, and indeed I got the distinct impression that this cockscomb of a nonhuman considered me well beneath his notice. He seemed much more aware of the blowing dust in the street, which ruffled and smudged his carefully combed fur.

The Great House was carved from blocks of rough pink basalt, the entry guarded by two great caryatids enwrapped in chains of carved metal, set somehow into the surface of the basalt. The gilt had long ago worn away from the chains so that it alternately gleamed gold or smudged base metal. The caryatids were patient and blind, their jewel-eyes long vanished under a hotter sun than today's.

The entrance hall was enormous. A Terran starship could have stood upright inside it, was my first impression, but I dismissed that thought quickly; any Terran thought was apt to betray me. But the main hall was built on a scale even more huge, and it was even colder than the legendary hell of the chaks. It was far too big for the people in it.
that didn't help much either. The chak melted into the shadows, and I went down the steps into the hall by myself, feeling carefully for each step with my feet and trying not to seem to be doing so. My comparative night-blindness is the only significant way in which I really differ from a native Wolfan.

There were three men, two women and a child in the room. They were all Dry-towners and had an obscure family likeness, and they all wore rich garments of fur dyed in many colors. One of the men, old and stooped and withered, was doing something to the brazier. A slim boy of fourteen was sitting cross-legged on a pile of cushions in the corner. There was something wrong with his legs.

A girl of ten in a too-short smock that showed long spider-thin legs above her low leather boots was playing with some sort of shimmery crystals, spilling them out into patterns and scooping them up again from the uneven stones of the floor. One of the women was a fat, creased slattern, whose jewels and dyed furs did not disguise her greasy slovenliness.

Her hands were unchained, and she was biting into a fruit which dripped red juice down the rich blue fur of her robe. The old man gave her a look like murder as I came in, and she straightened slightly but did not discard the fruit. The whole room had a curious look of austere, dignified poverty, to which the fat woman was the only discordant note.

But it was the remaining man and woman who drew my attention, so that I noticed the others only peripherally, in their outermost orbit. One was Kyral, standing at the foot of the dais and glowering at me.

The other was the dark-eyed woman I had rebuked today in the public square. Kyral said, "So it's you." And his voice held nothing. Not rebuke, not friendliness or a lack of it, not even hatred.

Nothing.

There was only one way to meet it. I faced the girl--she was sitting on a thronelike chair next to the fat woman, and looked like a doe next to a pig--and said boldly, "I assume this summons to mean that you informed your kinsmen of my offer."

She flushed, and that was triumph enough. I held back the triumph, however, wary of overconfidence. The gaffer laughed the high cackle of age, and Kyral broke in with a sharp, angry monosyllable by which I knew that my remark had indeed been repeated, and had lost nothing in the telling. But only the line of his jaw betrayed the anger as he said calmly, "Be quiet, Dallisa. Where did you pick this up?"

I said boldly, "The Great House has changed rulers since last I smelled the salt cliffs. Newcomers do not know my name and theirs is unknown to me."

The old gaffer said thinly to Kyral, "Our name has lost khar. One daughter is lured away by the Toymaker and another babbles with strangers in the square, and a homeless no-good of the streets does not know our name."

My eyes, growing accustomed to the dark blaze of the brazier, saw that Kyral was biting his lip and scowling. Then he gestured to a table where an array of glassware was set, and at the gesture, the white chak came on noiseless feet and poured wine.

"If you have no blood-feud with my family, will you drink with me?"

"I will," I said, relaxing. Even if he had associated the trader with the scarred Earthman of the spaceport, he seemed to have decided to drop the matter. He seemed startled, but he waited until I had lifted the glass and taken a sip. Then, with a movement like lightning, he leaped from the dais and struck the glass from my lips.

I staggered back, wiping my cut mouth, in a split-second juggling possibilities. The insult was terrible and deadly. I could do nothing now but fight. Men had been murdered in Shainsa for far less. I had come to settle one feud, not involve myself in another, but even while these lightning thoughts flickered in my mind, I had whipped out my skean and I was surprised at the shrillness of my own voice.

"You contrive offense beneath your own roof--""

"Spy and renegade!" Kyral thundered. He did not touch his skean. From the table he caught a long four-thonged whip, making it whistle through the air. The long-legged child scuttled backward. I stepped back one pace, trying to conceal my desperate puzzlement. I could not guess what had prompted Kyral's attack, but whatever it was, I must have made some bad mistake and could count myself lucky to get out of there alive.

Kyral's voice perceptibly trembled with rage. "You dare to come into my own home after I have tracked you to the Kharsa and back, blind fool that I was! But now you shall pay."

The whip sang through the air, hissing past my shoulders. I dodged to one side, retreating step by step as Kyral swung the powerful thongs. It cracked again, and a pain like the burning of red-hot irons seared my upper arm. My skean rattled down from numb fingers.

The whip whacked the floor.

"Pick up your skean," said Kyral. "Pick it up if you dare." He poised the lash again.

The fat woman screamed.
I stood rigid, gauging my chances of disarming him with a sudden leap. Suddenly the girl Dallisa leaped from her seat with a harsh musical chiming of chains.

"Kyral, no! No, Kyral!"

He moved slightly, but did not take his eyes from me. "Get back, Dallisa."

"No! Wait!" She ran to him and caught his whip-arm, dragging it down, and spoke to him hurriedly and urgently. Kyral's face changed as she spoke; he drew a long breath and threw the whip down beside my skean on the floor.

"Answer straight, on your life. What are you doing in Shainsa?"

I could hardly take it in that for the moment I was reprieved from sudden death, from being beaten into bloody death there at Kyral's feet. The girl went back to her thronelike chair. Now I must either tell the truth or a convincing lie, and I was lost in a game where I didn't know the rules. The explanation I thought might get me out alive might be the very one which would bring down instant and painful death. Suddenly, with a poignancy that was almost pain, I wished Rakhal were standing here at my side.

But I had to bluff it out alone.

If they had recognized me for Race Cargill, the Terran spy who had often been in Shainsa, they might release me—it was possible, I supposed, that they were Terran sympathizers. On the other hand, Kyral's shouts of "Spy, renegade!" seemed to suggest the opposite.

I stood trying to ignore the searing pain in my lashed arm, but I knew that blood was running hot down my shoulder. Finally I said, "I came to settle blood-feud." I told you he wasn't," said Dallisa, high and hysterically. "I told you he wasn't."

"A scarred man, tall—what was I to think?" Kyral sounded and looked badly shaken. He filled a glass himself and handed it to me, saying hoarsely, "I did not believe even the renegade Rakhal would break the code so far as to drink with me."

"He would not." I could be positive about this. The codes of Terra had made some superficial impress on Rakhal, but down deep his own world held sway. If these men were at blood-feud with Rakhal and he stood here where I stood, he would have let himself be beaten into bloody rags before tasting their wine.

I took the glass, raised it and drained it. Then, holding it out before me, I said, "Rakhal's life is mine. But I swear by the red star and by the unmoving mountains, by the black snow and by the Ghost Wind, I have no quarrel with any beneath this roof." I cast the glass to the floor, where it shattered on the stones.

Kyral hesitated, but under the blazing eyes of the girl he quickly poured himself a glass of the wine and drank a few sips, then flung down the glass. He stepped forward and laid his hands on my shoulders. I winced as he touched the welt of the lash and could not raise my own arm to complete the ceremonial toast.

Kyral stepped away and shrugged. "Shall I have one of the women see to your hurt?" He looked at Dallisa, but she twisted her mouth. "Do it yourself!"

"It is nothing," I said, not truthfully. "But I demand in requital that since we are bound by spilled blood under your roof, that you give me what news you have of Rakhal, the spy and renegade."

Kyral said fiercely, "If I knew, would I be under my own roof?"

The old gaffer on the dais broke into shrill whining laughter. "You have drunk wi' him, Kyral, now he's bound you not to do him harm! I know the story of Rakhal! He was spy for Terra twelve years. Twelve years, and then he fought and flung their filthy money in their faces and left 'em. But his partner was some Dry-town halfbreed or Terran spy and they fought wi' clawed gloves, and near killed one another except the Terrans, who have no honor, stopped 'em. See the marks of the kifirgh on his face!"

"By Sharra the golden-chained," said Kyral, gazing at me with something like a grin. "You are, if nothing else, a very clever man. What are you, spy, or half-caste of some Ardcarran slut?"

"What I am doesn't matter to you," I said. "You have blood-feud with Rakhal, but mine is older than yours and his life is mine. As you are bound in honor to kill"—the formal phrases came easily now to my tongue; the Earthman had slipped away—"so you are bound in honor to help me kill. If anyone beneath your roof knows anything of Rakhal—"
Kyral's smile bared his teeth.

"Rakhal works against the Son of the Ape," he said, using the insulting Wolf term for the Terrans. "If we help you to kill him, we remove a goad from their flanks. I prefer to let the filthy Terranan spend their strength trying to remove it themselves. Moreover, I believe you are yourself an Earthman.

"You have no right to the courtesy I extend to we, the People of the Sky. Yet you have drunk wine with me and I have no quarrel with you." He raised his hand in dismissal, outfencing me. "Leave my roof in safety and my city with honor."

I could not protest or plead. A man's kihar, his personal dignity, is a precious thing in Shainsa, and he had placed me so I could not compromise mine further in words. Yet I lost kihar equally if I left at his bidding, like an inferior dismissed.

One desperate gamble remained.

"A word," I said, raising my hand, and while he half turned, startled, believing I was indeed about to compromise my dignity by a further plea, I flung it at him:

"I will bet shegri with you."

His iron composure looked shaken. I had delivered a blow to his belief that I was an Earthman, for it is doubtful if there are six Earthmen on Wolf who know about shegri, the dangerous game of the Dry-towns.

It is no ordinary gamble, for what the better stakes is his life, possibly his reason. Rarely indeed will a man beg shegri unless he has nothing further to lose.

It is a cruel, possibly decadent game, which has no parallel anywhere in the known universe.

But I had no choice. I had struck a cold trail in Shainsa. Rakhal might be anywhere on the planet and half of Magnusson's month was already up. Unless I could force Kyral to tell what he knew, I might as well quit.

So I repeated: "I will bet shegri with you."

And Kyral stood unmoving.

For what the shegrin wagers is his courage and endurance in the face of torture and an unknown fate. On his side, the stakes are clearly determined beforehand. But if he loses, his punishment or penalty is at the whim of the one who has accepted him, and he may be put to whatever doom the winner determines.

And this is the contest:

The shegrin permits himself to be tortured from sunrise to sunset. If he endures he wins. It is as simple as that. He can stop the torture at any moment by a word, but to do so is a concession of defeat.

This is not as dangerous as it might, at first, seem. The other party to the bet is bound by the ironclad codes of Wolf to inflict no permanent physical damage (no injury that will not heal with three suncourses). But from sunrise to sunset, any torment or painful ingenuity which the half-human mentality of Wolf can devise must be endured.

The man who can outthink the torture of the moment, the man who can hold in his mind the single thought of his goal—that man can claim the stakes he has set, as well as other concessions made traditional.

The silence grew in the hall. Dallisa had straightened and was watching me intently, her lips parted and the tip of a little red tongue visible between her teeth. The only sound was the tiny crunching as the fat woman nibbled at nuts and cast their shells into the brazier. Even the child on the steps had abandoned her game with the crystal dice, and sat looking up at me with her mouth open. Finally Kyral demanded, "Your stakes?"

"Tell me all you know of Rakhal Sensar and keep silence about me in Shainsa."

"By the red shadow," Kyral burst out, "you have courage, Rascar!"

"Say only yes or no!" I retorted.

Rebuked, he fell silent. Dallisa leaned forward and again, for some unknown reason, I thought of a girl with hair like spun black glass.

Kyral raised his hand. "I say no. I have blood-feud with Rakhal and I will not sell his death to another. Further, I believe you are Terran and I will not deal with you. And finally, you have twice saved my life and I would find small pleasure in torturing you. I say no. Drink again with me and we part without a quarrel."

Beaten, I turned to go.

"Wait," said Dallisa.

She stood up and came down from the dais, slowly this time, walking with dignity to the rhythm of her musically clashing chains. "I have a quarrel with this man."

I started to say that I did not quarrel with women, and stopped myself. The Terran concept of chivalry has no equivalent on Wolf.

She looked at me with her dark poison-berry eyes, icy and level and amused, and said, "I will bet shegri with you, unless you fear me, Rascar."

And I knew suddenly that if I lost, I might better have trusted myself to Kyral and his whip, or to the wild beast-things of the mountains.
CHAPTER EIGHT

I slept little that night.

There is a tale told in Daillon of a shegri where the challenger was left in a room alone, where he was blindfolded and told to await the beginning of the torment.

Somewhere in those dark hours of waiting, between the unknown and the unexpected, the hours of telling over to himself the horrors of past shegri, the torture of anticipation alone became the unbearable. A little past noon he collapsed in screams of horror and died raving, unmarred, untouched.

Daybreak came slowly, and with the first streamers of light came Dallisa and the white chak, maliciously uninvolved, sniffing his way through the shabby poverty of the great hall. They took me to a lower dungeon where the slant of the sunlight was less visible. Dallisa said, "The sun has risen."

I said nothing. Any word may be interpreted as a confession of defeat. I resolved to give them no excuse. But my skin crawled and I had that peculiar prickling sensation where the hair on my forearms was bristling erect with tension and fear.

Dallisa said to the chak, "His gear was not searched. See that he has swallowed no anesthetic drugs."

Briefly I gave her credit for thoroughness, even while I wondered in a split second why I had not thought of this. Drugs could blur consciousness, at least, or suspend reality. The white nonhuman sprang forward and pinioned my arms with one strong, spring-steel forearm. With his other hand he forced my jaws open. I felt the furred fingers at the back of my throat, gagged, struggled briefly and doubled up in uncontrollable retching.
Dallisa's poison-berry-eyes regarded me levelly as I struggled upright, fighting off the dizzy sickness of disgust. Something about her impassive face stopped me cold. I had been, momentarily, raging with fury and humiliation. Now I realized that this had been a calculated, careful gesture to make me lose my temper and thus sap my resistance.

If she could set me to fighting, if she could make me spend my strength in rage, my own imagination would fight on her side to make me lose control before the end. Swimming in the glare of her eyes, I realized she had never thought for a moment that I had taken any drug. Acting on Kyral's hint that I was a Terran, she was taking advantage of the well-known Terran revulsion for the nonhuman.

"Blindfold him," Dallisa commanded, then instantly countermanded that: "No, strip him first."

The chak ripped off shirtcloak, shirt, shoes, breeches, and I had my first triumph when the wealed clawmarks on my shoulders--worse, if possible, than those which disfigured my face--were laid bare. The chak screwed up his muzzle in fastidious horror, and Dallisa looked shaken. I could almost read her thoughts:

If he endured this, what hope have I to make him cry mercy?

Briefly I remembered the months I lay feverish and half dead, waiting for the wounds Rakhal had inflicted to heal, those months when I had believed that nothing would ever hurt me again, that I had known the worst of all suffering. But I had been younger then.

Dallisa had picked up two small sharp knives. She weighed them, briefly, gesturing to the chak. Without resisting, I let myself be manhandled backward, spreadeagled against the wall.

Dallisa commanded, "Drive the knives through his palms to the wall!"

My hands twitched convulsively, anticipating the slash of steel, and my throat closed in spasmodic dread. This was breaking the compact, bound as they were not to inflict physical damage. I opened my lips to protest this breaking of the bond of honor and met her dark blazing stare, and suddenly the sweat broke out on my forehead. I had placed myself wholly in their hands, and as Kyral had said, they were in no way bound by honor to respect a pledge to a Terran!

Then, as my hands clenched into fists, I forced myself to relax. This was a bluff, a mental trick to needle me into breaking the pact and pleading for mercy. I set my lips, spread my palms wide against the wall and waited impassively.

She said in her lilting voice, "Take care not to sever the tendons, or his hands would be paralyzed and he may claim we have broken our compact."

The points of the steel, razor-sharp, touched my palms, and I felt blood run down my hand before the pain. With an effort that turned my face white, I did not pull away from the point. The knives drove deeper.

Dallisa gestured to the chak. The knives dropped. Two pinpricks, a quarter of an inch deep, stung in my palm. I had outbluffed her. Had I?

If I had expected her to betray disappointment--and I had--I was disappointed. Abruptly, as if the game had wearied her already, she gestured, and I could not hold back a gasp as my arms were hauled up over my head, twisted violently around one another and trussed with thin cords that bit deep into the flesh. Then the rough upward pull almost jerked my shoulders from their sockets and I heard the giant chak grunt with effort as I was hauled upward until my feet barely, on tiptoe, touched the floor.

"Blindfold him," said Dallisa languidly, "so that he cannot watch the ascent of the sun or its descent or know what is to come."

A dark softness muffled my eyes. After a little I heard her steps retreating. My arms, wrenched overhead and numbed with the bite of the cords, were beginning to hurt badly now. But it wasn't too bad. Surely she did not mean that this should be all....

Sternly I controlled my imagination, taking a tight rein on my thoughts. There was only one way to meet this--hanging blind and racked in space, my toes barely scrubbling at the floor--and that was to take each thing as it came and not look ahead for an instant. First of all I tried to get my feet under me, and discovered that by arching upwards to my fullest height I could bear my weight on tiptoe and ease, a little, the dislocating ache in my armpits by slackening the overhead rope.

But after a little, a cramping pain began to flare through the arches of my feet, and it became impossible to support my weight on tiptoe. I jarred down with violent strain on my wrists and wrenched shoulders again, and for a moment the shooting agony was so intense that I nearly screamed. I thought I heard a soft breath near me.

After a little it subsided to a sharp ache, then to a dull ache, and then to the violent cramping pain again, and once more I struggled to get my toes under me. I realized that by allowing my toes barely to touch the floor they had doubled and tripled the pain by the tantalizing hope of, if not momentary relief, at least the alteration of one pain for another.

I haven't the faintest idea, even now, how long I repeated that agonizing cycle: struggle for a toehold on rough
stone, scraping my bare feet raw; arch upward with all my strength to release for a few moments the strain on my wrenched shoulders; the momentary illusion of relief as I found my balance and the pressure lightened on my wrists.

Then the slow creeping, first of an ache, then of a pain, then of a violent agony in the arches of feet and calves. And, delayed to the last endurable moment, that final terrible anguish when the drop of my full weight pulled shoulder and wrist and elbow joints with that bone-shattering jerk.

I started once to estimate how much time had passed, how many hours had crawled by, then checked myself, for that was imminent madness. But once the process had begun my brain would not abandon and I found myself, with compulsive precision, counting off the seconds and the minutes in each cycle: stretch upward, release the pressure on the arms; the beginning of pain in calves and arches and toes; the creeping of pain up ribs and loins and shoulders; the sudden jarring drop on the arms again.

My throat was intolerably dry. Under other circumstances I might have estimated the time by the growth of hunger and thirst, but the rough treatment I had received made this impossible. There were other, unmentionable, humiliating pains.

After a time, to bolster my flagging courage, I found myself thinking of all the ways it might have been worse. I had heard of a shegrin exposed to the bite of poisonous—not fatal, but painfully poisonous— insects, and to the worrying of the small gnawing rodents which can be trained to bite and tear. Or I might have been branded....

I banished the memory with the powerful exorcism; the man in Daillon whose anticipation, alone, of a torture which never came, had broken his mind. There was only one way to conquer this, and that was to act as if the present moment was the only one, and never for a moment to forget that the strongest of compacts bound them not to harm me, that the end of this was fixed by sunset.

Gradually, however, all such rational thoughts blurred in a semidelirium of thirst and pain, narrowing to a red blaze of agony across my shoulder blades. I eased up on my toes again.

White-hot pain blazed through my feet. The rough stone on which my toes sank had been covered with metal and I smelled scorching flesh, jerking up my feet with a wordless snarl of rage and fury, hanging in agony by my shoulders alone.

And then I lost consciousness, at least for several moments, for when I became aware again, through the nightmare of pain, my toes were resting lightly and securely on cold stone. The smell of burned flesh remained, and the painful stinging in my toes. Mingled with that smell was a drift of perfume close by.

Dallisa murmured, "I do not wish to break our bargain by damaging your feet. It's only a little touch of fire to keep you from too much security in resting them."

I felt the taste of blood mingle in my mouth with the sour taste of vomit. I felt delirious, lightheaded. After another eternity I wondered if I had really heard Dallisa's lilting croon or whether it was a nightmare born of feverish pain:

Plead with me. A word, only a word and I will release you, strong man, scarred man. Perhaps I shall demand only a little space in your arms. Would not such doom be light upon you? Perhaps I shall set you free to seek Rakhal if only to plague Kyral. A word, only a word from you. A word, only a word from you....

It died into an endlessly echoing whisper. Swaying, blinded, I wondered why I endured. I drew a dry tongue over lips, salty and bloody, and nightmarishly considered yielding, winning my way somehow around Dallisa. Or knocking her suddenly senseless and escaping—I, who need not be bound by Wolf's codes either. I fumbled with a stiff shape of words.

And a breath saved me, a soft, released breath of anticipation. It was another trick. I swayed, limp and racked. I was not Race Cargill now. I was a dead man hanging in chains, swinging, filthy vultures pecking at my dangling feet. I was....

The sound of boots rang on the stone and Kyral's voice, low and bitter, demanded somewhere behind me, "What have you done with him?"

She did not answer, but I heard her chains clash lightly and imagined her gesture. Kyral muttered, "Women have no genius at any torture except...." His voice faded out into great distances. Their words came to me over a sort of windy ringing, like the howling of lost men, dying in the snowfast passes of the mountains.

"Speak up, you fool, he can't hear you now."

"If you have let him faint, you are clumsy!"

"You talk of clumsiness?" Dallisa's voice, even thinned by the nightmare ringing in my head, held concentrated scorn. "Perhaps I shall release him, to find Rakhal when you failed! The Terrans have a price on Rakhal's head, too. And at least this man will not confuse himself with his prey!"

"If you think I would let you bargain with a Terranan--"

Dallisa cried passionately, "You trade with the Terrans! How would you stop me, then?"

"I trade with them because I must. But for a matter involving the honor of the Great House--"
"The Great House whose steps you would never have climbed, except for Rakhal!" Dallisa sounded as if she were chewing her words in little pieces and spitting them at Kyral. "Oh, you were clever to take us both as your consorts! You did not know it was Rakhal's doing, did you? Hate the Terrans, then!" She spat an obscenity at him. "Enjoy your hate, wallow in hating, and in the end all Shainsa will fall prey to the Toymaker, like Miellyn."

"If you speak that name again," said Kyral very low, "I will kill you."

"Like Miellyn, Miellyn, Miellyn," Dallisa repeated deliberately. "You fool, Rakhal knew nothing of Miellyn!"

"He was seen--"

"With me, you fool! With me! You cannot yet tell twin from twin? Rakhal came to me to ask news of her!"

Kyral cried out hoarsely, like a man in anguish, "Why didn't you tell me?"

"You don't really have to ask, do you, Kyral?"

"You bitch!" said Kyral. "You filthy bitch!" I heard the sound of a blow. The next moment Kyral ripped the blindfold from my eyes and I blinked in the blaze of light. My arms were wholly numb now, twisted above my head, but the jar of his touch sent fresh pain racing through me. Kyral's face swam out of the blaze of hell. "If that is true, then this is a damnable farce, Dallisa. You have lost our chance of learning what he knows of Miellyn."

"What he knows?" Dallisa lowered her hand from her face, where a bruise was already darkening.

"Miellyn has twice appeared when I was with him. Loose him, Dallisa, and bargain with him. What we know of Rakhal for what he knows of Miellyn."

"If you think I would let you bargain with Terranan," she mocked. "Weakling, this quarrel is mine! You fool, the others in the caravan will give me news, if you will not! Where is Cuinn?"

From a million miles away Kyral laughed. "You've slipped the wrong hawk, Dallisa. The catmen killed him."

His skean flicked loose. He climbed to a perch near the rope at my wrists. "Bargain with me, Rascar!"

I coughed, unable to speak, and Kyral insisted, "Will you bargain? End this damned woman's farce which makes a mock of shegri?"

The slant of sun told me there was light left. I found a shred of voice, not knowing what I was going to say until I had said it, irrevocably. "This is between Dallisa and me."

Kyral glared at me in mounting rage. With four strides he was out of the room, flinging back a harsh, furious "I hope you kill each other!" and the door slammed.

Dallisa's face swam red, and again as before, I knew the battle which was joined between us would be fought to a dreadful end. She touched my chest lightly, but the touch jolted excruciating pain through my shoulders.

"Did you kill Cuinn?"

I wondered, wearily, what this presaged.

"Did you?" In a passion, she cried, "Answer! Did you kill him?" She struck me hard, and where the touch had been pain, the blow was a blaze of white agony. I fainted.

"Answer!" She struck me again and the white blaze jolted me back to consciousness. "Answer me! Answer!"

Each cry bought a blow until I gasped finally, "He signaled ... set catmen on us...."

"No!" She stood staring at me and her white face was a death mask in which the eyes lived. She screamed wildly and the huge chak came running.

"Cut him down! Cut him down! Cut him down!"

A knife slashed the rope and I slumped, falling in a bone-breaking huddle to the floor. My arms were still twisted over my head. The chak cut the ropes apart, pulled my arms roughly back into place, and I gagged with the pain as the blood began flowing painfully through the chafed and swollen hands.

And then I lost consciousness. More or less permanently, this time.

CHAPTER NINE

When I came to again I was lying with my head in Dallisa's lap, and the reddish color of sunset was in the room. Her thighs were soft under my head, and for an instant I wondered if, in delirium, I had conceded to her. I muttered, "Sun ... not down...."

She bent her face to mine, whispering, "Hush. Hush."

It was heaven, and I drifted off again. After a moment I felt a cup against my lips.

"Can you swallow this?"

I could and did. I couldn't taste it yet, but it was cold and wet and felt heavenly trickling down my throat. She bent and looked into my eyes, and I felt as if I were falling into those reddish and stormy depths. She touched my scarred mouth with a light finger. Suddenly my head cleared and I sat upright.

"Is this a trick to force me into calling my bet?"

She recoiled as if I had struck her, then the trace of a smile flitted around her red mouth. Yes, between us it was
battle. "You are right to be suspicious, I suppose. But if I tell you what I know of Rakhal, will you trust me then?"
I looked straight at her and said, "No."
Surprisingly, she threw back her head and laughed. I flexed my freed wrists cautiously. The skin was torn away
and chafed, and my arms ached to the bone. When I moved harsh lances of pain drove through my chest.
"Well, until sunset I have no right to ask you to trust me," said Dallisa when she had done laughing. "And since
you are bound by my command until the last ray has fallen, I command that you lay your head upon my knees."
I blazed, "You are making a game of me!"
"Is that my privilege? Do you refuse?"
"Refuse?" It was not yet sunset. This might be a torture more complex than any which had yet greeted me.
From the scarlet glint in her eyes I felt she was playing with me, as the cat-things of the forest play with their
helpless victims. My mouth twitched in a grimace of humiliation as I lowered myself obediently until my head
rested on her fur-clad knees.
She murmured, smiling, "Is this so unbearable, then?"
I said nothing. Never, never for an instant could I forget that--all human, all woman as she seemed--Dallisa's
race was worn and old when the Terran Empire had not left their home star. The mind of Wolf, which has mingled
with the nonhuman since before the beginnings of recorded time, is unfathomable to an outsider. I was better
equipped than most Earthmen to keep pace with its surface acts, but I could never pretend to understand its deeper
motivations.
It works on complex and irrational logic. Mischief is an integral part of it. Even the deadly blood-feud with
Rakhal had begun with an overelaborate practical joke--which had lost the Service, incidentally, several thousand
credits worth of spaceship.
And so I could not trust Dallisa for an instant. Yet it was wonderful to lie here with my head resting against the
perfumed softness of her body.
Then suddenly her arms were gripping me, frantic and hungry; the subdued thing in her voice, her eyes, flamed
out hot and wild. She was pressing the whole length of her body to mine, breasts and thighs and long legs, and her
voice was hoarse.
"Is this torture too?"
Beneath the fur robe she was soft and white, and the subtle scent of her hair seemed a deeper entrapment than
any. Frail as she seemed, her arms had the strength of steel, and pain blazed down my wrenched shoulders, seared
through the twisted wrists. Then I forgot the pain.
Over her shoulder the last dropping redness of the sun vanished and plunged the room into orchid twilight.
I caught her wrists in my hands, prizing them backward, twisting them upward over her head. I said thickly,
"The sun's down." And then I stopped her wild mouth with mine.
And I knew that the battle between us had reached climax and victory simultaneously, and any question about
who had won it was purely academic.
* * * * *
During the night sometime, while her dark head lay motionless on my shoulder, I found myself staring into the
darkness, wakeful. The throbbing of my bruises had little to do with my sleeplessness; I was remembering other
chained girls from the old days in the Dry-towns, and the honey and poison of them distilled into Dallisa's kisses.
Her head was very light on my shoulders, and she felt curiously insubstantial, like a woman of feathers.
One of the tiny moons was visible through the slitted windows. I thought of my rooms in the Terran Trade City,
clean and bright and warm, and all the nights when I had paced the floor, hating, filled to the teeth with bitterness,
longing for the windswept stars of the Dry-towns, the salt smell of the winds and the musical clashing of the walk of
the chained women.
With a sting of guilt, I realized that I had half forgotten Juli and my pledge to her and her misfortune which had
freed me again, for this.
Yet I had won, and what they knew had narrowed my planet-wide search to a pinpoint. Rakhal was in Charin.
I wasn't altogether surprised. Charin is the only city on Wolf, except the Kharsa, where the Terran Empire has
put down deep roots into the planet, built a Trade City, a smaller spaceport. Like the Kharsa, it lies within the circle
of Terran law--and a million miles outside it.
A nonhuman town, inhabited largely by chaks, it is the core and center of the resistance movement, a noisy
town in a perpetual ferment. It was the logical place for a renegade. I settled myself so that the ache in my racked
shoulders was less violent, and muttered, "Why Charin?"
Slight as the movement was, it roused Dallisa. She rolled over and propped herself on her elbows, quoting
drowsily, "The prey walks safest at the hunter's door."
I stared at the square of violet moonlight, trying to fit together all the pieces of the puzzle, and asked half aloud,
"What prey and what hunters?"

Dallisa didn't answer. I hadn't expected her to answer. I asked the real question in my mind: "Why does Kyral hate Rakhal Sensar, when he doesn't even know him by sight?"

"There are reasons," she said somberly. "One of them is Miellyn, my twin sister. Kyral climbed the steps of the Great House by claiming us both as his consorts. He is our father's son by another wife."

That explained much. Brother-and-sister marriages, not uncommon in the Dry-towns, are based on expediency and suspicion, and are frequently, though not always loveless. It explained Dallisa's taunts, and it partly explained, only partly, why I found her in my arms. It did not explain Rakhal's part in this mysterious intrigue, nor why Kyral had taken me for Rakhal, (but only after he remembered seeing me in Terran clothing).

I wondered why it had never occurred to me before that I might be mistaken for Rakhal. There was no close resemblance between us, but a casual description would apply equally well to me or to Rakhal. My height is unusual for a Terran--within an inch of Rakhal's own--and we had roughly the same build, the same coloring. I had copied his walk, imitated his mannerisms, since we were boys together.

And, blurring minor facial characteristics, there were the scars of the kifirgh on my mouth, cheeks, and shoulders. Anyone who did not know us by sight, anyone who had known us by reputation from the days when we had worked together in the Dry-towns, might easily take one of us for the other. Even Juli had blurted, "You're so much like--" before thinking better of it.

Other odd bits of the puzzle floated in my mind, stubbornly refusing to take on recognizable patterns, the disappearance of a toy-seller; Juli's hysterical babbling; the way the girl--Miellyn?--had vanished into a shrine of Nebran; and the taunts of Dallisa and the old man about a mysterious "Toymaker." And something, some random joggling of a memory, in that eerie trading in the city of the Silent Ones. I knew all these things fitted together somehow, but I had no real hope that Dallisa could complete their pattern for me.

She said, with a vehemence that startled me, "Miellyn is only the excuse! Kyral hates Rakhal because Rakhal will compromise and because he'll fight!"

She rolled over and pressed herself against me in the darkness. Her voice trembled. "Race, our world is dying. We can't stand against Terra. And there are other things, worse things."

I sat up, surprised to find myself defending Terra to this girl. After all these years I was back in my own world. And yet I heard myself say quietly, "The Terrans aren't exploiting Wolf. We haven't abolished the rule of Shainsa. We've changed nothing."

It was true. Terra held Wolf by compact, not conquest. They paid, and paid generously, for the lease of the lands where their Trade Cities would rise, and stepped beyond them only when invited to do so.

"We let any city or state that wants to keep its independence govern itself until it collapses, Dallisa. And they do collapse after a generation or so. Very few primitive planets can hold out against us. The people themselves get tired of living under feudal or theocratic systems, and they beg to be taken into the Empire. That's all."

"But that's just it," Dallisa argued. "You give the people all those things we used to give them, and you do it better. Just by being here, you are killing the Dry-towns. They're turning to you and leaving us, and you let them do it."

I shook my head. "We've kept the Terran Peace for centuries. What do you expect? Should we give you arms, planes, bombs, weapons to hold your slaves down?"

"Yes!" she flared at me. "The Dry-towns have ruled Wolf since--since--you, you can't even imagine how long! And we made compact with you to trade here--"

"And we have rewarded you by leaving you untouched," I said quietly. "But we have not forbidden the Dry-towns to come into the Empire and work with Terra."

She said bitterly, "Men like Kyral will die first," and pressed her face helplessly against me. "And I will die with them. Miellyn broke away, but I cannot! Courage is what I lack. Our world is rotten, Race, rotten all through, and I'm as rotten as the core of it. I could have killed you today, and I'm here in your arms. Our world is rotten, but I've no confidence that the new world will be better!"

I put my hand under her chin, and looked down gravely into her face, only a pale oval in the darkness. There was nothing I could say; she had said it all, and truthfully. I had hated and yearned and starved for this, and when I found it, it turned salty and bloody on my lips, like Dallisa's despairing kisses. She ran her fingers over the scars on my face, then gripped her small thin hands around my wrists so fiercely that I grunted protest.

"You will not forget me," she said in her strangely lilting voice. "You will not forget me, although you were victorious." She twisted and lay looking up at me, her eyes glowing faintly luminous in darkness. I knew that she could see me as clearly as if it were day. "I think it was my victory, not yours, Race Cargill."

Gently, on an impulse I could not explain, I picked up one delicate wrist, then the other, unclasping the heavy jeweled bracelets. She let out a stifled cry of dismay. And then I tossed the chains into a corner before I drew her
savagely into my arms again and forced her head back under my mouth.

* * * *

I said good-bye to her alone, in the reddish, windswept space before the Great House. She pressed her head against my shoulder and whispered, "Race, take me with you!"

For answer I only picked up her narrow wrists and turned them over on my palm. The jeweled bracelets were clasped again around the thinly boned joints, and on some self-punishing impulse she had shortened the chains so that she could not even put her arms around me. I lifted the punished wrists to my mouth and kissed them gently.

"You don't want to leave, Dallisa."

I was desperately sorry for her. She would go down with her dying world, proud and cold and with no place in the new one. She kissed me and I tasted blood, her thin fettered body straining wildly against me, shaken with tearing, convulsive sobs. Then she turned and fled back into the shadow of the great dark house.

I never saw her again.

CHAPTER TEN

A few days later I found myself nearing the end of the trail.

It was twilight in Charin, hot and reeking with the gypsy glare of fires which burned, smoking, at the far end of the Street of the Six Shepherds. I crouched in the shadow of a wall, waiting.

My skin itched from the dirty shirtcloak I hadn't changed in days. Shabbiness is wise in nonhuman parts, and Dry-towners think too much of water to waste much of it in superfluous washing anyhow. I scratched unobtrusively and glanced cautiously down the street.

It seemed empty, except for a few sodden derelicts sprawled in doorways—the Street of the Six Shepherds is a filthy slum—but I made sure my skean was loose. Charin is not a particularly safe town, even for Dry-towners, and especially not for Earthmen, at any time.

Even with what Dallisa had told me, the search had been difficult. Charin is not Shainsa. In Charin, where human and nonhuman live closer together than anywhere else on the planet, information about such men as Rakhal can be bought, but the policy is to let the buyer beware. That's fair enough, because the life of the seller has a way of not being worth much afterward, either.

A dirty, dust-laden wind was blowing up along the street, heavy with strange smells. The pungent reek of incense from a street-shrine was in the smells. The heavy, acrid odor that made my skin crawl. In the hills behind Charin, the Ghost Wind was rising.

Borne on this wind, the Ya-men would sweep down from the mountains, and everything human or nearly human would scatter in their path. They would range through the quarter all night, and in the morning they would melt away, until the Ghost Wind blew again. At any other time, I would already have taken cover. I fancied that I could hear, borne on the wind, the faraway yelping, and envision the plumed, taloned figures which would come leaping down the street.

In that moment, the quiet of the street split asunder.

From somewhere a girl's voice screamed in shrill pain or panic. Then I saw her, dodging between two of the chinked pebble-houses. She was a child, thin and barefoot, a long tangle of black hair flying loose as she darted and twisted to elude the lumbering fellow at her heels. His outstretched paw jerked cruelly at her slim wrist.

The little girl screamed and wrenched herself free and threw herself straight on me, wrapping herself around my neck with the violence of a storm wind. Her hair got in my mouth and her small hands gripped at my back like a cat's flexed claws.

"Oh, help me," she gasped between sobs. "Don't let him get me, don't." And even in that broken plea I took it in that the little ragamuffin did not speak the jargon of that slum, but the pure speech of Shainsa.

What I did then was as automatic as if it had been Juli. I pulled the kid loose, shoved her behind me, and scowled at the brute who lurched toward us.

"Make yourself scarce," I advised. "We don't chase little girls where I come from. Haul off, now."

The man reeled. I smelled the rankness of his rags as he thrust one grimy paw at the girl. I never was the hero type, but I'd started something which I had to carry through. I thrust myself between them and put my hand on the skean again.

"You--you Dry-towner." The man set up a tipsy howl, and I sucked in my breath. Now I was in for it. Unless I got out of there damned fast, I'd lose what I'd come all the way to Charin to find.

I felt like handing the girl over. For all I knew, the bully could be her father and she was properly in line for a spanking. This wasn't any of my business. My business lay at the end of the street, where Rakhal was waiting at the fires. He wouldn't be there long. Already the smell of the Ghost Wind was heavy and harsh, and little flurries of sand
went racing along the street, lifting the flaps of the doorways.

But I did nothing so sensible. The big lunk made a grab at the girl, and I whipped out my skean and pantomimed.

"Get going!"
"Dry-towner!" He spat out the word like filth, his pig-eyes narrowing to slits. "Son of the Ape! Earthman!"
"Terranan!" Someone took up the howl. There was a stir, a rustle, all along the street that had seemed empty, and from nowhere, it seemed, the space in front of me was crowded with shadowy forms, human and otherwise.

"Earthman!"

I felt the muscles across my belly knotting into a band of ice. I didn't believe I'd given myself away as an Earthman. The bully was using the time-dishonored tactic of stirring up a riot in a hurry, but just the same I looked quickly round, hunting a path of escape.

"Put your skean in his guts, Spilkar! Grab him!"
"Hai-ai! Earthman! Hai-ai!"

It was the last cry that made me panic. Through the sultry glare at the end of the street, I could see the plumed, taloned figures of the Ya-men, gliding through the banners of smoke. The crowd melted open.

I didn't stop to reflect on the fact--suddenly very obvious--that Rakhal couldn't have been at the fires at all, and that my informant had led me into an open trap, a nest of Ya-men already inside Charin. The crowd edged back and muttered, and suddenly I made my choice. I whirled, snatched up the girl in my arms and ran straight toward the advancing figures of the Ya-men.

Nobody followed me. I even heard a choked shout that sounded like a warning. I heard the yelping shrieks of the Ya-men grow to a wild howl, and at the last minute, when their stiff rustling plumes loomed only a few yards away, I dived sidewise into an alley, stumbled on some rubbish and spilled the girl down.

"Run, kid!"

She shook herself like a puppy climbing out of water. Her small fingers closed like a steel trap on my wrist. "This way," she urged in a hasty whisper, and I found myself plunging out the far end of the alley and into the shelter of a street-shrine. The sour stink of incense smarted in my nostrils, and I could hear the yelping of the Ya-men as they leaped and rustled down the alley, their cold and poisonous eyes searching out the recess where I crouched with the girl.

"Here," she panted, "stand close to me on the stone--" I drew back, startled.
"Oh, don't stop to argue," she whimpered. "Come here!"
"Hai-ai! Earthman! There he is!"

The girl's arms flung round me again. I felt her slight, hard body pressing on mine and she literally hauled me toward the pattern of stones at the center of the shrine. I wouldn't have been human if I hadn't caught her closer yet.

The world reeled. The street disappeared in a cone of spinning lights, stars danced crazily, and I plunged down through a widening gulf of empty space, locked in the girl's arms. I fell, spun, plunged head over heels through tilting lights and shadows that flung us through eternities of freefall. The yelping of the Ya-men whirled away in unimaginable distances, and for a second I felt the unmerciful blackout of a power dive, with blood breaking from my nostrils and filling my mouth.

CHAPTER ELEVEN

Lights flared in my eyes.

I was standing solidly on my feet in the street-shrine, but the street was gone. Coils of incense still smudged the air. The God squatted toadlike in his recess. The girl was hanging limp, locked in my clenched arms. As the floor straightened under my feet I staggered, thrown off balance by the sudden return of the girl's weight, and grabbed blindly for support.

"Give her to me," said a voice, and the girl's sagging body was lifted from my arms. A strong hand grasped my elbow. I found a chair beneath my knees and sank gratefully into it.

"The transmission isn't smooth yet between such distant terminals," the voice remarked. "I see Miellyn has fainted again. A weakling, the girl, but useful."

I spat blood, trying to get the room in focus. For I was inside a room, a room of some translucent substance, windowless, a skylight high above me, through which pink daylight streamed. Daylight--and it had been midnight in Charin! I'd come halfway around the planet in a few seconds!

From somewhere I heard the sound of hammering, tiny, bell-like hammering, the chiming of a fairy anvil. I looked up and saw a man--a man?--watching me.

On Wolf you see all kinds of human, half-human and nonhuman life, and I consider myself something of an
expert on all three. But I had never seen anyone, or anything, who so closely resembled the human and so obviously
wasn't. He, or it, was tall and lean, man-shaped but oddly muscled, a vague suggestion of something less than human
in the lean hunch of his posture.

Manlike, he wore green tight-fitting trunks and a shirt of green fur that revealed bulging biceps where they
shouldn't be, and angular planes where there should have been swelling muscles. The shoulders were high, the neck
unpleasantly sinuous, and the face, a little narrower than human, was handsomely arrogant, with a kind of wary alert
mischief that was the least human thing about him.

He bent, tilted the girl's inert body on to a divan of some sort, and turned his back on her, lifting his hand in an
impatient, and unpleasantly reminiscent, gesture.

The tinkling of the little hammers stopped as if a switch had been disconnected.

"Now," said the nonhuman, "we can talk."

Like the waif, he spoke Shainsan, and spoke it with a better accent than any nonhuman I had ever known--so
well that I looked again to be certain. I wasn't too dazed to answer in the same tongue, but I couldn't keep back a
spate of questions:

"What happened? Who are you? What is this place?"

The nonhuman waited, crossing his hands--quite passable hands, if you didn't look too closely at what should
have been nails--and bent forward in a sketchy gesture.

"Do not blame Miellyn. She acted under orders. It was imperative you be brought here tonight, and we had
reason to believe you might ignore an ordinary summons. You were clever at evading our surveillance, for a time.
But there would not be two Dry-towners in Charin tonight who would dare the Ghost Wind. Your reputation does
you justice, Rakhal Sensar."

Rakhal Sensar! Once again Rakhal!

Shaken, I pulled a rag from my pocket and wiped blood from my mouth. I'd figured out, in Shainsa, why the
mistake was logical. And here in Charin I'd been hanging around in Rakhal's old haunts, covering his old trails.
Once again, mistaken identity was natural.

Natural or not, I wasn't going to deny it. If these were Rakhal's enemies, my real identity should be kept as an
ace in reserve which might--just might--get me out alive again. If they were his friends ... well, I could only hope
that no one who knew him well by sight would walk in on me.

"We knew," the nonhuman continued, "that if you remained where you were, the Terranan Cargill would have
made his arrest. We know about your quarrel with Cargill, among other things, but we did not consider it necessary
that you should fall into his hands at present."

I was puzzled. "I still don't understand. Exactly where am I?"

"This is the mastershrine of Nebran."

Nebran!

The stray pieces of the puzzle suddenly jolted into place. Kyral had warned me, not knowing he was doing it. I
hastily imitated the gesture Kyral had made, gabbling a few words of an archaic charm.

Like every Earthman who's lived on Wolf more than a tourist season, I'd seen faces go blank and impassive at
mention of the Toad God. Rumor made his spies omnipresent, his priests omniscient, his anger all-powerful. I had
believed about a tenth of what I had heard, or less.

The Terran Empire has little to say to planetary religions, and Nebran's cult is a remarkably obscure one,
despite the street-shrines on every corner. Now I was in his mastershrine, and the device which had brought me here
was beyond doubt a working model of a matter transmitter.

A matter transmitter, a working model--the words triggered memory. Rakhal was after it.

"And who," I asked slowly, "are you, Lord?"

The green-clad creature hunched thin shoulders again in a ceremonious gesture. "I am called Evarin. Humble
servant of Nebran and yourself," he added, but there was no humility in his manner. "I am called the Toymaker."

Evarin. That was another name given weight by rumor. A breath of gossip in a thieves market. A scrawled
word on smudged paper. A blank folder in Terran Intelligence. Another puzzle-piece snapped into place--Toymaker!

Miellyn pouted and looked ruefully at her bare bruised feet, patted the wrinkles in her ragged frock with
fastidious fingers. "My poor feet," she mourned, "they are black and blue with the cobbles and my hair is filled with
sand and tangles! Toymaker, what way was this to send me to entice a man? Any man would have come quickly,
quickly, if he had seen me looking lovely, but you—you send me in rags!

She stamped a small bare foot. She was not merely as young as she had looked in the street. Though immature and underdeveloped by Terran standards, she had a fair figure for a Dry-town woman. Her rags fell now in graceful folds. Her hair was spun black glass, and I—I saw what the rags and the confusion in the filthy street had kept me from seeing before.

It was the girl of the spaceport cafe, the girl who had appeared and vanished in the eerie streets of Canarsa.

Evarin was regarding her with what, in a human, might have been rueful impatience. He said, "You know you enjoyed yourself, as always, Miellyn. Run along and make yourself beautiful again, little nuisance."

The girl danced out of the room, and I was just as glad to see her go. The Toymaker motioned to me.

"This way," he directed, and led me through a different door. The offstage hammering I had heard, tiny bell tones like a fairy xylophone, began again as the door opened, and we passed into a workroom which made me remember nursery tales from a half-forgotten childhood on Terra. For the workers were tiny, gnarled trolls!

They were chaks. Chaks from the polar mountains, dwarfed and furred and half-human, with witchlike faces and great golden eyes, and I had the curious feeling that if I looked hard enough I would see the little toy-seller they had hunted out of the Kharsa. I didn't look. I figured I was in enough trouble already.

Tiny hammers pattered on miniature anvils in a tinkling, jingling chorus of musical clinks and taps. Golden eyes focused like lenses over winking jewels and gimcracks. Busy elves. Makers of toys!

Evarin jerked his shoulders with an imperative gesture. I followed him through a fairy workroom, but could not refrain from casting a lingering look at the worktables. A withered leprechaun set eyes into the head of a minikin hound. Furred fingers worked precious metals into invisible filigree for the collarpiece of a dancing doll. Metallic feathers were thrust with clockwork precision into the wings of a skeleton bird no longer than my fingernail. The nose of the hound wabbled and sniffed, the bird's wings quivered, the eyes of the little dancer followed my footsteps.

Toys?

"This way," Evarin rapped, and a door slid shut behind us. The clinks and taps grew faint, fainter, but never ceased.

My face must have betrayed more than conventional impassivity, for Evarin smiled. "Now you know, Rakhal, why I am called Toymaker. Is it not strange—the masterpriest of Nebran, a maker of Toys, and the shrine of the Toad God a workshop for children's playthings?"

Evarin paused suggestively. They were obviously not children's playthings and this was my cue to say so, but I avoided the trap. Evarin opened a sliding panel and took out a doll.

She was perhaps the length of my longest finger, molded to the precise proportions of a woman, and costumed after the bizarre fashion of the Ardcarran dancing girls. Evarin touched no button or key that I could see, but when he set the figure on its feet, it executed a whirling, armtossing dance in a fast, tricky tempo.

"I am, in a sense, benevolent," Evarin murmured. He snapped his fingers and the doll sank to her knees and poised there, silent. "Moreover, I have the means and, let us say, the ability to indulge my small fantasies.

"The little daughter of the President of the Federation of Trade Cities on Samarra was sent such a doll recently. What a pity that Paolo Arimengo was so suddenly impeached and banished!" The Toymaker clucked his teeth commiseratingly. "Perhaps this small companion will compensate the little Carmela for her adjustment to her new ... position."

He replaced the dancer and pulled down something like a whirligig. "This might interest you," he mused, and set it spinning. I stared at the pattern of lights that flowed and disappeared, melting in and out of visible shadows. Suddenly I realized what the thing was doing. I wrested my eyes away with an effort. Had there been a lapse of seconds or minutes? Had Evarin spoken?

Evarin arrested the compelling motion with one finger. "Several of these pretty playthings are available to the children of important men," he said absently. "An import of value for our exploited and impoverished world. Unfortunately they are, perhaps, a little ... ah, obvious. The incidence of nervous breakdowns is, ah, interfering with their sale. The children, of course, are unaffected, and love them." Evarin set the hypnotic wheel moving again, glanced sidewise at me, then set it carefully back.

"Now"—Evarin's voice, hard with the silkiness of a cat's snarl, clawed the silence—"we'll talk business."

I turned, composing my face. Evarin had something concealed in one hand, but I didn't think it was a weapon. And if I'd known, I'd have had to ignore it anyway.

"Perhaps you wonder how we recognized and found you?" A panel cleared in the wall and became translucent. Confused flickers moved, dropped into focus and I realized that the panel was an ordinary television screen and I was looking into the well-known interior of the Cafe of Three Rainbows in the Trade City of Charin.

By this time I was running low on curiosity and didn't wonder till much, much later how televised pictures were transmitted around the curve of a planet. Evarin sharpened the focus down on the long Earth-type bar where a tall
man in Terran clothes was talking to a pale-haired girl. Evarin said, "By now, Race Cargill has decided, no doubt, that you fell into his trap and into the hands of the Ya-men. He is off-guard now."

And suddenly the whole thing seemed so unbearably, illogically funny that my shoulders shook with the effort to keep back dangerous laughter. Since I'd landed in Charin, I'd taken great pains to avoid the Trade City, or anyone who might have associated me with it. And Rakhal, somehow aware of this, had conveniently filled up the gap. By posing as me.

It wasn't nearly as difficult as it sounded. I had found that out in Shainsa. Charin is a long, long way from the major Trade City near the Kharsa. I hadn't a single intimate friend there, or within hundreds of miles, to see through the imposture. At most, there were half a dozen of the staff that I'd once met, or had a drink with, eight or ten years ago.

Rakhal could speak perfect Standard when he chose; if he lapsed into Dry-town idiom, that too was in my known character. I had no doubt he was making a great success of it all, probably doing much better with my identity than I could ever have done with his.

Evarin rasped, "Cargill meant to leave the planet. What stopped him? You could be of use to us, Rakhal. But not with this blood-feud unsettled."

That needed no elucidation. No Wolfan in his right mind will bargain with a Dry-towner carrying an unresolved blood-feud. By law and custom, declared blood-feud takes precedence over any other business, public or private, and is sufficient excuse for broken promises, neglected duties, theft, even murder.

"We want it settled once and for all." Evarin's voice was low and unhurried. "And we aren't above weighting the scales. This Cargill can, and has, posed as a Dry-towner, undetected. We don't like Earthmen who can do that. In settling your feud, you will be aiding us, and removing a danger. We would be ... grateful."

He opened his closed hand, displaying something small, curled, inert.

"Every living thing emits a characteristic pattern of electrical nerve impulses. We have ways of recording those impulses, and we have had you and Cargill under observation for a long time. We've had plenty of opportunity to key this Toy to Cargill's pattern."

On his palm the curled thing stirred, spread wings. A fledgling bird lay there, small soft body throbbing slightly. Half-hidden in a ruff of metallic feathers I glimpsed a grimly elongated beak. The pinions were feathered with delicate down less than a quarter of an inch long. They beat with delicate insistence against the Toymaker's prisoning fingers.

"This is not dangerous to you. Press here"--he showed me--"and if Race Cargill is within a certain distance--and it is up to you to be within that distance--it will find him, and kill him. Unerringly, inescapably, untraceably. We will not tell you the critical distance. And we will give you three days."

He checked my startled exclamation with a gesture. "Of course this is a test. Within the hour Cargill will receive a warning. We want no incompetents who must be helped too much! Nor do we want cowards! If you fail, or release the bird at a distance too great, or evade the test"--the green inhuman malice in his eyes made me sweat--"we have made another bird."

By now my brain was swimming, but I thought I understood the complex inhuman logic involved. "The other bird is keyed to me?"

With slow contempt Evarin shook his head. "You? You are used to danger and fond of a gamble. Nothing so simple! We have given you three days. If, within that time, the bird you carry has not killed, the other bird will fly. And it will kill. Rakhal, you have a wife."

Yes, Rakhal had a wife. They could threaten Rakhal's wife. And his wife was my sister Juli.

Everything after that was anticlimax. Of course I had to drink with Evarin, the elaborate formal ritual without which no bargain on Wolf is concluded. He entertained me with gory and technical descriptions of the way in which the birds, and other of his hellish Toys, did their killing, and worse tasks.

Miellyn danced into the room and upset the exquisite solemnity of the wine-ritual by perching on my knee, stealing a sip from my cup, and pouting prettily when I paid her less attention than she thought she merited. I didn't dare pay much attention, even when she whispered, with the deliberate and thorough wantonness of a Dry-town woman of high-caste who has flung aside her fetters, something about a rendezvous at the Three Rainbows.

But eventually it was over and I stepped through a door that twisted with a giddy blankness, and found myself outside a bare windowless wall in Charin again, the night sky starred and cold. The acrid smell of the Ghost Wind was thinning in the streets, but I had to crouch in a cranny of the wall when a final rustling horde of Ya-men, the last of their receding tide, rustled down the street. I found my way to my lodging in a filthy chak hostel, and threw myself down on the verminous bed.

Believe it or not, I slept.
CHAPTER TWELVE

An hour before dawn there was a noise in my room. I roused, my hand on my skean. Someone or something was fumbling under the mattress where I had thrust Evarin's bird. I struck out, encountered something warm and breathing, and grappled with it in the darkness. A foul-smelling something gripped over my mouth. I tore it away and struck hard with the skean. There was a high shrilling. The gripping filth loosened and fell away and something died on the floor.

I struck a light, retching in revulsion. It hadn't been human. There wouldn't have been that much blood from a human. Not that color, either.

The chak who ran the place came and gibbered at me. Chaks have a horror of blood and this one gave me to understand that my lease was up then and there, no arguments, no refunds. He wouldn't even let me go into his stone outbuilding to wash the foul stuff from my shirtcloak. I gave up and fished under the mattress for Evarin's Toy.

The chak got a glimpse of the embroideries on the silk in which it was wrapped, and stood back, his loose furry lips hanging open, while I gathered my few belongings together and strode out of the room. He would not touch the coins I offered; I laid them on a chest and he let them lie there, and as I went into the reddening morning they came flying after me into the street.

I pulled the silk from the Toy and tried to make some sense from my predicament. The little thing lay innocent and silent in my palm. It wouldn't tell me whether it had been keyed to me, the real Cargill, some time in the past, or to Rakhal, using my name and reputation in the Terran Colony here at Charin.

If I pressed the stud it might play out this comedy of errors by hunting down Rakhal, and all my troubles would be over. For a while, at least, until Evarin found out what had happened. I didn't deceive myself that I could carry the impersonation through another meeting.

On the other hand, if I pressed the stud, the bird might turn on me. And then all my troubles would be over for good.

If I delayed past Evarin's deadline, and did nothing, the other bird in his keeping would hunt down Juli and give her a swift and not too painless death.

I spent most of the day in a chak dive, juggling plans. Toys, innocent and sinister. Spies, messengers. Toys which killed horribly. Toys which could be controlled, perhaps, by the pliant mind of a child, and every child hates its parents now and again!

Even in the Terran colony, who was safe? In Mack's very home, one of the Magnusson youngsters had a shiny thing which might, or might not, be one of Evarin's hellish Toys. Or was I beginning to think like a superstitious Dry-towner?

Damn it, Evarin couldn't be infallible; he hadn't even recognized me as Race Cargill! Or--suddenly the sweat broke out, again, on my forehead--or had he? Had the whole thing been one of those sinister, deadly and incomprehensible nonhuman jokes?

I kept coming to the same conclusion. Juli was in danger, but she was half a world away. Rakhal was here in Charin. There was a child involved--Juli's child. The first step was to get inside the Terran colony and see how the land lay.

Charin is a city shaped like a crescent moon, encircling the small Trade City: a miniature spaceport, a miniature skyscraper HQ, the clustered dwellings of the Terrans who worked there, and those who lived with them and supplied them with necessities, services and luxuries.

Entry from one to the other is through a guarded gateway, since this is hostile territory, and Charin lies far beyond the impress of ordinary Terran law. But the gate stood wide-open, and the guards looked lax and bored. They had shockers, but they didn't look as if they'd used them lately.

One raised an eyebrow at his companion as I shambled up. I could pretty well guess the impression I made, dirty, unkempt and stained with nonhuman blood. I asked permission to go into the Terran Zone.

They asked my name and business, and I toyed with the notion of giving the name of the man I was inadvertently impersonating. Then I decided that if Rakhal had passed himself off as Race Cargill, he'd expect exactly that. And he was also capable of the masterstroke of impudence--putting out a pickup order, through Spaceforce, for his own name!

So I gave the name we'd used from Shainsa to Charin, and tacked one of the Secret Service passwords on the end of it. They looked at each other again and one said, "Rascar, eh? This is the guy, all right." He took me into the little booth by the gate while the other used an intercom device. Presently they took me along into the HQ building, and into an office that said "Legate."

I tried not to panic, but it wasn't easy! Evidently I'd walked square into another trap. One guard asked me, "All right, now, what exactly is your business in the Trade City?"
I'd hoped to locate Rakhal first. Now I knew I'd have no chance and at all costs I must straighten out this matter of identity before it went any further.

"Put me straight through to Magnusson's office, Level 38 at Central HQ, by visi," I demanded. I was trying to remember if Mack had ever even heard the name we used in Shainsa. I decided I couldn't risk it. "Name of Race Cargill."

The guard grinned without moving. He said to his partner, "That's the one, all right." He put a hand on my shoulder, spinning me around.

"Haul off, man. Shake your boots."

There were two of them, and Spaceforce guards aren't picked for their good looks. Just the same, I gave a pretty good account of myself until the inner door opened and a man came storming out.

"What the devil is all this racket?"

One guard got a hammerlock on me. "This Dry-towner bum tried to talk us into making a priority call to Magnusson, the Chief at Central. He knew a couple of the S.S. passwords. That's what got him through the gate. Remember, Cargill passed the word that somebody would turn up trying to impersonate him."

"I remember." The strange man's eyes were wary and cold.

"You damned fools," I snarled. "Magnusson will identify me! Can't you realize you're dealing with an impostor?"" One of the guards said to the legate in an undertone, "Maybe we ought to hold him as a suspicious character."

But the legate shook his head. "Not worth the trouble. Cargill said it was a private affair. You might search him, make sure he's not concealing contraband weapons," he added, and talked softly to the wide-eyed clerk in the background while the guards went through my shirtcloak and pockets.

When they started to unwrap the silk-shrouded Toy I yelled--if the thing got set off accidentally, there'd be trouble. The legate turned and rebuked, "Can't you see it's embroidered with the Toad God? It's a religious amulet of some sort, let it alone."

They grumbled, but gave it back to me, and the legate commanded, "Don't mess him up any more. Give him back his knife and take him to the gates. But make sure he doesn't come back."

I found myself seized and frog-marched to the gate. One guard pushed my skean back into its clasp. The other shoved me hard, and I stumbled, fell sprawling in the dust of the cobbled street, to the accompaniment of a profane statement about what I could expect if I came back. A chorus of jeers from a cluster of chak children and veiled women broke across me.

I picked myself up, glowered so fiercely at the giggling spectators that the laughter drained away into silence, and clenched my fists, half inclined to turn back and bull my way through. Then I subsided. First round to Rakhal. He had sprung the trap on me, very neatly.

The street was narrow and crooked, winding between doubled rows of pebble-houses, and full of dark shadows even in the crimson noon. I walked aimlessly, favoring the arm the guard had crushed. I was no closer to settling things with Rakhal, and I had slammed at least one gate behind me.

Why hadn't I had sense enough to walk up and demand to see Race Cargill? Why hadn't I insisted on a fingerprint check? I could prove my identity, and Rakhal, using my name in my absence, to those who didn't know me by sight, couldn't. I could at least have made him try. But he had maneuvered it very cleverly, so I never had a chance to insist on proofs.

I turned into a wineshop and ordered a dram of greenish mountainberry liquor, sipping it slowly and fingering the few bills and coins in my pockets. I'd better forget about warning Juli. I couldn't vise her from Charin, except in the Terran zone. I had neither the money nor the time to make the trip in person, even if I could get passage on a Terran-dominated airline after today.

Miellyn. She had flirted with me, and like Dallisa, she might prove vulnerable. It might be another trap, but I'd take the chance. At least I could get hints about Evarin. And I needed information. I wasn't used to this kind of intrigue any more. The smell of danger was foreign to me now, and I found it unpleasant.

The small lump of the bird in my pocket tantalized me. I took it out again. It was a temptation to press the stud and let it settle things, or at least start them going, then and there.

After a while I noticed the proprietors of the shop staring at the silk of the wrappings. They backed off, apprehensive. I held out a coin and they shook their heads. "You are welcome to the drink," one of them said. "All we have is at your service. Only please go. Go quickly."

They would not touch the coins I offered. I thrust the bird in my pocket, swore and went. It was my second experience with being somehow tabu, and I didn't like it. It was dusk when I realized I was being followed.

At first it was a glimpse out of the corner of my eye, a head seen too frequently for coincidence. It developed
into a too-persistent footstep in uneven rhythm.
  
  Tap-tap-tap. Tap-tap-tap.
  
  I had my skean handy, but I had a hunch this wasn't anything I could settle with a skean. I ducked into a side street and waited.
  
  Nothing.
  
  I went on, laughing at my imagined fears.
  
  Then, after a time, the soft, persistent footfall thudded behind me again.
  
  I cut across a thieves market, dodging from stall to stall, cursed by old women selling hot fried goldfish, women in striped veils railing at me in their chiming talk when I brushed their rolled rugs with hasty feet. Far behind I heard the familiar uneven hurry: tap-tap-tap, tap-tap-tap.
  
  I fled down a street where women sat on flower-decked balconies, their open lanterns flowing with fountains and rivulets of gold and orange fire. I raced through quiet streets where furred children crept to doors and watched me pass with great golden eyes that shone in the dark.
  
  I dodged into an alley and lay there, breathing hard. Someone not two inches away said, "Are you one of us, brother?"
  
  I muttered something surly, in his dialect, and a hand, reassuringly human, closed on my elbow. "This way."
  
  Out of breath with long running, I let him lead me, meaning to break away after a few steps, apologize for mistaken identity and vanish, when a sound at the end of the street made me jerk stiff and listen.
  
  Tap-tap-tap. Tap-tap-tap.
  
  I let my arm relax in the hand that guided me, flung a fold of my shirtcloak over my face, and went along with my unknown guide.

CHAPTER THIRTEEN

I stumbled over steps, took a jolting stride downward, and found myself in a dim room jammed with dark figures, human and nonhuman.
  
  The figures swayed in the darkness, chanting in a dialect not altogether familiar to me, a monotonous wailing chant, with a single recurrent phrase: "Kamaina! Kama-aina!" It began on a high note, descending in weird chromatics to the lowest tone the human ear could resolve.
  
  The sound made me draw back. Even the Dry-towners shunned the orgiastic rituals of Kamaina. Earthmen have a reputation for getting rid of the more objectionable customs--by human standards--on any planet where they live. But they don't touch religions, and Kamaina, on the surface anyhow, was a religion.
  
  I started to turn round and leave, as if I had inadvertently walked through the wrong door, but my conductor hauled on my arm, and I was wedged in too tight by now to risk a roughhouse. Trying to force my way out would only have called attention to me, and the first of the Secret Service maxims is; when in doubt, go along, keep quiet, and watch the other guy.
  
  As my eyes adapted to the dim light, I saw that most of the crowd were Charin plainsmen or chaks. One or two wore Dry-town shirtcloaks, and I even thought I saw an Earthman in the crowd, though I was never sure and I fervently hope not. They were squatting around small crescent-shaped tables, and all intently gazing at a flickery spot of light at the front of the cellar. I saw an empty place at one table and dropped there, finding the floor soft, as if cushioned.
  
  On each table, small smudging pastilles were burning, and from these cones of ash-tipped fire came the steamy, swimmy smoke that filled the darkness with strange colors. Beside me an immature chak girl was kneeling, her fettered hands strained tightly back at her sides, her naked breasts pierced for jeweled rings.
  
  Beneath the pallid fur around her pointed ears, the exquisite animal face was quite mad. She whispered to me, but her dialect was so thick that I could follow only a few words, and would just as soon not have heard those few. An older chak grunted for silence and she subsided, swaying and crooning.
  
  There were cups and decanters on all the tables, and a woman tilted pale, phosphorescent fluid into a cup and offered it to me. I took one sip, then another. It was cold and pleasantly tart, and not until the second swallow turned sweet on my tongue did I know what I tasted. I pretended to swallow while the woman's eyes were fixed on me, then somehow contrived to spill the filthy stuff down my shirt.
  
  I was wary even of the fumes, but there was nothing else I could do. The stuff was shallavan, outlawed on every planet in the Terran Empire and every halfway decent planet outside it.
  
  More and more figures, men and creatures, kept crowding into the cellar, which was not very large. The place looked like the worst nightmare of a drug-dreamer, ablaze with the colors of the smoking incense, the swaying crowd, and their monotonous cries. Quite suddenly there was a blaze of purple light and someone screamed in
raving ecstasy: "Na ki na Nebran n'hai Kamaina!"

"Kamayeeeeeenezzaa!

An old man jumped up and started haranguing the crowd. I could just follow his dialect. He was talking about Terra. He was talking about riots. He was jabbering mystical gibberish which I couldn't understand and didn't want to understand, and rabble-rousing anti-Terran propaganda which I understood much too well.

Another blaze of lights and another long scream in chorus: "Kamayeeeeeenezzaa!

Evarin stood in the blaze of the many-colored light.

The Toymaker, as I had seen him last, cat-smooth, gracefully alien, shrouded in a ripple of giddy crimsons. Behind him was a blackness. I waited till the painful blaze of lights abated, then, straining my eyes to see past him, I got my worst shock.

A woman stood there, naked to the waist, her hands ritually fettered with little chains that stirred and clashed musically as she moved stiff-legged in a frozen dream. Hair like black grass banded her brow and naked shoulders, and her eyes were crimson.

And the eyes lived in the dead dreaming face. They lived, and they were mad with terror although the lips curved in a gently tranced smile.

Miellyn.

Evarin was speaking in that dialect I barely understood. His arms were flung high and his cloak went spilling away from them, rippling like something alive. The jammed humans and nonhumans swayed and chanted and he swayed above them like an iridescent bug, weaving arms rippling back and forth, back and forth. I strained to catch his words.

"Our world ... an old world."

"Kamayeeenezzaa," whimpered the shrill chorus.

"... humans, humans, all humans would make slaves of us all, all save the Children of the Ape....."

I lost the thread for a moment. True. The Terran Empire has one small blind spot in otherwise sane policy, ignoring that nonhuman and human have lived placidly here for millennia: they placidly assumed that humans were everywhere the dominant race, as on Earth itself.

The Toymaker's weaving arms went on spinning, spinning. I rubbed my eyes to clear them of shallavan and incense. I hoped that what I saw was an illusion of the drug--something, something huge and dark, was hovering over the girl. She stood placidly, hands clasped on her chains, but her eyes writhed in the frozen calm of her face.

Then something--I can only call it a sixth sense--bore it on me that there was someone outside the door. I was perhaps the only creature there, except for Evarin, not drugged with shallavan, and perhaps that's all it was. But during the days in the Secret Service I'd had to develop some extra senses. Five just weren't enough for survival.

I knew somebody was fixing to break down that door, and I had a good idea why. I'd been followed, by the legate's orders, and, tracking me here, they'd gone away and brought back reinforcements.

Someone struck a blow on the door and a stentorian voice bawled, "Open up there, in the name of the Empire!"

The chanting broke in ragged quavers. Evarin stopped. Somewhere a woman screamed. The lights abruptly went out and a stampede started in the room. Women struck me with chains, men kicked, there were shrieks and howls. I thrust my way forward, butting with elbows and knees and shoulders.

A dusky emptiness yawned and I got a glimpse of sunlight and open sky and knew that Evarin had stepped through into somewhere and was gone. The banging on the door sounded like a whole regiment of Spaceforce out there. I dived toward the shimmer of little stars which marked Miellyn's tiara in the darkness, braving the black horror hovering over her, and touched rigid girl-flesh, cold as death.

I grabbed her and ducked sideways. This time it wasn't intuition--nine times out of ten, anyway, intuition is just a mental shortcut which adds up all the things which your subconscious has noticed while you were busy thinking about something else. Every native building on Wolf had concealed entrances and exits and I know where to look for them. This one was exactly where I expected. I pushed at it and found myself in a long, dim corridor.

The head of a woman peered from an opening door. She saw Miellyn's limp body hanging on my arm and her mouth widened in a silent scream. Then the head popped back out of sight and a door slammed. I heard the bolt slide. I ran for the end of the hall, the girl in my arms, thinking that this was where I came in, as far as Miellyn was concerned, and wondering why I bothered.

The door opened on a dark, peaceful street. One lonely moon was setting beyond the rooftops. I set Miellyn on her feet, but she moaned and crumpled against me. I put my shirtcloak around her bare shoulders. Judging by the noises and yells, we'd gotten out just in time. No one came out the exit behind us. Either the Spaceforce had plugged it or, more likely, everyone else in the cellar had been too muddled by drugs to know what was going on.

But it was only a few minutes, I knew, before Spaceforce would check the whole building for concealed escape holes. Suddenly, and irre relevantly, I found myself thinking of a day not too long ago, when I'd stood up in front of a
unit-in-training of Spaceforce, introduced to them as an Intelligence expert on native towns, and solemnly warned
them about concealed exits and entrances. I wondered, for half a minute, if it might not be simpler just to wait here
and let them pick me up.

Then I hoisted Miellyn across my shoulders. She was heavier than she looked, and after a minute, half
conscious, she began to struggle and moan. There was a chak-run cookshop down the street, a place I’d once known
well, with an evil reputation and worse food, but it was quiet and stayed open all night. I turned in at the door,
bending at the low lintel.

The place was smoke-filled and foul-smelling. I dumped Miellyn on a couch and sent the frowsy waiter for two
bowls of noodles and coffee, handed him a few extra coins, and told him to leave us alone. He probably drew the
worst possible inference—I saw his muzzle twitch at the smell of shallavan—but it was that kind of place anyhow. He
drew down the shutters and went.

I stared at the unconscious girl, then shrugged and started on the noodles. My own head was still swimmy with
the fumes, incense and drug, and I wanted it clear. I wasn't quite sure what I was going to do, but I had Evarin's
right-hand girl, and I was going to use her.

The noodles were greasy and had a curious taste, but they were hot, and I ate all of one bowl before Miellyn
stirred and whimpered and put up one hand, with a little clinking of chains, to her hair. The gesture was indefinably
reminiscent of Dallisa, and for the first time I saw the likeness between them. It made me wary and yet curiously
softened.

Finding she could not move freely, she rolled over, sat up and stared around in growing bewilderment and
dismay.

"There was a sort of riot," I said. "I got you out. Evarin ditched you. And you can quit thinking what you're
thinking, I put my shirtcloak on you because you were bare to the waist and it didn't look so good." I stopped to
think that over, and amended: "I mean I couldn't haul you around the streets that way. It looked good enough."

To my surprise, she gave a shaky little giggle, and held out her fettered hands. "Will you?"

I broke her links and freed her. She rubbed her wrists as if they hurt her, then drew up her draperies, pinned
them so that she was decently covered, and tossed back my shirtcloak. Her eyes were wide and soft in the light of
the flickering stub of candle.

"O, Rakhal," she sighed. "When I saw you there--" She sat up, clasping her hands hard together, and when she
continued her voice was curiously cold and controlled for anyone so childish. It was almost as cold as Dallisa's.

"If you've come from Kyral, I'm not going back. I'll never go back, and you may as well know it."

"I don't come from Kyral, and I don't care where you go. I don't care what you do." I suddenly realized that the
last statement was wholly untrue, and to cover my confusion I shoved the remaining bowl of noodles at her.

"Eat."

She wrinkled her nose in fastidious disgust. "I'm not hungry."

"Eat it anyway. You're still half doped, and the food will clear your head." I picked up one mug of the coffee
and drained it at a single swallow. "What were you doing in that disgusting den?"

Without warning she flung herself across the table at me, throwing her arms round my neck. Startled, I let her
cling a moment, then reached up and firmly unfastened her hands.

"None of that now. I fell for it once, and it landed me in the middle of the mudpie."

But her fingers bit my shoulder.

"Rakhal, Rakhal, I tried to get away and find you. Have you still got the bird? You haven't set it off yet? Oh,
don't, don't, Rakhal, you don't know what Evarin is, you don't know what he's doing." The words spilled out of
her like floodwaters. "He's won so many of you, don't let him have you too, Rakhal. They call you an honest man,
you worked once for Terra, the Terrans would believe you if you went to them and told them what he--Rakhal, take
me to the Terran Zone, take me there, take me there where they'll protect me from Evarin."

At first I tried to stop her, question her, then waited and let the torrent of entreaty run on and on. At last,
exhausted and breathless, she lay quietly against my shoulder, her head fallen forward. The musty reek of shallavan
mingled with the flower scent of her hair.

"Kid," I said heavily at last, "you and your Toymaker have both got me wrong. I'm not Rakhal Sensar."

"You're not?" She drew back, regarding me in dismay. Her eyes searched every inch of me, from the gray
streak across my forehead to the scar running down into my collar. "Then who--"

"Race Cargill. Terran Intelligence."

She stared, her mouth wide like a child's.

Then she laughed. She laughed! At first I thought she was hysterical. I stared at her in consternation. Then, as
her wide eyes met mine, with all the mischief of the nonhuman which has mingled into the human here, all the
circular complexities of Wolf illogic behind the woman in them, I started to laugh too.
I threw back my head and roared, until we were clinging together and gasping with mirth like a pair of raving fools. The chak waiter came to the door and stared at us, and I roared "Get the hell out," between spasms of crazy laughter.

Then she was wiping her face, tears of mirth still dripping down her cheeks, and I was frowning bleakly into the empty bowls.

"Cargill," she said hesitantly, "you can take me to the Terrans where Rakhal--"

"Hell's bells," I exploded. "I can't take you anywhere, girl. I've got to find Rakhal--" I stopped in midsentence and looked at her clearly for the first time.

"Child, I'll see that you're protected, if I can. But I'm afraid you've walked from the trap to the cookpot. There isn't a house in Charin that will hold me. I've been thrown out twice today."

She nodded. "I don't know how the word spreads, but it happens, in nonhuman parts. I think they can see trouble written in a human face, or smell it on the wind." She fell silent, her face propped sleepily between her hands, her hair falling in tangles. I took one of her hands in mine and turned it over.

It was a fine hand, with birdlike bones and soft rose-tinted nails; but the lines and hardened places around the knuckles reminded me that she, too, came from the cold austerity of the salt Dry-towns. After a moment she flushed and drew her hand from mine.

"What are you thinking, Cargill?" she asked, and for the first time I heard her voice sobered, without the coquetry, which must after all have been a very thin veneer.

I answered her simply and literally. "I am thinking of Dallisa. I thought you were very different, and yet, I see that you are very like her."

I thought she would question what I knew of her sister, but she let it pass in silence. After a time she said, "Yes, we were twins." Then, after a long silence, she added, "But she was always much the older."

And that was all I ever knew of whatever obscure pressures had shaped Dallisa into an austere and tragic Clytemnestra, and Miellyn into a pixie runaway.

Outside the drawn shutters, dawn was brightening. Miellyn shivered, drawing her thin draperies around her bare throat. I glanced at the little rim of jewels that starred her hair and said, "You'd better take those off and hide them. They alone would be enough to have you hauled into an alley and strangled, in this part of Charin." I hauled the bird Toy from my pocket and slapped it on the greasy table, still wrapped in its silk. "I don't suppose you know which of us this thing is set to kill?"

"I know nothing about the Toys."

"You seem to know plenty about the Toymaker."

"I thought so. Until last night." I looked at the rigid, clamped mouth and thought that if she were really as soft and delicate as she looked, she would have wept. Then she struck her small hand on the tabletop and burst out, "It's not a religion. It isn't even an honest movement for freedom! Its a--a front for smuggling, and drugs, and--and every other filthy thing!"

"Believe it or not, when I left Shainsa, I thought Nebran was the answer to the way the Terrans were strangling us! Now I know there are worse things on Wolf than the Terran Empire! I've heard of Rakhal Sensar, and whatever you may think of Rakhal, he's too decent to be mixed up in anything like this!"

"Suppose you tell me what's really going on," I suggested. She couldn't add much to what I knew already, but the last fragments of the pattern were beginning to settle into place. Rakhal, seeking the matter transmitter and some key to the nonhuman sciences of Wolf--I knew now what the city of Silent Ones had reminded me of!--had somehow crossed the path of the Toymaker.

Evarin's words now made sense: "You were clever at evading our surveillance--for a while." Possibly, though I'd never know, Cuinn had been keeping one foot in each camp, working for Kyral and for Evarin. The Toymaker, knowing of Rakhal's anti-Terran activities, had believed he would make a valuable ally and had taken steps to secure his help.

Juli herself had given me the clue: "He smashed Rindy's Toys." Out of the context it sounded like the work of a madman. Now, having encountered Evarin's workshop, it made plain good sense.

And I think I had known all along that Rakhal could not have been playing Evarin's game. He might have turned against Terra--though now I was beginning even to doubt that--and certainly he'd have killed me if he found me. But he would have done it himself, and without malice. Killed without malice--that doesn't make sense in any of the languages of Terra. But it made sense to me.

Miellyn had finished her brief recitation and was drowsing, her head pillowed on the table. The reddish light was growing, and I realized that I was waiting for dawn as, days ago, I had waited for sunset in Shainsa, with every nerve stretched to the breaking point. It was dawn of the third morning, and this bird lying on the table before me must fly or, far away in the Kharsa, another would fly at Juli.
I said, "There's some distance limitation on this one, I understand, since I have to be fairly near its object. If I lock it in a steel box and drop it in the desert, I'll guarantee it won't bother anybody. I don't suppose you'd have a shot at stealing the other one for me?"

She raised her head, eyes flashing. "Why should you worry about Rakhal's wife?" she flared, and for no good reason it occurred to me that she was jealous. "I might have known Evarin wouldn't shoot in the dark! Rakhal's wife, that Earthwoman, what do you care for her?"

It seemed important to set her straight. I explained that Juli was my sister, and saw a little of the tension fade from her face, but not all. Remembering the custom of the Dry-towns, I was not wholly surprised when she added, jealously, "When I heard of your feud, I guessed it was over that woman!"

"But not in the way you think," I said. Juli had been part of it, certainly. Even then I had not wanted her to turn her back on her world, but if Rakhal had remained with Terra, I would have accepted his marriage to Juli. Accepted it. I'd have rejoiced. God knows we had been closer than brothers, those years in the Dry-towns. And then, before Miellyn's flashing eyes, I suddenly faced my secret hate, my secret fear. No, the quarrel had not been all Rakhal's doing.

He had not turned his back, unexplained on Terra. In some unrecognized fashion, I had done my best to drive him away. And when he had gone, I had banished a part of myself as well, and thought I could end the struggle by saying it didn't exist. And now, facing what I had done to all of us, I knew that my revenge--so long sought, so dearly cherished--must be abandoned.

"We still have to deal with the bird," I said. "It's a gamble, with all the cards wild." I could dismantle it, and trust to luck that Wolf illogic didn't include a tamper mechanism. But that didn't seem worth the risk.

"First I've got to find Rakhal. If I set the bird free and it killed him, it wouldn't settle anything." For I could not kill Rakhal. Not, now, because I knew life would be a worse punishment than death. But because--I knew it, now--if Rakhal died, Juli would die, too. And if I killed him I'd be killing the best part of myself. Somehow Rakhal and I must strike a balance between our two worlds, and try to build a new one from them.

"And I can't sit here and talk any longer. I haven't time to take you--" I stopped, remembering the spaceport cafe at the edge of the Kharsa. There was a street-shrine, or matter transmitter, right there, across the street from the Terran HQ. All these years....

"You know your way in the transmitters. You can go there in a second or two." She could warn Juli, tell Magnusson. But when I suggested this, giving her a password that would take her straight to the top, she turned white. "All jumps have to be made through the Mastershrine."

I stopped and thought about that.

"Where is Evarin likely to be, right now?"

She gave a nervous shudder. "He's everywhere!"

"Rubbish! He's not omniscient! Why, you little fool, he didn't even recognize me. He thought I was Rakhal!" I wasn't too sure, myself, but Miellyn needed reassurance. "Or take me to the Mastershrine. I can find Rakhal in that scanning device of Evarin's." I saw refusal in her face and pushed on, "If Evarin's there, I'll prove he's fallible enough with a skean in his throat! And here"--I thrust the Toy into her hand--"hang on to this, will you?"

She put it matter-of-factly into her draperies. "I don't mind that. But to the shrine--" Her voice quivered, and I stood up and pushed at the table.

"Let's get going. Where's the nearest street-shrine?"

"No, no! Oh, I don't dare!"

"You've got to." I saw the chak who owned the place edging round the door again and said, "There's no use arguing, Miellyn." When she had readjusted her robes a little while ago, she had pinned them so that the flat sprawl of the Nebran embroideries was over her breasts. I put a finger against them, not in a sensuous gesture, and said, "The minute they see these, they'll throw us out of here, too."

"If you knew what I know of Nebran, you wouldn't want me to go near the Mastershrine again!" There was that faint coquettishness in her sidewise smile.

And suddenly I realized that she didn't want her to. But she was not Dallisa and she could not sit in cold dignity while her world fell into ruin. Miellyn must fight for the one she wanted.

And then some of that primitive male hostility which lives in every man came to the surface, and I gripped her arm until she whimpered. Then I said, in the Shainsan which still comes to my tongue when moved or angry, "Damn it, you're going. Have you forgotten that if it weren't for me you'd have been torn to pieces by that raving mob, or something worse?"

That did it. She pulled away and I saw again, beneath the veneer of petulant coquetry, that fierce and untamable insolence of the Dry-towner. The more fierce and arrogant, in this girl, because she had burst her fettered hands free and shaken off the ruin of the past.
I was seized with a wildly inappropriate desire to seize her, crush her in my arms, taste the red honey of that teasing mouth. The effort of mastering the impulse made me rough.

I shoved at her and said, "Come on. Let's get there before Evarin does."

CHAPTER FOURTEEN

Outside in the streets it was full day, and the color and life of Charin had subsided into listlessness again, a dim morning dullness and silence. Only a few men lounged wearily in the streets, as if the sun had sapped their energy. And always the pale fleecy-haired children, human and furred nonhuman, played their mysterious games on the curbs and gutters and staring at us with neither curiosity nor malice.

Miellyn was shaking when she set her feet into the patterned stones of the street-shrine.

"Scared, Miellyn?"

"I know Evarin. You don't. But" -- her mouth twitched in a pitiful attempt at the old mischief -- "when I am with a great and valorous Earthman...."

"Cut it out," I growled, and she giggled. "You'll have to stand closer to me. The transmitters are meant only for one person."

I stooped and put my arms round her. "Like this?"

"Like this," she whispered, pressing herself against me. A staggering whirl of dizzy darkness swung round my head. The street vanished. After an instant the floor steadied and we stepped into the terminal room in the Mastershrine, under a skylight dim with the last red slant of sunset. Distant hammering noises rang in my ears.

Miellyn whispered, "Evarin's not here, but he might jump through at any second." I wasn't listening.

"Where is this place, Miellyn? Where on the planet?"

"No one knows but Evarin, I think. There are no doors. Anyone who goes in or out, jumps through the transmitter." She pointed. "The scanning device is in there, we'll have to go through the workroom."

She was patting her crushed robes into place, smoothing her hair with fastidious fingers. "I don't suppose you have a comb? I've no time to go to my own--"

I'd known she was a vain and pampered brat, but this passed all reason, and I said so, exploding at her. She looked at me as if I wasn't quite intelligent. "The Little Ones, my friend, notice things. You are quite enough of a roughneck, but if I, Nebran's priestess, walk through their workroom all blown about and looking like the tag end of an orgy in Ardcarran...."

Abashed, I fished in a pocket and offered her a somewhat battered pocket comb. She looked at it distastefully but used it to good purpose, smoothing her hair swiftly, rearranging her loose-pinned robe so that the worst of the tears and stains were covered, and giving me, meanwhile, an artless and rather tempting view of some delicious curvature. She replaced the starred tiara on her ringlets and finally opened the door of the workroom and we walked through.

Not for years had I known that particular sensation--thousands of eyes, boring holes in the center of my back somewhere. There were eyes; the round inhuman orbs of the dwarf chaks, the faceted stare of the prism eyes of the Toys. The workroom wasn't a hundred feet long, but it felt longer than a good many miles I've walked. Here and there the dwarfs murmured an obsequious greeting to Miellyn, and she made some lighthearted answer.

She had warned me to walk as if I had every right to be there, and I strode after her as if we were simply going to an agreed-on meeting in the next room. But I was drenched with cold sweat before the farther door finally closed, safe and blessedly opaque, behind us. Miellyn, too, was shaking with fright, and I put a hand on her arm.

"Steady, kid. Where's the scanner?"

She touched the panel I'd seen. "I'm not sure I can focus it accurately. Evarin never let me touch it."

This was a fine time to tell me that. "How does it work?"

"It's an adaptation of the transmitter principle. It lets you see anywhere, but without jumping. It uses a tracer mechanism like the one in the Toys. If Rakhal's electrical-impulse pattern were on file--just a minute." She fished out the bird Toy and unwrapped it. "Here's how we find out which of you this is keyed to."

I looked at the fledgling bird, lying innocently in her palm, as she pushed aside the feathers, exposing a tiny crystal. "If it's keyed to you, you'll see yourself in this, as if the screen were a mirror. If it's keyed to Rakhal...."

She touched the crystal to the surface of the screen. Little flickers of snow wavered and danced. Then, abruptly, we were looking down from a height at the lean back of a man in a leather jacket. Slowly he turned. I saw the familiar set of his shoulders, saw the back of his head come into an aquiline profile, and the profile turn slowly into a scarred, seared mask more hideously claw-marked and disfigured than my own.

"Rakhal," I muttered. "Shift the focus if you can, Miellyn, get a look out the window or something. Charin's a big city. If we could get a look at a landmark--"
Rakhal was talking soundlessly, his lips moving as he spoke to someone out of sight range of the scanning device. Abruptly Miellyn said, "There." She had caught a window in the sight field of the pane. I could see a high pylon and two of three uprights that looked like a bridge, just outside. I said, "It's the Bridge of Summer Snows. I know where he is now. Turn it off, Miellyn, we can find him--" I was turning away when Miellyn screamed.

"Look!"

Rakhal had turned his back on the scanner and for the first time I could see who he was talking to. A hunched, catlike shoulder twisted; a sinuous neck, a high-held head that was not quite human.

"Evarin!" I swore. "That does it. He knows now that I'm not Rakhal, if he didn't know it all along! Come on, girl, we're getting out of here!"

This time there was no pretense of normality as we dashed through the workroom. Fingers dropped from half-completed Toys as they stared after us. Toys! I wanted to stop and smash them all. But if we hurried, we might find Rakhal. And, with luck, we would find Evarin with him.

And then I was going to bang their heads together. I'd reached a saturation point on adventure. I'd had all I wanted. I realized that I'd been up all night, that I was exhausted. I wanted to murder and smash, and wanted to fall down somewhere and go to sleep, all at once. We banged the workroom door shut and I took time to shove a heavy divan against it, blockading it.

Miellyn stared. "The Little Ones would not harm me," she began. "I am sacrosanct."

I wasn't sure. I had a notion her status had changed plenty, beginning when I saw her chained and drugged, and standing under the hovering horror. But I didn't say so.

"Maybe. But there's nothing sacred about me!"

She was already inside the recess where the Toad God squatted. "There is a street-shrine just beyond the Bridge of Summer Snows. We can jump directly there." Abruptly she froze in my arms, with a convulsive shudder.

"Evarin! Hold me, tight--he's jumping in! Quick!"

Space reeled round us, and then....

Can you split instantaneousness into fragments? It didn't make sense, but so help me, that's what happened. And everything that happened, occurred within less than a second. We landed in the street-shrine. I could see the pylon and the bridge and the rising sun of Charin. Then there was the giddy internal wrenching, a blast of icy air whistled round us, and we were gazing out at the Polar mountains, ringed in their eternal snow.

Miellyn clutched at me. "Pray! Pray to the Gods of Terra, if there are any!"

She clung so violently that it felt as if her small body was trying to push through me and come out the other side. I hung on tight. Miellyn knew what she was doing in the transmitter; I was just along for the ride and I didn't relish the thought of being dropped off somewhere in that black limbo we traversed.

We jumped again, the sickness of disorientation forcing a moan from the girl, and darkness shivered round us. I looked on an unfamiliar street of black night and dust-bleared stars. She whimpered, "Evarin knows what I'm doing. He's jumping us all over the planet. He can work the controls with his mind. Psychokinetics--I can do it a little, but I never dared--oh, hang on tight!"

Then began one of the most amazing duels ever fought. Miellyn would make some tiny movement, and we would be falling, blind and dizzy, through blackness. Halfway through the giddiness, a new direction would wrench us and we would be thrust elsewhere, and look out into a new street.

One instant I smelled hot coffee from the spaceport cafe near the Kharsa. An instant later it was blinding noon, with crimson fronds waving above us and a dazzle of water. We flicked in and out of the salty air of Shainsa, glimpsed flowers on a Daillon street, moonlight, noon, red twilight flickered and went, shot through with the terrible giddiness of hyperspace.

Then suddenly I caught a second glimpse of the bridge and the pylon; a moment's oversight had landed us for an instant in Charin. The blackness started to reel down, but my reflexes are fast and I made one swift, scrabbling step forward. We lurched, sprawled, locked together, on the stones of the Bridge of Summer Snows. Battered, and bruised, and bloody, we were still alive, and where we wanted to be.

I lifted Miellyn to her feet. Her eyes were dazed with pain. The ground swayed and rocked under our feet as we fled along the bridge. At the far end, I looked up at the pylon. Judging from its angle, we couldn't be more than a hundred feet from the window through which I'd seen that landmark in the scanner. In this street there was a wineshop, a silk market, and a small private house. I walked up and banged on the door.

Silence. I knocked again and had time to wonder if we'd find ourselves explaining things to some uninvolved stranger. Then I heard a child's high voice, and a deep familiar voice hushing it. The door opened, just a crack, to reveal part of a scarred face.

It drew into a hideous grin, then relaxed.

"I thought it might be you, Cargill. You've taken at least three days longer than I figured, getting here. Come on
CHAPTER FIFTEEN

He hadn't changed much in six years. His face was worse than mine; he hadn't had the plastic surgeons of Terran Intelligence doing their best for him. His mouth, I thought fleetingly, must hurt like hell when he drew it up into the kind of grin he was grinning now. His eyebrows, thick and fierce with gray in them, went up as he saw Miellyn; but he backed away to let us enter, and shut the door behind us.

The room was bare and didn't look as if it had been lived in much. The floor was stone, rough-laid, a single fur rug laid before a brazier. A little girl was sitting on the rug, drinking from a big double-handled mug, but she scrambled to her feet as we came in, and backed against the wall, looking at us with wide eyes.

She had pale-red hair like Juli's, cut straight in a fringe across her forehead, and she was dressed in a smock of dyed red fur that almost matched her hair. A little smear of milk like a white moustache clung to her upper lip where she had forgotten to wipe her mouth. She was about five years old, with deep-set dark eyes like Juli's, that watched me gravely without surprise or fear; she evidently knew who I was.

"Rindy," Rakhal said quietly, not taking his eyes from me. "Go into the other room."

Rindy didn't move, still staring at me. Then she moved toward Miellyn, looking up intently not at the woman, but at the pattern of embroideries across her dress. It was very quiet, until Rakhal added, in a gentle and curiously moderate voice, "Do you still carry a skean, Race?"

I shook my head. "There's an ancient proverb on Terra, about blood being thicker than water, Rakhal. That's Juli's daughter. I'm not going to kill her father right before her eyes." My rage spilled over then, and I bellowed, "To hell with your damned Dry-town feuds and your filthy Toad God and all the rest of it!"

Rakhal said harshly, "Rindy. I told you to get out."

"She needn't go." I took a step toward the little girl, a wary eye on Rakhal. "I don't know quite what you're up to, but it's nothing for a child to be mixed up in. Do what you damn please. I can settle with you any time."

"The first thing is to get Rindy out of here. She belongs with Juli and, damn it, that's where she's going."

"You're as stupid as ever, Race. Why, you fool, I knew Juli would run straight to you, if she was scared enough. I knew it would bring you out of hiding. Why, you damned fool!" He stood mocking me, but there was a strained fury, almost a frenzy of contempt behind the laughter.

"You filthy coward, Race! Six years hiding in the Terran zone. Six years, and I gave you six months! If you'd had the guts to walk out after me, after I rigged that final deal to give you the chance, we could have gone after the biggest thing on Wolf. And we could have brought it off together, instead of spending years spying and dodging and hunting! And now, when I finally get you out of hiding, all you want to do is run back where you'll be safe! I thought you had more guts!"

"Not for Evarin's dirty work!"

Rakhal swore hideously. "Evarin! Do you really believe--I might have known he'd get to you too! That girl--and you've managed to wreck all I did there, too!" Suddenly, so swiftly my eyes could hardly follow, he whipped out his skean and came at me. "Get away from that door!"

I stood my ground. "You'll have to kill me first. And I won't fight you, Rakhal. We'll settle this, but we'll do it my way for once, like Earthmen."

"Son of the Ape! Get your skean out, you stinking coward!"

"I won't do it, Rakhal." I stood and defied him. I had outmaneuvered Dry-towners in a shegri bet. I knew Rakhal, and I knew he would not knife an unarmed man. "We fought once with the kifirgh and it didn't settle
anything. This time we'll do it my way. I threw my skean away before I came here. I won't fight."

He thrust at me. Even I could see that the blow was a feint, and I had a flashing, instantaneous memory of Dallisa's threat to drive the knife through my palms. But even while I commanded myself to stand steady, sheer reflex threw me forward, grabbing at his wrist and the knife.

Between my grappling hand he twisted and I felt the skean drive home, rip through my jacket with a tearing sound; felt the thin fine line of touch, not pain yet, as it sliced flesh. Then pain burned through my ribs and I felt hot blood, and I wanted to kill Rakhal, wanted to get my hands around his throat and kill him with them. And at the same time I was raging because I didn't want to fight the crazy fool, I wasn't even mad at him.

Miellyn flung the door open, shrieking, and suddenly the Toy, released, was darting a small whirring droning horror, straight at Rakhal's eyes. I yelled. But there was no time even to warn him. I bent and butted him in the stomach. He grunted, doubled up in agony and fell out of the path of the diving Toy. It whirred in frustration, hovered.

He writhed in agony, drawing up his knees, clawing at his shirt, while I turned on Miellyn in immense fury--and stopped. Hers had been a move of desperation, an instinctive act to restore the balance between a weaponless man and one who had a knife. Rakhal gasped, in a hoarse voice with all the breath gone from it:

"Didn't want to use. Rather fight clean--" Then he opened his closed fist and suddenly there were two of the little whirring droning horrors in the room and this one was diving at me, and as I threw myself headlong to the floor the last puzzle-piece fell into place: Evarin had made the same bargain with Rakhal as with me!

I rolled over, dodging. Behind me in the room there was a child's shrill scream: "Daddy! Daddy!" And abruptly the birds collapsed in midair and went limp. They fell to the floor like dropping stones and lay there quivering. Rindy dashed across the room, her small skirts flying, and grabbed up one of the terrible vicious things in either hand.

"Rindy!" I bellowed. "No!"

She stood shaking, tears pouring down her round cheeks, a Toy squeezed tight in either hand. Dark veins stood out almost black on her fair temples. "Break them, Daddy," she implored in a little thread of a voice. "Break them, quick. I can't hang on...."

Rakhal staggered to his feet like a drunken man and snatched one of the Toys, grinding it under his heel. He made a grab at the second, reeled and drew an anguished breath. He crumpled up, clutching at his belly where I'd butted him. The bird screamed like a living thing.

Breaking my paralysis of horror I leaped up, ran across the room, heedless of the searing pain along my side. I snatched the bird from Rindy and it screamed and shriiled and died as my foot crunched the tiny feathers. I stamped the still-moving thing into an amorphous mess and kept on stamping and smashing until it was only a heap of powder.

Rakhal finally managed to haul himself upright again. His face was so pale that the scars stood out like fresh burns.

"That was a foul blow, Race, but I--I know why you did it." He stopped and breathed for a minute. Then he muttered, "You ... saved my life, you know. Did you know you were doing it, when you did it?"

Still breathing hard, I nodded. Done knowingly, it meant an end of blood-feud. However we had wronged each other, whatever the pledges. I spoke the words that confirmed it and ended it, finally and forever:

"There is a life between us. Let it stand for a death."

Miellyn was standing in the doorway, her hands pressed to her mouth, her eyes wide. She said shakily, "You're walking around with a knife in your ribs, you fool!"

Rakhal whirled and with a quick jerk he pulled the skean loose. It had simply been caught in my shirtcloak, in a fold of the rough cloth. He pulled it away, glanced at the red tip, then relaxed. "Not more than an inch deep," he said. Then, angrily, defending himself: "You did it yourself, you ape. I was trying to get rid of the knife when you jumped me."

But I knew that and he knew I knew it. He turned and scooped up Rindy, who was sobbing noisily. She dug her head into his shoulder and I made out her strangled words. "The other Toys hurt you when I was mad at you.... she sobbed, rubbing her fists against smeared cheeks. "I--I wasn't that mad at you. I wasn't that mad at anybody, not even... him."

Rakhal pressed his hand against his daughter's fleecy hair and said, looking at me over her head, "The Toys activate a child's subconscious resentments against his parents--I found out that much. That also means a child can control them for a few seconds. No adult can." A stranger would have seen no change in his expression, but I knew him, and saw.

"Juli said you threatened Rindy."

He chuckled and set the child on her feet. "What else could I say that would have scared Juli enough to send her
"Come on, sit down and let's decide what to do, now we've finished up the old business." He looked remotely at Miellyn and said, "You must be Dallisa's sister? I don't suppose your talents include knowing how to make coffee?"

They didn't, but with Rindy's help Miellyn managed, and while they were out of the room Rakhal explained briefly. "Rindy has rudimentary ESP. I've never had it myself, but I could teach her something--not much--about how to use it. I've been on Evarin's track ever since that business of The Lisse.

"I'd have got it sooner, if you were still working with me, but I couldn't do anything as a Terran agent, and I had to be kicked out so thoroughly that the others wouldn't be afraid I was still working secretly for Terra. For a long time I was just chasing rumors, but when Rindy got big enough to look in the crystals of Nebran, I started making some progress.

"I was afraid to tell Juli; her best safety was the fact that she didn't know anything. She's always been a stranger in the Dry-towns." He paused, then said with honest self-evaluation, "Since I left the Secret Service I've been a stranger there myself."

I asked, "What about Dallisa?"

"Twins have some ESP to each other. I knew Miellyn had gone to the Toymaker. I tried to get Dallisa to find out where Miellyn had gone, learn more about it. Dallisa wouldn't risk it, but Kyral saw me with Dallisa and thought it was Miellyn. That put him on my tail, too, and I had to leave Shainsa. I was afraid of Kyral," he added soberly. "Afraid of what he'd do. I couldn't do anything without Rindy and I knew if I told Juli what I was doing, she'd take Rindy away into the Terran Zone, and I'd be as good as dead."

As he talked, I began to realize how vast a web Evarin and the underground organization of Nebran had spread for us. "Evarin was here today. What for?"

Rakhal laughed mirthlessly. "He's been trying to get us to kill each other off. That would get rid of us both. He wants to turn over Wolf to the nonhumans entirely, I think he's sincere enough, but"--he spread his hands helplessly--"I can't sit by and see it."

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I asked point-blank, "Are you working for Terra? Or for the Dry-towns? Or any of the anti-Terran movements?"

"I'm working for me," he said with a shrug. "I don't think much of the Terran Empire, but one planet can't fight a galaxy. Race, I want just one thing. I want the Dry-towns and the rest of Wolf, to have a voice in their own government. Any planet which makes a substantial contribution to galactic science, by the laws of the Terran Empire, is automatically given the status of an independent commonwealth.

"If a man from the Dry-towns discovers something like a matter transmitter, Wolf gets dominion status. But Evarin and his gang want to keep it secret, keep it away from Terra, keep it locked up in places like Canarsa! Somebody has to get it away from them. And if I do it, I get a nice fat bonus, and an official position."

I believed that, where I would have suspected too much protestation of altruism. Rakhal tossed it aside.

"You've got Miellyn to take you through the transmitters. Go back to the Mastershrine, and tell Evarin that Race Cargill is dead. In the Trade City they think I'm Cargill, and I can get in and out as I choose--sorry if it caused you trouble, but it was the safest thing I could think of--and I'll vise Magnusson and have him send soldiers to guard the street-shrines. Evarin might try to escape through one of them."

"I shook my head. "Terra hasn't enough men on all Wolf to cover the street-shrines in Charin alone. And I can't go back with Miellyn." I explained. Rakhal pursed his lips and whistled when I described the fight in the transmitter.

"You have all the luck, Cargill! I've never been near enough even to be sure how they work--and I'll bet you didn't begin to understand! We'll have to do it the hard way, then. It won't be the first time we've bullied our way through a tight place! We'll face Evarin in his own hideout! If Rindy's with us, we needn't worry."

"I was willing to let him assume command, but I protested, "You'd take a child into that--that--"

"What else can we do? Rindy can control the Toys, and neither you nor I can do that, if Evarin should decide to throw his whole arsenal at us." He called Rindy and spoke softly to her. She looked from her father to me, and back again to her father, then smiled and stretched out her hand to me.

Before we ventured into the street, Rakhal scowled at the sprawled embroideries of Miellyn's robe. He said, "In those things you show up like a snowfall in Shainsa. If you go out in them, you could be mobbed. Hadn't you better get rid of them now?"

"I can't," she protested. "They're the keys to the transmitter!"

Rakhal looked at the conventionalized idols with curiosity, but said only, "Cover them up in the street, then. Rindy, find her something to put over her dress."

When we reached the street-shrine, Miellyn admonished: "Stand close together on the stones. I'm not sure we can all make the jump at once, but we'll have to try."
Rakhal picked up Rindy and hoisted her to his shoulder. Miellyn dropped the cloak she had draped over the pattern of the Nebran embroideries, and we crowded close together. The street swayed and vanished and I felt the now-familiar dip and swirl of blackness before the world straightened out again. Rindy was whimpering, dabbing smeary fists at her face. "Daddy, my nose is bleeding...."

Miellyn hastily bent and wiped the blood from the snubby nose. Rakhal gestured impatiently.

"The workroom. Wreck everything you see. Rindy, if anything starts to come at us, you stop it. Stop it quick. And--he bent and took the little face between his hands--"chiya, remember they're not toys, no matter how pretty they are."

Her grave gray eyes blinked, and she nodded.

Rakhal flung open the door of the elves' workshop with a shout. The ringing of the anvils shattered into a thousand dissonances as I kicked over a workbench and half-finished Toys crashed in confusion to the floor.

The dwarfs scattered like rabbits before our assault of destruction. I smashed tools, filigree, jewels, stamping everything with my heavy boots. I shattered glass, caught up a hammer and smashed crystals. There was a wild exhilaration to it.

A tiny doll, proportioned like a woman, dashed toward me, shrilling in a supersonic shriek. I put my foot on her and ground the life out of her, and she screamed like a living woman as she came apart. Her blue eyes rolled from her head and lay on the floor watching me. I crushed the blue jewels under my heel.

Rakhal swung a tiny hound by the tail. Its head shattered into debris of almost-invisible gears and wheels. I caught up a chair and wrecked a glass cabinet of parts with it, swinging furiously. A berserk madness of smashing and breaking had laid hold on me.

I was drunk with crushing and shattering and ruining, when I heard Miellyn scream a warning and turned to see Evarin standing in the doorway. His green cat-eyes blazed with rage. Then he raised both hands in a sudden, sardonic gesture, and with a loping, inhuman glide, raced for the transmitter.

"Rindy," Rakhal panted, "can you block the transmitter?"

Instead Rindy shrieked. "We've got to get out! The roof is falling down! The house is going to fall down on us! The roof, look at the roof!"

I looked up, transfixed by horror. I saw a wide rift open, saw the skylight shatter and break, and daylight pouring through the cracking walls, Rakhal snatched Rindy up, protecting her from the falling debris with his head and shoulders. I grabbed Miellyn round the waist and we ran for the rift in the buckling wall.

We shoved through just before the roof caved in and the walls collapsed, and we found ourselves standing on a bare grassy hillside, looking down in shock and horror as below us, section after section of what had been apparently bare hill and rock caved in and collapsed into dusty rubble.

Miellyn screamed hoarsely. "Run. Run, hurry!"

I didn't understand, but I ran. I ran, my sides aching, blood streaming from the forgotten flesh-wound in my side. Miellyn raced beside me and Rakhal stumbled along, carrying Rindy.

Then the shock of a great explosion rocked the ground, hurling me down full length, Miellyn falling on top of me. Rakhal went down on his knees. Rindy was crying loudly. When I could see straight again, I looked down at the hillside.

There was nothing left of Evarin's hideaway or the Mastershrine of Nebran except a great, gaping hole, still oozing smoke and thick black dust. Miellyn said aloud, dazed, "So that's what he was going to do!"

It fitted the peculiar nonhuman logic of the Toymaker. He'd covered the traces.

"Destroyed!" Rakhal raged. "All destroyed! The workrooms, the science of the Toys, the matter transmitter--the minute we find it, it's destroyed!" He beat his fists furiously. "Our one chance to learn--"

"We were lucky to get out alive," said Miellyn quietly. "Where on the planet are we, I wonder?"

I looked down the hillside, and stared in amazement. Spread out on the hillside below us lay the Kharsa, topped by the white skyscraper of the HQ.

"I'll be damned," I said, "right here. We're home. Rakhal, you can go down and make your peace with the Terrans, and Juli. And you, Miellyn--" Before the others, I could not say what I was thinking, but I put my hand on her shoulder and kept it there. She smiled, shakily, with a hint of her old mischief. "I can't go into the Terran Zone looking like this, can I? Give me that comb again. Rakhal, give me your shirtcloak, my robes are torn."

"You vain, stupid female, worrying about a thing like that at a time like this!" Rakhal's look was like murder. I put my comb in her hand, then suddenly saw something in the symbols across her breasts. Before this I had seen only the conventionalized and intricate glyph of the Toad God. But now--

I reached out and ripped the cloth away.

"Cargill!" she protested angrily, crimsoning, covering her bare breasts with both hands. "Is this the place? And before a child, too!"
I hardly heard. "Look!" I exclaimed. "Rakhal, look at the symbols embroidered into the glyph of the God! You can read the old nonhuman glyphs. You did it in the city of The Lisse. Miellyn said they were the key to the transmitters! I'll bet the formula is written out there for anyone to read!

"Anyone, that is, who can read it! I can't, but I'll bet the formula equations for the transmitters are carved on every Toad God glyph on Wolf. Rakhal, it makes sense. There are two ways of hiding something. Either keep it locked away, or hide it right out in plain sight. Whoever bothers even to look at a conventionalized Toad God? There are so many billions of them...."

He bent his head over the embroideries, and when he looked up his face was flushed. "I believe--by the chains of Sharra, I believe you have it, Race! It may take years to work out the glyphs, but I'll do it, or die trying!" His scarred and hideous face looked almost handsome in exultation, and I grinned at him.

"If Juli leaves enough of you, once she finds out how you maneuvered her. Look, Rindy's fallen asleep on the grass there. Poor kid, we'd better get her down to her mother."

"Right." Rakhal thrust the precious embroidery into his shirtcloak, then cradled his sleeping daughter in his arms. I watched him with a curious emotion I could not identify. It seemed to pinpoint some great change, either in Rakhal or myself. It's not difficult to visualize one's sister with children, but there was something, some strange incongruity in the sight of Rakhal carrying the little girl, carefully tucking her up in a fold of his cloak to keep the sharp breeze off her face.

Miellyn was limping in her thin sandals, and she shivered. I asked, "Cold?"

"No, but--I don't believe Evarin is dead, I'm afraid he got away."

For a minute the thought dimmed the luster of the morning. Then I shrugged. "He's probably buried in that big hole up there." But I knew I would never be sure.

We walked abreast, my arm around the weary, stumbling woman, and Rakhal said softly at last, "Like old times."

It wasn't old times, I knew. He would know it too, once his exultation sobered. I had outgrown my love for intrigue, and I had the feeling this was Rakhal's last adventure. It was going to take him, as he said, years to work out the equations for the transmitter. And I had a feeling my own solid, ordinary desk was going to look good to me in the morning.

But I knew now that I'd never run away from Wolf again. It was my own beloved sun that was rising. My sister was waiting for me down below, and I was bringing back her child. My best friend was walking at my side. What more could a man want?

If the memory of dark, poison-berry eyes was to haunt me in nightmares, they did not come into the waking world. I looked at Miellyn, took her slender unmanacled hand in mine, and smiled as we walked through the gates of the city. Now, after all my years on Wolf, I understood the desire to keep their women under lock and key that was its ancient custom. I vowed to myself as we went that I should waste no time finding a fetter shop and having forged therein the perfect steel chains that should bind my love's wrists to my key forever.
When he was nine, Vogel almost killed another boy who inadvertently scattered his half-completed jigsaw puzzle.

At sixteen, he discovered the mysteries of the Danish Gambit, and cried.

At twenty-two, he crouched in a foxhole on Okinawa, oblivious to the death bursting about him, squinting in a painful ecstasy at the tattered fragment of newspaper on his knee. His sergeant screamed in agony, then died at his elbow. Vogel's face lit up. "Slay," he said happily, scribbling. As crossword puzzles go, it had been a toughie.

At thirty, he was Production Manager of Sachs Fixtures. His men hated him. The General Manager loved him. Tall, gaunt and ruthless, he could glance at any detail print and instantly pinpoint the pattern of final assembly, total man-hour budget and fabrication lead time.

Once, he made a mistake.

On a forty-thousand-dollar job lot he estimated too high on production scrap. When the final assemblies were completed, they had two feet of bulb extension left over. It disturbed him. He spent that evening in his den brooding over chessmen. His wife let him alone.

Next day, he hired Amenth.

Personnel called that morning and apologized. "No experience, but amazing shop aptitude. He's coming down to you for an interview."

"I want," Vogel said into the phone, "three bench men. By noon. With shop experience."

Personnel was sorry. Vogel snarled and hung up.

"Hello, please, sir," said a voice.

Vogel stared, icily.

Meekness cowered in front of his desk. Meekness in the form of a small birdlike person with beseeching amber eyes.

"I am Amenth," he said, cringing.

Vogel eyed the olive skin, the cheekbones, the blue-black hair. "A wetback," he said. "Three men short and they send me wetbacks. You know sheet metal, buster?"


Fighting apoplexy, Vogel took him out into the shop. Amenth cringed at the howl of air tools and punch presses. Vogel contemptuously took him by the arm and led him to a workbench where a wizened persimmon of a man performed deft lightnings with rivets and air wrench.

"Benny, this is Amenth. He's new." Vogel pronounced it like a curse. "Get him some goggles from the crib, a rivet gun."

Vogel returned to his office scowling. The phone rang almost instantly.

"Boss," said Benny, "he's from nothing--all thumbs with an air wrench and he don't know alclad from stainless."

"Be right out," Vogel said, hanging up.

Before he had a chance to fire Amenth, the Fabrication Super came in with a production problem. Vogel solved it, but it was almost an hour before he returned to Benny's bench--and stared.

Amenth was a blur of motion. His Keller chattered like a live thing.

A furious sweaty Benny snapped at Vogel, "You playing practical jokes? Look, this guy's gone crazy, he's fifty per cent under standard! Tell him to slow down before I file a grievance."

Amenth beamed. "I am of the aptitude," he said.

A queer deep tingle went through Vogel. The crystal delight of challenge he felt when confronted by an apparently impregnable fianchetto.

That was the first day.

* * * * *

A week later, Vogel was compiling a progress report from completed shop travelers. Abruptly he scowled at one traveler, then said, "Charlie!"
"Yes, sir," one of the planners said.
"Why didn't these galleys go out for drop hammer?"
Charlie peered at the form and whistled. "Somebody must have changed the planning sheet."
"Get me the story!"
Charlie went hurriedly out into the shop.
Some time later he returned with a pale, dazed look. "It's this guy in assembly," he said. "Name is Amenth. He didn't even read the traveler. Just looked at the attached detail print and decided to miter the edges, then reverse the flange with a weld." He threw the completed part on Vogel's desk. "Go ahead, check those tolerances," he said whitely. "Right on the money."

Vogel walked over to a calculator and figured. There was a dreamy expression in his eyes. He said softly, "All fabrication in our own shop. A net saving of 93 cents per unit, or eight hundred dollars total. I believe you planned this item, Charlie."
Vogel fired him.
That same afternoon Amenth came into the office on Vogel's order. "Sir?"
"Don't you know how to read a traveler?" Vogel asked sternly.
"It was a lucky accident," Amenth looked terrified. "I just read the print--"
"And did what seemed logical." Statement, then a very quiet question. "What happened to your accent?"
The little man looked blank.
Vogel took a slow deep breath. "I've got a material planning job open," he said tightly. "Three-fifty to start. Interested?"
For a moment he thought Amenth would lick his hand.
The little man took to planning sheets like a duck to water. He pored feverishly over blueprints, turning out travelers in a steady flood.
Vogel watched him. He went over to Personnel, requested Amenth's employment application, read it and scowled. It was a masterpiece of anonymity. Birthplace: New York. Former Occupation: Laborer. Hobbies: None. He memorized Amenth's address and returned the application.
Vogel always ate lunch in the office with his expediters. That noon two of them got into an argument about the planets.
"I say there is life on Mars," Pete Stone insisted stubbornly. "When the polar ice cap melts, the water runs along the canals and traces of green from growing vegetation can be spotted."
"Which proves nothing," Harvey Lamb yawned. Lamb was chief expediter. "Man couldn't live there, anyway. There's not enough oxygen."
"You would be amazed," Amenth said quietly, "at the adaptability of Man."
Vogel set down his thermos and leaned forward. "You mean Martians, for instance, could live here, assuming they existed and had spaceships?"
Amenth's smile was infinitely bitter. "Until they'd go mad."
The talk turned to baseball. Vogel lit his pipe and gave Amenth a surreptitious glance. The little man slumped in the corner, bleak and withdrawn.
This was delicious.

* * * * *
Vogel left the shop and drove across town to Amenth's address. It turned out to be an ancient rooming house on the West Side. Mrs. Reardon, the landlady, was an apathetic woman who brightened when he asked her about Amenth.
"He moved in just three weeks ago." Her face softened in recollection. "He was like a lost dog coming in out of the rain. Couldn't hardly speak English and he wanted me to trust him for the rent. I must have been crazy." Her nostrils flared. "Not that he hasn't paid up. Are you a cop?"
Vogel nodded as he took out his wallet. In it was his honorary sheriff's badge, but he doubted if the woman would know the difference. She didn't. She led the way upstairs to Amenth's room, worrying, and Vogel assured her they were only looking for a hit-and-run witness, that it was strictly routine.
Amenth's room was incredibly aseptic, barren of pictures, ash trays, dirty laundry, any of the normal masculine debris. Vogel got the stark impression of a convict's cell. In the bleak dresser were two pair of socks, underwear, one tie. In the closet hung one white shirt ... period. Everything wore an indefinable patina of newness. Two books graced the top of the dresser. Vogel recognized one of them, a text on fabrication and design which Amenth had borrowed from his office. The other was a child's primer of English.
"He stays in his room almost every night--reads mostly, and he speaks English much better now," said Mrs. Reardon. "A good tenant--I can't complain--and he's quiet and clean." She described Amenth and Vogel shook his
"Our man is about sixty, with a beard," he said. "Funny coincidence. It's a strange name."
Mrs. Reardon agreed.
Vogel drove back to the shop, whistling.
He did not go to his chess club that night, but went to the library instead. He read about Flying Saucers, about space travel, about the possibility of life on other planets. Sometimes he chuckled. Once he frowned deeply and bit his lip.
That night in bed, listening to his wife's shallow breathing, he said, "Alice."
"Yes?"
"Supposing you were lost on a desert island. What would you do?"
"I'd build a raft," she said sleepily.
Vogel smiled into the darkness.
Next day he made a systematic tour of the stockroom, scanning the racks of completed sub-assemblies, the gleaming fixture components, the rows of panels, brackets, extrusions, all waiting like soldiers to march from the stockroom into final assembly.
Vogel suddenly grunted.
There, half hidden behind a row of stainless-steel basin assemblies, was a nine-inch bowl. He examined it. The bowl was heavy and shiny. There was no part number stamp, and the metal was not alclad, not stainless, not cad nor zinc. Five small copper discs had been welded to the lower flange.
Vogel carefully scraped off a sample with a file. Then he replaced the part in the stock rack and went into his office where he placed the sample in an envelope.
That afternoon he ranged the shop like a hound.
In the shipping crib, he found a half-completed detail that struck a chord of strangeness. Two twisted copper vanes with a crumpled shop traveler signed by Amenth. The next operation specified furnace braze. Vogel squinted at the attached detail print. It was a current job number.
He spent the next two hours in the ozalid room, leafing through the print files. The job number called for a deep-freeze showcase, and there were exactly two hundred and seven detail drawings involved.
Not one of them matched the print in shipping.
After an almost silent dinner at home, he sat smoking his pipe, waiting for the phone to ring. It rang at eight.
"It's platinum," Carstairs said. Tim Carstairs was a night-shift chemist. "Anything wrong, Mr. Vogel?"
"No." Vogel paused. "Thanks, Tim." He hung up, glanced at his fingers. They were shaking.
"You," Alice said, "look ready to call mate in three."
"I'm going over to the shop," he said, kissing her. "Don't wait up."
* * * * *
He was not surprised to see the light on in the parts control section. Amenth was writing planning sheets.
"I don't believe we authorized overtime," Vogel told him mildly, hanging up his coat.
"Just loose ends." Amenth's smile was nervous. "Tying up these burden charts. I'm on my own time."
"Thought I'd set up next month's budget." Vogel sat at his desk. "By the way, what did you do before you came here?"
"Odd jobs." Amenth's lips twitched.
"Your family live on the coast?"
Sweat glistened on the little man's forehead. "Ah--no. My folks passed on years ago."
Cat and mouse.
"You've done good work lately." Vogel yawned, studying the progress chart on the wall. Behind him he heard a soft exhalation of relief, the furtive rustle of papers as Amenth cleaned off his desk.
When Amenth finally left, Vogel went over to his desk and methodically ransacked the work in process file. It took him two hours to find what he was looking for.
One: A schematic detail on graph paper which resembled no type of circuit Vogel had ever seen.
Two: Fourteen completed shop travelers on which were typed clearly, Call Amenth upon completion. That was not unusual; most expediters wanted to be notified when a hot part hit Inspection. The unusual part was that no inspection stamp had been placed opposite the final operation of Inspect, Identify, Return to Stock. Ergo, Amenth had inspected and stocked the parts himself.
Three: A progress chart with dates, indicating four detail parts still remaining in fabrication. Final assembly date--tomorrow!
The following afternoon, Vogel sat alone in the conference room. The door opened and Amenth came in. "You sent for me, sir?"
"Sit down, Amenth. Let's talk a while."

Amenth sat down uneasily.

"We're considering you for promotion," Vogel said, silencing the little man's protests with a deprecating wave. "But we've got to know if you're ready. Let's talk about your job."

Amenth relaxed.

They talked shop for a few moments, then Vogel opened a folder, took out his watch. "Very good," he said. "Now let's check your initiative potential." As Amenth stiffened, Vogel reassured him, "Relax. It's a routine association test."

For the next ten minutes he timed Amenth's responses with a stop watch. Most of the words were familiar shop words and most of the responses were standard.

"Job."
"Escape," Amenth said instantly.
"Blueprint."
"Create."
"Noise."
"Hate."
"Want."
"Home!"

It was all so childish, so obvious, and Amenth's eyes were frightened amber pools when Vogel dismissed him.

No matter. Let him suspect. Vogel studied the reaction results with grim amusement.

Outside, the shop roared.

And Amenth's travelers sped the rounds: Issue material; Shear to size; Form on brake; Weld per print; Miter, drill, inspect, stock. One by one, the strange details were being formed, finished, to lie inert in the stockroom, to await final assembly.

Assembly.
Of what?
Tonight was project completion.

* * * * *

Midnight.

Vogel stood in darkness, leaning against the wall. He was tired. He had maintained this vigil for three hours. His right leg was numb and he started to shift position, then froze as he heard footsteps. Three aisles over, a light exploded, blindingly. He held his breath.

From outside in fabrication came the muffled clang of drill press and power brake, the sounds of the night shift. He waited. Three aisles over, something moved. Someone fumbled in the stock bins, collecting shaped pieces of metal, grunting with the effort of piling them on the salvage bench, now panting with impatience while assembling the parts. There was a hammering, a fitting together, a flash of light, a humming of power and finally a sob of relief.

Vogel's hand slipped into his coat pocket and grasped the gun. He moved silently.

Amenth stood at the salvage bench, adjusting studs and connecting terminals. Vogel stared at the final assembly.

It was a helmet. A large silvery helmet, connected to a nightmarish maze of wiring, mounted on a rectangular plastic base. It hummed, although there was no visible source of power. Vogel put on the helmet with a feverish haste. Vogel chuckled. Amenth stood motionless. Then as his hand darted toward a stand, Vogel said sharply, "Don't!"

Amenth stared at the gun.
"Take it off!" Vogel's voice was iron.
Amenth slowly took off the helmet. His eyes were golden with tears. "Please," he said.
"Mars or Venus?" Vogel said. "Which?"
"N- neither. You could not grasp the concept. Let me go. Please!"
"Where?" Vogel prodded. "Another dimension?"
"You would call it that," the alien whispered. Hope brightened his face. "You want something? Wealth? Power?"

It was the way he said the words, like a white trader offering his aborigine captors glass beads to set him free.
Vogel nodded toward the circuit. "That hook up—you tap the gravitational field direct? Cosmic rays?"
"Your planet's magnet force lines. Look, I'll leave you the schematic diagram. It's simple, really. You can use it to transmute—" He babble on with a heartbreaking eagerness, and Vogel listened.

"In my own world," said Amenth brokenly, "I am a moron. A criminal moron. Once, out of a childish malice, I
destroyed beauty. One of the singing crystals." He shuddered. "I was punished. They sent me here--to the snake pit. Sentence for felony. This--" he indicated the helmet--"would have fused three seconds after I used it. So, incidentally, would this entire shop. I had no time to construct a feedback dispersion."

"Tell me about your world," Vogel said.

Amenth told him.

Vogel's breath hissed softly between his teeth. All his life an unformed vision had tormented him, driven him toward perfection. Abruptly the vision was reality. He smiled, moved forward. "You shouldn't have told me."

Amenth saw the intent in his eyes and started to beg. Vogel clipped him behind the ear.

He put the helmet on, gingerly. The electrodes tingled against his temple and his grin was wry as he thought of Alice. Then he depressed the stud.

Vogel sobbed.

* * * * *

Color blinded him, rainbows blared in sweet, sparkling thunder. He whimpered, covering his eyes. The music drowned him in a fugue of weeping delight. Slowly he raised his head.

He stood ankle-deep in gold crystals that stretched out forever in a splendid sea of flame. The crystals sang softly, achingly, to a silver sun in an emerald sky. A grove of blue needle trees tinkled in ecstasy on his left. And beyond those trees....

The city sang.

White spires foamed skyward in impossible cataracts of glory. A glissando of joy burned his eardrums, and he could not face that living splendor. It was the city beyond dreams, beyond legend, the city where all dreams end. He strode toward it, raptly.

The crystals screamed. The blue needle forest lashed wildly, and terror shivered through the air in shrieking dissonance.

From the blue forest, people ran. Beautiful people, with great golden eyes and scarlet tunics. They could have been Amenth's brothers and sisters. They stared, horror and revulsion twisting their faces. They started toward him.

Vogel understood.

If destroying beauty on this world was a crime, then killing ugliness must be a duty.

On this world, he was ugly--
Dave stared around the office. He went to the window and stared upwards at the crazy patchwork of the sky. For all he knew, in such a sky there might be cracks. In fact, as he looked, he could make out a rift, and beyond that a hole... a small patch where there was no color, and yet the sky there was not black. There were no stars there, though points of light were clustered around the edges, apparently retreating.

"Dave Hanson! By the power of the true name be summoned cells and humors, ka and id, self and--"

Dave Hanson! The name came swimming through utter blackness, sucking at him, pulling him together out of nothingness. Then, abruptly, he was aware of being alive, and surprised. He sucked in on the air around him, and the breath burned in his lungs. He was one of the dead--there should be no quickening of breath within him!

He caught a grip on himself, fighting the fantasies of his mind, and took another breath of air. This time it burned less, and he could force an awareness of the smells around him. But there was none of the pungent odor of the hospital he had expected. Instead, his nostrils were scorched with a noxious odor of sulfur, burned hair and cloying incense.

He gagged on it. His diaphragm tautened with the sharp pain of long-unused muscles, and he sneezed.

"A good sign," a man's voice said. "The followers have accepted and are leaving. Only a true being can sneeze. But unless the salamander works, his chances are only slight."

There was a mutter of agreement from others, before an older voice broke in. "It takes a deeper fire than most salamanders can stir, Ser Perth. We might aid it with high-frequency radiation, but I distrust the effects on the prepsyche. If we tried a tamed succubus--"

"The things are untrustworthy," the first voice answered. "And with the sky falling, we dare not trust one."

The words blurred off in a fog of semiconsciousness and half-thoughts. The sky was falling? Who killed Foxy Loxy? I, said the spider, who sat down insider, I went boomp in the night and the bull jumped over the moon....

"Bull," he croaked. "The bull sleeper!"

"Delirious," the first voice muttered.

"I mean--bull pusher!" That was wrong, too, and he tried again, forcing his reluctant tongue around the syllables. "Bull dosser!"

Damn it, couldn't he even pronounce simple Engaliss?

The language wasn't English, however. Nor was it Canadian French, the only other speech he could make any sense of. Yet he understood it--had even spoken it, he realized. There was nothing wrong with his command of whatever language it was, but there seemed to be no word for bulldozer. He struggled to get his eyes open.

The room seemed normal enough, in spite of the odd smells. He lay on a high bed, surrounded by prim white walls, and there was even a chart of some kind at the bottom of the bedframe. He focused his eyes slowly on what must be the doctors and nurses there, and their faces looked back with the proper professional worry. But the varicolored gowns they wore in place of proper clothing were covered with odd designs, stars, crescents and things that might have been symbols for astronomy or chemistry.

He tried to reach for his glasses to adjust them. There were no glasses! That hit him harder than any other discovery. He must be delirious and imagining the room. Dave Hanson was so nearsighted that he couldn't have seen the men, much less the clothing, without corrective lenses.

The middle-aged man with the small mustache bent over the chart near his feet. "Hmm," the man said in the voice of the first speaker. "Mars trines Neptune. And with Scorpio so altered... hmm. Better add two cc. of cortisone to the transfusion."

Hanson tried to sit up, but his arms refused to bear his weight. He opened his mouth. A slim hand came to his lips, and he looked up into soothing blue eyes. The nurse's face was framed in copper-red hair. She had the transparent skin and classic features that occur once in a million times but which still keep the legend of redheaded enchantresses alive. "Shh," she said.

He began to struggle against her hand, but she shook her head gently. Her other hand began a series of complicated motions that had a ritualistic look about them.

"Shh," she repeated. "Rest. Relax and sleep, Dave Hanson, and remember when you were alive."

There was a sharp sound from the doctor, but it began to blur out before Hanson could understand it. He fought to remember what he'd heard the nurse say--something about when he was alive--as if he'd been dead a long time....
He couldn't hold the thought. At a final rapid motion of the girl's hand his eyes closed, the smell faded from his nose and all sounds vanished. Once there was a stinging sensation, as if he were receiving the transfusion. Then he was alone in his mind with his memories—mostly of the last day when he'd still been alive. He seemed to be reliving the events, rethinking the thoughts he'd had then.

It began with the sight of his uncle's face leering at him. Uncle David Arnold Hanson looked like every man's dream of himself and every woman's dreams of manliness. But at the moment, to Dave, he looked more like a personal demon. His head was tilted back and nasty laughter was booming through the air of the little office.

"So your little farewell activity didn't fare so well, eh?" he chortled. "And you come crawling here to tell me you want to do the honorable thing, is that it? All right, my beloved nephew, you'll do the honorable thing! You'll stick to your contract with me."

"But--" Dave began.

"But if you don't, you'd better read it again. You don't get one cent except on completion of your year with me. That's what it says, and that's what happens." He paused, letting the fact that he meant it sink in. He was enjoying the whole business, and in no hurry to end it. "And I happen to know, Dave, that you don't even have fare to Saskatchewan left. You quit and I'll see you never get another job. I promised my sister I'd make a man of you and, by jumping Jupiter, I intend to do just that. And in my book, that doesn't mean you run back with your tail between your legs just because some silly young girl pulls that old chestnut on you. Why, when I was your age, I already had...."

Dave wasn't listening any longer. In futile anger, he'd swung out of the office and gone stumbling back toward the computer building. Then, in a further burst of anger, he swung off the trail. To hell with his work and blast his uncle! He'd go on into town, and he'd—he'd do whatever he pleased.

The worst part of it was that Uncle David could make good on his threat of seeing that Dave got no more work anywhere. David Arnold Hanson was a power to reckon with. No other man on Earth could have persuaded anyone to let him try his scheme of building a great deflection wall across northern Canada to change the weather patterns. And no other man could have accomplished the impossible task, even after twelve countries pooled their resources to give him the job. But he was doing it, and it was already beginning to work. Dave had noticed that the last winter in Chicago had definitely shown that Uncle David's predictions were coming true.

Like most of the world, Dave had regarded the big man who was his uncle with something close to worship. He'd jumped at the chance to work under Uncle David. And he'd been a fool. He'd been doing all right in Chicago. Repairing computers didn't pay a fortune, but it was a good living, and he was good at it. And there was Bertha—maybe not a movie doll, but a sort of pretty girl who was also a damned good cook. For a man of thirty who'd always been a scrawny, shy runt like the one in the "before" pictures, he'd been doing all right.

Then came the letter from his uncle, offering him triple salary as a maintenance man on the computers used for the construction job. There was nothing said about romance and beauteous Indian maids, but Dave filled that in himself. He would need the money when he and Bertha got married, too, and all that healthy outdoor living was just what the doctor would have ordered.

The Indian maids, of course, turned out to be a few fat old squaws who knew all about white men. The outdoor living developed into five months of rain, hail, sleet, blizzard, fog and constant freezing in tractors while breathing the healthy fumes of diesels. Uncle David turned out to be a construction genius, all right, but his interest in Dave seemed to lie in the fact that he was tired of being Simon Legree to strangers and wanted to take it out on one of his own family. And the easy job turned into hell when the regular computer-man couldn't take any more and quit, leaving Dave to do everything, including making the field tests to gain the needed data.

Now Bertha was writing frantic letters, telling him how much he'd better come back and marry her immediately. And Uncle David thought it was a joke!

Dave paid no attention to where his feet were leading him, only vaguely aware that he was heading down a gully below the current construction job. He heard the tractors and bulldozers moving along the narrow cliff above him, but he was used to the sound. He heard frantic yelling from above, too, but paid no attention to it; in any Hanson construction program, somebody was always yelling about something that had to be done day before yesterday. It wasn't until he finally became aware of his own name being shouted that he looked up. Then he froze in horror.

The bulldozer was teetering at the edge of the cliff as he saw it, right above him. And the cliff was crumbling from under it, while the tread spun idiotically out of control. As Dave's eyes took in the whole situation, the cliff crumbled completely, and the dozer came lunging over the edge, plunging straight for him. His shout was drowned in the roar of the motor. He tried to force his legs to jump, but they were frozen in terror. The heavy mass came straight for him, its treads churning like great teeth reaching for him.

Then it hit, squarely on top of him. Something ripped and splattered and blacked out in an unbearable welter of
agony.

Dave Hanson came awake trying to scream and thrusting at the bed with arms too weak to raise him. The dream of the past was already fading. The horror he had thought was death lay somewhere in the past.

Now he was here--wherever here was.

The obvious answer was that he was in a normal hospital, somehow still alive, being patched up. The things he seemed to remember from his other waking must be a mixture of fact and delirium. Besides, how was he to judge what was normal in extreme cases of surgery?

He managed to struggle up to a sitting position in the bed, trying to make out more of his surroundings. But the room was dark now. As his eyes adjusted, he made out a small brazier there, with a cadaverous old man in a dark robe spotted with looped crosses. On his head was something like a miter, carrying a coiled brass snake in front of it. The old man's white goatee bobbed as he mouthed something silently and made passes over the flame, which shot up prismatically. Clouds of white fire belched up.

Dave reached to adjust his glasses, and found again that he wasn't wearing them. But he'd never seen so clearly before.

At that moment, a chanting voice broke into his puzzled thoughts. It sounded like Ser Perth. Dave turned his head weakly. The motion set sick waves of nausea running through him, but he could see the doctor kneeling on the floor in some sort of pantomime. The words of the chant were meaningless.

A hand closed over Dave's eyes, and the voice of the nurse whispered in his ear. "Shh, Dave Hanson. It's the Sather Karf, so don't interrupt. There may be a conjunction."

He fell back, panting, his heart fluttering. Whatever was going on, he was in no shape to interrupt anything. But he knew that this was no delirium. He didn't have that kind of imagination.

The chant changed, after a long moment of silence. Dave's heart had picked up speed, but now it missed again, and he felt cold. He shivered. Hell or heaven weren't like this, either. It was like something out of some picture--something about Cagliostro, the ancient mystic. But he was sure the language he somehow spoke wasn't an ancient one. It had words for electron, penicillin and calculus, for he found them in his own mind.

The chant picked up again, and now the brazier flamed a dull red, showing the Sather Karf's face changing from some kind of disappointment to a businesslike steadiness. The red glow grew white in the center, and a fat, worm-like shape of flame came into being. The old man picked it up in his hand, petted it and carried it toward Dave. It flowed toward his chest.

He pulled himself back, but Ser Perth and the nurse leaped forward to hold him. The thing started to grow brighter. It shone now like a tiny bit of white-hot metal; but the older man touched it, and it snuggled down into Dave's chest, dimming its glow and somehow purring. Warmth seemed to flow from it into Dave. The two men watched for a moment, then picked up their apparatus and turned to go. The Sather Karf lifted the fire from the brazier in his bare hand, moved it into the air and said a soft word. It vanished, and the two men were also gone.

"Magic!" Dave said. He'd seen such illusions created on the stage, but there was something different here. And there was no fakery about the warmth from the thing over his chest. Abruptly he remembered that he'd come across something like it, called a salamander, in fiction once; the thing was supposed to be a spirit of fire, and dangerously destructive.

The girl nodded in the soft glow coming from Dave's chest. "Naturally," she told him. "How else does one produce and control a salamander, except by magic? Without, magic, how can we thaw a frozen soul? Or didn't your world have any sciences, Dave Hanson?"

Either the five months under his uncle had toughened him, or the sight of the bulldozer falling had knocked him beyond any strong reaction. The girl had practically told him he wasn't in his own world. He waited for some emotion, felt none, and shrugged. The action sent pain running through him, but he stood it somehow. The salamander ceased its purring, then resumed.

"Where in hell am I?" he asked. "Or when?"

She shook her head. "Hell? No, I don't think so. Some say it's Earth and some call it Terah, but nobody calls it Hell. It's--well, it's a long--time, I guess--from when you were. I don't know. In such matters, only the Satheri know. The Dual is closed even to the Seri. Anyhow, it's not your space-time, though some say it's your world."

"You mean dimensional travel?" Dave asked. He'd seen something about that on a science-fiction television program. It made even time travel seem simple. At any event, however, this wasn't a hospital in any sane and normal section of Canada during his time, on Earth.

"Something like that," she agreed doubtfully. "But go to sleep now. Shh." Her hands came up in complicated gestures. "Sleep and grow well."

"None of that hypnotism again!" he protested.

She went on making passes, but smiled on him kindly. "Don't be superstitious--hypnotism is silly. Now go to
sleep. For me, Dave Hanson. I want you well and true when you awake."

Against his will, his eyes closed, and his lips refused to obey his desire to protest. Fatigue dulled his thoughts. But for a moment, he went on pondering. Somebody from the future--this could never be the past--had somehow pulled him out just ahead of the accident, apparently; or else he'd been deep frozen somehow to wait for medical knowledge beyond that of his own time. He'd heard it might be possible to do that.

It was a cockeyed future, if this were the future. Still, if scientists had to set up some, sort of a religious mumbo-jumbo....

Sickness thickened in him, until he could feel his face wet with perspiration. But with it had come a paralysis that left him unable to move or groan. He screamed inside himself.

"Poor mandrake-man," the girl said softly. "Go back to Lethe. But don't cross over. We need you sorely."

Then he passed out again.

II

Whatever they had done to patch him up hadn't been very successful, apparently. He spent most of the time in a delirium; sometimes he was dead, and there was an ultimate coldness like the universe long after the entropy death. At other times, he was wandering into fantasies that were all horrible. And at all times, even in unconsciousness, he seemed to be fighting desperately to keep from falling apart painfully within himself.

When he was awake, the girl was always beside him. He learned that her name was Nema. Usually there was also the stout figure of Ser Perth. Sometimes he saw Sather Karf or some other older man working with strange equipment, or with things that looked like familiar hypodermics and medical equipment. Once they had an iron lung around him and there was a thin wisp over his face.

He started to brush it aside, but Nema's hand restrained him. "Don't disturb the sylph," she ordered.

Another semirational period occurred during some excitement or danger that centered around him. He was still half delirious, but he could see men working frantically to build a net of something around his bed, while a wet, thick thing flopped and drooled beyond the door, apparently immune to the attacks of the hospital staff. There were shouting orders involving the undine. The salamander in Dave's chest crept deeper and seemed to bleat at each cry of the monstrous thing beyond the door.

Sather Karf sat hunched over what seemed to be a bowl of water, paying no attention to the struggle. Something that he seemed to see there held his attention. Then he screamed suddenly.

"The Sons of the Egg. It's their sending!"

He reached for a brazier beside him, caught up the fire and plunged it deep into the bowl of water, screaming something. There was the sound of an explosion from far away as he drew his hands out, unwet by the water. Abruptly the undine began a slow retreat. In Dave's chest, the salamander began purring again, and he drifted back into his coma.

He tried to ask Nema about it later when she was feeding him, but she brushed it aside.

"An orderly let out the news that you are here," she said. "But don't worry. We've sent out a doppelganger to fool the Sons, and the orderly has been sentenced to slavery under the pyramid builder for twenty lifetimes. I hate my brother! How dare he fight us with the sky falling?"

Later, the delirium seemed to pass completely, but Dave took no comfort from that. In its place came a feeling of gloom and apathy. He slept most of the time, as if not daring to use his little strength even to think.

Ser Perth stayed near him most of the time now. The man was obviously worried, but tried not to show it.

"We've managed to get some testosterone from a blond homunculus," he reported. "That should put you on your feet in no time. Don't worry, young man we'll keep you vivified somehow until the Sign changes." But he didn't sound convincing.

"Everyone is chanting for you," Nema told him. "All over the world, the chants go up."

It meant nothing to him, but it sounded friendly. A whole world hoping for him to get well! He cheered up a bit at that until he found out that the chants were compulsory, and had nothing to do with goodwill.

The iron lung was back the next time he came to, and he was being tugged toward it. He noticed this time that there was no sylph, and his breathing seemed to be no worse than usual. But the sight of the two orderlies and the man in medical uniform beside the lung reassured him. Whatever their methods, he was convinced that they were doing their best for him here.

He tried to help them get him into the lung, and one of the men nodded encouragingly. But Dave was too weak to give much assistance. He glanced about for Nema, but she was out on one of her infrequent other duties. He sighed, wishing desperately that she were with him. She was a lot more proficient than the orderlies.

The man in medical robe turned toward him sharply. "Stop that!" he ordered.

Before Dave could ask what he was to stop, Nema came rushing into the room. Her face paled as she saw the three men, and she gasped, throwing up her hand in a protective gesture.
The two orderlies jumped for her, one grabbing her and the other closing his hands over her mouth. She struggled violently, but the men were too strong for her.

The man in doctor's robes shoved the iron lung aside violently and reached into his clothing. From it, he drew a strange, double-bladed knife. He swung toward Dave, raising the knife into striking position and aiming it at Dave's heart.

"The Egg breaks," he intoned hollowly. It was a cultured voice, and there was a refinement to his face that registered on Dave's mind even over the horror of the weapon. "The fools cannot hold the shell. But neither shall they delay its breaking. Dead you were, mandrake son, and dead you shall be again. But since the fault is only theirs, may no ill dreams follow you beyond Lethe!"

The knife started down, just as Nema managed to break free. She shrieked out a phrase of keening command. The salamander suddenly broke from Dave's chest, glowing brighter as it rose toward the face of the attacker. It was like a bit from the center of a star. The man jumped back, beginning a frantic ritual. He was too late. The salamander hit him, sank into him and shone through him. Then he slumped, steamed ... and was nothing but dust falling toward the carpet. The salamander turned, heading toward the others. But it was to Nema it went, rather than the two men. She was trying something desperately, but fear was thick on her face, and her hands were unsure.

Abruptly, Sather Karf was in the doorway. His hand lifted, his fingers dancing. Words hissed from his lips in a stream of sibilants too quick for Dave to catch. The salamander paused and began to shrink doubtfully. Sather Karf turned, and again his hands writhed in the air. One hand darted back and forward, as if he were throwing something. Again he made the gesture. With each throw, one of the false orderlies dropped to the floor, clutching at a neck where the skin showed marks of constriction as if a steel cord were tightening. They died slowly, their eyes bulging and faces turning blue. Now the salamander moved toward them, directed apparently by slight motions from Sather Karf. In a few moments, there was no sign of them.

The old man sighed, his face slumping into lines of fatigue and age. He caught his breath. He held out a hand to the salamander, petted it to a gentle glow and put it back over Dave's chest.

"Good work, Nema," he said wearily. "You're too weak to control the salamander, but this was done well in the emergency. I saw them in the pool, but I was almost too late. The damned fanatics. Superstition in this day and age!"

He swung to face Dave, whose vocal cords were still taut with the shock of the sight of the knife. "Don't worry, Dave Hanson. From now on, every Ser and Sather will protect you with the lower and the upper magic. The House changes tomorrow, if the sky permits, and we shall shield you until then. We didn't bring you back from the dead, piecing your scattered atoms together with your scattered revenant particle by particle, to have you killed again. Somehow, we'll incarnate you fully! You have my word for that."

"Dead?" Dave had grown numbed to his past during the long illness, but that brought it back afresh. "Then I was killed? I wasn't just frozen and brought here by some time machine?"

Sather Karf stared at him blankly. "Time machine? Impossible. Of course not. After the tractor killed you, and you were buried, what good would such fantasies be, even if they existed? No, we simply reincarnated you by pooling our magic. Though it was a hazardous and parlous thing, with the sky falling...."

He sighed and went out, while Dave went back to his delirium.

III

There was no delirium when he awoke in the morning. Instead, there was only a feeling of buoyant health. In fact, Dave Hanson had never felt that good in his life—or his former life. He reconsidered his belief that there was no delirium, wondering if the feeling were not itself a form of hallucination. But it was too genuine. He knew without question that he was well.

It shouldn't have been true. During the night, he'd partially awakened in agony to find Nema chanting and gesturing desperately beside him, and he'd been sure he was on the verge of his second death. He could remember one moment, just before midnight, when she had stopped and seemed to give up hope. Then she'd braced herself and begun some ritual as if she were afraid to try it. Beyond that, he had no memory of pain.

Nema came into the room now, touching his shoulder gently. She smiled and nodded at him. "Good morning, Sagittarian. Get out of bed."

Expecting the worst, he swung his feet over the side and sat up. After so much time in bed, even a well man should be rendered weak and shaky. But there was no dizziness, no sign of weakness. He had made a most remarkable recovery, and Nema didn't even seem surprised. He tentatively touched foot to floor and half stood, propping himself against the high bed.

"Come on," Nema said impatiently. "You're all right now. We entered your sign during the night." She turned her back on him and took something from a chest beside the bed. "Ser Perth will be here in a moment. He'll want to find you on your feet and dressed."

Hanson was beginning to feel annoyance at the suddenly cocksure and unsympathetic girl, but he stood fully
erect and flexed his muscles. There wasn't even a trace of bedsoreness, though he had been flat on his back long enough to grow callouses. And as he examined himself, he could find no scars or signs of injuries from the impact of the bulldozer—if there had ever really been a bulldozer.

He grimaced at his own doubts. "Where am I, anyhow, Nema?"

The girl dumped an armload of clothing on his bed and looked at him with controlled exasperation. "Dave Hanson," she told him, "don't you know any other words? That's the millionth time you've asked me that, at least. And for the hundredth time, I'll tell you that you're here. Look around you; see for yourself. I'm tired of playing nursemaid to you." She picked up a shirt of heavy-duty khaki from the pile on the bed and handed it to him. "Get into this," she ordered. "Dress first, talk later."

She stalked out of the room.

Dave did as she had ordered, busy with his own thoughts as he discovered what he was to wear. He was still wearing something with a vague resemblance to a short hospital gown, with green pentacles and some plant symbol woven into it, and with a clasp to hold it together shaped into a silver crux ansata. He took it off and hurled it into a corner disgustedly.

He picked up the khaki shirt and put it on; then, with growing curiosity, the rest of the garments, until he came to the shoes. Khaki shirt, khaki breeches, a wide, webbed belt, a flat-brimmed hat. And the shoes—they weren't shoes, but knee-length leather boots, like a dressy version of lumberman's boots or a rougher version of riding boots. He hadn't seen even pictures of such things since the few silent movies run in some of the little art theaters. He struggled to get them on. They were an excellent fit, and comfortable enough, but he felt as if his legs were encased in hardened concrete when he was through. He looked down at himself in disgust. He was in all respects costumed as the epitome of the Hollywood dream of a heroic engineer-builder, ready to drive a canal through an isthmus or throw a dam across a raging river—the kind who'd build the dam while the river raged, instead of waiting until it was quiet, a few days later. He was about as far from the appearance of the actual blue-denim, leather-jacket engineers he had worked with as Maori in ancient battle array.

He shook his head and went looking for the bathroom, where there might be a mirror. He found a door, but it led into a closet, filled with alembics and other equipment. There was a mirror hung on the back of it, however, with a big sign over it that said "Keep Out." He threw the door wide and stared at himself. At first, in spite of the costume, he was pleased. Then the truth began to hit him, and he felt abruptly sure he was still raging with fever and delirium.

He was still staring when Nema came back into the room. She pursed her lips and shut the door quickly. But he'd already seen enough.

"Never mind where I am," he said. "Tell me, who am I?"

She stared at him. "You're Dave Hanson."

"The hell I am," he told her. "Oh, that's what I remember my father having me christened as. He hated long names. But take a good look at me. I've been shaving my face for years now, and I should know it. That face in the mirror wasn't it! There's a resemblance. But a damned faint one. Change the chin, lengthen my nose, make the eyes brown instead of blue, and it might be me. But Dave Hanson's at least five inches shorter and fifty pounds lighter, too. Maybe the face is plastic surgery after the accident—but this isn't even my body."

The girl's expression softened. "I'm sorry, Dave Hanson," she said gently. "We should have thought to warn you. You were a difficult conjuration—and even the easier ones often go wrong these days. We did our best, though it may be that the auspices were too strong on the soma. I'm sorry if you don't like the way you look. But there's nothing we can do about it now."

Hanson opened the door again, in spite of Nema's quick frown, and looked at himself. "Well," he admitted, "I guess it could be worse. In fact, I guess it was worse—once I get used to looking like this, I think I'll get to like it. But seeing it was a heck of a thing to take for a sick man."

"Are you sick?"

"Well—I guess not."

"Then why say you are? You shouldn't be; I told you we've entered the House of Sagittarius now. You can't be sick in your own sign. Don't you understand even that much elementary science?"

Hanson didn't get a chance to answer. Ser Perth was suddenly in the doorway, dressed in a different type of robe. This was short and somehow conservative—it had a sincere, executive look about it. The man seemed changed in other ways, too. But Dave wasn't concerned about that. He was growing tired of the way people suddenly appeared out of nowhere. Maybe they all wore rubber-soled shoes or practiced sneaking about; it was a silly way for grown people to act.

"Come with me, Dave Hanson," Ser Perth ordered, without wasting words. He spoke in a clipped manner now.

Dave followed, grumbling in his mind. It was even sillier than their sneaking about for them to expect him to
start running around before they bothered to check the condition of a man fresh out of his death bed. In any of the hospitals he had known, there would have been hours or days of X-rays and blood tests and temperature taking before he would be released. These people simply decided a man was well and ordered him out.

To do them justice, however, he had to admit that they seemed to be right. He had never felt better. The twaddle about Sagittarius would have to be cleared up sometime, but meanwhile he was in pretty good shape. Sagittarius, as he remembered it, was supposed to be one of the signs of the Zodiac. Bertha had been something of a sucker for astrology and had found he was born under that sign before she agreed to their little good-by party. He snorted to himself. It had done her a heck of a lot of good, which was to be expected of such nonsense.

They passed down a dim corridor and Ser Perth turned in at a door. Inside there was a single-chair barber shop, with a barber who might also have come from some movie-casting office. He had the proper wavy black hair and rat-tailed comb stuck into a slightly dirty off-white jacket. He also had the half-obsequious, half-insulting manner Dave had found most people expected from their barbers. While he shaved and trimmed Dave, he made insultingly solicitous comments about Dave's skin needing a massage, suggested a tonic for thinning hair and practically insisted on a singe. Ser Perth watched with a mixture of intentness and amusement. The barber trimmed the tufts from over Dave's ears and clipped the hair in his nose, while a tray was pushed up and a slatternly blonde began giving him a manicure.

He began noticing that she carefully dumped his fingernail parings into a small jar. A few moments later, he found the barber also using a jar to collect the hair and shaving stubble. Ser Perth was also interested in that, it seemed, since his eyes followed that part of the operation. Dave frowned, and then relaxed. After all, this was a hospital barber shop, and they probably had some rigid rules about sanitation, though he hadn't seen much other evidence of such care.

The barber finally removed the cloth with a snap and bowed. "Come again, sir," he said.

Ser Perth stood up and motioned for Dave to follow. He turned to look in a mirror, and caught sight of the barber handing the bottles and jars of waste hair and nail clippings to a girl. He saw only her back, but it looked like Nema.

Something stirred in his mind then. He'd read something somewhere about hair clippings and nail parings being used for some strange purpose. And there'd been something about spittle. But they hadn't collected that. Or had they? He'd been unconscious long enough for them to have gathered any amount they wanted. It all had something to do with some kind of mumbo-jumbo, and....

Ser Perth had led him through the same door by which they'd entered--but not into the same hallway. Dave's mind dropped the other thoughts as he tried to cope with the realization that this was another corridor. It was brightly lit, and there was a scarlet carpet on the floor. Also, it was a short hall, requiring only a few steps before they came to a bigger door, elaborately enscrolled. Ser Perth bent before it, and the door opened silently while he and Dave entered.

The room was large and sparsely furnished. Sitting cross-legged on a cushion near the door was Nema, juggling something in her hands. It looked like a cluster of colored threads, partly woven into a rather garish pattern. On a raised bench between two windows sat the old figure of Sather Karf, resting his chin on hands that held a staff and staring at Dave intently.

Dave stopped as the door closed behind him. Sather Karf nodded, as if satisfied, and Nema tied a complex knot in the threads, then paused silently.

Sather Karf looked far less well than when Dave had last seen him. He seemed older and more shriveled, and there was a querulous, pinched expression in place of the firmness and almost nobility Dave had come to expect. His old eyes bored into the younger man, and he nodded. His voice had a faint quaver now. "All right. You're not much to look at, but you're the best we could find in the Ways we can reach. Come here, Dave Hanson."

The command was still there, however petty the man seemed now. Dave started to phrase some protest, when he found his legs taking him forward to stop in front of Sather Karf, like some clockwork man whose lever has been pushed. He stood in front of the raised bench, noticing that the spot had been chosen to highlight him in the sunset light from the windows. He listened while the old man talked.

Sather Karf began without preamble, stating things in a dry voice as if reading off a list of obvious facts.

"You were dead, Dave Hanson. Dead, buried, and scattered by time and chance until even the place where you lay was forgotten. In your own world, you were nothing. Now you are alive, through the effort of men here whose work you could not even dream of. We have created you, Dave Hanson. Remember that, and forget the ties to any other world, since that world no longer holds you."

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Dave nodded slowly. It was hard to swallow, but there were too many things here that couldn't be in any world he had known. And his memory of dying was the clearest memory he had. "All right," he admitted. "You saved my life--or something. And I'll try to remember it. But if this isn't my world, what world is it?"
"The only world, perhaps. It doesn't matter." The old man sighed, and for a moment the eyes were shrouded in speculation, as if he were following some strange by-ways of his own thoughts. Then he shrugged. "It's a world and culture linked to the one you knew only by theories that disagree with each other. And by vision--the vision of those who are adept enough to see through the Ways to the branches of Duality. Before me, there was nothing. But I've learned to open a path--a difficult path for one in this world--and to draw from it, as you have been drawn. Don't try to understand what is a mystery even to the Satheri, Dave Hanson."

"A reasonably intelligent man should be able--" Dave began.

Ser Perth cut his words off with a sharp laugh. "Maybe a man. But who said you were a man, Dave Hanson? Can't you even understand that? You're only half human. The other half is mandrake--a plant that is related to humanity through shapes and signs by magic. We make simulacra out of mandrakes--like the manicurist in the barber shop. And sometimes we use a mandrake root to capture the essence of a real man, in which case he's a mandrake-man, like you. Human? No. But a very good imitation, I must admit."

Dave turned from Ser Perth toward Nema, but her head was bent over the cords she was weaving, and she avoided his eyes. He remembered now that she'd called him a mandrake-man before, in a tone of pity. He looked down at his body, sick in his mind. Vague bits of fairy tales came back to him, suggesting horrible things about mandrake creatures--zombie-like things, only outwardly human.

Sather Karf seemed amused as he looked at Ser Perth. Then the old man dropped his eyes toward Dave, and there was a brief look of pity in them. "No matter, Dave Hanson," he said. "You were human, and by the power of your true name, you are still the same Dave Hanson. We have given you life as precious as your other life. Pay us for that with your service, and that new life will be truly precious. We need your services."

"What do you want?" Dave asked. He couldn't fully believe what he'd heard, but there had been too many strange things to let him disbelieve, either. If they had made him a mandrake-man, then by what little he could remember and guess, they could make him obey them.

"Look out the window--at the sky," Sather Karf ordered.

Dave looked. The sunset colors were still vivid. He stepped forward and peered through the crystalline glass. Before him was a city, bathed in orange and red, towering like the skyline of a dozen cities he had seen--and yet; not like any. The buildings were huge and many-windowed. But some were straight and tall, some were squat and fairy-colored and others blossomed from thin stalks into impossibly bulbous, minaretted domes, like long-stemmed tulips reproduced in stone. Haroun-al-Rashid might have accepted the city, but Mayor Wagner could never have believed in it.

"Look at the sky," the old man suggested again, and there was no mockery in his voice now. Dave looked up obediently.

The sunset colors were not sunset. The sun was bright and blinding overhead, surrounded by reddish clouds, glaring down on the fairy city. The sky was--blotchy. It was daylight, but through the clouds bright stars were shining. A corner of the horizon was winter blue; a whole sweep of it was dead, featureless black. It was a nightmare sky, an impossible sky. Dave's eyes bulged as he looked at it.

He turned back to Sather Karf. "What--what's the matter with it?"

"What indeed?" There was bitterness and fear in the old man's voice. In the corner of the room, Nema looked up for a moment, and there was fear and worry in her eyes before she looked back to her weaving of endless knots. Sather Karf sighed in weariness. "If I knew what was happening to the sky, would I be dredging the muck of Duality for the likes of you, Dave Hanson?"

He stood up, wary but with a certain ease and grace that belied his age, looking down at Dave. There was stern command in his words, but a hint of pleading in his expression.

"The sky's falling, Dave Hanson. Your task is to put it together again. See that you do not fail us!"

He waved dismissal and Ser Perth led Dave and Nema out.

IV

The corridor down which they moved this time was one that might have been familiar even in Dave's Chicago. There was the sound of typewriters from behind the doors, and the floor was covered with composition tile, instead of the too-lush carpets. He began to relax a little until he came to two attendants busily waxing the floor. One held the other by the ankles and pushed the creature's hairy face back and forth, while its hands spread the wax ahead of it. The results were excellent, but Dave found it hard to appreciate.

Ser Perth shrugged slightly. "They're only mandrakes," he explained. He threw open the door of one of the offices and led them through an outer room toward an inner chamber, equipped with comfortable chairs and a desk. "Sit down, Dave Hanson. I'll fill you in on anything you need to know before you're assigned. Now--the Sather Karf told you what you were to do, of course, but--"

"Wait a minute," Dave suggested. "I don't remember being told any such thing."
Ser Perth looked at Nema, who nodded. "He distinctly said you were to repair the sky. I've got it down in my notes if you want to see them." She extended the woven cords.

"Never mind," Ser Perth said. He twiddled with his mustache. "I'll recap a little. Dave Hanson, as you have seen, the sky is falling and must be repaired. You are our best hope. We know that from a prophecy, and it is confirmed by the fact that the fanatics of the Egg have tried several times to kill you. They failed, though one effort was close enough, but their attempts would not have been made at all if they had not been convinced through their arts that you can succeed with the sky."

Dave shook his head. "It's nice to know you trust me!"

"Knowing that you can succeed," the other went on smoothly, "we know that you will. It is my unpleasant duty to point out to you the things that will happen if you fail. I say nothing of the fact that you owe us your life; that may be a small enough gift, and one quickly withdrawn. I say only that you have no escape from us. We have your name, and the true symbol is the thing, as you should know. We also have cuttings from your hair and your beard; we have the parings of your nails, five cubic centimeters of your spinal fluid and a scraping from your liver. We have your body through those, nor can you take it out of our reach. Your name gives us your soul." He looked at Hanson piercingly. "Shall I tell you what it would be like for your soul to live in the muck of a swamp in a mandrake root?"

Dave shook his head. "I guess not. I--look, Ser Perth. I don't know what you're talking about. How can I go along with you when I'm in the dark? Start at the beginning, will you? I was killed; all right, if you say I was, I was. You brought me to life again with a mandrake root and spells; you can do anything you want with me. I admit it; right now, I'll admit anything you want me to, because you know what's going on and I don't. But what's all this business of the sky falling? If it is and can be falling, what's the difference? If there is a difference, why should I be able to do anything about it?"

"Ignorance!" Ser Perth murmured to himself. He sighed heavily. "Always ignorance. Well, then, listen." He sat down on the corner of the desk and took out a cigarette. At least it looked like a cigarette. He snapped his fingers and lighted it from a little flame that sprang up, blowing clouds of bright green smoke from his mouth. The smoke hung lazily, drifting into vague patterns and then began to coalesce into a green houri without costume. He swatted at it negligently.

"Dratted sylphs. There's no controlling the elementals properly any more." He didn't seem too displeased, however, as he watched the thing dance off. Then he sobered.

"In your world, Dave Hanson, you were versed in the engineering arts--you more than most. That you should be so ignorant, though you were considered brilliant is a sad commentary on your world. But no matter. Perhaps you can at least learn quickly still. Even you must have had some idea of the composition of the sky?"

Dave frowned as he tried to answer. "Well, I suppose the atmosphere is oxygen and nitrogen, mostly; then there's the ionosphere and the ozone layer. As I remember, the color of the sky is due to the scattering of light--light rays being diffracted in the air."

"Beyond the air," Ser Perth said impatiently. "The sky itself!"

"Oh--space. We were just getting out there with manned ships. Mostly vacuum, of course. Of course, we're still in the solar atmosphere, even there, with the Van Allen belts and such things. Then there are the stars, like our sun, but much more distant. The planets and the moon--"

"Ignorance was bad enough," Ser Perth interrupted in amazement. He stared at Dave, shaking his head in disgust. "You obviously come from a culture of even more superstition than ignorance. Dave Hanson, the sky is no such thing. Put aside the myths you heard as a child. The sky is a solid sphere that surrounds Earth. The stars are no more like the sun than the glow of my cigarette is like a forest fire. They are lights on the inside of the sphere, moving in patterns of the Star Art, nearer to us than the hot lands to the south."

"Fort," Dave said. "Charles Fort said that in a book."

Ser Perth shrugged. "Then why make me say it again? This Fort was right. At least one intelligent man lived in your world, I'm pleased to know. The sky is a dome holding the sun, the stars and the wandering planets. The problem is that the dome is cracking like a great, smashed eggshell."

"What's beyond the dome?"

Ser Perth shuddered slightly. "My greatest wish is that I die before I learn. In your world, had you discovered that there were such things as elements? That is, basic substances which in combination produce--"

"Of course," Dave interrupted.

"Good. Then of the four elements--" Dave gulped, but kept silent, "--of the four elements the universe is built. Some things are composed of a single element; some of two, some of three. The proportions vary and the humors and spirits change but all things are composed of the elements. And only the sky is composed of all four elements--of earth, of water, of fire and of air--in equal proportions. One part each, lending each its own essential quality to the mixture, so that the sky is solid as earth, radiant as fire, formless as water, insubstantial as air. And the sky is
cracking and falling, as you have seen for yourself. The effects are already being felt. Gamma radiation is flooding through the gaps; the quick-breeding viruses are mutating through half the world, faster than the Medical Art can control them, so that millions of us are sneezing and choking—and dying, too, for lack of antibiotics and proper care. Air travel is a perilous thing; just today, a stratosphere roc crashed head-on into a fragment of the sky and was killed with all its passengers. Worst of all, the Science of Magic suffers. Because the stars are fixed on the dome of the sky. With the crumbling of that dome, the course of the stars has been corrupted. It's pitiful magic that can be worked without regard to the conjunctions of the planets; but it is all the magic that is left to us. When Mars trines Neptune, the Medical Art is weak; even while we were conjuring you, the trine occurred. It almost cost your life. And it should not have occurred for another seven days."

There was silence, while Ser Perth let Dave consider it. But it was too much to accept at once, and Dave's mind was a treadmill. He'd agreed to admit anything, but some of this was such complete nonsense that his mind rejected it automatically. Yet he was sure Ser Perth was serious; there was no humor on the face of the prissy thin-mustached man before him. Nor had the Sather Karf considered it a joke, he was sure. He had a sudden vision of the latter strangling two men from a distance of thirty feet without touching them. That couldn't happen in a sane world, either.

Dave asked weakly, "Could I have a drink?"

"With a sylph around?" Ser Perth grimaced. "You wouldn't have a chance. Now, is all clear to you, Dave Hanson?"

"Sure. Except for one thing. What am I supposed to do?"

"Repair our sky. It should not be too difficult for a man of your reputation. You built a wall across a continent high and strong enough to change the air currents and affect all your weather—and that in the coldest, meanest country in your world. You come down to us as one of the greatest engineers of history. Dave Hanson, so great that your fame has penetrated even to our world, through the viewing pools of our wisest historians. There is a shrine and monument in your world. 'Dave Hanson, to whom nothing was impossible.' Well, we have a nearly impossible task: a task of engineering and building. If our Science of Magic could be relied upon—but it cannot; it never can be, until the sky is fixed. We have the word of history: no task is impossible to Dave Hanson."

Dave looked at the smug face and a slow grin crept over his own, in spite of himself. "Ser Perth, I'm afraid you've made a slight mistake."

"We don't make mistakes in such matters. You're Dave Hanson," Ser Perth said flatly. "Of all the powers of the Science, the greatest lies in the true name. We evoked you by the name of Dave Hanson. You are Dave Hanson, therefore."

"Don't try to deceive us," Nema suggested. Her voice was troubled. "Pray rather that we never have reason to doubt you. Otherwise the wisest of the Satheri would spend their remaining time in planning something unthinkable for you."

Ser Perth nodded vigorous assent. Then he motioned to the office. "Nema will show you to your quarters later. Use this until you leave. I have to report back."

Dave stared after him until he was gone, and then around at the office. He went to the window and stared upwards at the crazy patchwork of the sky. For all he knew, in such a sky there might be cracks. In fact, as he looked, he could make out a rift, and beyond that a ... hole ... a small patch where there was no color, and yet the sky there was not black. There were no stars there, though points of light were clustered around the edges, apparently retreating.

All he had to do was to repair the sky. Shades of Chicken Little!

Maybe to David Arnold Hanson, the famed engineer, no task was impossible. But quite a few things were impossible to that engineer's obscure and unimportant nephew, the computer technician and generally undistinguished man who had been christened Dave. They'd gotten the right man for the name, all right. But the wrong man for the job.

Dave Hanson could repair anything that contained electrical circuits or ran on tiny jeweled bearings, but he could handle almost nothing else. It wasn't stupidity or incapacity to learn, but simply that he had never been subjected to the discipline of construction engineering. Even on the project, while working with his uncle, he had seen little of what went on, and hadn't really understood that, except when it produced data that he could feed into his computer. He couldn't drive a nail in the wall to hang a picture or patch a hole in the plaster.

But it seemed that he'd better put on a good show of trying if he wanted to continue enjoying good health. "I suppose you've got a sample of the sky that's fallen?" he asked Nema. "And what the heck are you doing here, anyhow? I thought you were a nurse."

She frowned at him, but went to a corner where a small ball of some clear crystalline substance stood. She muttered into it, while a surly face stared out. Then she turned back to him, nodding. "They are sending some of the
sky to you. As to my being a nurse, of course I am. All student magicians take up the Medical Art for a time. Surely one so skilled can also be a secretary, even to the great Dave Hanson? As to why I'm here--" She dropped her eyes, frowning, while a touch of added color reached her cheeks. "In the sleep spell I used, I invoked that you should be well and true. But I'm only a bachelor in magic, not even a master, and I slipped. I phrased it that I wanted you well and true. Hence, well and truly do I want you."

"Huh?" He stared at her, watching the blush deepen. "You mean--?"

"Take care! First you should know that I am proscribed as a duly registered virgin. And in this time of need, the magic of my blood must not be profaned." She twisted sidewise, and then turned toward the door, avoiding him. Before she reached it, the door opened to show a dull clod, entirely naked, holding up a heavy weight of nothing.

"Your sample of sky," she said as the clod labored over to the desk and dropped nothing with a dull clank. The desk top dented slightly.

Dave could clearly see that nothing was on the desk. But if nothing was a vacuum, this was an extremely hard and heavy one. It seemed to be about twelve inches on a side, in its rough shape, and must have weighed two hundred pounds. He tapped it, and it rang. Inside it, a tiny point of light danced frantically back and forth.

"A star," she said sadly.

"I'm going to need some place to experiment with this," he suggested. He expected to be sent to the deepest, dankest cave of all the world as a laboratory, and to find it equipped with pedigreed bats, dried unicorn horns and whole rows of alembics that he couldn't use.

Nema smiled brightly. "Of course. We've already prepared a construction camp for you. You'll find most of the tools you used in your world waiting there and all the engineers we could get or make for you."

He'd been considering stalling while he demanded exactly such things. He was reasonably sure by now that they had no transistors, signal generators, frequency meters or whatever else he could demand. He could make quite an issue out of the need to determine the characteristic impedance of their sky. That might even be interesting, at that; would it be anywhere near 300 ohms here? But it seemed that stalling wasn't going to work. They'd given him what they expected him to need, and he'd have to be careful to need only what they expected, or they might just decide he wasn't Dave Hanson.

"I can't work on this stuff here," he said.

"Then why didn't you say so?" she asked sharply. She let out a cry and a raven came flying in. She whispered something to it, frowned, and then ordered it off. "There's no surface transportation available, and all the local rocs are in use. Well, we'll have to make do with what we have."

She darted for the outer office, rummaged in a cabinet, and came back with a medium-sized rug of worn but gaudy design. Bad imitation Sarouk, Dave guessed. She tossed it onto the largest cleared space, gobbled some outlandish noises, and dropped onto it, squatting near one end. Behind her, the dull clod picked up the sample of sky and fell to his face on the rug. At her vehement signal, Dave squatted down beside her, not daring to believe what he was beginning to guess.

The carpet lifted uncertainly. It seemed to protest at the unbalanced weight of the sky piece. She made the sounds again, and it rose reluctantly, curling up at the front, like a crazy toboggan. It moved slowly, but with increasing speed, sailed out of the office through the window and began gaining altitude. They went soaring over the city at about thirty miles an hour, heading toward what seemed to be barren land beyond. "Sometimes they fail now," she told him. "But so far, only if the words are improperly pronounced."

He gulped and looked gingerly over at the city below. As he did, she gasped. He heard a great tearing sound of thunder. In the sky, a small hole appeared. There was a scream of displaced air, and something went zipping downwards in front of them, setting up a wind that bounced the carpet about crazily. Dave glanced over the edge again to see one of the tall buildings crumble under the impact. The three top stories were ripped to shreds. Then the whole building began to change. It slowly blossomed into a huge cloud of pink gas that rifted away, to show people and objects dropping like stones to the ground below. Nema sighed and turned her eyes away.

"But--it's ridiculous!" Dave protested. "We heard the rip and less than five seconds later, that piece fell. If your sky is even twenty miles above us, it would take longer than that to fall."

"It's a thousand miles up," she told him. "And sky has no inertia until it is contaminated by contact with the ground. It took longer than usual for that piece to fall." She sighed. "It gets worse. Look at the signs. That break has disturbed the planets. We're moving retrograde, back to our previous position, out of Sagittarius! Now we'll go back to the character we had before--and just when I was getting used to the change."

He jerked his eyes off the raw patch of emptiness in the sky, where a few stars seemed to be vanishing. "Your character? Isn't anything stable here?"

"Of course not. Naturally, in each House we have a differing of character, as does the world itself. Why else should astrology be the greatest of the sciences?"
It was a nice world, he decided. And yet the new factor explained some things. He'd been vaguely worried about the apparent change in Ser Perth, who'd turned from a serious and helpful doctor into a supercilious, high-handed fop. But—what about his recovery, if that was supposed to be determined by the signs of the zodiac?

He had no time to ask. The carpet bucked, and the girl began speaking to it urgently. It righted itself, to begin sliding downwards.

"There is a ring of protection around your camp," Nema explained. "It is set to make entry impossible to one who does not have the words or who is unfriendly. The carpet could not go through that, anyway. The ring negates all other magic trying to pass it. And of course we have basilisks mounted on posts around the grounds. They're trained to hood their eyes, except when they sense anyone trying to enter who should not. You can't be turned to stone looking at one, you know—only by having one look at you."

"You're cheering me up no end," he assured her.

She smiled pleasantly and began setting the carpet down. Below, he could see a camp that looked much like the camps he had seen in the same movies from which all his clothes had been copied. There were well laid-out rows of sheds, beautiful lines of construction equipment and everything in order, as it could never be in a real camp. As he began walking with the girl toward a huge tent that should have belonged to a circus, he could see other discrepancies. The tractors were designed for work in mud flats and the haulers had the narrow wheels used on rocky ground. Nothing seemed quite as it should be. He spotted a big generator working busily—and then saw a gang of about fifty men, or mandrakes, turning a big capstan that kept it going. Here and there were neat racks of miscellaneous tools. Some were museum pieces. There was even a gandy cart, though no rails for it to run on.

They were almost at the main tent when a crow flew down and yelled something in Nema's ear. She scowled, and nodded. "I'm needed back," she said. "Most of the men here—" She pointed to the gangs that moved about busily doing nothing, all in costumes similar to his, except for the boots and hat. "They're mandrakes, conjured into existence, but without souls. The engineers we have are snatched from Duality just after dying and revived here while their brains still retain their knowledge. They have no true souls either, of course, but they don't know it. Ah. The short man there—he's Garm. Sersa Garm, an apprentice to Ser Perth. He's to be your foreman, and he's real."

She headed back to the outskirts, then turned to shout back. "Sather Karf says you may have ten days to fix the sky," she called. Her hand waved toward him in friendly good-bye. "Don't worry, Dave Hanson. I have faith in you."

Then she was running toward her reluctant carpet.

Dave stared up at the mottled dome above him and at the dull clod—certainly a mandrake—who was still carrying the sample. With all this preparation and a time limit, he couldn't even afford to stall. He'd never fully understood why some plastics melted and others turned hard when heated, but he had to find what was wrong with the dome above and how to fix it. And maybe the time limit could be stretched a little, once he came up with the answer. Maybe. He'd worry about that after he worried about the first steps.

Sersa Garm proved to be a glum, fat young man, overly aware of his importance in training for serhood. He led Dave through the big tent, taking pride in the large drafting section—under the obvious belief that it was used for designing spells. Maybe it could have been useful for that if there had been a single man who knew anything about draftsman ship. There were four engineers, supposedly. One, who had died falling off a bridge while drunk, was curing himself of the shock by remaining dead drunk. One had been a chemical engineer specializing in making yeast and dried soya meal into breakfast cereals. Another knew all about dredging canals and the last one was an electronics engineer—a field in which Dave was far more competent.

He dismissed them. Whatever had been done to them—or perhaps the absence of a true soul, whatever that was—left them rigidly bound to their past ideas and totally incapable of doing more than following orders by routine now. Even Sersa Garm was more useful.

That young man could offer little information, however. The sky, he explained pompously, was a great mystery that only an adept might communicate to another. He meant that he didn't know about it, Dave gathered. Everything, it turned out, was either a mystery or a rumor. He also had a habit of sucking his thumb when pressed too hard for details.

"But you must have heard some guesses about what started the cracks in the sky?" Dave suggested.

"Oh, indeed, that is common knowledge," Sersa Garm admitted. He changed thumbs while he considered. "'Twas an experiment most noble, but through mischance going sadly awry. A great Sather made the sun remain in one place too long, and the heat became too great. It was like the Classic experiment—"

"How hot is your sun?"

There was a long pause. Then Sather Germ shrugged. "'Tis a great mystery. Suffice to say it has no true heat, but does send forth an activating principle against the phlogiston layer, which being excited grows vengeful against the air ... but you have not the training to understand."

"Okay, so they didn't tell you, if they knew." Dave stared up at the sun, trying to guess. The light looked about
like what he was used to, where the sky was still whole. North light still was like what a color photographer would consider 5500° Kelvin, so the sun must be pretty hot. Hot enough to melt anything he knew about. "What's the melting point of this sky material?"

He never did manage to make Sather Garm understand what a melting point was. But he found that one of the solutions tried had been the bleeding of eleven certified virgins for seven days. When the blood was mixed with dragonfeathers and frogspaw and melded with a genuine philosopher's stone, they had used it to ink in the right path of the planets of a diagram. It had failed. The sky had cracked and a piece had fallen into the vessel of blood, killing a Sather who was less than two thousand years old.

"Two thousand?" Dave asked. "How old is Sather Karf?"

"None remembers truly. He has always been the Sather Karf—at least ten thousand years or more. To attain the art of a Sather is the work of a score of centuries, usually."

That Sather had been in sad shape, it seemed. No one had been able to revive him, though bringing the dead back to life when the body was reasonably intact was routine magic that even a sersa could perform. It was after that they'd begun conjuring back to Dave's world for all the other experts.

"All whose true names they could find, that is," Garm amended. "The Egyptian pyramid builder, the man who discovered your greatest science, dianetics, the great Cagliostro—and what a time we had finding his true name! I was assigned to the helping of one who had discovered the secrets of gravity and some strange magic which he termed relativity—though indeed it had little to do with kinship, but was a private mystery. But when he was persuaded by divers means to help us, he gave up after one week, declaring it beyond his powers. They were even planning what might best be done to chastise him when he discovered in some manner a book of elementary conjuration and did then devise some strange new formula from the elements with which magic he disappeared."

'It is obviously not a thing of reason," Garm told him severely. "If the current in such a form moves first in one direction and then in the other, then it cancels out and is useless. No, you must be wrong."

As Dave remembered it, Tesla had been plagued by similar doubts from such men as Edison. He gave up and settled finally for one of the native welding torches, filled with a dozen angry salamanders. The flame or whatever it was had enough heat, but it was hard to control. By the time he learned to use it, night had fallen, and he was too tired to try anything more. He ate a solitary supper and went to sleep.

During the next three days he learned a few things the hard way, however. In spite of Garm's assurance that nothing could melt the sky, he found that his sample would melt slowly under the heat of the torch. In the liquid state, it was jet black, though it cooled back to complete transparency. It was also without weight when in liquid form—a fact he discovered when it began rising through the air and spattering over everything, including his bare skin. The burns were nasty, but somehow seemed to heal with remarkable speed. Sersa Garm was impressed by the discoveries, and went off to suck his thumbs and brood over the new knowledge, much to Dave's relief.

More work established the fact that welding bits of the sky together was not particularly difficult. The liquid sky was perfectly willing to bond onto anything, including other bits of itself.

Now, if he could get a gang up the thousand miles to the sky with enough torches to melt the cracks, it might recongeal as a perfect sphere. The stuff was strong, but somewhat brittle. He still had no idea of how to get the stars and planets back in the right places.

"The mathematician thought of such an idea," Sersa Garm said sourly. "But 'twould never work. Even with much heat, it could not be done. For see you, the upper air is filled with phlogiston, which no man can breathe. Also, the phlogiston has negative weight, as every school child must know. Your liquid sky would sink through it, since negative weight must in truth be lighter than no weight, while nothing else would rise through the layer. And phlogiston will quench the flame of a rocket, as your expert von Braun discovered."

The man was a gold mine of information, all bad. The only remaining solution, apparently, was to raise a scaffolding over the whole planet to the sky, and send up mandrakes to weld back the broken pieces. They wouldn't need to breathe, anyhow. With material of infinite strength—and an infinite supply of it—and with infinite time and patience, it might have been worth considering.

Nema came out the next day with more cheering information. Her multi-times great grandfather, Sather Karf, regretted it, but he must have good news to release at once; the populace was starving because the food multipliers couldn't produce reliable supplies. Otherwise, Dave would find venom being transported into his blood in increasing amounts until the pain drove him mad. And, just incidentally, the Sons of the Egg who'd attacked him in the hospital
had tried to reach the camp twice already, once by interpenetrating into a shipment of mandrakes, which indicated to what measures they would resort. They meant to kill him somehow, and the defense of him was growing too costly unless there were positive results.

Dave hinted at having nearly reached the solution, giving her only a bit of his wild idea of welding the sky. She took off with that, but he was sure it wouldn't satisfy the Sather. In that, he was right. By nightfall, when she came back from the city, he was groaning in pain. The venom had arrived ahead of her, and his blood seemed to be on fire.

She laid a cool hand on his forehead. "Poor Dave," she said. "If I were not registered and certified, sometimes I feel that I might ... but no more of that. Ser Perth sends you this unguent which will hold back the venom for a time, cautioning you not to reveal his softness." Ser Perth, it seemed, had reverted to his pre-Sagittarian character as expected. "And Sather Karf wants the full plans at once. He is losing patience."

He began rubbing on the ointment, which helped slightly. She peeled back his shirt and began helping, apparently delighted with the hair which he'd sprouted on his chest since his reincarnation. The unguent helped, but it wasn't enough.

"He never had any patience to lose. What the hell does he expect me to do?" Dave asked hotly. "Snap my fingers thus, yell abracadabra and give him egg in his beer?"

He stopped to stare at his hand, where a can of beer had suddenly materialized!

Nema squealed in delight. "What a novel way to conjure, Dave. Let me try it." She began snapping her fingers and saying the word eagerly, but nothing happened. Finally she turned back to him. "Show me again."

He was sure it wouldn't work twice, and he hesitated, not too willing to have his stock go down with her. Then he gave in.

"Abracadabra!" he said, and snapped his fingers.

There were results at once. This time an egg appeared in his hand, to the delighted cry of Nema. He bent to look at it uncertainly. It was a strange looking egg--more like one of the china eggs used to make hens think they were nesting when their eggs were still being taken from them.

Abruptly Nema sprang back. But she was too late. The egg was growing. It swelled to the size of a football, then was man-sized, and growing to the size of a huge tank that filled most of the tent. Suddenly it split open along one side and a group of men in dull robes and masks came spilling out of it.

"Die!" the one in front yelled. He lifted a double-bladed knife, charged for Dave, and brought the knife down. The blades went through clothing, skin, flesh and bones, straight for Dave's heart.

There was no easing of the pain that threatened to make him black out at any second.

He heard shouting, quarreling voices, but nothing made sense through the haze of his agony. He felt someone grab at him--more than one person--and they were dragging him willy-nilly across the ground. Something was clutched around his throat, almost choking him. He opened his eyes just as something clicked behind him.

The huge, translucent walls of the monstrous egg were all around him and the opened side was closing. The pain began to abate. The bleeding had already stopped entirely and his lungs seemed to have cleared themselves of the blood and froth in them. Now with the ache of the wound ceasing, Dave could still feel the venom burning in his blood, and the constriction around his throat was still there, making it hard to breathe. He sat up, trying to free himself. The constriction came from an arm around his neck, but he couldn't see to whom it belonged, and there was no place to move aside in the corner of the egg.

From inside, the walls of the egg were transparent enough for him to see cloudy outlines of what lay beyond. He could see the ground sweeping away beneath them from all points. A man had run up and was standing beside the egg, beating at it. The man suddenly shot up like a fountain, growing huge; he towered over them, until he seemed miles high and the giant structures Dave could see were only the turned-up toes of the man's shoes. One of those shoes was lifting, as if the man meant to step on the egg.

They must be growing smaller again.

A voice said tightly: "We're small enough, Bork. Can you raise the wind for us now?"

"Hold on." Bork's voice seemed sure of itself.
The egg tilted and soared. Dave was thrown sidewise and had to fight for balance. He stared unbelievingly through the crystal shell. They rose like a Banshee jet. There was a shaggy, monstrous colossus in the distance, taller than the Himalayas--the man who had been beside them. Bork grunted. "Got it! We're all right now." He chanted something in a rapid undertone "All right, relax. That will teach them not to work resonance magic inside a protective ring; the egg knows how we could have got through otherwise. Lucky we were trying at the right time, though. The Satheri must be going crazy. Wait a minute, this tires the fingers."

The man called Bork halted the series of rapid passes he had been making, flexing his fingers with a grimace. The spinning egg began to drop at once, but he let out a long, keening cry, adding a slight flip of his other arm. Outside, something like a mist drew near and swirled around them. It looked huge to Dave, but must have been a small thing in fact. Now they began speeding along smoothly again. The thing was probably another sylph, strong enough to move them in their present reduced size.

Bork pointed his finger. "There's the roc!" He leaned closer to the wall of the tiny egg and shouted. The sylph changed direction, and began to bob about.

It drifted gently, while Bork pulled a few sticks with runes written on them toward him and made a hasty assembly of them. At once, there was a feeling of growing, and the sylph began to shrink away from them. Now they were falling swiftly, growing as they dropped. Dave felt his stomach twist, until he saw they were heading toward a huge bird that was cruising along under them, drawing closer. It looked like a cross between a condor and a hawk, but its wing span must have been over three hundred feet. It slipped under the egg, catching the falling object deftly on a cushion-like attachment between its wings, and then struck off briskly toward the east.

Bork snapped the side of the egg open and stepped out while the others followed. Dave tried to crawl out, but something held him back. It wasn't until Bork's big hand reached in to help him that he made it. When all were out, Bork tapped the egg-shaped object and caught it as it shrank. When it was small enough, he pocketed it.

Dave sat up again, examining himself, now that he had more room. His clothing was a mess, spattered with drying blood, but he seemed unharmed now. Even the burning of the venom was gone. He reached for the arm around his neck and began breaking it free from its stranglehold.

From behind an incredulous cry broke out. Nema sprawled across him, staring at his face and burying her head against his shoulder. "Dave! You're not dead! You're alive!"

Dave was still amazed at that himself. But Bork snorted. "Of course he is. Why'd we take him along with you hanging on in a faint if he were dead? When the snetha-knife kills, it kills completely. They stay dead, or they don't die. Sagittarian?"

She nodded, and the big man seemed to be doing some calculations in his head.

"Yeah," he decided. "It would be. There was one second there around midnight when all the signs were at their absolute maximum favorableness. Someone must have said some pretty dangerous health spells over him then." He turned to Dave, as if aware that the other was comparatively ignorant of such matters. "Happened once before, without this mess-up of the signs. They revived a corpse and found he was unkillable from then on. He lasted eight thousand years, or something like that, before he got burned trying to control a giant salamander. They cut off his head once, but it healed before the axe was all the way through. Woops!"

The bird had dipped downward, rushing toward the ground. It landed at a hundred miles an hour and managed to stop against a small entrance to a cave in the hillside. Except for the one patch where the bird had lighted, they were in the middle of a dense forest.

Dave and Nema were hustled into the cave, while the others melted into the woods, studying the skies. She clung to Dave, crying something about how the Sons of the Egg would torture them.

"All right," he said finally. "Who are these sons of eggs? And what have they got against me?"

"They're monsters," she told him. "They used to be the antimagic individualists. They wanted magic used only when other means wouldn't work. They fought against the Satheri. While magic produced their food and made a better world for them, they hated it because they couldn't do it for themselves. And a few renegade priests like my brother joined them."

"Your brother?"

"She means me," Bork said. He came in to drop on his haunches and grin at Dave. There was no sign of personal hatred in his look. "I used to be a stooge for Sather Karf, before I got sick of it. How do you feel, Dave Hanson?"

Dave considered it, still in wonder at the truth. "I feel good. Even the venom they were putting in my blood doesn't seem to hurt any more."

"Fine. Means the Sather Karf must believe we killed you--he must have the report by now. If he thinks you're dead, there's no point in his giving chase; he knows I wouldn't let them kill Nema, even if she is a little fool. Anyhow, he's not really such a bad old guy, Dave--not, like some of those Satheri. Well, you figure how you'd like it..."
if you were just a simple man and some priest magicked her away from you--and then sent her back with enough
magic of her own to be a witch and make life hell for you because she'd been kicked out by the priest, but he hadn't
pulled the wanting spell off her. Or anything else you wanted and couldn't keep against magic. Sure, they fed us.
They had to, after they took away our fields and the kine, and got everyone into the habit of taking their dole instead
of earning our living in the old way. They made slaves of us. Any man who lets another be responsible for him is a
slave. It's a fine world for the Satheri, if they can keep the egg from breaking."

"What's all this egg nonsense?"

Bork shrugged. "Plain good sense. Why should there be a sky shell around the planet? Look, there's a legend
here. You should know it, since for all I know it has some meaning for you. Long ago--or away, or whatever--there
was a world called Tharé and another called Erath. Two worlds, separate and distinct, on their own branching time
paths. They must have been that way since the moment of creation. One was a world of rule and law. One plus one
might not always equal two, but it had to equal something. There seems to be some similarity to your world in that,
doesn't there? The other was--well, you'd call it chaos, though it had some laws, if they could be predicted. One plus
one there depended--or maybe there was no such thing as unity. Mass-energy wasn't conserved. It was deserved. It
was a world of anarchy, from your point of view. It must have been a terrible place to live, I guess."

He hesitated somberly. "As terrible as this one is getting to be," he said at last. "Anyway, there were people
who lived there. There were the two inhabited worlds in their own time lines, or probability orbits, or whatever. You
know, I suppose, how worlds of probability would separate and diverge as time goes on? Of course. Well, these two
worlds coalesced."

He looked searchingly at Dave. "Do you see it? The two time lines came together. Two opposites fused into
one. Don't ask me to explain it; it was long ago, and all I know for sure is that it happened. The two worlds met and
fused, and out of the two came this world, in what the books call the Dawnstruggle. When it was over, our world
was as it has been for thousands of centuries. In fact, one result was that in theory, neither original world could have
a real past, and the fusion was something that had been--no period of change. It's pretty complicated."

"It sounds worse than that," Dave grumbled. "But while that might explain the mystery of magic working here,
it doesn't explain your sky."

Bork scratched his head. "No, not too well," he admitted. "I've always had some doubts about whether or not all
the worlds have a shell around them. I don't know. But our world does, and the shell is cracking. The Satheri don't
like it; they want to stop it. We want it to happen. For the two lines that met and fused into one have an analogue.
Doesn't the story of that fusion suggest something to you, Dave Hanson? Don't you see it, the male principle of rule
and the female principle of whim; they join, and the egg is fertile! Two universes join, and the result is a nucleus
world surrounded by a shell, like an egg. We're a universe egg. And when an egg hatches, you don't try to put it back
together!"

He didn't look like a fanatic, Dave told himself. Crazy or not, he took this business of the hatching egg
seriously. But you could never be sure about anyone who joined a cult. "What is your egg going to hatch into?" he
asked.

The big man shrugged. "Does an egg know it is going to become a hen--or maybe a fish? We can't possibly tell,
of course."

Dave considered it. "Don't you even have a guess?"

Bork answered shortly, "No." He looked worried, Dave thought, and guessed that even the fanatics were not
quite sure they wanted to be hatched. Bork shrugged again.

"An egg has got to hatch," he said. "That's all there is to it. We prophesied this, oh, two hundred years ago. The
Satheri laughed. Now they've stopped laughing, but they want to stop it. What happens to a chick when it is stopped
from hatching? Does it go on being a chick, or does it die? It dies, of course. And we don't want to die. No, Dave
Hanson, we don't know what happens next--but we do know that we must go through with it. I have nothing against
you personally--but I can't let you stop us. That's why we tried to kill you. If I could, I'd kill you now, with the
sneha-knife so they couldn't revive you."

Dave said reasonably, "You can't expect me to like it, you know. The Satheri, at least, saved my life--" He
stopped in confusion. Bork was staring at him in hilarious incredulosity that broke into roars of laughter.

"You mean ... Dave Hanson, do you believe everything they tell you? Don't you know that the Satheri arranged
to kill you first? They needed a favorable death conjunction to bring you back to life; they got it--by arranging an
accident!"

Nema cried out in protest. "That's a lie!"

"Of course," Bork said mildly. "You always were on their side, little sister. You were also usually a damned
nuisance, fond as I was of you. Come here."

He caught her and yanked a single hair out of her head. She screamed and tried to claw him, then fought for the
hair. Bork was immovable. He held her off easily with one hand while the fingers of the other danced in the air. He spoke what seemed to be a name, though it bore no resemblance to Nema. She quieted, trembling.

"You'll find a broom near the entrance, little sister. Take it and go back, to forget that Dave Hanson lives. You saw him die and were dragged off with us and his body. You escaped before we reached our hideaway. By the knot I tie in your true hair and by your secret name, this I command."

She blinked slowly and looked around as Bork burned the knotted hair. Her eyes swept past Bork and Dave without seeing them and centered on the broom one man held out to her, without appearing to see him, either. She seized the broom. A sob came to her throat. "The devil! The renegade devil! He didn't have to kill Dave! He didn't--"

Her voice died away as she ran toward the clearing. Dave made no protest. He suspected Bork was putting the spell on her for her own good, and he agreed that she was better out of all this.

"Now where were we?" Bork asked. "Oh, yes, I was trying to convert you and knowing I'd failed already. Of course, I don't know that they killed you first--but those are their methods. Take it from me, I know. I was the youngest Ser ever to be accepted for training as a Sather. They wanted you, so they got you."

Dave considered it. It seemed as likely as anything else. "Why me?" he asked.

"Because you can put back the sky. At least, the Satheri think so, and I must admit that in some ways they are smarter than we."

Dave started to protest, but Bork cut him off.

"I know all about your big secret. You're not the engineer, whose true name was longer. We know all that. Our pools are closer to perfection than theirs, not being contaminated by city air, and we see more. But there is a cycle of confirmation; if prophecy indicates a thing will happen, it will happen--though not always as expected. The prophecy fulfills itself, rather than being fulfilled. Then there are the words on the monument--a monument meant for your uncle, but carrying your true name, because his friends felt the short form sounded better. It was something of a coincidence that they had the wrong true name. But prophecy is always strongest when based on coincidence--that is a prime rule. And those words coupled with our revelations prophesy that you--not your uncle--can do the impossible. So what are we going to do with you?"

Bork's attitude was reassuring, somehow. It was nearer his own than any Dave had heard on this world. And the kidnapping was beginning to look like a relief. The Sons of the Egg had gotten him off the hook with Sather Karf. He grinned and stretched back. "If I'm unkillable, Bork, what can you do?"

The big man grinned back. "Flow rock around you up to your nose and toss you into a lake. You'd live there--but you'd always be drowning and you'd find it slightly unpleasant for the next few thousand years! It's not as bad as being turned into a mangrove with your soul intact, but it would last longer. And don't think the Satheri can't pull a lot worse than that. They have your name--everyone has your secret name here--and parts of you."

The conversation was suddenly less pleasant. Dave thought it over. "I could stay here and join your group. I might as well, since I can't really help the Satheri anyhow."

"They'd spot your aura eventually. They'll be checking around here for us for a while. Of course, we might do something about it, if you really converted. But I don't think you would, if you knew more." Bork got up and headed for the entrance. "I wasn't going to let you see the risings, but now maybe I will. If you still want to join, it might be worked. Otherwise, I'll think of something else."

Dave followed the man out into the clearing. A few men were just planning to leave, and they looked at Dave suspiciously, but made no protest. One, whom Dave recognized as the leader with the snetha-knife, scowled. "The risings are almost due, Bork," he said.

Bork nodded. "I know, Malok. I've decided to let Dave Hanson watch. Dave, this is our leader here, Res Malok."

Dave felt no strong love for his would-be murderer, and it seemed to be mutual. But no protest was lodged. Apparently Bork was their top conjurer, and privileged. They crossed the clearing and went through the woods toward another, smaller one. Here a group of some fifty men were watching the sky, obviously waiting. Others stood around, watching them and avoiding looking up. Almost directly overhead, there was a rent place where the strange absence of color or feature indicated a hole in the dome over them. As it drew nearer true vertical, a chanting began among the men with up-turned faces. Their hands went upwards, fingers spread and curled into an unnatural position. Then they stood waiting.

"I don't like it," Bork whispered to Dave. "This is one of the reasons we're growing too weak to fight the Satheri."

"What's wrong with a ceremony of worship, if you must worship your eggshell?" Dave asked.

"You'll see. That was all it was once--just worship. But now for weeks, things are changing. They think it's a sign of favor, but I don't know. There, watch!"

The hole in the sky was directly overhead now, and the moaning had risen in pitch. Across the little clearing,
Malok began backing quietly away, carefully not looking upwards. Nobody but Dave seemed to notice his absence. There was a louder moan.

One of the men in the clearing began to rise upwards slowly. His body was rigid as it lifted a foot, ten feet, then a hundred above the ground. Now it picked up speed, and rushed upwards. Another began to rise, and another. In seconds, more than half of those who had waited were screaming upwards toward the hole in the sky. They disappeared in the distance.

Those who had merely stood by and those who had worshipped waited a few seconds more, but no more rose. The men sighed and began moving out of the clearing. Dave arose to follow, but Bork gestured for him to wait.

"Sometimes--" he said.

They were alone now. Still Bork waited, staring upwards. Then Dave saw something in the sky. A speck appeared and came hurtling down. In seconds, it was the body of one of the men who had risen. Dave felt his stomach tighten and braced himself. There was no slowing as the body fell. It landed in the center of the clearing, without losing speed, but with less noise than he had expected.

When they reached the shattered body, there could be no question of its being dead.

Bork's face was solemn. "If you're thinking of joining, you'd better know the worst. You're too easily shocked to make a good convert unless you're prepared. The risings have been going on for some time. Malok swears it proves we are right. But I've seen five other bodies come down like this. What does it mean? Are they stillborn? We don't know. Shall I revive him for you?"

Dave felt sick as he stared at the ghastly terror on the face of the corpse. The last thing he wanted to see was its revival, but his curiosity about the secret in the sky could not be denied. He nodded.

"We call," Bork answered. "Tell us what you saw at the hole in the sky."

A scream tore from the throat of the thing, and its hands came up to its eyes, tearing at them. Its mouth worked soundlessly, and breath sucked in. Then a single word came out.

"Faces!"

It fell onto the grass, distorted in death again. Bork shuddered.

"The others were the same," he said. "And he can't be revived again. Even the strongest spell can't bring back his soul. That is gone, somehow."

Dave shivered. "And knowing that, you'd still fight against repairing the sky?"

"Hatching is probably always horrible from inside the shell," Bork answered. "Do you still want to join us? No, I thought not. Well, then, let's go back. We might as well try to eat something while I think about what to do with you."

Malok and most of the others were gone when they reached the cave again. Bork fell to work with some scraps of food, cursing the configurations of the planets as his spell refused to work. Then suddenly the scraps became a mass of sour-smelling stuff. Bork made a face as he tasted it, but he ate it in silence. Dave couldn't force himself to put it in his mouth, though he was hungry by then.

He considered, and then snapped his fingers. "Abracadabra," he cried. He swore as something wet and slimy that looked like seaweed plopped into his hand. The next time he got a limp fish that had been dead far too long. But the third try worked better. This time, a whole bunch of bananas appeared. They were a little riper than he liked, but some of them were edible enough. He handed some to the other man, who quickly abandoned his own creation.

Bork was thoughtful as he ate. Finally he grimaced. "New magic!" he said. "Maybe that's the secret of the prophecy. I thought you knew no magic."

"I didn't," Dave admitted. He was still tingling inside himself at this confirmation of his earlier discovery. It was unpredictable magic, but apparently bore some vague relationship to what he was wishing for.

"So the lake's out," Bork decided. "With unknown powers at your command, you might escape in time. Well, that settles it. There's one place where nobody will look for you or listen to you. You'll be nothing but another among millions, and that's probably the best hiding place for you. With the overseers they have, you couldn't even turn yourself back to the Satheri, though I'll admit I'm hoping you don't want them to find you."

"And I was beginning to think you liked me," Dave commented bitterly.

Bork grinned. "I do, Dave Hanson. That's why I'm picking the easiest place to hide you I can think of. It will be hell, but anything else would be worse. Better strip and put this cloth on."
The thing he held out was little more than a rag, apparently torn from one of the robes. "Come on, strip, or I'll burn off your clothes with a salamander. There, that's better. Now wrap the cloth around your waist and let it hang down in front. It'll be easier on you if you don't attract much attention. The sky seems to indicate the planets favor teleportation now. Be quick before I change my mind and think of something worse!"

Dave didn't see what he did this time, but there was a puff of flame in front of his eyes.

The next second, he stood manacled in a long line of men loaded with heavy stones. Over their backs fell the cutting lashes of a whip. Far ahead was a partially finished pyramid. Dave was obviously one of the building slaves.

VI

Sunrise glared harshly over the desert. It was already hot enough to send heat waves dancing over the sand as Hanson wakened under the bite of a lash. The overseers were shouting and kicking the slaves awake. Overhead the marred sky shone in crazy quilt patterns.

Hanson stood up, taking the final bite of the whip without flinching. He glanced down at his body, noticing that it had somehow developed a healthy deep tan during the few hours of murderous labor the day before. He wasn't particularly surprised. Something in his mind seemed also to have developed a "tan" that let him face the bite of chance without flinching. He'd stopped wondering and now accepted; he meant to get away from here at the first chance and he was somehow sure he could.

It was made easier by the boundless strength of his new body. He showed no signs of buckling under physical work that would have killed him on his own world.

Not all the slaves got up. Two beside him didn't move at all. Sleeping through that brutal awakening seemed impossible. When Hanson looked closer, he saw that they weren't asleep; they were dead.

The overseer raged back along the line and saw them. He must be one of those conjured into existence here from the real Egypt of the past. He might have no soul, but a lifetime of being an overseer had given him habits that replaced the need for what had been a pretty slim soul to begin with.

"Quitters!" he yelled. "Lazy, worthless, work-dodging goldbrick artists!" He knelt in fury, thumbing back the eyelids of the corpses. There was little need for the test. They were too limp, too waxen to be pretending.

The overseer cut them out of the chain and kicked at Hanson. "Move along!" he bellowed. "Menes himself is here, and he's not as gentle as I am."

Hanson joined the long line, wondering what they were going to do about breakfast. How the devil did they expect the slaves to put in sixteen hours of work without some kind of food? There had been nothing the night before but a skin of water. There was not even that much this morning. No wonder the two beside him had died from overwork, beatings and plain starvation.

Menes was there, all right. Hanson saw him from the distance, a skinny giant of a man in breechclout, cape and golden headdress. He bore a whip like everyone else who seemed to have any authority at all, but he wasn't using it. He was standing hawklike on a slight rise in the sandy earth, motionless and silent. Beside him was a shorter figure: a pudgy man with a thin mustache, on whom the Egyptian headdress looked strangely out of place. It could only be Ser Perth!

Hanson's staring came to an end as the lash cut down across his shoulders, biting through to the shoulder-bone. He stumbled forward, heedless of the overseers' shouting voices. Someday, if he had the chance, he'd flay his own overseer, but that could wait. Even the agony of the cut couldn't take his mind from Ser Perth's presence. Had Bork slipped up--did the Satheri know that Hanson was still alive, and had they sent Ser Perth here to locate him? It seemed unlikely, however. The man was paying no attention to the lines of slaves. It would be hard to spot one among three million, anyhow. More likely, Hanson decided, Ser Perth was supervising the supervisors, making an inspection tour of all this.

Of all what? Apparently then this must be another of their frenzied efforts to find a way to put back the sky. He'd heard that they had called up the pyramid builder, but hadn't fully realized it would lead to this type of activity.

He looked around him appraisingly. The long lines of slaves that had been carrying rock and rubble the day before now were being formed into hauling teams. Long ropes were looped around enormous slabs of quarried rock. Rollers underneath them and slaves tugging and pushing at them were the only means of moving them. The huge stones slid remorselessly forward onto the prepared beds of rubble. Casting back in his memory, Hanson could not recall seeing the rock slabs the night before. They had appeared as if by magic--

Obviously, they had really been conjured up by magic. But if the rocks could be conjured, what was the need of all the slaves and the sadistic overseers? Why not simply magic the entire construction, whatever it was to be?

The whip hit him again, and the raging voice of the overseer ranted in his ears. "Get on, you blundering slacker. Menes himself is looking at you. Ho there--what the devil?"

The overseer's hand spun Hanson around. The man's eyes, large and opale, stared at Hanson. He frowned cruelly. "Yeah, you're the same one! Didn't I take the hide off your back twice already? And now you stand there
only an idle fancy, but—
came into his consciousness—some inkling of what should have been done, or how they had failed. It was probably
should logically be found in magic, not in the methods of other worlds. His mind groped for something that almost

had the guts to try the impossible themselves. A pyramid seemed like a ridiculous solution, but for an incredible
likely few and giving full cooperation. Magic must have made solutions to most things so easy that they no longer
screening the probability of finding an answer. The size of the ancient pyramid must have been enough to sway

through other worlds and ages for anyone with a reputation as a builder, engineer or construction genius, without
suffering millions of slaves in their labor gangs.

The idiots must be trying to reach the sky with their pyramid. There could be no other answer to the immense
bulk planned for this structure. Like the pride-maddened men of Babel, they were building a sky-high thing of stone.
It was obviously impossible, and even Menes must be aware of that. Yet perhaps it was no more impossible than all
the rest of the things in this impossible world.

When the warlocks of this world had discovered that they could not solve the problem of the sky, they must
have gone into a state of pure hysteria, like a chicken dashing back and forth in front of a car. They had sought
through other worlds and ages for anyone with a reputation as a builder, engineer or construction genius, without
screening the probability of finding an answer. The size of the ancient pyramid must have been enough to sway
them. They had used Hanson, Menes, Einstein, Cagliostro—for some reason of their own, since he'd never been a
builder—and probably a thousand more. And then they had half-supplied all of them, rather than picking the most
likely few and giving full cooperation. Magic must have made solutions to most things so easy that they no longer
had the guts to try the impossible themselves. A pyramid seemed like a ridiculous solution, but for an incredible
task, an impossible solution had to be tried.

And maybe, he thought, they'd overlooked the obvious in their own system. The solution to a problem in magic
should logically be found in magic, not in the methods of other worlds. His mind groped for something that almost
came into his consciousness—some inkling of what should have been done, or how they had failed. It was probably
only an idle fancy, but—
"Hey!" One of the slaves below was waving at him. While Hanson looked down, the slave called to another, got a shoulder to lean on, and walked his way up the side of the block, pushed from below and helped by Hanson's hands above. He was panting when he reached the top, but he could still talk. "Look, it's your skin, but you're going to be in trouble if you don't get busy. Look out for that overseer up there. Don't just stand around when he's in sight."

Hanson stared up at the overseer who was staring back at him. "Why is he any worse than the rest of this crowd?"

The slave shuddered as the dour, slow-moving overseer began walking stiffly toward them. "Don't let the fact that he's an overseer fool you. He's smarter than most of his kind, but just as ugly. He's a mandrake, and you can't afford to mess with him."

Hanson looked at the ancient, wrinkled face of the mandrake and shuddered. There was the complete incarnation of inhumanity in the thing's expression. He passed ropes around the corners until the mandrake turned and rigidly marched away, the blows of his whip falling metronome-like on the slaves he passed. "Thanks," Hanson said. "I wonder what it's like, being a true mandrake?"

"Depends," the slave said easily. He was obviously more intelligent than most, and better at conserving himself. "Some mandrake-men are real. I mean, the magicians want somebody whom they can't just call back--direct translation of the body usually messes up the brain patterns enough to make the thinkers hard to use, especially with the sky falling. So they get his name and some hold on his soul and then rebuild his body around a mandrake root. They bind his soul into that, and in some ways he's almost human. Sometimes they even improve on what he was. But the true mandrake--like that one--never was human. Just an ugly, filthy simulacrum. It's bad business. I never liked it, even though I was in training for sersa rating."

"You're from this world?" Hanson asked in surprise. He'd been assuming that the man was one of the things called back.

"A lot of us are. They conscripted a lot of the people they didn't need for these jobs. But I was a little special. All right, maybe you don't believe me--you think they wouldn't send a student sersa here now. Look, I can prove it. I managed to sneak one of the books I was studying back with me. See?"

He drew a thin volume from his breechclout cautiously, then slipped it back again. "You don't get such books unless you're at least of student rating." He sighed, then shrugged. "My trouble is that I could never keep my mouth shut. I was attendant at one of the revivatoria, and I got drunk enough to let out some information about one of the important revival cases. So here I am."

"Umm." Hanson worked silently for a minute, wondering how far coincidence could go. It could go a long ways here, he decided. "You wouldn't have been sentenced to twenty lifetimes here by the Sather Karf, would you?"

The slave stared at him in surprise. "You guessed it. I've died only fourteen times so far, so I've got six more lives to go. But--hey, you can't be! They were counting on you to be the one who really fixed things. Don't tell me my talking out of turn did this to you."

Hanson reassured him on that. He recognized the man now for another reason. "Aren't you the one I saw dead on his back right next to me this morning?"

"Probably. Name's Barg." He stood up to take a careful look at the net of cording around the stone. "Looks sound enough. Yeah, I died this morning, which is why I'm fairly fresh now. Those overseers won't feed us because it takes time and wastes food; they let us die and then have us dragged back for more work. It's a lot easier on the ones they dragged back already dead; dying doesn't matter so much without a soul."

"Some of them seem to be Indians," Hanson noted. He hadn't paid too much attention, but the slaves seemed to be from every possible background.

Barg nodded. "Aztecs from a place called Tenochtitlan. Twenty thousand of them got sacrificed in a bunch for some reason or other. Poor devils. They think this is some kind of heaven. They tell me this is easy work compared to the type they had to undergo. The Satheri like to get big bunches through in one conjuration, like the haul they made from the victims of somebody named Tamerlane." He tested a rope, then dropped to a sitting position on the edge of the block. "I'll let you stay up to call signals from here. Only watch it. That overseer has his eyes on you. Make sure the ropes stay tight while we see if the thing can be moved."

He started to slip over the side, hanging by his fingertips. Something caught, and he swore. With one hand, he managed to free his breechclout and drag out the thin volume that was lodged between his groin and the block. "Here, hold this for me until we meet tonight. You've got more room to hide it in your cloth than I have." He tossed it over quickly, then dropped from sight to land on the ground below.

Hanson shoved the book out of sight and tried to act busy again. The mandrake overseer had started ponderously toward him. But in a moment the thing's attention was directed to some other object of torture.

Hanson braced himself as the lines of slaves beneath him settled themselves to the ropes. There was a loud
cracking of whips and a chorus of groans. A small drum took up a beat, and the slaves strained and tugged in unison. Ever so slowly, the enormous block of stone began to move, while the ropes drew tighter.

Hanson checked the rigging with half his mind, while the other half raced in a crazy circle of speculation. Mandrakes and mandrake-men, zombie-men, from the past and multiple revivals! A sky that fell in great chunks. What came next in this ridiculous world in which he seemed to be trapped?

As if in answer to his question, there was a sudden, coruscating flare from above.

Hanson's body reacted instinctively. His arm came up over his eyes, cutting off the glare. But he managed to squint across it, upwards toward what was happening in the cracked dome. For a split second, he thought that the sun had gone nova.

He was wrong, but not by too much. Something had happened to the sun. Now it was flickering and flaming, shooting enormous jets of fire from its rim. It hovered at the edge of a great new hole and seemed to be wobbling, careening and losing its balance.

There was a massive shriek of fear and panic from the horde of slaves. They began bellowing like the collective death-agony of a world. Most of them dropped their ropes and ran in blind panic, trampling over each other in their random flight for safety. The human overseers were part of the same panic-stricken riot. Only the mandrakes stood stolidly in place, flicking each running man who passed them.

Hanson flung himself face down on the stone. There was a roar of tortured air from overhead and a thundering sound that was unlike anything except the tearing of an infinity of cloth combined with a sustained explosion of atomic bombs. Then it seemed as if the thunderbolt of Thor himself had blasted in Hanson's ears.

The sky had ripped again, and this time the entire dome shook with the shock. But that wasn't the worst of it.

VII

The fall of the sun was seemingly endless. It teetered out of the hole and seemed to hover, spitting great gouts of flame as it encountered the phlogiston layer. Slowly, agonizingly, it picked up speed and began its downward rush. Unlike the sky, it seemed to obey the normal laws of inertia Hanson had known. It swelled bit by bit, raging as it drew nearer. And it seemed to be heading straight for the pyramid.

The heat was already rising. It began to sear the skin long before the sun struck the normal atmosphere. Hanson could feel that he was being baked alive. The blood in his arteries seemed to bubble and boil, though that must have been an illusion. But he could see his skin rise in giant blisters and heal almost at once to blister again. He screamed in agony, and heard a million screams around him. Then the other screams began to decrease in numbers and weaken in volume, and he knew that the slaves were dying.

Through a slit between two fingers, he watched the ponderous descent. The light was enough to sear his retinas, but even they healed faster than the damage. He estimated the course of the sun, amazed to find that there was no panic in him, and doubly amazed that he could think at all over the torture that wracked his body.

Finally, convinced that the sun would strike miles to the south, he rolled across the scorching surface of the stone block and dropped to the north side of it. The shock of landing must have broken bones, but a moment later he could begin to breathe again. The heat was still intense, even behind the stone block, but it was bearable—at least for him.

Pieces were breaking off the sun as it fell, and already striking the ground. One fell near, and its heat seared at him, giving him no place of shelter. Then the sun struck, sending up earth tremors that knocked him from his feet. He groped up and stared around the block.

The sun had struck near the horizon, throwing up huge masses of material. Its hissing against the ground was a tumult in his ears, and superheated ash and debris began to fall.

So far as he could see, there were no other survivors in the camp. Three million slaves had died. Those who had found some shelter behind the stonework had lived longer than the others, but that had only increased their suffering. And even his body must have been close to its limits, if it could be killed at all.

He was still in danger. If a salamander could destroy even such a body as his, then the fragments of sun that were still roiling across the landscape would be fatal. The only hope he had was to get as far away from the place where the sun had struck as he could.

He braced himself to leave even the partial shelter. There was a pile of water skins near the base of the block, held in the charred remains of an attendant's body. The water was boiling, but there was still some left. He poured several skins together and drank the stuff, forcing himself to endure the agony of its passage down his throat. Without it, he'd be dehydrated before he could get a safe distance away.

Then he ran. The desert was like molten iron under his bare feet, and the savage radiation on his back was worse than any overseer's whip. His mind threatened to blank out with each step, but he forced himself on. And slowly, as the distance increased, the sun's pyre sank further and further over the horizon. The heat should still have
been enough to kill any normal body in fifteen minutes, but he could endure it. He stumbled on in a trot, guiding himself by the stars that shone in the broken sky toward a section of this world where there had been life and some measure of civilization before. After a few hours, the tongues of flame no longer flared above the horizon, though the brilliant radiance continued. And Hanson found that his strong and nearly indestructible body still had limits. It could not go on without rest forever. He was sobbing with fatigue at every step.

He managed to dig a small hollow in the sand before dropping off to sleep. It was a sleep of total exhaustion, lacking even a sense of time. It might have been minutes or hours that he slept, and he had no way of knowing which. With the sun gone and the stars rocking into dizzy new configurations, there was no night or day, nor any way to guess the passage of time.

He woke to a roaring wind that sent cutting blasts of sand driving against him. He staggered up and forced himself against it, away from the place where the sun had fallen. Even through the lashing sandstorm, he could see the glow near the horizon. Now a pillar of something that looked like steam but was probably vapor from molten and evaporated rocks was rising upwards, like the mushroom clouds of his own days. It was spreading, apparently just under the phlogiston layer, reflecting back the glare. And the wind was caused by the great rising column of superheated gases over the sun.

He staggered on, while the sand gave way slowly to patches of green. With the sun gone and the sky falling into complete shards, this world was certainly doomed. He'd assumed that the sun of this world must be above the sky, but he'd been wrong; like the other heavenly bodies, it had been embedded inside the shell. He had discovered that the sky material resisted any sudden stroke, but that other matter could be interpenetrated into it, as the stars were. He had even been able to pass his hand and arm completely through the sample. Apparently the sun had passed through the sky in a similar manner.

Then why hadn't the shell melted? He had no real answer. The sun must have been moving fast enough so that no single spot became too hot, or else the phlogiston layer somehow dissipated the heat.

The cloud of glowing stuff from the rising air column was spreading out now, reflecting the light and heat back to the earth. There was a chance that most of one hemisphere might retain some measure of warmth, then. At least there was still light enough for him to travel safely.

By the time he was too tired to go on again, he had come to the beginnings of fertile land. He passed a village, but it had been looted, and he skirted around it rather than stare at the ghastly ghoul-work of the looters. The world was ending, but civilization seemed to have ended already. Beyond it, he came to a rude house, now abandoned. He staggered in gratefully.

For a change, he had one piece of good luck. His first attempt at magic produced food. At the sound of the snapping fingers and his hoarse-voiced "abracadabra," a dirty pot of hot and greasy stew came into existence. He had no cutlery, but his hands served well enough. When it was gone, he felt better. He wiped his hands on the breechclout. Whatever the material in the cloth, it had stood the sun's heat almost as well as he had.

Then he paused as his hand found a lump under the cloth. He drew out the apprentice magician's book. The poor devil had never achieved his twenty lifetimes, and this was probably all that was left of him. Hanson stared at it, reading the title in some surprise.

Applied Semantics.

He propped himself up and began to scan it, wondering what it had to do with magic. He'd had a course of semantics in college and could see no relationship. But he soon found that there were differences.

This book began with the axiomatic statement that the symbol is the thing. From that it developed in great detail the fact that any part of a whole bearing similarity to the whole was also the whole; that each seven was the class of all sevens; and other details of the science of magical similarity followed quite logically from the single axiom. Hanson was surprised to find that there was a highly developed logic to it. Once he accepted the axiom—and he was no longer prepared to doubt it here—he could follow the book far better than he'd been able to follow his own course in semantics. Apparently this was supposed to be a difficult subject, from the constant efforts of the writer to make his point clear. But after learning to deal with electron holes in transistors, this was elementary study for Hanson.

The second half of the book dealt with the use of the true name. That, of course, was the perfect symbol, and hence the true whole. There was the simple ritual of giving a secret name. Apparently any man who discovered a principle or device could use a name for it, just as parents could give one to their children. And there were the laws for using the name. Unfortunately, just when Hanson was beginning to make some sense of it, the book ended. Obviously, there was a lot more to be covered in later courses.

He tossed the book aside, shivering as he realized that his secret name was common knowledge. The wonder was that he could exist at all. And while there was supposed to be a ritual for relinquishing one name and taking another, that was one of the higher mysteries not given.
In the morning, he stopped to magic up some more food and the clothing he would need if he ever found the trace of civilized people again. The food was edible, though he'd never particularly liked cereal. He seemed to be getting the hang of abracadabraing up what was in his mind. But the clothing was a problem. Everything he got turned out to be the right size, but he couldn't see himself in hauberk and greaves, nor in a filmy nightgown. Finally, he managed something that was adequate, if the brilliant floral sportshirt could be said to go with levi pants and a morning frock. But he felt somewhat better in it. He finally left the frock behind, however. It was still too hot for that.

He walked on briskly, watching for signs of life and speculating on the principles of applied semantics, name magic and similarity. He could begin to understand how an Einstein might read through one of the advanced books here and make leaps in theory beyond what the Satheri had developed. They'd had it too easy. Magic that worked tended to overcome the drive for the discipline needed to get the most out of it. Any good theoretician from Hanson's world could probably make fools of these people. Maybe that was why the Satheri had gone scrounging back through other worlds to find men who had the necessary drive to get things done when the going was tough.

Twice he passed abandoned villages, but there was nothing there for him. He was coming toward forested ground now, something like the country in which the Sons of the Egg had found refuge. The thought of that made him go slower. But for a long time, there was no further sign of life. The woods thinned out to grasslands, and he went on for hours more before he spotted a cluster of lights ahead.

As he drew nearer, he saw that the lights seemed to be fluorescents. They were coming from corrugated iron sheds that looked like aircraft hangars strung together. There was a woven-wire fence around the structures, and a sign that said simply: Project Eighty-Five. In the half-light from the sky, he could see a well-kept lawn, and there were a few groups of men standing about idly. Most wore white coveralls, though two were dressed in simple business suits.

Hanson moved forward purposefully, acting as if he had urgent business. If he stopped, there would be questions, he suspected; he wanted to find answers, not to answer idle questions.

There was no one at the desk in the little reception alcove, but he heard the sound of voices through a side door leading out. He went through it, to find a larger yard with more men idling. There should be someone here who knew more of what was going on in this world than he did now.

His choice, in the long run, seemed to lie between Bork and the Satheri, unless he could find some way of hiding himself from both sides. At the moment, he was relatively free for the first time since they had brought him here, and he wanted to make sure that he could make the most use of the fact.

Nobody asked anything. He slowed, drifting along the perimeter of the group of men, and still nobody paid him any attention. Finally, he dropped onto the ground near a group of half a dozen men who looked more alert than the rest. They seemed to be reminiscing over old times.

"--two thirty-eight an hour with overtime--and double time for the swing shift. We really had it made then! And every Saturday, never fail, the general would come out from Muroc and tell us we were the heros of the home front--with overtime pay while we listened to him!"

"Yeah, but what if you wanted to quit? Suppose you didn't like your shift boss or somebody? You go down and get your time, and they hand you your draft notice. Me, I liked it better in '46. Not so much pay, but--"

Hanson pricked up his ears. The conversation told him more than he needed to know. He stood up and peered through the windows of the shed. There, unattended under banks of lights, stood half-finished aircraft shapes.

He wouldn't get much information here, it seemed. These were obviously reanimates, men who'd been pulled from his own world and set to work. They could do their duties and their memories were complete, but they were lacking some essential thing that had gone out of them before they were brought here. Unless he could find one among them who was either a mandrake-man housing a soul or one of the few reanimates who seemed almost fully human, he'd get little information. But he was curious as to what the Satheri had expected to do with aircraft. The rocs had better range and altitude than any planes of equal hauling power.

He located one man who seemed a little brighter than the others. The fellow was lying on the ground, staring at the sky with his hands clasped behind his head. From time to time, he frowned, as if the sight of the sky was making him wonder. The man nodded as Hanson dropped down beside him. "Hi. Just get here, Mac?"

"Yeah," Hanson assented. "What's the score?"

The man sat up and made a disgusted noise. "Who knows?" he answered. There was more emotion in his voice than might be expected from a reanimate; in real life on his own world, he must have had an amazing potential for even that much to carry over. "We're dead. We're dead, and we're here, and they tell us to make helicopters. So we make them, working like dogs to make a deadline. Then, just as the first one comes off the line, the power fails. No more juice. The head engineer took off in the one we finished. He was going to find out what gives, but he never came back. So we sit." He spat on the ground. "I wish they'd left me dead after the plant blew up. I'm not myself
since then."

"What in hell would they need with helicopters?" Hanson asked.

The man shrugged. "Beats me. But I'm beginning to figure some things out. They've got some kind of trouble with the sky. I figure they got confused in bringing us here. This shop is one that made those big cargo copters they call 'Sky Hooks' and maybe they thought the things were just what they're called. All I know is they kept us working five solid weeks for nothing. I knew the power was going to fail; they had the craziest damn generating plant you ever saw, and it couldn't last. The boilers kept sizzling and popping their safety valves with no fire in the box! Just some little old man sitting in a corner, practicing the Masonic grip or something over a smudgepot."

Hanson gestured back to the sheds. "If there's no power, what are those lights?"

"Witch lights, they told us," the man explained. "Saved a lot of wiring, or something. They--hey, what's that?"

He was looking up, and Hanson followed his gaze. There was something whizzing overhead at jet-plane speed.

"A piece of the sky falling?" he said.

The man snorted. "Falling sidewise? Not likely, even here. I tell you, pal, I don't like this place. Nothing works right. There was no fuel for the 'copter we finished--the one we called Betsy Ann. But the little geezer who worked the smudgepot just walked up to it and wiggled his finger. 'Start your motor going, Betsy Ann,' he ordered with some other mumbo-jumbo. Then the motor roared and he and the engineer, took off at double the speed she could make on high-test gas. Hey, there it is again! Doesn't look like the Betsy Ann coming back, either."

The something whizzed by again, in the other direction, but lower and slower. It made a gigantic but erratic circle beyond the sheds and swooped back. It looked nothing like a helicopter. It looked like a Hallowe'en decoration of a woman on a broomstick. As it came nearer, Hanson saw that it was a woman on a broomstick, flying erratically. She straightened out in a flat glide.

She came in for a one-point landing a couple of yards away. The tip of the broom handle hit the ground, and she went sailing over it, to land on her hands and knees. She got up, facing the shed.

The woman was Nema. Her face was masklike, her eyes tortured. She was staring searchingly around her, looking at every man.

"Nema!" Hanson cried.

She spun to face him, and gasped. Her skin seemed to turn gray, and her eyes opened to double their normal size. She took one tottering step toward him and halted. "Illusion!" she whispered hoarsely, and slumped to the ground in a faint.

She was reviving before he could raise her from the ground. She swayed a moment, staring at him. "You're not dead!"

"What's so wonderful about that around here?" he asked, but not with much interest. With the world going to pot and only a few days left, the girl's face and the slim young body under it were about all the reality left worth thinking about. He grabbed for her, pulling her to him. Bertha had never made him feel like that.

She managed to avoid his lips and slid away from him. "But they used the snetha-knife! Dave Hanson, you never died! It was only induced illusion by that--that Bork! And to think that I nearly died of grief while you were enjoying yourself here! You ... you mandrake-man!"

He grunted. He'd almost managed to forget what he was, and he didn't enjoy having the aircraft worker find out. He turned to see what the reaction was, and then stared open-mouthed at his surroundings.

There were no lights from the plane factory. In fact, there was no plane factory. In the half-light of the sky, he saw that the plant was gone. No men were left. There was only barren earth, with a tiny, limp sapling in the middle of empty acres.

"What happened?"

Nema glanced around briefly and sighed. "It's happening all over. They created the plane plant by the law of identities from that little plane tree sapling, I suppose; it is a plane plant, after all. But with the conjunctions and signs failing, all such creations are returning to their original form, unless a spell is used continually over them. Even then, sometimes, we fail. Most of the projects vanished after the sun fell."

Hanson remembered the man with whom he'd been talking before Nema appeared. He'd have liked to know such a man before death and revivification had ruined him. It wasn't fair that anyone with character enough to be that human even as a zombie should be wiped out without even a moment's consideration. Then he remembered the man's own estimate of his current situation. Maybe he was better off returned to the death that had claimed him.

Reluctantly, he returned to his own problems. "All right, then, if you thought I was dead, what are you doing here, Nema?"

"I felt the compulsion begin even before I returned to the city. I thought I was going mad. I tried to forget you, but the compulsion grew until I could fight it no longer." She shuddered. "It was a terrible flight. The carpets will not work at all now, and I could hardly control the broom. Sometimes it wouldn't lift. Twice it sailed so high I could
hardly breathe. And I had no hope of finding you, yet I went on. I've been flying when I could for three days now."

Bork, of course, hadn't known of her spell with which she'd forced herself to want him "well and truly." Apparently it had gone on operating even when she thought he was dead, and with a built-in sense of his direction. Well, she was here--and he wasn't sorry.

Hanson took another look across the plains toward the glowing hell of the horizon. He reached for her and pulled her to him. She was firm and sweet against him, and she was trembling in response to his urging.

At the last moment she pulled back. "You forget yourself, Dave Hanson! I'm a registered and certified virgin. My blood is needed for--"

"For spells that won't work anyhow," he told her harshly. "The sky isn't falling now, kid. It's down--or most of it."

"But--" She hesitated and then let herself come a trifle closer. Her voice was doubtful. "It's true that our spells are failing. Not even the surest magic is reliable. The world has gone mad, and even magic is no longer trustworthy. But--"

He was just pulling her close enough again and feeling her arms lift to his neck when the ground shook behind them and there was a sound of great, jarring, thudding steps.

Hanson jerked around to see a great roc making its landing run, heading straight for them. The huge bird braked savagely, barely stopping before they were under its feet. From its back, a ladder of some flexible material snaked down and men began descending. The first were mandrakes in the uniform of the Satheri, all carrying weapons with evil-looking blades or sharp stickers.

The last man off was Bork. He came toward Hanson and Nema with a broad grin on his face. "Greetings, Dave Hanson. You do manage to survive, don't you? And my little virgin sister, without whose flight I might not have found you. Well, come along. The roc's growing impatient!"

VIII

The great roc's hard-drumming wings set up a constant sound of rushing air and the distance flowed behind them. There was the rush of wind all around them, but on the bird's back they were in an area where everything seemed calm. Only when Hanson looked over toward the ground was he fully conscious of the speed they were making. From the height, he could see where the sun had landed. It was sinking slowly into the earth, lying in a great fused hole. For miles around, smaller drops of the three-mile-diameter sun had spattered and were etching deeper holes in the pitted landscape.

Then they began passing over desolate country, scoured by winds, gloomy from the angry, glaring clouds above. Once, two bodies went hurtling upwards toward the great gaps in the sky.

"Those risings were from men who were no worshippers of the egg's hatching," Bork commented. "It's spreading. Something is drawing them up from all over the planet."

Later, half a square mile of the shell cracked off. The roc squawked harshly, but it had learned and had been watching above. By a frantic effort of the great wings, it missed the hurtling chunk. They dropped a few thousand feet in the winds that followed the piece of sky, but their altitude was still safe.

Then they passed over a town, flying low. The sights below were out of a ghoul's bacchanalia. As the roc swept over, the people stopped their frenzied pursuit of sensation and ran for weapons. A cloud of arrows hissed upwards, all fortunately too late.

"They blame all their troubles on the magicians," Bork explained. "They've been shooting at everything that flies. Not a happy time to associate with the Satheri, is it?"

Nema drew further back from him. "We're not all cowards like you! Only rats desert a sinking ship."

"Nobody thought it was sinking when I deserted," Bork reminded her. "Anyway, if you'd been using your eyes and seen the way we are traveling, you'd know I've rejoined the crew. I've made up with the Sather Karf--and at a time like this, our great grandfather was glad to have me back!"

Nema rushed toward him in delight, but Hanson wasn't convinced. "Why?" he asked.

Bork sobered. "One of the corpses that fell back from the risings added a word to what the others had said. No, I'll bear the weight of it myself, and not burden you with it. But I'm convinced now that his egg should not hatch. I had doubts before, unlike our friend Malok, who also heard the words but is doubly the fanatic now. Perhaps the hatching cannot be stopped--but I've decided that I am a man and must fight like one against the fates. So, though I still oppose much that the Satheri have done, I've gone back to them. We'll be at the camp of the Sather Karf shortly."

"That sewed everything up neatly, Hanson thought. Before, he had been torn between two alternatives. Now there was only one and he had no choice; he could never trust the Sons of the Egg with Bork turned against them. He stared up at the sky, realizing that more than half of it had already fallen. The rest seemed too weak to last much longer. It probably didn't make much difference what he did now or who had him; time was running out for this
The light was dimmer by the time they reached the great capital city—or what was left of it. They had left the sun pyre far to the south. The air was growing cold already.

The roc flew low over the city. The few people on the streets looked up and made threatening gestures, but there was no flight of arrows from the ground. Probably the men below had lost even the strength to hate. It was hard to see, since there was no electric lighting system now. But it seemed to Hanson that only the oldest and ugliest buildings were still standing. Honest stone and metal could survive, but the work of magic was no longer safe.

One of the remaining buildings seemed to be a hospital, and the empty space in front of it was crammed with people. Most of them seemed to be dead or unconscious. Squat mandrakes were carrying off bodies toward a great fire that was burning in another square. Plague and pestilence had apparently gotten out of hand.

They flew on, beyond the city toward the construction camp that had been Hanson's headquarters. The roc was beginning to drop into a long landing glide, and details below were easier to see. Along the beach beyond the city, a crowd had collected. They had a fire going and were preparing to cook one of the mermaids. A fight was already going on over the prey. Food must have been exhausted days before.

The camp was a mess when they reached it. One section had been ripped down by the lash of wind from a huge piece of the sky, which now lay among the ruins with a few stars glowing inside it. There was a brighter glow beyond. Apparently one blob of material from the sun had been tossed all the way here and had landed against a huge rock to spatter into fragments. The heat from those fragments cut through the chill in the air, and the glow furnished light for most of the camp.

The tents had been burned, but there was a new building where the main tent had been. This was obviously a hasty construction job, thrown together of rocks and tree trunks, without the use of magic. It was more of an enormous lean-to than a true building, but it was the best protection now available. Hanson could see Sather Karf and Sersa Garm waiting outside, together with less than a hundred other warlocks.

The mandrakes prodded Hanson down from the roc and toward the new building, then left at a wave of the Sather Karf's hand. The old man stared at Hanson intently, but his expression was unreadable. He seemed to have aged a thousand years. Finally he lifted his hand in faint greeting, sighed and dropped slowly to a seat. His face seemed to collapse, with the iron running out of it. He looked like a beaten, sick old man. His voice was toneless.

"Fix the sky, Dave Hanson!"

There were angry murmurs from other warlocks in the background, but Sather Karf shook his head slowly, still facing Hanson. "No--what good to threaten dire punishments or to torture you when another day or week will see the end of everything? What good to demand your reasons for desertion when time is so short? Fix the sky and claim what reward you will afterwards. We have few powers now that the basis of astrology is ruined. But repair our sky and we can reward you beyond your dreams. We can find ways to return you to your own world intact. You have near immortality now. We can fill that entire lifetime with pleasures. We'll give you jewels to buy an empire. Or if it is vengeance against whatever you feel we are, you shall know my secret name and the name of everyone here. Do with us then what you like. But fix the sky!"

It shook Hanson. He had been prepared to face fury, or to try lying his way out if there was a chance with some story of having needed to study Menes's methods. Or of being lost. But he had no defense prepared against such an appeal.

It was utterly mad. He could do nothing, and their demands were impossible. But before the picture of the world dying and the decay of the old Sather's pride, even Hanson's own probable death with the dying world seemed unimportant. He might at least give them something to hope for while the end came.

"Maybe," he said slowly. "Maybe, if all of the men you brought here to work on the problem were to pool their knowledge, we might still find the answer. How long will it take to get them here for a council?"

Ser Perth appeared from the group. Hanson had thought the man dead in the ruins of the pyramid, but somehow he had survived. The fat was going from his face, and his mustache was untrimmed, but he was uninjured. He shook his head sadly. "Most have disappeared with their projects. Two escaped us. Menes is dead. Cagliostro tricked us successfully. You are all we have left. And we can't even supply labor beyond those you see here. The people no longer obey us, since we have no food to give them."

"You're the only hope," Bork agreed. "They've saved what they could of the tools from the camp and what magical instruments are still useful. They've held on only for your return."

Hanson stared at them and around at the collection of bric-a-brac and machinery they had assembled for him. He opened his mouth, and his laughter was a mockery of their hopes and of himself.

"Dave Hanson, world saver! You got the right name but the wrong man, Sather Karf," he said bitterly. He'd been a pretender long enough, and what punitive action they took now didn't seem to matter. "You wanted my uncle, David Arnold Hanson. But because his friends called him Dave and cut that name on his monument, and because I
was christened by the name you called, you got me instead. He'd have been helpless here, probably, but with me you have no chance. I couldn't even build a doghouse. I wasn't even a construction engineer. Just a computer operator and repairman."

He regretted ruining their hopes, almost as he said it. But he could see no change on the old Sather's face. It seemed to stiffen slightly and become more thoughtful, but there was no disappointment.

"My grandson Bork told me all that," he said. "Yet your name was on the monument, and we drew you back by its use. Our ancient prophecy declared that we should find omnipotence carved on stone in a pool of water, as we found your name. Therefore, by the laws of rational magic, it is you to whom nothing is impossible. We may have mistaken the direction of your talent, but nonetheless it is you who must fix the sky. What form of wonder is a computer?"

Dave shook his head at the old man's monomania. "Just a tool. It's a little hard to explain, and it couldn't help."

"Humor my curiosity, then. What is a computer, Dave Hanson?"

Nema's hand rested on Hanson's arm pleadingly, and he shrugged. He groped about for some answer that could be phrased in their language, letting his mind flicker from the modern electronic gadgets back to the old-time tide predictor.

"An analogue computer is a machine that ... that sets up conditions mathematically similar to the conditions in some problem and then lets all the operations proceed while it draws a graph--a prediction--of how the real conditions would turn out. If the tides change with the position of some heavenly body, then we can build cams that have shapes like the effect of the moon's orbit, and gear them together in the right order. If there are many factors, we have a cam for each factor, shaped like the periodic rise and fall of that factor. They're all geared to let the various factors operate at the proper relative rate. With such a machine, we can run off a graph of the tides for years ahead. Oh, hell--it's a lot more complicated than that, but it takes the basic facts and draws a picture of the results. We use electronic ones now, but the results are the same."

"I understand," Sather Karf said. Dave doubted it, but he was happy to be saved from struggling with a more detailed explanation. And maybe the old man did understand some of it. He was no fool in his own subject, certainly. Sather Karf pondered for a moment, and then nodded with apparent satisfaction. "Your world was more advanced in understanding than I had thought. This computer is a fine scientific instrument, obeying natural law well. We have applied the same methods, though less elaborately. But the basic magical principle of similarity is the foundation of true science."

Dave started to protest, and then stopped, frowning. In a way, what the other had said was true. Maybe there was some relation between science and magic, after all; there might even be a meeting ground between the laws of the two worlds he knew. Computers set up similar conditions, with the idea that the results would apply to the original. Magic used some symbolic part of a thing in manipulations that were to be effective for the real thing. The essential difference was that science was predictive and magic was effective--though the end results were often the same. On Dave's world, the cardinal rule of logic was that the symbol was not the thing--and work done on symbols had to be translated by hard work into reality. Maybe things were really more logical here where the symbol was the thing, and all the steps in between thought and result were saved.

"So we are all at fault," Sather Karf said finally. "We should have studied you more deeply and you should have been more honest with us. Then we could have obtained a computer for you and you could have simulated our sky as it should be within your computer and forced it to be repaired long ago. But there's no time for regrets now. We cannot help you, so you must help yourself. Build a computer, Dave Hanson!"

"It's impossible."

Suddenly rage burned on the old man's face, and he came to his feet. His arm jerked back and snapped forward. Nothing happened. He grimaced at the ruined sky. "Dave Hanson," he cried sharply, "by the unfailing power of your name which is all of you, I hold you in my mind and your throat is in my hand--"

The old hands squeezed suddenly, and Hanson felt a vise clamp down around his throat. He tried to break free, but there was no escape. The old man mumbled, and the vise was gone, but something clawed at Hanson's liver. Something else rasped across his sciatic nerve. His kidneys seemed to be wrenched out of him.

"You will build a computer," Sather Karf ordered. "And you will save our world!"

Hanson staggered from the shock of the pain, but he was no longer unused to agony. He had spent too many hours under the baking of the sun, the agony of the snetha-knife and the lash of an overseer's whip. The agony could not be stopped, but he'd learned it could be endured. His fantastic body could heal itself against whatever they did to him, and his mind refused to accept the torture supinely. He took a step toward Sather Karf, and another. His hands came up as he moved forward.

Bork laughed suddenly. "Let up, Sather Karf, or you'll regret it. By the laws, you're dealing with a man this time. Let up, or I'll free him to meet you fairly."
The old man’s eyes blazed hotly. Then he sighed and relaxed. The clutching hands and the pain were gone from Hanson as the Sather Karf slumped back wearily to his seat.

"Fix our sky," the old man said woodenly.

Hanson staggered back, panting from his efforts. But he nodded. "All right," he agreed. "Like Bork, I think a man has to fight against his fate, no matter how little chance he has. I'll do what I can. I'll build the damned computer. But when I'm finished, I'll wait for your true name!"

Suddenly Sather Karf laughed. "Well said, Dave Hanson. You'll have my name when the time comes. And whatever else you desire. Also what poor help we can give you now. Ser Perth, bring food for Dave Hanson!"

Ser Perth shook his head sadly. "There is none. None at all. We hoped that the remaining planets would find a favorable conjunction, but--"

Dave Hanson studied his helpers with more bitterness. "Oh, hell!" he said at last. He snapped his fingers. "Abracadabra!"

His skill must be improving, since he got exactly what he had wished for. A full side of beef materialized against his palm, almost breaking his arm before he could snap it out of the way. The others swarmed hungrily toward it. At their expressions of wonder, Hanson felt more confidence returning to him. He concentrated and went through the little ritual again. This time loaves of bread rained down--fresh bread, and even of the brand he had wished for. Maybe he was becoming a magician himself, with a new magic that might still accomplish something.

Sather Karf smiled approvingly. "The theory of resonance, I see. Unreliable generally. More of an art than a science. But you show promise of remarkable natural ability to apply it."

"You know about it?" Dave had assumed that it was completely outside their experience and procedures.

"We knew it. But when more advanced techniques took over, most of us forgot it. The syllables resonate in a sound pattern with your world, to which you also still resonate. It won't work for you with anything from this world, nor will anything work thus for us from yours. We had different syllables, of course, for use here." Sather Karf considered it. "But if you can control it and bring in one of your computers or the parts for one--"

Sixteen tries later, Dave was cursing as he stared at a pile of useless items. He'd gotten transistors at first. Then he lost control with too much tension or fatigue and began getting a bunch of assorted junk, such as old 201-A tubes, a transit, a crystal vase and resistors. But the chief trouble was that he couldn't secure working batteries. He had managed a few, but all were dead.

"Like the soul, electrical charges will not transfer," Sather Karf agreed sadly. "I should have told you that."

There was no electricity here with which to power anything, and their spells could not be made to work now. Even if he could build a computer out of what was obtainable, there would be no way to power it.

Overhead, the sky shattered with a roar, and another piece fell, tearing downwards toward the city. Sersa Garm stared upwards in horror.

"Mars!" he croaked. "Mars has fallen. Now can there be no conjunction ever!"

He tautened and his body rose slowly from the ground. A scream ripped from his lips and faded away as he began rushing upwards with increasing speed. He passed but of their sight, straight toward the new hole in the sky.

IX

In the hours that followed, Dave’s vague plans changed a dozen times as he found each idea unworkable. His emotional balance was also erratic--though that was natural, since the stars were completely berserk in what was left of the sky. He seemed to fluctuate between bitter sureness of doom and a stupidly optimistic belief that something could be done to avert that doom. But whatever his mood, he went on working and scheming furiously. Maybe it was the desperate need to keep himself occupied that drove him, or perhaps it was the pleading he saw in the eyes around him. In the end, determination conquered his pessimism.

Somewhere in the combination of the science he had learned in his own world and the technique of magic that applied here there had to be an answer--or a means to hold back the end of the world until an answer could be found.

The biggest problem was the number of factors with which he had to deal. There were seven planets and the sun, and three thousand fixed stars. All had to be ordered in their courses, and the sky had to be complete in his calculations.

He had learned his trade where the answer was always to add one more circuit in increasing complexity. Now he had to think of the simplest possible similarity computer. Electronics was out, obviously. He tried to design a set of cams, like the tide machine, to make multiple tracings on paper similar to a continuous horoscope, but finally gave it up. They couldn't build the parts, even if there had been time.

He had to depend on what was available, since magic couldn't produce any needed device and since the people here had depended on magic too long to develop the other necessary skills. When only the broadest powers of magic remained, they were hopeless. Names were still potent, resonance worked within its limits, and the general principles of similarity still applied; but those were not enough for them. They depended too heavily on the second
great principle of contagion, and that seemed to be wrapped up with some kind of association through the signs and houses and the courses of the planets.

He found himself thinking in circles of worry and pulled himself back to his problem. Normally, a computer was designed for flexibility and to handle varying conditions. This one could be designed to handle only one set of factors. It had to duplicate the courses of the objects in their sky and simulate the general behavior of the dome. It was not necessary to allow for all theoretical courses, but only for the normal orbits.

And finally he realized that he was thinking of a model—the one thing which is functionally the perfect analogue.

It brought him back to magic again. Make a doll like a man and stick pins in it—and the man dies. Make a model of the universe within the sky, and any changes in that should change reality. The symbol was the thing, and a model was obviously a symbol.

He began trying to plan a model with three thousand stars in their orbits, trying to find some simple way of moving them. The others watched in fascination. They apparently felt that the diagrams he was drawing were some kind of scientific spell. Ser Perth was closer than the others, studying the marks he made. The man suddenly pointed to his computations.

"Over and over I find the figure seven and the figure three thousand. I assume that the seven represents the planets. But what is the other figure?"

"The stars," Hanson told him impatiently.

Ser Perth shook his head. "That is wrong. There were only two thousand seven hundred and eighty-one before the beginnings of our trouble."

"And I suppose you've got the exact orbits of every one?" Hanson asked. He couldn't see that the difference was going to help much.

"Naturally. They are fixed stars, which means they move with the sky. Otherwise, why call them fixed stars? Only the sun and the planets move through the sky. The stars move with the sky over the world as a unity."

Dave grunted at his own stupidity. That really simplified things, since it meant only one control for all of them and the sky itself. But designing a machine to handle the planets and the sun, while a lot simpler, was still a complex problem. With time, it would have been easy enough, but there was no time for trial and error.

He ripped up his plans and began a new set. He'd need a glass sphere with dots on it for the stars, and some kind of levers to move the planets and sun. It would be something like the orreries he'd seen used for demonstrations of planetary movement.

Ser Perth came over again, staring down at the sketch. He drowned in doubt. "Why waste time drawing such engines? If you want a model to determine how the orbits should be, we have the finest orrery ever built here in the camp. We brought it with us when we moved, since it would be needed to determine how the sky should be repaired and to bring the time and the positions into congruence. Wait!"

He dashed off, calling two of the mandrakes after him. In a few minutes, they staggered back under a bulky affair in a protective plastic case. Ser Perth stripped off the case to reveal the orrery to Hanson.

It was a beautiful piece of workmanship. There was an enormous sphere of thin crystal to represent the sky. Precious gems showed the stars, affixed to the dome. The whole was nearly eight feet in diameter. Inside the crystal, Hanson could see a model of the world on jeweled-bearing supports. The planets and the sun were set on tracks around the outside, with a clockwork drive mechanism that moved them by means of stranded spiderweb cords. Power came from weights, like those used on an old-fashioned clock. It was obviously all hand work, which must make it a thing of tremendous value here.

"Sather Fareth spent his life designing this," Ser Perth said proudly. "It is so well designed that it can show the position of all things for a thousand centuries in the past or future by turning these cranks on the control, or it will hold the proper present positions for years from its own engine."

"It's beautiful workmanship," Hanson told him. "As good as the best done on my world."

Ser Perth went away, temporarily pleased with himself, and Hanson stood staring at the model. It was as good as he'd said it was—and completely damning to all of his theories and hopes. No model he could make would equal it. But in spite of it and all its precise analogy to the universe around him, the sky was still falling in shattered bits!

Sather Karf and Bork had come over to join Hanson. They waited expectantly, but Hanson could think of nothing to do. It had already been done—and had failed. The old man dropped a hand on his shoulder. There was the weight of all his centuries on the Sather, yet a curious toughness showed through his weariness. "What is wrong with the orrery?" he asked.

"Nothing—nothing at all, damn it!" Hanson told him. "You wanted a computer—and you've got it. You can feed in data as to the hour, day, month and year, turn the cranks, and the planets there will turn to their proper position exactly as the real planets should run. You don't need to read the results off graph paper. What more could any
analogue computer do? But it doesn't influence the sky."

"It was never meant to," the old man said, surprise in his voice. "Such power--"

Then he stopped, staring at Hanson while something almost like awe spread over his face. "Yet... the prophecy and the monument were right! You have unlocked the impossible! Yet you seem to know nothing of the laws of similarity or of magic, Dave Hanson. Is that crystal similar to the sky, by association, by contagion, or by true symbolism? A part may be a symbol for the whole--or so may any designated symbol, which may influence the thing it is. If I have a hair from your head, I can model you with power over you. But not with the hair of a pig! That is no true symbol!"

"Suppose we substituted bits of the real thing for these representations?" Hanson asked.

Bork nodded. "It might work. I've heard you found the sky material could be melted, and we've got enough of that where it struck the camp. Any one of us who has studied elementary alchemy could blow a globe of it to the right size for the sky dome. And there are a few stars from which we can chip pieces enough. We can polish them and put them into the sphere where they belong. And it will be risky, but we may even be able to shape a bit of the sun stuff to represent the great orb in the sky."

"What about the planets?" Hanson was beginning to feel the depression lift. "You might get a little of Mars, since it fell near here, but that still leaves the other six."

"That long associated with a thing achieves the nature of the thing," Sather Karf intoned, as if giving a lesson to a kindergarten student. "With the right colors, metals and bits of jewels--as well as more secret symbols--we can simulate the planets. Yet they cannot be suspended above the dome, as in this orrery--they must be within the sky, as in nature."

"How about putting some iron in each and using a magnet on the control tracks to move the planets?" Hanson suggested. "Or does cold iron ruin your conjuring here?"

Sather Karf snorted in obvious disgust, but Bork only grinned. "Why should it? You must have heard peasant superstitions. Still, you'd have a problem if two tracks met, as they do. The magnets would then affect both planets alike. Better make two identical planets for each--and two suns--and put one on your track controls. Then one must follow the other, though the one remain within the sky."

Hanson nodded. He'd have to shield the cord from the sun stuff, but that could be done. He wondered idly whether the real universe was going to wind up with tracks beyond the sky on which little duplicate planets ran--just how much similarity would there be between model and reality when this was done, if it worked at all? It probably didn't matter, and it could hardly be worse than whatever the risers had run into beyond the hole in the present sky. Metaphysics was a subject with which he wasn't yet fully prepared to cope.

The model of the world inside the orrery must have been made from earthly materials already, and it was colored to depict land and sea areas. It could probably be used. At their agreement, he nodded with some satisfaction. That should save some time, at least. He stared doubtfully at the rods and bearings that supported the model world in the center of the orrery.

"What about those things? How do we hold the globe in the center of everything?"

Bork shrugged. "It seems simple enough. We'll fashion supports of more of the sky material."

"And have real rods sticking up from the poles in the real universe?" Hanson asked sarcastically.

"Why not?" Bork seemed surprised at Hanson's tone. "There have always been such columns connecting the world and the sky. What else would keep us from falling?"

Hanson swore. He might have guessed it! The only wonder was that simple rods were used instead of elephants and turtles. And the doubly-damned fools had let Menes drive millions of slaves to death to build a pyramid to the sky when there were already natural columns that could have been used!

"There remains only one step," Sather Karf decided after a moment more. "To make symbol and thing congruent, all must be invoked with the true and secret name of the universe."

Hanson suddenly remembered legends of the tetragrammaton and the tales of magic he'd read in which there was always one element lacking. "And I suppose nobody knows that or dares to use it?"

There was hurt pride of the aged face and the ring of vast authority in his voice. "Then you suppose wrong, Dave Hanson! Since this world first came out of Duality, a Sather Karf has known that mystery! Make your device and I shall not fail in the invocation!"

For the first time, Hanson discovered that the warlocks could work when they had to, however much they disliked it. And at their own specialties, they were superb technicians. Under the orders of Sather Karf, the camp sprang into frenzied but orderly activity.

They lost a few mandrakes in prying loose some of the sun material, and more in getting a small sphere of it shaped. But the remainder gave them the heat to melt the sky stuff. When it came to glass blowing, Hanson had to admit they were experts; it should have come as no surprise, after the elaborate alchemical apparatus he'd seen. Once
the crystal shell was cracked out of the orrery, a fat-faced Ser came in with a long tube and began working the molten sky material, getting the feel of it. He did things Hanson knew were nearly impossible, and he did them with the calm assurance of an expert. Even when another rift in the sky appeared with a crackling of thunder, there was no faltering on his part. The sky shell and world supports were blown into shape around the world model inside the outer tracks in one continuous operation. The Ser then clipped the stuff from his tube and sealed the tiny opening smoothly with a bit of sun material on the end of a long metal wand.

"Interesting material," he commented, as if only the technical nature of the stuff had offered any problem to him.

Tiny, carefully polished chips from the stars were ready, and men began placing them delicately on the shell. They sank into it at once and began twinkling. The planets had also been prepared, and they also went into the shell, while a mate to each was attached to the tracking mechanism. The tiny sun came last. Hanson fretted as he saw it sink into the shell, sure it would begin to melt the sky material. It seemed to have no effect, however; apparently the sun was not supposed to melt the sky when it was in place--so the little sun didn't melt the shell. Once he was sure of that, he used a scrap of the sky to insulate the second little sun that would control the first sympathetically from the track. He moved the control delicately by hand, and the little sun followed dutifully.

The weights on the control mechanism were in place, Hanson noted. Someone would probably have to keep them wound from now on, unless they could devise a foolproof motor. But that was for the future. He bent to the hand cranks. Sather Karf was being called to give the exact settings for this moment, but Hanson had a rough idea of where the planets should be. He began turning the crank, just as the Sather came up.

There was a slight movement. Then the crank stuck, and there was a whirring of slipping gears! The fools who had moved the orrery must have been so careless that they'd sprung the mechanism. He bent down to study the tiny little jeweled gears. A whole gear train was out of place!

Sather Karf was also inspecting it, and the words he cried didn't sound like an invocation, though they were strange enough. He straightened, still cursing. "Fix it!"

"I'll try," Hanson agreed doubtfully. "But you'd better get the man who made this. He'll know better than I--"

"He was killed in the first cracking of the sky when a piece hit him. Fix it, Dave Hanson. You claimed to be a repairman for such devices."

Hanson bent to study it again, using a diamond lens one of the warlocks handed him. It was a useful device, having about a hundred times magnification without the need for exact focusing. He stared at the jumble of fine gears, then glanced out through the open front of the building toward the sky. There was even less of it showing than he had remembered. Most of the great dome was empty. And now there were suggestions of ... shadows ... in the empty spots. He looked away hastily, shaken.

"I'll need some fine tools," he said.

"They were lost in moving this," Ser Perth told him. "This is the best we can do."

The jumble of tools had obviously been salvaged from the kits on the tractors in the camp. There was one fairly small pair of pliers, a small pick and assorted useless junk. He shook his head hopelessly.

"Fix it!" Sather Karf ordered again. The old man's eyes were also on the sky. "You have ten minutes, perhaps--no more."

Hanson's fingers steadied as he found bits of wire and began improvising tools to manipulate the tiny gears. The mechanism was a piece of superb craftsmanship that should have lasted for a million years, but it had never been meant to withstand the heavy shock of being dropped, as it must have been. And there was very little space inside. It should have been disassembled and put back piece by piece, but there was no time for that.

Another thunder of falling sky sounded, and the ground heaved. "Earthquakes!" Sather Karf whispered. "The end is near!"

Then a shout went up, and Hanson jerked his eyes from the gears to focus on a group of rocs that were landing at the far end of the camp. Men were springing from their backs before they stopped running--men in dull robes with elaborate masks over their faces. At the front was Malok, leader of the Sons of the Egg, brandishing his knife.

His voice carried clearly. "The egg hatches! To the orrery and smash it! That was the shadow in the pool. Destroy it before Dave Hanson can complete his magic!"

The men behind him yelled. Around Hanson, the magicians cried out in shocked fear. Then old Sather Karf was dashing out from under the cover of the building, brandishing a pole on which a drop of the sun-stuff was glowing. His voice rose into a command that rang out over the cries of the others.

Dave reached for a heavy hammer, meaning to follow. The old Sather seemed to sense it without looking back.
"Fix the engine, Dave Hanson," he called.

It made sense. The others could do the fighting, but only he had training with such mechanisms. He turned back to his work, just as the warlocks began rallying behind Sather Karf, grabbing up what weapons they could find.
There was no magic in this fight. Sticks, stones, hammers and knives were all that remained workable.

Dave Hanson bent over the gears, cursing. Now there was another rumble of thunder from the falling sky. The half-light from the reflected sunlight dimmed, and the ground shook violently. Another set of gears broke from the housing. Hanson caught up a bit of sun-stuff on the sharp point of the awl and brought it closer, until it burned his hands. But he had seen enough. The mechanism was ruined beyond his chance to repair it in time.

He slapped the cover shut and stuck the sun-tipped awl where it would light as much of the orrery as possible. As always, the skills of his own world had failed. To the blazes with it, then--when in magic land, magic had to do.

He thought of calling Ser Perth or Sather Karf, but there was no time for that, and they could hardly have heard him over the sounds of the desperate fight going on.

He bent to the floor, searching until he found a ball of the sky material that had been pinched off when the little opening was sealed. Further hunting gave him a few bits of dust from the star bits and some of the junk that had gone into shaping the planets. He brushed in some dirt from the ground that had been touched by the sun stuff and was still glowing faintly. He wasn't at all sure of how much he could extrapolate from what he'd read in the book on Applied Semantics, but he knew he needed a control--a symbol of the symbol, in this case. It was crude, but it might serve to represent the orrery.

He clutched it in his hand and touched it against the orrery, trying to remember the formula for the giving of a true name. He had to improvise, but he got through a rough version of it, until he came to the end: "I who created you name you--" What the deuce did he name it? "I name you Rumpelstiltsken and order you to obey me when I call you by your name."

He clutched the blob of material tighter in his hand, mentally trying to shape an order that wouldn't backfire, as such orders seemed to in the childhood stories of magic he had learned. Finally his lips whispered the simplest order he could find. "Rumpelstiltsken, repair yourself!"

There was a whirring and scraping inside the mechanism, and Hanson let out a yell. He got only a hasty glimpse of gears that seemed to be back on their tracks before Sather Karf was beside him, driving the cranks with desperate speed.

"We have less than a minute!" the old voice gasped.

The Sather's fingers spun on the controls. Then he straightened, moving his hands toward the orrery in passes too rapid to be seen. There was a string of obvious ritual commands in their sacred language. Then a single word rang out, a string of sounds that should have come from no human vocal chords.

There was a wrench and twist through every atom of Hanson's body. The universe seemed to cry out. Over the horizon, a great burning disc rose and leaped toward the heavens as the sun went back to its place in the sky. The big bits of sky-stuff around also jerked upwards, revealing themselves by the wind they whipped up and by the holes they ripped through the roof of the building. Hanson clutched at the scrap he had pocketed, but it showed no sign of leaving, and the tiny blob of sun-stuff remained fixed to the awl.

Through the diamond lens, Hanson could see the model of the world in the orrery changing. There were clouds apparently painted on it where no clouds had been. And there was an indication of movement in the green of the forests and the blue of the oceans, as if trees were whipping in the wind and waves lapping the shores.

When he jerked his eyes upward, all seemed serene in the sky. Sunlight shone normally on the world, and from under the roof he could see the gaudy blue of sky, complete, with the cracks in it smoothing out as he watched.

The battle outside had stopped with the rising of the sun. Half the warlocks were lying motionless, and the other half had clustered together, close to the building where Hanson and Sather Karf stood. The Sons of the Egg seemed to have suffered less, since they greatly out-numbered the others, but they were obviously more shocked by the rising of the sun and the healing of the sky.

Then Malok's voice rang out sharply. "It isn't stable yet! Destroy the machine! The egg must hatch!"

He leaped forward, brandishing his knife, while the Sons of the Egg fell in behind him. The warlocks began to close ranks, falling back to make a stand under the jutting edge of the roof, where they could protect the orrery. Bork and Ser Perth were among them, bloody but hopelessly determined.

One look at Sather Karf's expression was enough to convince Hanson that Malok had cried the truth and that their work could still be undone. And it was obvious that the warlocks could never stand the charge of the Sons. Too many of them had already been killed, and there was no time for reviving them.

Sather Karf was starting forward into the battle, but Hanson made no move to follow. He snapped the diamond lens to his eye and his fingers caught at the drop of sun-stuff on the awl. He had to hold it near the glowing bit for steadiness, and it began searing his fingers. He forced control on his muscles and plunged his hand slowly through the sky sphere, easing the glowing blob downward toward the spot on the globe he had already located with the lens. His thumb and finger moved downward delicately, with all the skill of practice at working with nearly invisibly fine wires on delicate instruments.
Then he jerked his eyes away from the model and looked out. Something glaring and hot was suspended in the air five miles away. He moved his hand carefully, steadying it on one of the planet tracks. The glowing fire in the air outside moved another mile closer--then another. And now, around it, he could see a monstrous fingertip and something that might have been miles of thumbnail.

The warlocks leaped back under the roof. The Sons of the Egg screamed and panicked. Jerking horribly, the monstrous thing moved again. For part of a second, it hovered over the empty camp. Then it was gone.

Hanson began pulling his hand out through the shell of the model, whimpering as his other hand clenched against the blob in his pocket. He had suddenly realized what horrors were possible to anyone who could use the orrery now. "Rumpelstiltsken, I command you to let no hand other than mine enter and to respond to no other controls." He hoped it would offer enough protection.

His hand came free and he threw the sun-bit away with a flick of his wrist. His hand ached with the impossible task of steadiness he had set it, and his finger and thumb burned and smoked. But the wound was already healing.

In the exposed section of the camp, the Sons of the Egg were charred corpses. There was a fire starting on the roof of the building, but others had already run out to quench that. It sounded like the snuffling progress of an undine across the roof! Maybe magic was working again.

Bork turned back from the sight of his former companions. His face was sick, but he managed to grin at Hanson. "Dave Hanson, to whom nothing is impossible," he said.

Hanson had located Nema finally as she approached. He caught her hand and grabbed Bork's arm. Like his own, it was trembling with fatigue and reaction.

"Come on," he said. "Let's find some place where we can see whether it's impossible now for you to magic up a decent meal. And a drink strong enough to scare away the sylphs."

The sylph that found them wasn't scared by the Scotch, but there was enough for all of them.

X

Three days can work magic--in a world where magic works. The planets swung along their paths again and the sun was in the most favorable house for conjuration. The universe was stable again.

There was food for all, and houses had been conjured hastily to shelter the people. The plagues were gone. Now the strange commerce and industry of this world were humming again. Those who had survived and those who could be revived were busily rebuilding. Some were missing, of course. Those who had risen and--hatched--were beyond recall, but no one spoke of them. If any Sons of the Egg survived, they were quiet in their defeat.

Hanson had been busy during most of the time. It had been taken for granted that he would tend to the orrery, setting it for the most favorable conditions when some special major work of magic required it, and he had taken the orders and moved the controls as they wanted them. The orrery was housed temporarily in the reconstituted hall of the Satheri in the capital city. They were building a new hall for it, to be constructed only of natural materials and hand labor, but that was a project that would take long months still.

Now the immediate pressure was gone, and Hanson was relaxing with Bork and Nema.

"Another week," Bork was saying. "Maybe less. And then gangs of the warlocks can spread out to fix up all the rest of the world--and to take over control of their slaves again. Are you happy with your victory, Dave Hanson?"

Hanson shrugged. He wasn't entirely sure, now. There was something in the looks of the Sather who gave him orders for new settings that bothered him. And some of the developments he watched were hardly what he would have preferred. The warlocks had good memories, it seemed, and there had been manifold offenses against them while the world was falling apart.

He tried to put it out of his mind as he drew Nema to him. She snuggled against him, admiring him with her eyes. But old habits were hard to break. "Don't, Dave. I'm a registered and certified--"

She stopped then, blushing, and Bork chuckled.

Ser Perth appeared at the doorway with two of the mandrakes. He motioned to Hanson. "The council of Satheri want you," he said. His eyes avoided the other, and he seemed uncomfortable.

"Why?" Bork asked.

"It's time for Dave Hanson's reward," Ser Perth said. The words were smooth enough, but the eyes turned away again.

Hanson got up and moved forward. He had been wondering when they would get around to this. Beside him, Bork and Nema also rose. "Never trust a Sather," Bork said softly.

Nema started to protest, then changed her mind. She frowned, torn between old and new loyalties.

"The summons was only for Dave Hanson," Ser Perth said sternly as the three drew up to him. But as Hanson took the arms of the other two, the Ser shrugged and fell in behind. Very softly, too low for the hearing of the mandrakes, his words sounded in Hanson's ear. "Guard yourself, Dave Hanson!"

So there was to be treachery, Hanson thought. He wasn't surprised. He was probably lucky to have even three
friends. The Satheri would hardly feel very grateful to a mandrake-man who had accomplished something beyond their power, now that the crisis was over. They had always been a high-handed bunch, apparently, and he had served his purpose. But he covered his thoughts in a neutral expression and went forward quietly toward the huge council room.

The seventy leading Satheri were all present, with Sather Karf presiding, when Hanson was ushered into their presence. He moved down the aisle, not glancing at the seated Satheri, until he was facing the old man, drawing Nema and Bork with him. There were murmurs of protest, but nobody stopped him. Above him, the eyes of Sather Karf were uncertain. For a moment, there seemed to be a touch of friendliness and respect in them, but there was something else that Hanson liked far less. Any warmth that was there vanished at his first words.

"It's about time," Hanson said flatly. "When you wanted your world saved, you were free enough with offers of reward. But three days have passed without mention of it. Sather Karf, I demand your secret name!"

He heard Nema gasp, but felt Bork's fingers press against his arm reassuringly. There was a rising mutter of shock and anger from the others, but he lifted his voice over it. "And the secret names of all those present. That was also part of the promised reward."

"And do you think you could use the names, Dave Hanson?" Sather Karf asked. "Against the weight of all our knowledge, do you think you could become our master that easily?"

Hanson had his own doubts. There were counter-magical methods against nearly all magic, and the book he had read had been only an elementary one. But he nodded. "I think with your name I could get my hands on your hearts, even if you did your worst. It doesn't matter. I claim my reward."

"And you shall have it. The word of Sather Karf is good," the old man told him. "But there was no mention of when you would be given those names. You said that when the computer was finished you would wait for my true name, and I promised that you should have it when the time came, but not what the time would be. So you will wait, or the agreement shall be broken by you, not by me. When you are dying or otherwise beyond power over us, you shall have the names, Dave Hanson. No, hear me!"

He lifted his hand in a brief gesture and Hanson felt a thickness over his lips that made speech impossible. "We have discussed your reward, and you shall indeed have it," Sather Karf went on. "Exactly as I promised it to you. I agreed to find ways to return you to your own world intact, and you shall be returned."

For a moment, the thickness seemed to relax, and Hanson choked a few words out through it. "What's the world of a mandrake-man, Sather Karf? A mandrake swamp?"

"For a mandrake-man, yes. But not for you." There was something like amusement in the old man's voice. "I never said you were a mandrake-man. That was told you by Ser Perth who knew no better. No, Dave Hanson, you were too important to us for that. Mandrake-men are always less than true men, and we needed your best. You were conjured atom by atom, id and ka and soul, from your world. Even the soul may be brought over when enough masters of magic work together and you were our greatest conjuration. Even then, we almost failed. But you're no mandrake-man."

A load of sickness seemed to leave Hanson's mind. He had never fully realized how much the shame of what he thought himself to be had weighed on him. Then his mind adjusted to the new facts, dismissing his past worries. "I promised you that we would fill your entire lifetime with pleasures," Sather Karf went on. "And you were assured of jewels to buy an empire. All this the council is prepared to give you. Are you ready for your reward?"

"No!" Bork's cry broke out before Hanson could answer. The big man was writhing before he could finish the word, but his own fingers were working in conjurations that seemed to hold back enough of the spells against him to let him speak. "Dave Hanson, your world was a world of rigid laws. You died there. And there would be no magic to avoid the fact that there you must always be dead."

Hanson's eyes riveted on the face of Sather Karf. The old man looked back and finally nodded his head. "That is true," he admitted. "It would have been kinder for your own world intact, but it is the truth."

"And jewels enough to buy an empire on a corpse," Hanson accused. "A lifetime of pleasures--simple enough when that lifetime would be over before it began. What were the pleasures, Sather Karf? Having you reveal your name just before I was sent back and feeling I'd won?" He grimaced. "I reject the empty rewards of your empty promises!"

"I also rejected the interpretation, but I was out-voted," Sather Karf said, and there was a curious reluctance as he raised his hand. "But it is too late. Dave Hanson prepare to receive your reward. By the power of your name--"

Hanson's hand went to his pocket and squeezed down on the blob of sky material there. He opened his mouth, and found that the thickness was back. For a split second, his mind screamed in panic as he realized he could not even pronounce the needed words.

Then coldness settled over his thoughts as he drove them to shape the unvoiced words in his mind. Nobody had told him that magic incantations had to be pronounced aloud. It seemed to be the general law, but for all he knew,
ignorance of the law here might change the law. At least he meant to die trying, if he failed.

"Rumpelstiltsken, I command the sun to set!"

He seemed to sense a hesitation in his mind, and then the impression of jeweled gears turning. Outside the window, the light reddened, dimmed, and was gone, leaving the big room illuminated by only a few witch lights.

The words Sather Karf had been intoning came to a sudden stop, even before they could be drowned in the shouts of shock and panic from the others. His eyes centered questioningly on Hanson and the flicker of a smile crossed his face. "To the orrery!" he ordered. "Use the manual controls."

Hanson waited until he estimated the men who left would be at the controls. The he clutched the sky-blob again. The thoughts in his mind were clearer this time.

"Rumpelstiltsken, let the sun rise from the west and set in the east!"

Some of the Satheri were at the windows to watch what happened this time. Their shouts were more frightened than before. A minute later, the others were back, screaming out the news that the manual controls could not be moved--could not even be touched.

The orrery named Rumpelstiltsken was obeying its orders fully, and the universe was obeying its symbol.

Somehow, old Sather Karf brought order out of the frightened mob that had been the greatest Satheri in the world. "All right, Dave Hanson," he said calmly. "Return the sun to its course. We agree to your conditions."

"You haven't heard them yet!"

"Nevertheless," Sather Karf answered firmly, "we agree. What else can we do? If you decided to wreck the sky again, even you might not be able to repair it a second time." He tapped his hands lightly together and the sound of a huge gong reverberated in the room. "Let the hall be cleared. I will accept the conditions in private."

There were no objections. A minute later Hanson, Bork and Nema were alone with the old man. Sunlight streamed in through the window, and there were fleecy clouds showing in the blue sky.

"Well?" Sather Karf asked. There was a trace of a smile on his face and a glow of what seemed to be amusement in his eyes as he listened, though Hanson could see nothing amusing in the suggestions he was making.

First, of course, he meant to stay here. There was no other place for him, but he would have chosen to stay in any event. Here he had developed into what he had never even thought of being, and there were still things to be learned. He'd gone a long way on what he'd found in one elementary book. Now, with a chance to study all their magical lore and apply it with the methods he had learned in his own world, there were amazing possibilities opening up to him. For the world, a few changes would be needed. Magic should be limited to what magic did best; the people needed to grow their own food and care for themselves. And they needed protection from the magicians. There would have to be a code of ethics to be worked out later.

"You've got all the time you need to work things out, Sathator Hanson," Sather Karf told him. "It's your world, literally, so take your time. What do you want first?"

Hanson considered it, while Nema's hand crept into his. Then he grinned. "I guess I want to get your great granddaughter turned into a registered and certified wife and take her on a long honeymoon," he decided. "After what you've put me through, I need a rest."

He took her arm and started down the aisle of the council room. Behind him, he heard Bork's chuckle and the soft laughter of Sather Karf. But their faces were sobering by the time he reached the doorway and looked back.

"I like him, too, grandfather," Bork was saying. "Well, it seems your group was right, after all. Your prophecy is fulfilled. He may have a little trouble with so many knowing his name, but he's Dave Hanson, to whom nothing is impossible. You should have considered all the implications of omnipotence."

Sather Karf nodded. "Perhaps. And perhaps your group was also right, Bork. It seems that the world-egg has hatched."

Hanson puzzled over their words briefly as he closed the door and went out with Nema. He'd probably have to do something about his name, but the rest of the conversation was a mystery to him. Then he dismissed it. He could always remember it when he had more time to think about it.

* * * * *

It was many millennia and several universes later when Dave Hanson finally remembered. By then it was no mystery, of course. And there was no one who dared pronounce his true name.

THE END.
It's a funny thing, but most monsters seem to be of the opinion that it's men who are the monsters. You know, they have a point.

Ten minutes after the crashup, somebody phoned for the Army. That meant us. The black smoke of the fire, and the oily residues, which were later analyzed, proved the presence of a probable petroleum derivative. The oil was heavily tainted with radioactivity. Most likely it was fuel from the odd, conchlike reaction-motors, the exact principles of which died, as far as we were concerned, with the crash.

The craft was mainly of aluminum, magnesium and a kind of stainless steel, proving that, confronted with problems similar to ones we had encountered, aliens might solve them in similar ways. From the crumpled-up wreckage which we dug out of that Missouri hillside, Klein even noticed a familiar method of making girders and braces lighter. Circular holes were punched out of them at spaced intervals.

I kept hunting conviction by telling myself that, for the first time in all remembered history, we were peeking behind the veil of another planet. This should be the beginning of a new era, one of immensely widened horizons, and of high romance—but with a dark side, too. The sky was no longer a limit. There were things beyond it that would have to be reckoned with. And how does unknown meet unknown? Suppose one has no hand to shake?

The mass of that wreck reeked like a hot cinder-pile and a burning garbage dump combined. It oozed blackened goo. There were crushed pieces of calcined material that looked like cuttlebone. The thin plates of charred stuff might almost have been pressed cardboard. Foot-long tubes of thin, tin-coated iron contained combined chemicals identifiable as proteins, carbohydrates and fats. Food, we decided.

Naturally, we figured that here was a wonderful clue to the plant and animal life of another world. Take a can of ordinary beef goulash; you can see the fibrous muscle and fat structure of the meat, and the cellular components of the vegetables. And here it was true, too, to a lesser degree. There were thin flakes and small, segmented cylinders which must have been parts of plants. But most was a homogeneous mush like gelatin.

Evidently there had been three occupants of the craft. But the crash and the fire had almost destroyed their forms. Craig, our biologist, made careful slides of the remains, tagging this as horny epidermis, this as nerve or brain tissue, this as skeletal substance, and this as muscle from a tactile member—the original had been as thin as spaghetti, and dark-blooded.

Under the microscope, muscle cells proved to be very long and thin. Nerve cells were large and extremely complex. Yet you could say that Nature, starting from scratch in another place, and working through other and perhaps more numerous millions of years, had arrived at somewhat the same results as it had achieved on Earth.

I wonder how an other-world entity, ignorant of humans, would explain a shaving-kit or a lipstick. Probably for like reasons, much of the stuff mashed into that wreck had to remain incomprehensible to us. Wrenches and screwdrivers, however, we could make sense of, even though the grips of those tools were not hand-grips. We saw screws and bolts, too. One device we found had been a simple crystal diaphragm with metal details—a radio. There were also queer rifles. Lord knows how many people have wondered what the extraterrestrial equivalents of common human devices would look like. Well, here were some answers.

A few of the instruments even had dials with pointers. And the numeral 1 used on them was a vertical bar, almost like our own. But zero was a plus sign. And they counted by twelves, not tens.

But all these parallels with our own culture seemed canceled by the fact that, even when this ship was in its original undamaged state, no man could have gotten inside it. The difficulty was less a matter of human size than of shape and physical behavior. The craft seemed to have been circular, with compartmentation in spiral form, like a chambered nautilus.

This complete divergence from things we knew sent frost imps racing up and down my spine.

And it prompted Blaine to say: "I suppose that emotions, drives, and purposes among off-Earth intelligences must be utterly inconceivable to us."

We were assembled in the big trailer that had been brought out for us to live in, while we made a preliminary survey of the wreck.

"Only about halfway, Blaine," Miller answered. "Granting that the life-chemistry of those intelligences is the
same as ours—the need for food creates the drive of hunger. Awareness of death is balanced by the urge to avoid it. There you have fear and combativeness. And is it so hard to tack on the drives of curiosity, invention, and ambition, especially when you know that these beings made a spaceship? Cast an intelligence in any outward form, anywhere, it ought to come out much the same. Still, there are bound to be wide differences of detail—with wide variations of viewpoint. They could be horrible to us. And most likely it's mutual."

I felt that Miller was right. The duplication of a human race on other worlds by another chain of evolution was highly improbable. And to suppose that we might get along with other entities on a human basis seemed pitifully naive.

With all our scientific thoroughness, when it came to examining, photographing and recording everything in the wreck, there was no better evidence of the clumsy way we were investigating unknown things than the fact that at first we neglected our supreme find almost entirely.

It was a round lump of dried red mud, the size of a soft baseball. When Craig finally did get around to X-raying it, indications of a less dense interior and feathery markings suggesting a soft bone structure showed up on the plate. Not entirely sure that it was the right thing to do, he opened the shell carefully.

Think of an artichoke ... but not a vegetable. Dusky pink, with thin, translucent mouth-flaps moving feebly. The blood in the tiny arteries was very red—rich in hemoglobin, for a rare atmosphere.

As a youngster, I had once opened a chicken egg, when it was ten days short of hatching. The memory came back now.

"It looks like a growing embryo of some kind," Klein stated.
"Close the lump again, Craig," Miller ordered softly.
The biologist obeyed.
"A highly intelligent race of beings wouldn't encase their developing young in mud, would they?" Klein almost whispered.
"You're judging by a human esthetic standard," Craig offered. "Actually, mud can be as sterile as the cleanest surgical gauze."

* * * * *

The discussion was developing unspoken and shadowy ramifications. The thing in the dusty red lump—whether the young of a dominant species, or merely a lower animal—had been born, hatched, started in life probably during the weeks or months of a vast space journey. Nobody would know anything about its true nature until, and if, it manifested itself. And we had no idea of what that manifestation might be. The creature might emerge an infant or an adult. Friendly or malevolent. Or even deadly.

Blaine shrugged. Something scared and half-savage showed in his face. "What'll we do with the thing?" he asked. "Keep it safe and see what happens. Yet it might be best to get rid of it fast—with chloroform, cyanide or the back of a shovel."

Miller's smile was very gentle. "Could be you're right, Blaine."
I'd never known Miller to pull rank on any of the bunch. Only deliberate thought would remind us that he was a colonel. But he wasn't really a military man; he was a scientist whom the Army had called in to keep a finger on a possibility that they had long known might be realized. Yes—space travel. And Miller was the right guy for the job. He had the dream even in the wrinkles around his deep-set gray eyes.

Blaine wasn't the right guy. He was a fine technician, good at machinery, radar—anything of the sort. And a nice fellow. Maybe he'd just blown off steam—uncertainty, tension. I knew that no paper relating to him would be marked, "Psychologically unsuited for task in hand." But I knew just as surely that he would be quietly transferred. In a big thing like this, Miller would surround himself only with men who saw things his way.

That night we moved everything to our labs on the outskirts of St. Louis. Every particle of that extraterrestrial wreck had been packed and crated with utmost care. Klein and Craig went to work to build a special refuge for that mud lump and what was in it. They were top men. But I had got tied up with Miller more or less by chance, and I figured I'd be replaced by an expert. I can say that I was a college man, but that's nothing.

I guess you can't give up participation in high romance without some regret. Yet I wasn't too sorry. I liked things the way they'd always been. My beer. My Saturday night dates with Alice. On the job, the atmosphere was getting a bit too rich and futuristic.

* * * * *

Later that evening, Miller drew me aside. "You've handled carrier pigeons and you've trained dogs, Nolan," he said. "You were good at both."
"Here I go, back to the farm-yard."
"In a way. But you expand your operations, Nolan. You specialize as nurse for a piece of off-the-Earth animal life."
"Look, Miller," I pointed out. "Ten thousand professors are a million times better qualified, and rarin' to go."
"They're liable to think they're well qualified, when no man could be--yet. That's bad, Nolan. The one who does it has to be humble enough to be wary--ready for whatever might happen. I think a knack with animals might help. That's the best I can do, Nolan."
"Thanks, Miller." I felt proud--and a little like a damn fool.
"I haven't finished talking yet," Miller said. "We know that real contact between our kind and the inhabitants of another world can't be far off. Either they'll send another ship or we'll build one on Earth. I like the idea, Nolan, but it also scares the hell out of me. Men have had plenty of trouble with other ethnic groups of their own species, through prejudice, misunderstanding, honest suspicion. How will it be at the first critical meeting of two kinds of things that will look like hallucinations to each other? I suspect an awful and inevitable feeling of separateness that nothing can bridge--except maybe an impulse to do murder.
"It could be a real menace. But it doesn't have to be. So we've got to find out what we're up against, if we can. We've got to prepare and scheme. Otherwise, even if intentions on that other world are okay, there's liable to be an incident at that first meeting that can spoil a contact across space for all time, and make interplanetary travel not the success it ought to be, but a constant danger. So do you see our main objective, Nolan?"
I told Miller that I understood.

That same night, Klein and Craig put the lump of mud in a small glass case from which two-thirds of the air had been exhausted. The remainder was kept dehydrated and chilled. It was guess work, backed up by evidence: The rusty red of that mud; the high hemoglobin content of the alien blood we had seen; the dead-air cells--resistant to cold--in the shreds of rough skin that we had examined. And then there was the fair proximity of Mars and Earth in their orbits at the time.

My job didn't really begin till the following evening, when Craig and Klein had completed a much larger glass cage, to which my outlandish--or, rather, outworldish--ward was transferred. Miller provided me with a wire-braced, airtight costume and oxygen helmet, the kind fliers use at extreme altitudes. Okay, call it a spacesuit. He also gave me a small tear-gas pistol, an automatic, and a knife.
All there was to pit such armament against was a seemingly helpless lump of protoplasm, two inches in diameter. Still, here was an illustration of how cautiously you are prompted to treat so unknown a quantity. You are unable to gauge its powers, or lack of them, for you have nothing on which to base a judgment.
I became like a monk--my pressure armor was my robe; the chilly semi-vacuum inside that glass cage, my cell. Nights out with Alice were going to be far between.

* * * * *
On the third evening, that lump of mud, resting in dried-out soil similar to itself, split along the line where Craig had originally cut it. Out onto the cage floor crept what the records designated as E.T.L.--Extra-Terrestrial-Life. It was finished with the mud shell that had encased it to survive a crash and fire.
Craig, Klein, Miller and a lot of news reporters stared into the glass cage from outside. There was nothing for me to do just then except watch that tiny monster, and try to read, in its every clumsy, dragging movement, some fragmentary unveiling of many riddles.

Although it might have shrunk a bit since I had last seen it, it looked more complete. The dusky pink of its wrinkled integument was darker. It had dozens of short tendrils, hardly thicker than horsehair, with which it pulled itself along. It had lost some leaflike pieces of skin. Laterally, two eyes gleamed, clear and slit-pupiled. Its jaws, hinged on a horizontal plane, opened and closed between fleshy flaps. Through the thin plastic of my oxygen helmet, I heard a querulous "chip-chip-chip," which reminded me of the squeaking of an infant bat.

The E.T.L. crept in a small looping course on the cage floor, back to one half of the mud shell that had encased it. It tried to mount this, perhaps to gain a vantage point for better observation. But it fell and turned over. Its ventral surface was ceiling-ward; its tendrils writhed furiously as it tried to right itself. I thought of a horseshoe crab, stranded on its back and kicking helplessly. But this thing's form and movement were even more alien.

After a moment, I followed an impulse which was part duty to my job and part pity. I tipped the little horror back on its bottom, glad that there was a glove between me and it. Then I did the same thing I would do with a pet puppy or kitten. I set a dish of food--chemically prepared to duplicate the contents of the tubes we had found in the wreck--right down in front of the E.T.L.
It fumbled at the stuff and, possibly because of a gravity two-and-a-half times as great as it was made for, it almost got itself stuck in the mess. But it freed itself. Its mouth-flaps began to make lapping movements as it sucked the nourishment.
I felt prematurely relieved. This was no potentially dominant wizard in a strange body, I told myself. This was pure animal.
Over my helmet radiophone--there was a mike outside the cage, so they could communicate with me when I
was inside--I heard Miller say to the reporters:
"The feeding instinct. They've got it, too. Now we know for sure...."

I think that the E.T.L. had colic from that first meal, though, like any half-smart puppy trainer, I tried not to let it eat too much. It writhed for a while, as if in pain. And I was on pins. How was I supposed to know just what was best to feed the thing, so it would survive? Everything was guesswork, varying formulas cautiously, groping. And it wasn't only the food. There was the searching for the temperature, the air-pressure and the degree of dryness at which the E.T.L. seemed most comfortable. And there was also the fiddling around with light-composition and intensities, variable in the sun lamps, to find what seemed best.

We seemed to have figured things out right--or else the monster was just rugged. It shed several skins, thrived and grew active. Its size increased steadily. And other things began to grow in that cage. Odd, hard-shelled, bluish-green weeds; lichenous patches, dry as dust; invisible, un-Earthly bacteria--all were harmless, possibly even beneficial, to my charge.

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How did all this stuff come into being? Miller and Craig had examined the dried clay of the E.T.L.'s discarded casing with microscopes. They scraped dust from every fragment of the wreck that hadn't been blasted too much with fire, and made cultures. They were looking for spores and seeds and microbes. And it wasn't long before they had classified quite a list of other-world biological forms. The most common of these they transplanted into the cage.

Often I even slept inside the cage, clad in my armor. That's devotion to a purpose for you. In a way, it was like living on a little piece of Mars. Often enough I was bored stiff.

But plenty did happen. From the start Etl--we began calling the thing that--showed an almost electrically intense curiosity for everything. Some of the habits of its kind were written in its instincts. It basked in strong light, but it liked dark corners, too. At night--when we turned the sun lamps off, that is--it would bury itself in the dusty soil. Protection against nocturnal cold might have been the reason for that.

When he was a month and two days out of his clay shell, Etl tried to rear up vertically on his tendrils. He kept toppling over. Maybe he was trying to "walk." But there were no bones in those tendrils and, of course, the strong Earth gravity defeated him.

Lots of times I tried to see what he could do. A real scientist would call this "making tests." I just called it fooling around. I made him climb a stool for his food. He seemed to make a careful survey first, eying each rung; then he drew himself up in one motion.

During one of my rare nights in town--to get a refresher from outlandish stuff in Alice's company--I bought some toys. When I came back to relieve Craig, who had taken care of Etl during my absence, I said: "Etl, here's a rubber ball. Let's play."

He caught it on the second try, in those swift, dextrous tendrils. There was a savagery in the way he did it. I thought of a dog snapping a bumblebee out of the air. Yet my idea that Etl was just an animal had almost vanished by then.

I got into the habit of talking to him the way you do to a pup. Sort of crooning. "Good fella, Etl. Smart. You learn fast, don't you?"

Stuff like that. And I'd coax him to climb up the front of my spacesuit. There were fine, barb-like prongs along the length of his many tentacles; I could feel them pulling in the tough, rubberized fabric, like the claws of a climbing kitten. And he would make a kind of contented chirping that might have had affection in it.

But then there was the time when he bit me. I don't know the reason, unless it was that I had held onto his ball too long. He got my finger, through the glove, with his snaggy, chalk-hued mandibles, while he made a thin hissing noise.

Pretty soon my hand swelled up to twice its size, and I felt sick. Klein had to relieve me in the cage for a while. The bite turned out to be mildly venomous. Before that, I'd had a rash on my arms. An allergy, probably; maybe some substance from those Martian plants had gotten inside my spacesuit and rubbed onto my skin. Who knows? Perhaps Earthly flesh can sense alien life, and reddens to fight it off. And there you have one of the potential disadvantages of contact with unknown worlds.

That poisoned bite was one thing. But Etl's show of rage was another--a sign of the mixed nature of all his kind, emerging a bit from the shadows of enigma. Here revealed was the emotion on which things like murder are based. These creatures had it, just as we did. Maybe it's necessary for any kind of thing that can progress upward from nothing. Still, people did not find it reassuring when they heard about it on the news cast.

After that, popular opinion insisted that the cage be constantly surrounded by four manned machine-guns
pointing inward. And tanks of cyanogen were so arranged that the poison gas could be sent gushing into the cage at any time.

Part of my mind felt these precautions were completely exaggerated. There is a certain, ever-present segment of any public, whose jittery imagination is a constant fuse-cap for panic. Such cowardice angered me.

But the rest of me went along with Miller when he said: "We're in the dark, Nolan. For all we know, we might be up against very swift maturity and inherited memory. And we've got to go on testing Etl ... with toys, psychological apparatus and tools and devices made by his own people. Suppose he 'remembers' skills from his ancestors, and can build dangerous new devices, or make old ones work again? If his kind are bent on being enemies, we'd better find it out as soon as possible, too, hadn't we? No, I don't truly expect any serious developments, Nolan. Still--just for insurance--eh?"

A year passed without great mishap--unless I should mention that Alice and I got married. But it didn't spoil anything, and it raised my morale. We got a bungalow right on the lab grounds.

A lot had been accomplished, otherwise. Once I let Etl play with my gun, minus cartridges. He was avidly interested; but he paid no attention to the Hopalong cap pistol that I left in its place when I took the gun back. He figured out how to grip simple Martian tools, threading his tactile members through the holes in their handles; but complicated devices of the same origin seemed more of a puzzle to him than to the rest of us. So our inherited-memory idea faded out.

Etl liked to work with those slender tendrils of his. The dexterity and speed with which he soon learned to build many things with a construction set seemed to prove a race background of perhaps ages of such activities. I made a tower or a bridge, while he watched. Then he was ready to try it on his own, using screwdrivers that Klein had made with special grips.

Of course we tried dozens of intelligence tests on Etl, mostly of the puzzle variety, like fitting odd-shaped pieces of plastic together to form a sphere or a cube. He was hard to rate on any common human I.Q. scale. Even for an Earthian, an I.Q. rating is pretty much of a makeshift proposition. There are too many scattered factors that can't be touched.

With Etl, it was even tougher. But at the end of that first year Miller had him pegged at about 120, judging him on the same basis as a five-year-old child. This score scared people a lot, because it seemed to hint at a race of super-beings.

But Miller wasn't jumping to conclusions. He pointed out to the reporters that Etl's kind seemed to grow up very rapidly; 120 was only twenty points above the norm--not uncommon among Earth youngsters, especially those from more gifted families. Etl seemed to have sprung from corresponding parentage, he said, for it seemed clear that they had been of the kind that does big things. They'd made a pioneering voyage across space, hadn't they?

Etl could make chirps and squeaks and weird animal cries. Human speech, however, was beyond his vocal powers, though I knew that he could understand simple orders. He had a large tympanic membrane or "ear" on his ventral surface. Of course we wondered how his kind communicated with one another. The way he groped at my fingers with certain of his tentacles gave us a clue. There were tiny, nerve-like threads at their extremities. Seeing them prompted Miller to do something as brave as it was foolhardy.

He called in a surgeon and had a nerve in his arm bared. It must have hurt like the devil, but he let Etl clutch it with those thread-like members.

I was cockeyed enough to follow Miller's example and found out how much it really hurt. The idea was to establish a nerve channel, brain to brain, along which thoughts might pass. But nothing came through except a vague and restless questioning, mixed with the pain of our experiment.

"It doesn't work with us, Nolan," Miller said regretfully. "Our nervous systems aren't hooked up right for this sort of stunt, or Etl's nerve cells are too different from ours."

So we had to fall back on simpler methods of communication with Etl. We tried teaching him sign language, but it didn't work too well, because tentacles aren't hands. Klein's inventive ability, plus some pointers from me about how Etl used his tendrils, finally solved the problem.

Klein made a cylindrical apparatus with a tonal buzzer, operated by electricity, at one end. It had dozens of stops and controls, their grips in the shape of tiny metal rings, along the sides of the cylinder.

First I had to learn a little about how to work that instrument with my big fingers. The trick was to mold the sounds of the buzzer, as human lips and tongue mold and shape tones of the vocal cords, so that they became syllables and words.

"Hell-oh-g-g-Et-t-I-I-I.... Chee-s-s-ee-whad-d I-ee got-t?"

It was tougher for me than learning to play a saxophone is for a boy of ten. And the noises were almost as bad.
I turned the apparatus over to Etl as soon as I could. Let him figure out how to use it. I’d just give him the words, the ideas. Of course he had to get educated, learn his cat, dog and rat, and his arithmetic, the same as a human kid, even if he was from another world. In a way, it was the law. You can’t let a youngster, capable of learning, stay home from school.

And I was Etl’s tutor. I thought what a crazy situation we had here; an entity from one planet being brought up on another, without any real knowledge of his own folks, and unable to be very close to those entities by whom he was being reared. It was strange and sad and a little comic.

For a while I thought I had a stammering parrot on my hands: “Hel-l-l-l-l-o ... Hell-oh-g-o ... N-n-ol-l-an-n-n ... Hell-lo-oh.”

Etl never lost that habit of repetition. But he made progress in his studies.

“One, two, t’ree, fo’, fibe, siss ... One time one ee one, toot time one ee two....”

Picture it the way it was--I, clad in a spacesuit, crouching beside Etl in the cold, thin air inside that cage, tracing numbers and words in the dusty soil on the floor, while he read aloud with his voice tube or copied my words and figures with a sharp stick. Outside the transparent cage, the television cameras would be watching. And I would think that maybe in a way Etl was like Tarzan, being raised by apes.

* * * * *

Four more years went by. I had offspring of my own. Patty and Ron. Good-looking, lovable brats. But Etl was my job--and maybe a little more than that.

At the end of two years, he stopped growing. He weighed fifty-two pounds and he was the ugliest-looking, elongated, gray-pink, leathery ovoid that you could imagine. But with his voice tube clutched in his tendrils, he could talk like a man.

He could take the finest watch, apart, repair and clean it in jig-time--and this was just one skill among scores. Toward the end of the four years, a Professor Jonas was coming in regularly and getting into a spacesuit to give him lessons in physics, chemistry, college math, astronomy and biology. Etl was having his troubles with calculus.

And Etl could at least ape the outward aspects of the thoughts and feelings of men. There were things he said to me that were characteristic, though they came out of apparent sullenness that, for all I knew, had seeds of murder in it: “You're my pal, Nolan. Sort of my uncle. I won't say my father; you wouldn't like that.”

Nice, embarrassing sentiment, on the surface. Maybe it was just cool mimicry--a keen mind adding up human ways from observation of me and my kids, and making up something that sounded the same, without being the same at all. Yet somehow I hoped that Etl was sincere.

Almost from the building of the cage, of course, we'd kept photographs and drawings of Mars inside for Etl to see.

Hundreds of times I had said to him things like: "It's a ninety-nine and ninety-nine hundredths per cent probability that your race lives on that world, Etl. Before the ship that brought you crashed on Earth, we weren't at all sure that it was inhabited, and it's still an awful mystery. I guess maybe you'll want to go there. Maybe you'll help us make contact and establish amicable relations with the inhabitants--if there's any way we can do that.”

During those five years, no more ships came to Earth from space, as far as we knew. I guessed that the Martians understood how supremely hard it would be to make friendly contact between the peoples of two worlds that had always been separate. There was difference of form, and certainly difference of esthetic concepts. Of custom, nothing could be the same. We didn't have even an inkling of what the Martian civilization would be like.

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One thing happened during the third year of Etl's existence. And his presence on Earth was responsible. Enough serious interest in space travel was built up to overcome the human inertia that had counteracted the long-standing knowledge that such things were possible. A hydrogen-fusion reaction motor was built into a rocket, which was then hurled to the moon.

Miller went along, ostensibly to help establish the first Army experimental station there, but mostly to acquire the practical experience for a far longer leap.

In a way, I wished I could have gone, too; but, after all, the shadows in Etl's background were far more intriguing than the dead and airless craters and plains of the lunar surface.

Before Miller and the other moon-voyagers even returned, Detroit was busy forging, casting and machining the parts for a better, larger and much longer-range rocket, to be assembled in White Sands, New Mexico.

When Miller got back, he was too eager and busy to say much about the moon. For the next two and a half years, he was mostly out in White Sands.

But during the first of our now infrequent meetings, he said to Craig and Klein and me: "When I go out to Mars, I'd like to keep my old bunch as crew. I need men I'm used to working with, those who understand the problems we're up against. I have a plan that makes sense. The trouble is, to join this expedition, a man has to be
part damn-fool."
Klein chuckled. "I'll sell you some of mine."
I just nodded my way in. I'd never thought of backing out.
Craig grabbed Miller's hand and shook it.
Miller gave Etl a chance to say no. "You can stay on Earth if you want to, Etl."
But the creature said: "I have lived all my life with the idea of going, Miller. Thank you."

* * * * *
Miller briefed us about his plan. Then he, Klein, Craig and I all took a lot of psych tests--trick questioning and so forth to reveal defects of conviction and control. But we were all pretty well indoctrinated and steady. Etl had taken so many tests already that, if there were any flaws still hidden in him, they would probably never be found.

Mars and Earth were approaching closer to each other again in their orbital positions. A month before takeoff time, Craig, Klein and I took Etl, in a small air-conditioned cage, to White Sands. The ship towered there, silvery, already completed. We knew its structure and the function of its machinery intimately from study of its blueprints. But our acquaintance with it had to be actual, too. So we went over it again and again, under Miller's tutelage.

Miller wrote a last message, to be handed to the newscast boys after our departure:
"If by Martian action, we fail to return, don't blame the Martians too quickly, because there is a difference and a doubt. Contact between worlds is worth more than the poison of a grudge...."

I said good-by to Alice and the kids, who had come out to see me off. I felt pretty punk. Maybe I was a stinker, going off like that. But, on the other hand, that wasn't entirely the right way to look at things, because Patty's and Ron's faces fairly glowed with pride for their pa. The tough part, then, was for Alice, who knew what it was all about. Yet she looked proud, too. And she didn't go damp.

"If it weren't for the kids, I'd be trying to go along, Louie," she told me. "Take care of yourself."
She knew that a guy has to do what's in his heart. I think that the basic and initial motive of exploration is that richest of human commodities--high romance. The metallic ores and other commercial stuff that get involved later are only cheap by-products. To make the dream of space travel a reality was one of our purposes. But to try to forestall the danger behind it was at least as important.

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We blasted off in a rush of fire that must have knocked down some self-operating television cameras. We endured the strangling thrust of acceleration, and then the weightlessness of just coasting on our built-up velocity. We saw the stars and the black sky of space. We saw the Earth dwindle away behind us.

But the journey itself, though it lasted ninety days, was no real adventure--comparatively speaking. There was nothing unpredictable in it. Space conditions were known. We even knew about the tension of nostalgia. But we understood, too, the mental attitudes that could lessen the strain. Crossing space to another world under the tremendous power of atomic fusion, and under the precise guidance of mathematics and piloting devices, reduces the process almost to a formula. If things go right, you get where you're going; if not, there isn't much you can do. Anyway, we had the feeling that the technical side of interplanetary travel was the simplest part.

There is a marking near the Martian equator shaped like the funnel of a gigantic tornado. It is the red planet's most conspicuous feature and it includes probably the least arid territory of a cold, arid world. Syrtis Major, it is called. Astronomers had always supposed it to be an ancient sea-bottom. That was where our piloting devices were set to take us.

Over it, our retarding fore-jets blazed for the last time. Our retractable wings slid from their sockets and took hold of the thin atmosphere with a thump and a soft rustle. On great rubber-tired wheels, our ship--horizontal now, like a plane--landed in a broad valley that must have been cleared of boulders by Martian engineers countless ages before.

Our craft stopped rumbling. We peered from the windows of our cabin, saw the deep blue of the sky and the smaller but brilliant Sun. We saw little dusty whirlwinds, carven monoliths that were weathering away, strange blue-green vegetation, some of which we could recognize. To the east, a metal tower glinted. And a mile beyond it there was a tremendous flat structure. An expanse of glassy roof shone. What might have been a highway curved like a white ribbon into the distance.

The scene was quiet, beautiful and sad. You could feel that here maybe a hundred civilizations had risen, and had sunk back into the dust. Mars was no older than the Earth; but it was smaller, had cooled faster and must have borne life sooner. Perhaps some of those earlier cultures had achieved space travel. But, if so, it had been forgotten until recent years. Very soon now its result would be tested. The meeting of alien entity with alien entity was at hand.

I looked at Etl, still in his air-conditioned cage. His stalked eyes had a glow and they swayed nervously. Here was the home-planet that he had never seen. Was he eager or frightened, or both?
His education and experience were Earthly. He knew no more of Mars than we did. Yet, now that he was here and probably at home, did difference of physical structure and emotion make him feel that the rest of us were enemies, forever too different for friendly contact? My hide began to pucker.

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High in the sky, some kind of aircraft glistened. On the distant turnpike there were the shining specks of vehicles that vanished from sight behind a ridge shaggy with vegetation.

Miller had a tight, nervous smile. "Remember, men," he said. "Passivity. Three men can't afford to get into a fight with a whole planet."

We put on spacesuits, which we'd need if someone damaged our rocket. It had been known for years that Martian air was too thin and far too poor in oxygen for human lungs. Even Etl, in his cage, had an oxygen mask that Klein had made for him. We had provided him with this because the Martian atmosphere, drifting away through the ages, might be even leaner than the mixture we'd given Etl on Earth. That had been based on spectroscopic analyses at 40 to 60 million miles' distance, which isn't close enough for any certainty.

Now all we could do was wait and see what would happen. I know that some jerks, trying to make contact with the inhabitants of an unknown world, would just barge in and take over. Maybe they'd wave a few times and grin. If instead of being met like brothers, they were shot at, they'd be inclined to start shooting. If they got out alive, their hatred would be everlasting. We had more sense.

Yet passivity was a word that I didn't entirely like. It sounded spineless. The art of balancing naive trust exactly against hard cynicism, to try to produce something that makes a little sense, isn't always easy. Though we knew something of Martians, we didn't know nearly enough. Our plan might be wrong; we might turn out to be dead idiots in a short time. Still, it was the best thing that we could think of.

The afternoon wore on. With the dropping temperature, a cold pearly haze began to form around the horizon. The landscape around us was too quiet. And there was plenty of vegetation at hand to provide cover. Maybe it had been a mistake to land here. But we couldn't see that an arid place would be any good either. We had needed to come to a region that was probably inhabited.

We saw a Martian only once--scampering across an open glade, holding himself high on his stiffened tentacles. Here, where the gravity was only thirty-eight percent of the terrestrial, that was possible. It lessened the eeriness a lot to know beforehand what a Martian looked like. He looked like Etl.

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Later, something pinged savagely against the flank of our rocket. So there were trigger-happy individuals here, too. But I remembered how, on Earth, Etl's cage had been surrounded by machine-guns and cyanogen tanks, rigged to kill him quickly if it became necessary. That hadn't been malice, only sensible precaution against the unpredictable. And wasn't our being surrounded by weapons here only the same thing, from another viewpoint? Yet it didn't feel pleasant, sensible or not.

There were no more shots for half an hour. But our tension mounted with the waiting.

Finally Klein said through his helmet phone: "Maybe Etl ought to go out and scout around now."

"Go only if you really want to, Etl," Miller said. "It could be dangerous even for you."

But Etl had already put on his oxygen mask. Air hissed into his cage from the greater pressure outside as he turned a valve. Then he unlatched the cage-door. He wouldn't be harmed by the brief exposure to atmosphere of Earth-density while he moved to our rocket's airlock. Now he was getting around high on his tendrils. Like a true Martian.

He left his specially built pistol behind, according to plan. We had weapons, but we didn't mean to use them unless everything went dead wrong.

Etl's tendrils touched the dusty surface of Mars. A minute later, he disappeared behind some scrub growths. Then, for ten minutes, the pendant silence was heavy. It was broken by the sound of a shot, coming back to us thinly through the rarefied air.

"Maybe they got him," Craig said anxiously.

Nobody answered. I thought of an old story I'd read about a boy being brought up by wolves. His ways were so like an animal's that hunters had shot him. He had come back to civilization dead. Perhaps there was no other way.

By sundown, Etl had not returned. So three things seemed possible: He had been murdered. He had been captured. Or else he had deserted to his own kind. I began to wonder. What if we were complete fools? What if there were more than differences of body and background, plus the dread of newness, between Earthmen and Martians, preventing their friendship?

What if Martians were basically malevolent?

But speculation was useless now. We were committed to a line of action. We had to follow it through.
We ate a meager supper. The brief dusk changed to a night blazing with frigid stars. But the darkness on the ground remained until the jagged lump of light that was Phobos, the nearer moon, arose out of the west. Then we saw two shapes rushing toward our ship to find cover closer to it. As they hid themselves behind a clump of cactiform shrubs, I had only the memory of how I had seen them for a moment, their odd masks and accoutrements glinting, their supporting tendrils looking like tattered rags come alive in the dim moonlight.

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We'd turned the light out in our cabin, so we couldn't be seen through the windows. But now we heard soft, scraping sounds against the outer skin of our rocket. Probably they meant that the Martians were trying to get in. I began to sweat all over, because I knew what Miller meant to do. Here was a situation that we had visualized beforehand.

"We could shut them out till dawn, Miller," I whispered hoarsely. "We'd all feel better if the meeting took place in day-light. And there'd be less chance of things going wrong.”

But Miller said, "We can't tell what they'd be doing in the dark meanwhile, Nolan. Maybe fixing to blow us up. So we'd better get this thing over with now.”

I knew he was right. Active resistance to the Martians could never save us, if they intended to destroy us. We might have taken the rocket off the ground like a plane, seeking safety in the upper air for a while, if we could get it launched that way from the rough terrain. But using our jets might kill some of the Martians just outside. They could interpret it as a hostile act.

We didn't matter much, except to ourselves. And our primary objective was to make friendly contact with the beings of this planet, without friction, if it could be done. If we failed, space travel might become a genuine menace to Earth.

At Miller's order, Craig turned on our cabin lights. Miller pressed the controls of our ship's airlock. While its outer valve remained wide, the inner valve unsealed itself and swung slowly toward us. Our air whooshed out.

The opening of that inner valve meant we were letting horror in. We kept out of line of possible fire through the open door.

Our idea was to control our instinctive reactions to strangeness, to remain passive, giving the Martians a chance to get over their own probable terror of us by finding out that we meant no harm. Otherwise we might be murdering each other.

The long wait was agony. In spite of the dehumidifying unit of my spacesuit, I could feel the sweat from my body collecting in puddles in the bottoms of my boots. A dozen times there were soft rustles and scrapes at the airlock; then sounds of hurried retreat.

But at last a mass of gray-pink tendrils intruded over the threshold. And we saw the stalked eyes, faintly luminous in the shadowy interior of the lock. Grotesquely up-ended on its tentacles, the monster seemed to flow into the cabin. Over its mouth-palps was the cup of what must have been its oxygen mask.

What was clearly the muzzle of some kind of pistol, smoothly machined, was held ready by a mass of tendrils that suggested Gorgon hair. Behind the first monster was a second, similarly armed. Behind him was a third. After that I lost count, as the horde, impelled by fear to grab control in one savage rush, spilled into the cabin with a dry-leaf rustle.

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All my instincts urged me to yank my automatic out of my belt and let go at that flood of horror. Yes, that was in me, although I'd been in intimate association with Etl for four years. Psychologists say that no will power could keep a man's reflexes from withdrawing his hand from a hot stove for very long. And going for my gun seemed almost a reflex action.

There was plenty of sound logic to back up the urge to shoot. In the presence of the unfathomable, how could you replace the tried defenses of instinct with intellectual ideas of good will?

On the other hand, to shoot now would be suicide and ruin our hopes, besides. So maybe there'd have to be human sacrifices to faith between the planets. If we succeeded in following the plan, our faith would be proven either right or wrong. If we didn't act passively, the failure would be partly our fault. In any case, if we didn't get back to Earth, hatred and fear of the Martians would inevitably arise there, whether it had been the Martians' fault or ours. The message that Miller had left for newscast might only give people the self-righteous attitude that Earthly intentions had been good. If another expedition ever came to Mars, it might shoot any inhabitants on sight, and maybe get wiped out itself.

Still, how could we know that the Martians weren't preparing the kind of invasion of Earth that has been imagined so often? It was a corny notion, but the basis for it remained sound. Mars was a dying world. Couldn't the Martians still want a new planet to move to?

All these old thoughts popped back into my head during that very bad moment. And if I was almost going for
my pistol, how much worse was it for Craig, Klein and Miller, who hadn't been as friendly with Etl as I had been? Maybe we should have put our weapons out of our own reach, in preparation for this incident. Then there would have been no danger of our using them.

But any freedom of action was swiftly wrested from us. The Martians rolled over us in a wave. Thousands of dark tendrils with fine, sawlike spines latched onto our bodies. I was glad that I wore a spacesuit, as much from the revulsion I felt at a direct contact as for the small protection it gave against injury.

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I am sure that there was panic behind that wild Martian rush. To get us pinned down and helpless quickly, they drove themselves in spite of their own fear of the horrid human forms. For did I feel a tremor in those tendrils, a tendency to recoil from me? I was trembling and sweating. Still, my impressions were vivid. Those monsters held us down as if they were Malay beaters holding down trapped pythons. Maybe they had known beforehand what men looked like—from previous, secret expeditions to Earth. Just as we had known about Martians from Etl. But it wouldn't have made any difference.

Or perhaps they weren't even aware that we were from the neighboring planet. But it would be obvious that we were from another world; nothing from their own planet could be so strange.

Our own reactions to the situation differed a little. Craig gasped curses through his helmet phones. Miller said, "Easy, men! Easy!" It was as if he were trying to build up his own morale, too. I couldn't utter a sound.

It wasn't hard for our captors to recognize our weapons. We were disarmed. They carried us out into the night and around a hill. We were piled onto a flat metallic surface. A vehicle under us began to throb and move; you could have called it a truck. The nature of its mechanism was hinted at only by a small, frosty wisp of steam or vapor up front. Perhaps it came from a leak. The Martians continued to hold us down as savagely as ever. Now and then a pair of them would join the nerve-ends of tendrils, perhaps to converse. Others would chirp or hoot for no reason that I could understand.

The highway rolled away behind us, under the light of Phobos. Buildings passed, vague as buildings along a road usually are at night. It was the same with the clumps of vegetation. Lights, which might have been electrical, flashed into my eyes and passed by. In a deep valley through which we moved in part of our short trip, a dense, stratified fog arose between the lights and me. I noticed with an odd detachment that the fog was composed of minute ice crystals, which glinted in the glow of the strange lamps. I tried to remember our course. I knew that it was generally east. Off in the night there were clangings and hisses that might have been factory noises.

Once Miller asked, "Is everybody okay?"

Klein's and Craig's responses were gruff and unsteady in the phones.

"Sure...."

"More or less—if heart-failure doesn't get me."

"I guess our skins are still intact," I said.

We didn't talk after that.

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At last we entered a long, downward-slanting tunnel, full of soft luminescence that seemed to come out of the white-tiled walls themselves. My attention grew a little vague. It could be that my mind turned in on itself, like a turtle drawing in its head for protection. In that state of semiconsciousness, I experienced a phantasm. I imagined I was a helpless grub being dragged down into the depths of an ant-hill.

But such a grub belongs in an ant-hill a lot more than a man belonged where I was going. This became plainer when the large tunnel ended, and we were dragged and carried along winding burrows, never more than three feet in diameter. Mostly they were tiled, but often their walls were of bare rock or soil. Twice we passed through air-locks.

I couldn't describe too much of what I saw or the noises I heard in those warrens. In one place, incandescence glowed and wheels turned. In a great low-ceilinged chamber full of artificial sun-rays there was a garden with strange blooms. The architecture of the city was not altogether utilitarian and it was not unpleasing. I saw a lot more. But my mind was somewhat fuzzy, probably from shock and fatigue.

I know we traversed another chamber, where trays full of round lumps of soil were set in frames. A Martian nursery, no doubt.

Some minutes later, my companions and I were left in a small room, high enough so that we could stand erect in it. Here the Martians let go of us. We sprawled on the floor, faces down. We'd had a busy day. Our nerve-energy was burned out.

Hopelessness warped all of my thoughts. I must have slipped into the coma of exhaustion. I had jangled dreams about Alice and the kids and home, and almost imagined I was there.

Half awake again, I had a cursing spree, calling myself fifty kinds of a numbskull. Be passive before the people of other worlds! Reassure them! How did we ever think up that one? We'd been crazy. Why didn't we at least use
our guns when we’d had the chance? It wouldn’t have made any difference to be killed right away.

Now we were sacrificial lambs on the altar of a featherbrained idea that the inhabitants of worlds that had always been separate from the beginning should become friends, learn to swap and to benefit from the diverse phases of each other’s cultures. How could Martians who hatched out of lumps of mud be like humans at all?

Klein, Craig, Miller and I were alone in that room. There were crystal-glazed spy-windows in the walls. Perhaps we were still being observed.

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While I was sleeping, the exit had been sealed with a circular piece of glassy stuff. Near the floor there were vents through which air was being forced into the room. Hidden pumps, which must have been hastily rigged for our reception, throbbed steadily.

Miller, beside me, had removed his oxygen helmet. His grin was slightly warped as he said to me: "Well, Nolan, here's another parallel with what we've known before. We had to keep Etl alive in a cage. Now the same thing is being done to us."

This could be regarded as a service, a favor. Yet I was more inclined to feel that I was like something locked up in a zoo. Maybe Etl's case was a little different. For the first thing he had known in life was his cage.

I removed my oxygen helmet, too, mainly to conserve its air-purifier unit, which I hoped I might need sometime--in an escape.

"Don't look so glum, Nolan," Miller told me. "Here we have just what we need, a chance to observe and learn and know the Martians better. And it's the same for them in relation to us. It's the best situation possible for both worlds."

I was thinking mostly--belatedly--of my wife and kids. Right then, Miller was a crackpot to me, a monomaniac, a guy whose philosophical viewpoint went way beyond the healthy norm. And I soon found that Craig and Klein agreed with me now. Something in our attitude had shifted.

I don't know how long we were in that sealed room. A week, perhaps. We couldn't see the day-light. Our watches had vanished along with our weapons. Sometimes there were sounds of much movement in the tunnels around us; sometimes little. But the variation was too irregular to indicate a change based on night and day.

Lots of things happened to us. The air we breathed had a chemical smell. And the Martians kept changing its composition and density constantly--experimenting, no doubt. Now it would be oppressively heavy and humid; now it would be so dry and thin that we began to feel faint. They also varied the temperature, from below freezing to Earthly desert heat. And I suspected that at times there was a drug in the air.

Food was lowered to us in metal containers from a circular airlock in the ceiling. It was the same kind of gelatinous stuff that we had found in the wreck of the ship that had brought the infant Etl to Earth. We knew that it was nourishing. Its bland sweetishness was not to our taste, but we had to eat.

Various apparatus was also lowered to us. There were odd mechanical puzzles that made me think how grotesquely Earthly Martian scientific attitudes were. And there was s little globe on a wire, the purpose of which we never figured out, though Miller got an electric shock from it.

* * * * *

I kept looking for Etl among the Martians at the spy-windows, hoping that he'd turn up again. I had noticed that Martians showed variations of appearance, like humans--longer or shorter eye-stalks, lighter or darker tendrils.... I figured I'd recognize Etl. But I didn't see him.

We were none of us quite ourselves. Not even Miller, whose scientific interest in the things around him sustained him even in captivity. Mine had worn out. And Klein and Craig were no better off. I was desperately homesick, and I felt a little ill, besides.

I managed to loosen the metal heel-plate from one of my boots, and with this, when I thought that no Martian was watching, I started to dig the gummy cement from around the circular glassy disc with which the main exit of our quarters had been sealed. Craig, Klein and I worked at it in brief and sporadic shifts. We didn't really hope that we could escape. It was just something to do.

"We're going to try to get to the ship, Miller, if it's still there," I whispered once. "Probably it won't work. Want to join up with the rest of us?"

I just didn't think of him as being in command now. And he seemed to agree, because he didn't protest against my high-handed way of talking. Also, he didn't argue against a projected rashness that could easily get us killed. Apparently he understood that our lives weren't worth much to us as things were.

He smiled a little. "I'll stick around, Nolan. If you do manage to get back to Earth, don't make the Martians sound too bad."

"I won't," I answered, troubled by an odd sense of regret.

Loosening that exit disc proved in the end to be no special trick. Then we just waited for a lull in the activity in
the tunnels around us. We all put on our oxygen helmets, Miller included, for the air-pressure here in our "cage"
would drop as soon as the loosened disc was dislodged. We put our shoulders against it and pushed. It popped
outward. Then the three of us, with Miller staying behind, scrambled on hands and knees through the tunnel that lay
before us.
*A* * * *
A crazy kind of luck seemed to be with us. For one thing, we didn't have to retrace our way along the
complicated route by which we had been brought down to our prison. In a minute we reached a wide tunnel that
slanted upward. A glassy rotary airlock worked by a simple lever--for, of course, most of the city's air would be
pressurized to some extent for the Martians--led into it.
The main passage wasn't exactly deserted, but we traversed it in leaps and bounds, taking advantage of the
weak Martian gravity. Shapes scattered before us, chirping and squeaking.
We reached the surface quickly. It was frigid night. We stumbled away into it, taking cover under some
lichenous bushes, while we looked for the highway. It was there, plain to see, in the light of Phobos. We dashed on
toward it, across what seemed to be a planted field. A white layer of ice-crystal mist flowed between and over those
tough cold-endured growths. For a minute, just as two shots rang out behind us, we were concealed by it completely.
I thought to myself that, to the Martians, we were like escaped tigers or leopards--only worse. For a moment I
felt that we had jumped from the frying pan into the fire. But, as we reached the highway, my spirits began to soar.
Perhaps--only perhaps--I'd see my family again before too long. There was traffic on the road, trains of great soft-
tired wagons, pulled by powered vehicles ahead. I wondered if, like on Earth, much freight was moved at night to
avoid congestion.
"When I was a college kid, I used to hitchhike sometimes," Craig remarked.
"I don't guess we had better try that here," Klein said. "What we can do is more of a hobo stunt."
We found the westerly direction we needed easily enough from the stars. The constellations naturally looked
the same as they did at home. We hid behind some rustling leaves, dry as paper, and waited for the next truck train
to pass. When one came, we used the agility which Martian gravity gave us and rushed for the tail-end wagon and
scrambled aboard. There we hid ourselves under a kind of coarse-fibered tarpaulin.
Peering past boxes and bales, we kept cautious watch of the road. We saw strange placques, which might have
served as highway signs. Again we saw buildings and passing lights.
We were dopes, of course, ever to think that we were going to get away with this. Our overwrought nerves had
urged us to unreasoning rebellion, and we had yielded to them.
*A* * * *
Our last hope was punctured when at last we saw the flood-lights that bathed our ship. The taste on my tongue
was suddenly bitter. There were roughly three things we could do now, and none of the choices was especially
attractive.
We could go back where we had come from. We could try to keep concealed in the countryside, until we were
finally hunted down, or until our helmet air-purifiers wore out and we smothered. Or we could proceed to our
rocket, which was now surrounded by a horde of Martians. Whichever one we chose, it looked as if the end would
be the same--death.
"I'm for going on to the ship," Klein said in a harsh whisper.
"The same with me," Craig agreed. "It's where we want to go. If they're going to kill or capture us, it might as
well be there."
Suddenly, for no good reason, I thought of something. No special safeguards had been set up around that sealed
room in the city.
Escape had been easy. What did that mean?
"Okay," I said. "Maybe you've both got the same hunch I just got. We walk very slowly toward our rocket. We
get into the light as soon as possible. Does that sound right to you? We'd be going back to the plan. And, it could be,
to common sense."
"All right," Klein answered.
"We'll give it a whirl," Craig agreed.
We jumped off that freight wagon at the proper moment and moved toward the rocket. Nothing that we'd done
on Mars—not even making our first acquaintance with the inhabitants—was as ticklish an act.
*A* * * *
Step after slow step, we approached the floodlighted area, keeping close together before that horde which still
looked horrible to us. One thing in our favor was that the Martians here had probably been warned of our escape by
whatever means of communication they used. And they could certainly guess that our first objective would be our
ship. Hence they would not be startled into violence by our sudden appearance.
One of them fired a shot which passed over our heads. But we kept on going, making our movements as
unfrightening as we could to counteract the dread of us that they must have still felt.

Panic and the instinctive fear of the strange were balanced in our minds against reason. We got to the nose of
our ship, then to the open doors of its airlock. The horde kept moving back before us and we clambered inside.
Martian eyes remained wary, but no more action was taken against us.

Our cabin had been ransacked. Most of the loose stuff had been removed ... even my picture of Alice, and our
two kids.

"Who cares about trifles?" I muttered. "Rap on wood, guys--I think we've won. So have the local people."

"You're right," Klein breathed. "What other reason can there be for their not jumping us? Miller's passive
strategy must've worked the first time. The story that we meant no harm must have gotten around. They don't want
to make trouble, either. And who, with any sense does?"

I felt good--maybe too good. I wondered if the Martians felt the same eager fascination for the enigmas of
space that we felt, in spite of the same fear of the nameless that we too could feel. My guess was that they did.
Undoubtedly they also wanted interplanetary relations to be smooth. They could control their instinctive doubts to
help attain this objective. If they coveted Earth's resources, it was still far away, and could defend itself. Besides,
they were not built to live in comfort under the raw conditions of its strange environment. Commerce was the only
answer.

Suddenly Mars was no longer a hostile region to me, out in the reaches of space. Again it was full of endless,
intriguing mysteries. It was beautiful. And knowledge of that beauty and mystery had been won, in spite of some
blundering. The scheme that we had practiced, and that Miller had stuck to, had paid off. It had broken down that
first inevitable barrier of alieness between Earthmen and Martians enough so that they now had a chance to start
looking for the countless similarities between us.

A fraction of our food stores aboard the rocket had been taken, probably for analysis. But there was plenty
more. We closed the airlock, repressurized the cabin from air-tanks, and cooked ourselves a meal. Then we slept in
shifts, one of us always awake as guard.

At dawn, Miller hammered at a window. He'd been brought out from the city. We weren't too surprised by then.

* * * * *

Etl turned up at noon. He came in a kind of plane, which landed right beside our rocket, making quite a noise. I
recognized him easily enough; I'd know those eye-stalks anywhere. Besides, as he came out of the plane, he was
carrying the speech-tube that Klein had made for him.

We let him into the cabin. "Hello, gang," he said, manipulating the tube with his tendrils. "I see you passed
your tests almost as well as I did on those weird things you were always making me take on Earth."

"So they were tests," I said.

"Sure. Otherwise, why do you think I didn't come to you before? They said you had to solve your own
problems."

"How did they treat you?" Miller wanted to know.

"Mostly my people were nice to me. They took me to a great desert city, far away. Sort of the capital of Mars.
It's in an 'oasis' where a network of 'canals' join. The canals fit an old theory of your astronomers. They're ribbons of
irrigated vegetation. But the water is piped underground. I spoke to my people in the way that you once thought I
would, trying to convince them that you were okay. But I guess that you did most of the job yourselves."

"In spite of a lot of blunders, maybe we did, Etl," I replied dryly. "What are your plans? Going to stay here
now? Or will you come back with us?"

I sensed that he would stay. It was natural. Maybe I even sensed a remoteness in him, a kind of withdrawal. Not
unfriendly, but ... we both knew it was the parting of the ways.

"It's best for what we're trying to accomplish, Nolan," he said. "I can tell my people about Earth; you can tell
yours about Mars. Besides, I like it here. But I'll be back on Earth some time. Just so you'll come here again. Thanks
to you guys for everything."

"I'd like to stay too, Nolan," Miller said, smiling. "If they'll have me. Under Etl's instructions, they might
improve my quarters."

* * * * *

So that much was settled. I felt a certain longing myself now. But I'm a family man, with home still in my
blood. Klein and Craig weren't tied as I was, but they had a lot to hold them to Earth. Besides, somebody had to
report back.

We were on Mars two days longer, though we didn't go any farther than back to the neighboring city. We took
thousands of photographs. We were given samples of common Martian apparatus, pieces of jade that were covered
with queer, beautiful carvings made millions of years before, bars of radioactive metal.
Earth was still near enough in its orbit to be reached without too much trouble. We jacked our rocket into a vertical position, from which an interplanetary takeoff could best be made. The cabin, swinging on its universal joints, stayed level. Martians watched, interested, but still obviously not quite ready to cast aside their deeper suspicions. Yet, when we blasted clear, we knew that a ship of theirs, halfway around the planet, was doing the same and would follow us back to Earth. Ambassadors, of course, and commercial attachés.

I'd lost my picture of Alice, Patty and Ron to some local souvenir hunter. But I knew that I was going to see them....

The friendly contact between Earth and Mars can still be queered by somebody's silly blunder, of course. Human or Martian. You have to be careful. But a beginning has been made.
The game was stud. There were seven at the table, which makes for good poker. Outside of Nick, who banked the game, nobody looked familiar. They all had the beat look of compulsive gamblers, fogged over by their individual attempts at a poker face. They were a cagey-looking lot. Only one of them was within ten years of my age.

"Just in case, gamblers," the young one said. I looked up from stacking the chips I had just bought from Nick. The speaker was a skinny little guy with a sharp chin and more freckles than I'd like to have.

"If any one of you guys has any psi powers," the sharp-chinned gambler said sourly, "you better beat it. All gamblers here will recoup double their losses from any snake we catch using psi powers to beat the odds."

He shot a hard eyed look around a room not yet dimmed by cigar smoke. I got the most baleful glare, I thought. He didn't need to worry. I'd been certified Normal by an expert that very evening.

The expert was Dr. Shari King, whom I had taken to dinner before joining the game at Nick's. It had gotten to be a sort of weekly date--although this night had given signs of being the last one. For a while that spring, desoxyribonucleic acid had begun to take second place in my heart. This is a pitiful admission for a biochemist to make--DNA should be the cornerstone of his life. But Shari was something rare--a gorgeous woman, if somewhat distant, who was thoroughly intelligent. She had already earned her doctorate, while I was still struggling with the tag ends of my thesis.

"Poker, Tex?" Shari had asked, when the waitress was bringing dessert. "Is this becoming a problem? You've played every night this week."

"No problem, Shari," I said. "I'm winning, and I see no point in not pocketing all that found money."

"Compulsive gambling is a sickness," she said, looking at me thoughtfully. She was wearing a shirtwaist and skirt that had the bright colors and fullness you associate with peasant dress.

"The only sick thing about me is my bank account," I grinned, relishing her dark, romantic quality. "I need the dough, Shari. I've got a thesis to finish if I ever want to get a job teaching."

She threw her spoon to the table. "I'll remind you of how silly these remarks sound, after you've hit a losing streak," she told me.

I laughed at that one. "I don't lose, Shari," I said. "And I don't intend to."

Her lashes veiled her violet eyes as she smiled and said more quietly, "Then you are in even worse trouble than I thought. I hear a lot about what happens to these strange people who never lose at cards or at dice or at roulette. Aren't you afraid of winding up in the gutter with your throat slit? Isn't that what happens to people with psi powers who gamble?"

"What's your trick, Tex? Do you stack the deck with telekinesis, or does precognition tell you what's about to be dealt?"

"That crack isn't considered very funny in Texas," I growled.

"Is it any more silly for me to think you might be a psi personality than for you to think you never lose at cards?" she nailed me.

I could feel my face getting red. "Damn it!" I started. "Nobody talks to a friend like that!"

"Pretty convincing proof," Shari said tartly.

"Of what?"

"Of the fact that you aren't making any sense about this gambling kick you're on, Tex. You should have laughed my teasing off. Who would seriously suggest that you were a psi personality?" she demanded. "And most of all, with my background in psi, do you think I could be misled about it?"

I shrugged, trying to cool down. Shari's doctorate had been earned with a startling thesis on psi phenomena and psi personalities, and she had stayed on at Columbia as a research fellow in the field. In egghead circles, she rated as a psi expert, all right.

"Guess not," I said, trying to kill the subject.
She wasn't going to let it die. "I don't think you're a psi, Tex. You're a Normal!" The way she said it, it didn't sound like a compliment. "Worse than that," she insisted. "You're beginning to act like a compulsive gambler." She took a deep breath, and let me have the clincher: "I could never marry a gambler, Tex!"

"You've never been asked," I reminded her.
She had the last word. "Let's go!" she snapped.

* * * * *

Angry as I was about her acting as though I were a snake, I wished I could have thrown her certification that I was a Normal in the freckled face of the sharp-chinned gambler at Nick's later that night. After Shari's needling, I didn't take very kindly to his popping off with the Law of the Pack. It's understood wherever people gamble that psis aren't welcome.

Nick didn't like it any better than I did. "All right, Lefty," he said to the sharp-chinned gambler. "Calm down, huh, kid? What kinda game you think I run, huh?"

I didn't let the sour start spoil my game. I was lucky right from the start and hit big in several hands.

Lefty, the gambler who had yelped about psi powers at the game, dealt the tenth hand. He gave me the eight of spades in the hole. By the fourth card I had three other spades showing, which gave me four-fifths of a rare flush in stud poker. But by the fourth card Lefty had given himself a pair of jacks. That drove all the other gamblers to cover.

Lefty raised, of course, and it cost me five hundred bucks to see my fifth card. It was a classic kind of stand-off in stud, and the waiter stopped with his tray of drinks to press in among the other kibitzers and watch the pay-off.

Lefty shucked out the last two cards carelessly, as if they didn't really matter. His own fifth card made no difference—he already had a busted flush beaten. His smile was just a little too sharp as he tossed me my last card face up and reached for the pot with the same left-handed gesture.

I took the poker panetella out of my teeth. "All blue," I said, turning up my hole card with the other hand.

Lefty threw the unused part of the deck to the center of the table. "That does it, you snake!" he swore at me.

It took a second for his accusation to sink in. I started across the table after him. If they hadn't stopped me, I would have torn his lying throat out. Funny, but there were kibitzers on my shoulders before I could rise an inch out of my chair.

"Down in Texas you could get shot for a crack like that, Lefty!" I said. I guess I really yelled it.

"And in New York you can, and probably will, get your rotten throat slit for a trick like the one you just pulled," he replied. He turned to the other gamblers, most of whom had their hands on the edge of the table, ready to jump to their feet if it got any rougher.

"I stacked the deck this last deal," he said coolly. He held a palm up at their surprised mutter. "Tex's fifth card was stacked to be a heart, gamblers. You saw him get a spade and take the pot. I won't sit at the same table with a guy that can do that. Telekinesis has no place in poker."

"Pretty near as bad as stacked decks," one of the gamblers rasped. But the others weren't with him. I only had to take one look at Nick's face.

I stood up slowly, and the hands on my shoulders didn't hold me down any longer. "Lefty says he stacked the deck," I told them. "I say he lies. You know there's nothing to choose between our statements. Lefty is a cheap grandstander, and I'll settle with him myself. Nick, I won't embarrass you tonight. This isn't your fault. But I'll be here tomorrow night, and you had better be glad to see me!"

"Sure, Tex," he said uncomfortably, rising with me. "Take my seat, Shorty," he directed one of the kibitzers. He walked around to grab me by the elbow and steer me as far away from Lefty's truculent face as he could. At least the sharp-chinned little rat had quit the game, too. Both of us had left our chips on the table.

Nick wanted me to leave. "Pay me off," I insisted. He said yes a lot quicker than I thought he would. The other gamblers could have squawked that my chips should go into the next pot, but apparently none of them did.

Lefty sidled out as Nick was paying me off. "Wait outside for me," I said to him.

"Why not?" he said, sticking his chin out at me and walking out.

Nick grabbed me again. "Don't get hot, Tex," he warned me. "I don't want a killing on my own sidewalk. Take it some place else, huh, kid?"

"Sure," I said.

There wasn't any danger Lefty would hang around. I was big enough to break him in two, which is exactly what I planned if I caught up with him.

* * * * *

It had been dark for some hours by the time I hit the street and waved for a skim-copter. Nick's games start late.

"You asked me to wait," somebody said. I spun around and saw Lefty standing in the alleyway beside the building. I went for him, charging hard. He scuttled back into the alley, out of what little light there was that far downtown. Just as I reached for him, somebody slugged me in the gut. I went down on a knee, gasping. I hadn't seen
his sidekick—the alley was pretty dark. I heard Lefty's breath suck in sharply as I came up out of my crouch, diving for him. After all, it was only pain, something inside my head. It wasn't as though I had been really crippled. My fingers clawed at his jacket, and would have held him. But the other guy grabbed at my ankle and threw me down on the slippery cobbles again.

I came up slower that time. I'd bunged up my kneecap more than I wanted to think about. Lefty was still out of reach. I called him a name that was always good for a fight in Texas, and started after him, but slower than before. I wasn't fast enough to avoid the hard thing that rammed against my spine. Even down in Texas, a gun in the back freezes you up.

Lefty was all guts now that I was hung up on the gun barrel. It might as well have been a meat hook.

"I warned you not to use psi in the game!" he snapped. "Now you'll have to talk to Pete."

"One of us isn't going to live through this," I promised him, starting to reach for his throat. The gun jabbed a reminder to watch my manners.

"Do you come quietly?" Lefty asked shrilly. "Or do we--?"

The sudden shrillness of his voice scared me more than anything else. He was worked up worse than I was.

"Quietly," I conceded, trying to get some saliva to flow again. The pressure against my spine eased off.

Lefty stepped out of the alley to the curb and flagged down a cruising ‘copter. He made me get in first, which gave me a chance to turn, when I sat down, and see who had been holding the gun on me from behind. The gunman had sure drifted in one awful hurry. There wasn't a soul except Lefty around.

He hopped in after me. The turbine howled as the driver gunned us up on the air cushion and sent us skimming away. The trip lasted only four or five minutes through the thinning traffic of late evening. We pulled up in front of a brownstone house in the upper Eighties that reared up four stories among a string of three-story neighbors.

I limped to the top of the steps after Lefty. He let us in with a key. We were in a dimly-lit hall that had a staircase against its left wall and an open door at its right, leading into a darkened room.

A tall skinny girl was sitting about a third of the way up the carpeted flight of steps. Her face was drawn out to a point by a long, thin nose. "Here they are," she called up the stairway, showing braces on her teeth. She stood up and came down the hall. She was clad in a shortie wrapper that showed off her race-horse legs.

"Billy Joe," she said to Lefty. "I told them you were coming."

"Hi, Pheola," he said. "Good for you." He sounded pleased.

There were steps above, and two others joined us. First came a short square man with gray hair and bushy gray eyebrows. He was wrapped up in a flannel robe that had once been maroon and was now rusty with age and wear. It only served to confirm that he had just been yanked out of bed. He hadn't bothered to put anything on his bare feet or to comb his hair. A pretty wild looking old man.

Behind him stumped a chunky woman, crowding fifty. She was in a worse state of dishabille. She hadn't quite made it to bed and was still in her slip. Her stockings had been unhitched from her garters and hung in slack transparency around her fat calves, like the sloughed-off skin of a snake.

"I told you," Pheola said to the gray-haired man.  
"It's nice that you're right once in a while," he said in a scratchy, sleepy voice, walking past her to switch on the ceiling of the room on the right side of the hall.

She didn't like that. Lefty stopped her reply. "Will it be PC?" he asked her.

"No," she said.

"You missed that one," Lefty said.

"Didn't neither!"

"Well, sit in with us and see," he suggested.

"What for?" she asked. "I know what's going to happen in there. You'll be along to bed right soon, darlin' Billy!"

He looked over at me. "Go on in, Tex," he said.

"Darlin' Billy!" I sneered.

"Don't pay any attention to her," he said. "She's in another space-time continuum." I pointedly ogled the girl's pretty legs going up the stairs and whistled softly. "My wife," he said, blushing. "A powerful PC, or one day will be."

"You're kidding," I said. His arm on my elbow pushed me into the lighted room.

* * * * *

It had been the front parlor of the old brownstone in its prime, and was now fixed up as an office. The place held an executive desk with several buttons and enough other controls to put it in orbit. There were a number of cushioned straight-backed chairs and a comfortable leather couch under the window. Only the fact that it was getting on toward midnight made me willing to believe that the couple who had walked down the stairs expected to be taken
seriously.

"This is George Robertson, the poker whiz," Lefty said briefly to the two sleepy heads. "They call him Tex. Tex, this is Peter Maragon, Grand Master of the Lodge."

The gray-haired man gave me a tired nod. "I imagine you're a pretty angry young man, Mr. Robertson," he said in his scratchy voice. I started to tell him quite a little about how I felt, but he held up his hand. "I've had a hard day," he complained. "And I got out of bed solely to adjudicate your case. Now, this will go a lot more quickly if you listen." He smacked his lips a couple times as if he wondered where he had left his partial plate. I hoped he had swallowed it. "Sit down, sit down," he said irritably, pointing at the chair across the desk from him.

I debated it, but took the chair, grinding my teeth.

"You aren't stupid, or you wouldn't be a scientist," he said, revealing that he knew a lot more about me than I did about him. "Let's start out with a couple facts."

He pointed a gnarled finger at Lefty. "Wally Bupp stacked a deck of cards on you tonight," he said gruffly. "What you don't know is that he stacked them with telekinesis. He's a TK."

"A snake!" I gasped.

"Watch your lip!" Maragon croaked. "Everybody in this room is a psi. 'Snake' is a dirty word around here, Mr. Robertson. Mr. Bupp has a special aversion to it."

"What's the purpose...?" I began hotly.

"Hah!" Maragon barked. "A good word!" He cackled a laugh at me. "Purpose. Exactly, Mr. Robertson. Well, the Lodge has a purpose, and you'll act a lot more sensibly if you know it."

"You," he said to me. "Are a TK."

"You," I yelled right back. "Are a liar!"

He ignored me completely. "We can't afford to have you gambling and cheating Normals," he went on. "One of the Lodge's fundamental rules is that no psi may use his powers to the detriment of Normals. Lefty's big scene at Nick's fixed it so you won't be welcome in a big-time poker game anywhere in town. We did that deliberately. And we're telling you to quit gambling, as of this minute."

"You say you are a TK," I interrupted.

"Somewhat," he said. "I have psi powers, but I'm not mainly a TK."

"Whatever your powers are," I said. "They don't make you supermen immune from the laws of libel. If you or anybody I can catch breathes one false word about my being a snake, you'll be on the receiving end of the roughest lawsuit you ever heard of!"

"The silliness of that statement will occur to you in a while," he said dryly. "And truth is a defense against a claim of libel. But to get back to purpose. Our second purpose tonight is to get it through your thick head, Mr. Robertson, that the Lodge insists on its right to control your actions insofar as they involve the use of your psi powers. We mean business, Mr. Robertson, and before you are through with our heartless Mr. Bupp tonight, you'll know it. That's all that's behind our little charade."

He came to a stop and took a deep breath.

"I'm going to make one statement and rest on it," I said, trying to keep my voice calm and level.

He shrugged. "Your turn," he said.

"I'm a Normal," I said. "I flatly deny that I have the slightest shred of psi power. I accuse that freckled snake over there of lying deliberately. I'll make him pay for it, and he'll be lucky if it isn't with his blood."

"That's all?"

"Isn't it enough?"

He laughed harshly and grinned over at Lefty. "Some of you maverick psis scream like a gelded porker," he said. "I figgered you'd tell me we'd cost you a fortune in prospective poker winnings, to say the least."

"My stomach dropped. I hadn't thought of that, not as much as I should have. It was my only income!"

"Something a darn sight more important than money is involved," I said.

"Maybe you aren't such a bad guy," he decided. He looked over at the woman standing silently in her slip beside his desk, her bare arms folded over her ample bosom.

"How about it, Milly?" he asked her.

She shrugged. "He believes what he says," she told him. "He honestly doesn't think he has any psi powers."

"That mitigates the affair," Maragon said. "Still, our purpose demands an object lesson. I have to fine you, Mr. Robertson. You've broken one of our rules by using TK to stack a poker deck. Because you weren't aware of it, though, half of your fine will be remitted if you join the Lodge within a week. Accordingly I assess you ... uh, how much, Milly?"

"He's got eight thousand and some in his breast pocket," she said with fiendish accuracy. "Every penny he has in the world."
"Assess you eight thousand dollars," Maragon concluded. He got wearily to his feet, and started to pad past me
toward the door. "Mr. Bupp will collect," he said. The woman followed him, her hose hanging down around her
ankles, and climbed the stairs stolidly behind him.

* * * * *

Lefty, whom Maragon had called Wally Bupp, walked around behind the desk and took the swivel chair that
the older man had just vacated. "I'll take the eight thousand now, Tex," he said, poking his chin at me belligerently.
"You'll take four," I said, getting my feet under me.

He frowned. "Four?" he repeated.
"Four knuckles," I gritted and started for him. The gun barrel rammed me in the kidney, harder than it had in
the alley. They'd smuggled in some protection. I really slammed on the brakes, halfway across the desk. Lefty hadn't
bothered to flinch, but sat there with his legs crossed, looking idly at his fingernails.

"Look behind you," he said.

I did. The gun eased off my kidney as I turned. There wasn't anybody there.

"TK," Lefty said. "I also used it to trip you up when you went for me in the alley, after I'd TK'd a left right in
your gut. You're a hard guy to stop, Tex. But don't overdo it."

"Mere pain never stopped a guy who really meant it!" I went for him again.

Then it hit me. A deep and sickening pain throbbed from my breastbone down my left arm. The lights started to
dim, and I sagged down on the desk.

"How'd that feel?" Lefty asked, apparently not expecting an answer. "I clamped your coronary artery shut for a
few seconds. A post-mortem would never be able to tell it from the real thing if I held down tight."

His grin had a viciousness in it I hadn't seen before. He held out his hand. I struggled erect and handed my
wallet to him. He only took out the big bills, and tossed it back across the desk to me. "Thanks," he said. "You'll get
half of this back if you decide to join the Lodge within a week."

"What's all this about a Lodge?" I tried weakly. "What Lodge?"

"Why, this Lodge," Lefty said, waving a hand around loosely. "It's an organization of folks with psi powers.
Guys like you and me, Tex."

"I'm no TK!" I growled. "I didn't manipulate those cards in any way."

"Funny you say that," he said, looking interested and leaning his elbows on the desk. "You're right. I hadn't
actually bothered to stack the deck, Tex. Just kept a light TK touch on it to see if you were moving cards. You
weren't, but you were hitting them right all the time. I haven't had time to tell Maragon the boys on the Crap Patrol
were wrong. It wasn't telekinesis, Tex. It was precognition. You're a PC, Tex." He stood up and pointed toward the
door. I was shaking so badly from the heart attack the snake had induced that I got up helplessly and allowed him to
steer me out by the elbow.

"Remember," he said at the head of the steps that led down to the street. "You've got a week to make up your
mind about joining the Lodge. In the meantime, don't gamble."

"Great," I said bitterly. "You sapped me down and rolled me for my poke, or the next thing to it. And now you
tell me not to get in a game and try to get whole again. Why should you care?"

"You don't listen," he said sourly. "Look, psis are supermen, in spite of your sneers. And whether you like it or
not, Tex, you've got some psi powers. Normals resent, fear and hate us. We can't afford to have you make a killing
at a poker table and then get exposed as a 'snake.' We psis are a tiny minority. We all get blamed for things any one
of us does."

"I'm a Normal," I said, a little hollowly.

"You're more fortunate than that," he assured me. "Just so you understand the origin and purpose of the Lodge.
We find strength in union, strength to resist the pressure of the majority. And membership in the Lodge gives us
control--control over psis like you who might bring the wrath of the Normal majority down on us by their
shortsightedness."

I shook my head. "You don't have to dress it up like this," I protested. "This is blackmail or extortion, I'm not
sure which. I'm not joining anything you bunch of creeps are a part of."

"You won't find that practical," he said, turning to go back inside. "And remember: stay away from cards."

* * * * *

You're supposed to have nightmares at night. I had mine the whole next day. No, I wasn't a TK, Lefty had said.
I was a PC. You don't have anemia, Tex. It's leukemia!

I made a farce of trying to get some work done in the lab. After letting the third test tube slip through my
fingers and shatter on the lab bench, I gave it up. How would you have acted if you had gotten that kind of news?
That first gut-twisting admission that you really may be a snake! Then sharp awareness of what it means. A
guillotine couldn't cut you off more sharply from Normal humanity. But the spirit struggles and refuses to accept it.
You can't be a snake!

"Take action!" I said aloud, getting a worried look from my lab assistant, busy mopping up my last shattered culture. "Don't spin around like this. Do something!"

I did the only thing I could think of, and dialed Shari at her laboratory. She refused to accept the call at first. Finally she tore herself away from a "delicate experiment" long enough to look at me angrily in the screen.

"We don't have anything to say to each other," she said coldly. "There are delicate experiments--"

"Can you test me for psi powers?" I interrupted.

"Whatever for?"

"To settle whether I have any," I snarled. "It's important to me."

"Not necessary," she said. "Do you think I'd be successful in the psi field if I weren't sensitive to this sort of thing? Don't worry, Tex. You're a Normal."

"Thanks," I said. "So you've told me. Now prove it to my satisfaction."

"We shut up shop at five o'clock," she said. "I'll be here for about an hour after that. My dinner date isn't until seven."

"Bet he doesn't gamble," I said, trying to win a little sympathy.

"You bet he doesn't!" she sniffed.

Shari's laboratory was nothing more than a large windowless office that could be cut into two sound-proof parts with a movable partition. She had a whopper desk with full controls and other evidences of academic pelf. On a table against the short wall was her apparatus--if that's what you call decks of cards, a roulette wheel, a set of Rhine ESP cards, several dice and, so help me, a crystal ball.

* * * * *

Shari stood up behind her desk when I came in. It was something of a shock to find that her colorful peasant getup was antiseptically sheathed in a white laboratory coat. She was sure dressed for dirtier work than she would ever have to do in that lab.

Her first look at me was one of surprise, but it softened to one of concern, which might have been cheering on some other occasion. "What has happened, Tex?" she asked.

"Nothing," I said, keeping calm. "Not a thing."

"Outside of seeing a ghost, eh?" she said. "Stop grinding your teeth like that. You'll give me the creeps. Sit down. Sit down! Do you hear me? Relax!"

I guess I found the chair across from her at the desk. "Do I have psi powers?" I asked her. "Either TK or PC? Test me, Shari."

"What happened?" she insisted.

I shook my head. "I'd rather not talk about it--not until I know the result of your test," I said.

Shari thought about it for a while, tapping her desk with an irritated finger, and finally got a set of cards from the lab table against the wall. She shuffled them slowly on her desk blotter. "Cards are your strong point," she observed. "If you have any psi powers, they're most likely to show up with cards. I take it you will do your utmost to be right?"

"Who would double-cross himself?" I said tightly.

"Most people," Shari said. "When it comes to psi. But we'll assume, for a starter, that you are on the level." She stacked the cards in her hand. "We'll keep it simple," Shari suggested. "I'll deal the cards one at a time. All you have to do is tell me whether the next card will be red or black. Fair?"

"Sure," I said. "Deal!"

She was a lousy dealer. Or maybe it was because it was a one-handed operation. She was scoring my hits and misses with the little counter in her other hand.

She ran the deck ten times for me. I got thirty-eight right on my best attempt and thirty-seven wrong on my worst. In total, of five hundred and twenty chances, I was right on two hundred and seventy-three, or fifty-two point two per cent of the time, according to Shari's slide rule.

"Oh, no," I said dismally. "I do have a little edge on the cards!"

"As a statistician, you'll make a great biochemist," Shari said, putting the deck away. "That would only be true if I hadn't let you see your hits and misses as each deal proceeded. You made succeeding guesses in the knowledge of what had already been dealt. Actually, your score was below average for trained observers without psi powers." She heaved a sigh, which somehow seemed to be of relief. "And now, you crazy cowpoke," she said, "tell me what this is all about."

"I'm not a psi?" I demanded.

"Not if you were really trying," she said. "Were you?"

"You think I want to be a psi?" I demanded. I told her all that had happened the night before from the time
Lefty had accused me of being a snake until he had let me out of the brownstone house and warned me against gambling.

Guess how Shari reacted. A big nothing!

* * * * *

"Well?" I asked, as she sat silent with her elbows on the edge of her desk and her chin propped up on her knuckles.

"You're really quite naive, aren't you, Tex?" she asked me. "Let me give you an objective statement of what happened to you last night."

She counted these things off on her fingers: "You won some money at poker. A gambler said you used TK to win. He took your winnings, and then some, away from you as the price of silence. He warned you not to gamble any more. He claimed he was part of an organization of psi personalities. Is that a fair statement?"

"Except for one thing," I said. "He used his psi powers on me in a pretty dramatic fashion."

"Try Occam's razor," she suggested.

She was getting insulting. "All right," I growled, feeling my face get red. "Prefer the simpler explanation, if you can find one. I was prodded in the back, both in the alley and in the office at the brownstone house. Something hit me in the gut and tripped me up. I had a heart seizure. What's simpler than TK in accounting for the fact this was done without a soul around?"

"I suppose I shouldn't be critical of you," she said. "It's not your field and you haven't been exposed to the lengths to which charlatans go, just to prove they are supermen. The simpler explanation is that there was someone else in the alley, carefully dressed in dull black to stay invisible in the darkness. The second prodding of a gun in your spine was pure suggestion--you'd been so well-sold by that time you were ready to believe anything."

"And my heart attack?"

"I can think of ten poisons that would give you the symptoms," Shari said. "And don't tell me you let nothing pass your lips!" she burst out hotly as I started to speak. "I suppose you've never had a spray hypodermic? You'd never have felt it. Don't you see why they went to all this trouble?"

"Honestly," I said. "I can't. I'm simply not that important to anyone in the world."

"You're not," she said dryly. "But your eight thousand dollars was. I'd say if people can steal that much money and convince the victim he shouldn't go to the police, it was worth their while. You're not very likely to advertise the claim that you're a psi, are you?"

"No," I admitted.

"And," she said wearily, standing up. "There's always the angle that they'll con you by letting you into their imaginary 'Lodge' and extract some kind of dues out of you in return for keeping quiet about your so-called psi powers when you gamble. That would serve you right," she concluded.

"For what?" I demanded, beginning to feel pretty icy.

"Being such an easy mark, for one thing," Shari said. "And for seriously thinking that you might be a PC! That, I must confess, I find the most comical of all. You, Tex, a PC!"

"Why is that funnier than being a TK?" I demanded, getting up.

She waved her hand impatiently. "We see a little TK here in the lab right along," she said. "At least, there are those who seem to have a small genuine edge on the cards that we can explain no other way. It's small, but apparently exists. But precognition? That's not simply mechanical or kinetic, like TK. PC is something terrifyingly different." Her voice hushed as she said it. "It's a kind of sensitivity that has nothing to do with mere kinetics. It defies time!" She looked back at me. "I simply find it comical that you thought of yourself as sensitive to that degree."

"So I've been a fool," I mused.

"In a word, yes. You're a Normal. They suckered you, if you want the jargon."

"Wait till tonight!" I seethed, beginning to feel my anger grow as my fear dwindled. "Let them try to pin the psi label on me! I'll call their bluff!"

The TV-phone on Shari's desk rang, and she pressed the Accept key.

"Let me speak with Tex," a familiar aggressive voice said. It didn't sound as if it would stand for much nonsense.

Shari still had another look of surprise in her. "For you," she said, arching her romantic eyebrows, and turning the instrument around so I was facing the 'scope and screen.

Sure enough, it was Wally Bupp. "Don't do it, Tex," he warned me. "Don't do what?"

"Don't play tonight. It won't be practical. We mean business."

"So do the laws of libel," I said. "One crack about my having psi powers--"
"Yeah, yeah," he interrupted. "You told us about the lawsuit," he said. "You've got six more days." I could see his hand come up to cut the image.

"Hey!" I said. "How'd you know where to reach me?"

His sharp face split in that vicious grin. "I forgot to tell you," he said. "Maragon is a clairvoyant, too." The image faded.

"See what I mean?" I said shakily to Shari. "They sure talk a good game. I didn't tell a soul I was coming here. How'd they catch me?"

"Occam's razor," she said. "How many wrong numbers did they try first? Come back to earth!"

"That snake Lefty still worries me," I admitted, going to the door. "Shari, I know I've acted nuts, but they nearly got me to flip! Thanks for helping me. I couldn't have stood it to know I was a snake. You got my mind back on the track again."

"Not enough to keep from going right back to the poker table," she observed.

There didn't seem any point to telling her how badly I needed the dough. Anyway, I had to prove a point. I was a Normal. I left.

* * * * *

There were already seven at the table when I got to Nick's after dinner. He didn't want to deal me in.

"Seven's a full table, huh, Tex?" he said.

"Not for stud, it isn't," I told him. "You can deal to ten gamblers."

"Dealer's choice tonight," he protested, while some of the gamblers eyed me curiously. "Can't deal to more than seven for three-card draw."

"I told you where I stood on this thing last night," I snapped.

"All right," Nick said warmly. "So maybe I'd like the whole stink to cool down a little, huh?"

"Not with my dough in it, Nick!" I told him, being pretty free with something I didn't have much of any more.

"You'll deal me in tonight or I'll find another banker!"

A gink with a long, scrawny neck put down his highball and rose from the table. "Gosh, fellows," he said. "I'm sort of a fifth wheel around here, I guess. Here, neighbor," he insisted. "Take my place." He was all grins and teeth and bobbed his head around with a rural awkwardness.

"You don't have to do that, Snead," Nick started to say.

"Just as soon kibitz," he insisted, drawing up a chair behind me as I took his seat. "You don't mind, neighbor?" he asked anxiously. I shook my head and yanked out my much-depleted wallet to pay for chips. It took all that the Lodge hadn't.

Four hands were enough. On the first, at stud, I had aces back to back and picked up a pair of sevens on the next two cards. Two pair, aces high, will win about ninety-nine out of a hundred stud hands. I chewed down on the panetella in my teeth and bet them like I had them. The tilt of my cigar showed just a little too much confidence as a way to convince some of the gamblers that I was bluffing. It must have been a good act, for three of them stayed with me all the way. None of them had much showing, and regardless of what their hole cards were, by the time we had our fifth cards, I had them all beaten.

It was raise against raise, but somebody finally called, and I turned over my ace in the hole. "Aces and sevens, gamblers," I grinned, reaching for the pot.

"I see the sevens," a fat-faced man across the table said around his cigar. "But what's this jazz about aces?"

So help me Hannah, my hole card was a two! I tried to cover it up. "You'll have to admit I bet them like aces," I said.

Somebody laughed, but not very hard. I paid mighty close attention to what I was dealt the next hand, and turned down a drink to make sure I was cold sober. Unfortunately, I got all screwed up over what one of the other gamblers had. It had been a bunch of spinach when I'd been betting my pair against it, but it was one good-looking straight when he flipped the card in the hole.

The third hand I dropped out before the fourth card. After a gambler raked in that pot, my kibitzer asked me: "How much do you have to have on the first three cards to stay in the pot?"

"Any pair would convince me," I said. "Why?"

"What was the matter with the kings you had showing?" he asked. They were still on the table in front of me, king of hearts and king of clubs.

I scarcely dared bet the fourth hand. We had switched to three-card draw. I discarded two small diamonds, keeping a pair of nines and an ace for a kicker. On the draw I got one card that claimed to be the fourteen of eagles and one on which there was a message reading: "These hallucinations are sent to you with the courtesy of the Manhattan Chapter of the Lodge. Are you finding it practical?"
I threw the hand in and stood up, shaking. "Since when don't you bet a full house?" my kibitzer demanded, after
the hand was won. He picked up what I had thrown in. The fourteen of eagles turned out to be a nine, and the card
with the hallucination message the other ace.
"Got to confuse the other bettors," I said. "One of the fundamentals of poker."
There really weren't enough chips left in front of me to bother cashing in. I just left them lying there and
wandered down to the street, flat broke.

* * * * *

Wally Bupp was right. I hadn't found it practical. All of a sudden I saw that it really didn't matter whether I
were a psi or not. The important question had always been whether Lefty and the others were psis. If so, they might
be on the level about my psi powers—which meant I was right back being a snake again. And if they weren't, it was a
simple case of blackmail, which at least let me rejoin the human race. On that basis, I was in tough shape. Occam's
razor has no answer for hallucinations. Either you've had them or you hadn't. I had. Nobody would change my mind
on that score. That made Snead, and presumably Lefty, a psi. And me, too.

But—what if they were mistaken? Shari's tests looked conclusive to me. I saw that as the only way out. I had to
insist on a test in their presence. And that meant I had to get in touch with Wally Bupp.

My kibitzer came stalking out of the building, gangling and gawky. "Didn't mean to spoil your luck, neighbor," he
said.
"Don't give it a second thought, Snead," I said.
"Call me Mortimer," he said. "You mind a word of advice, neighbor?" he asked, bobbing his head around and
grinning in a self-conscious way. "Next time, bet that fourteen. Highest card in the deck. Beats all the others!"
"You lousy snake!" I gasped. I'd learned better than to take a poke at him. Lefty had taught me my lesson on
that one. Snead might turn out to be a TK as well as a hallucinator, and I wanted no more heart attacks.

He handed me a card. "There'll be somebody at this number all night, neighbor. Gamblers Anonymous."
He faded off down the dark street. The card merely said:
"Manhattan Chapter NO 5-5600"

* * * * *

Shari must have had a swell time at dinner with some guy who didn't gamble, because she didn't come home
until nearly midnight. I know because I dialed her apartment every ten minutes until I got her face on the screen.
She was still dressed for dinner and had a sort of tiara over her thick tresses. "What is it?" she said.
"I'm not a psi?" I demanded.
"No!" she said. "Hasn't this gone--?"
"Well, then, am I crazy?" I cut in on her.
Her lips compressed. "It's a lot more likely," she decided. "Why?"
"Either I'm nuts," I told her. "Or those characters really are psis." She was reaching up to cut the image when I
cought her interest. "Is there such a thing as a psi who can induce hallucinations?" I demanded.
"No." Flatly.
"They've got me sold that they can do it," I said. "What does Occam's razor say about that?"
"You idiot!" she exploded. "They don't believe you are a PC any more than I do!" She was sure sensitive about
my having any precognition!
"O.K.," I said. "Then you make them eat it. Aren't you the one who knows all about exposing charlatans?"
That was the right button. "Certainly," Shari said.
"I'll pick you up in ten minutes," I said.
"Now? Midnight?"
"This is the pay-off," I said, and cut the image. I dialed the number Snead had given me.
"Manhattan Chapter," the Operator cartoon said.
"This is George Robertson," I said. "Mortimer Snead told me there'd be somebody there to talk to me. Maybe
Lefty."
"Snead?" the cartoon said, frowning. "No one here by that--Oh! Wait a moment. Dr. Walter Bupp will talk to
you," the cartoon said, and Wally's face appeared on the screen.
"It wasn't practical," I admitted.
"Six days early," he observed.
"Nuts," I said. "Look, you've got me convinced you are a psi. That Snead puts on a terrific show."
"Snead?" he frowned. "Oh!" He laughed. "Yeah," he agreed condescendingly. "He's red hot, every now and
then."
"But you haven't sold me that I'm a PC," I growled. "I've been tested. I'm not. Now I want you to get off my
back. You and the rest of them! Lay off!"
He shook his head. "The Lodge acts unilaterally on this," he said soberly. "You've got psi powers. You'll accept our direction in their use. Or else, Tex."

"All I ask is a fair test," I said desperately. "Under laboratory conditions."

He gave me an address. "Come any time," he said.

"That's me walking in," I told him.

Shari had to pay off the 'copter when we got there. It wasn't the brownstone I had seen the night before. This place was a medium-sized office building, say a hundred stories or so, quite new. There was no identification on its front other than the street number. The Directory in the silent and unpopulated lobby was names, all names. But Dr. Walter Bupp was one of them, in 7704. Shari and I rode the elevator to seventy-seven in chilly silence.

The corridor was dim, with its lights on night-time setting. Stronger light came from an open door quite a way down the hall. It had to be Bupp's office, and it was.

Wally certainly wasn't surprised to see Shari. He shook hands with her briefly, pushing his sharp chin out at her in his gamecock fashion. "Your mate?" he asked me.

"Certainly not," she told him. "We're ... uh ... colleagues at the University."

"That's not what Pheola says," he told her sourly, pointing to chairs we could take.

"Pheola?" Shari questioned.

"A powerful PC," Wally said. "She predicted you would accompany Tex tonight."

"Oh, really," Shari said scathingly.

"I was there," I told her. "She really did."

"Let's not be diverted by sideshows," Shari said. "We're here to measure the psi powers of Tex Robertson, not to talk over the reputed clairvoyance of some dim and misty character."

"Precognition," Wally corrected her. "Stick around, Dr. King. Pheola will be down a little later. She thinks Tex is something special."

That was not going to make a good interchange, so I cut in. "Dr. King is a professional in this field--" I started.

Wally waved a disgusted hand. "We know all about Dr. King and her field," he said. "Proving that psi powers don't exist, right, Dr. King?"

Shari bristled. It was hard to stay friendly in any talk with Bupp. "You know my field," she said, about twenty degrees below zero. "I accept any and all evidence, regardless what it proves! There's a lot of talk about psi powers, but precious little that can ever be detected under laboratory conditions!"

"Oh, well," Wally Bupp grinned. "That's not so strange. All members of the Lodge are cautioned to stay away from laboratories. You've been testing Normals. What do you expect for results?"

"Then you show me!" she stormed.

"Go on with you," he grinned. "I thought it was Tex's powers you wanted tested. Mine are irrelevant."

"I thought so," she said triumphantly. "Charlatan!"

For a moment the grin flickered off his face and I tensed to catch Shari if she should start to drop. But I guess he thought better of it.

"Some other time," he said. "Let's get this over with. Make it simple. You may have some statistical objections to my technique tonight, but I'm not looking for fringe effects. If this hot-eyed swain of yours is any good at all, he'll bat a thousand." He got a deck of cards out of his desk drawer and fanned it out so that he could pluck the two of spades and the two of hearts from the deck. The rest he put back in his desk.

He put his hands under the desk, with the two cards in them, produced the cards again, face down, and laid them in a thin stack on the desk before all of us.

"What's on top?" he said. "Red or black?"

"How will you score?" Shari insisted. He scowled at her and tossed a squeeze counter across the desk.

"You score," he said. "It really isn't necessary. Tex will either be right all the time or it won't matter."

But before I could call the top card, the office door opened behind us. I looked around, expecting Pheola. Instead it was Milly with the down, down hose. Only this time she was decently dressed in a dark two-piece suit and wore make-up. She certainly was no more talkative than before, nor did Wally introduce her. Shari was perfectly equal to the occasion and looked through Milly with composure. This takes about three generations of overbreeding.

"Try it," Wally insisted. "What's on top?"

I hit it. Then I missed it. Then I hit three in a row. It wasn't fast work, because Wally hid the cards under his desk after each guess, shuffled the two cards around and then laid them before me again. This went on for about twenty minutes. At that point Shari spoke.

"That makes exactly three hundred tries," she said, looking at the counter in her hand. "Have you been keeping score, Mr. Bupp?"
"I thought you were."

"So I was," she snapped, throwing up her tiaraed head. He sure brought out the worst in people. "Tex has been right exactly one hundred and fifty times. He's never been more than five tries to the good in the whole series."

"Interesting," Wally said.

I took my first decent breath in the day. "This ought to let me off the hook," I said to him. "Are you convinced?"

He shrugged. "How about it, Milly?" he asked.

"A random sample," she said. "He doesn't want to score. He didn't try."

Shari was ready for that one. She turned and spoke to Milly: "You have ways of knowing what Tex was thinking?" she asked sweetly.

"Yes."

"Name any three!" Shari lashed at her furiously. The solid woman wasn't the least bit bowled over.

"Read his mind," she said matter-of-factly. "Just like I can tell that you're getting ready to screech 'Charlatan!' at me, and like you think I got a cast-iron girdle and homely shoes. Well, they're comfortable, dearie, which is more than you can say for those high-heeled slippers of yours. That left little toe of yours is killing you, dearie!"

Shari's lips moved, but her mouth was as empty of sound as her face was of blood. Milly had hit the bull's-eye.

"Everybody relax a moment," Wally said. "Tell me, Dr. King, what's your attitude toward PC?"

"I don't have any!" she snapped. "It's a phenomenon. I have as much attitude toward it as I do toward osmosis or toward peristalsis. None."

"Would you consider a person fortunate to possess the power of precognition?" Wally asked her.

Shari's head came up. "If there were such a thing," she said, much more quietly. "Yes. I should imagine that precognition would be a powerful talent."

"If you have no emotional bias against psi as such," he went on smoothly, "you'd be happy for Tex if he were a PC."

Her eyebrows drew together. She looked at me, veiling her violet eyes as if to hide her thoughts from us. "I would consider Tex quite fortunate. But only if you could show that such a thing really existed," she said more loudly.

"How about you, Tex?" Wally asked me.

"Nuts," I said. "You can't make me like the idea of being a snake, no matter how you dress it up." I shook my head. "Psi powers are the mark of a diseased mind, for my dough. They're pure poison. What have they ever done for you?" I insisted rudely.

"Made me a surgeon," he said.

"Never!" Shari said hotly.

"Ask Tex," Wally suggested. "He felt me put a lift on his coronary artery. I'm a TK surgeon--I've got enough TK to put clamps on inaccessible arteries and feel out mechanical disorders of the body. Check it. I'm on the staff at Universal Hospital."

"And what are you doing here?" she argued.

"Meeting my obligation to the Lodge," he said. "This is where I got my training, right in this building."

"I thought that brownstone house was the Lodge," I said.

"No," he said. "That's just the Grand Master's residence. The Lodge provides quarters for its brass. This building is the real chapter house."

He heaved a long sigh and dug into his drawer again. "You can beat it, Milly," he said. "Thanks."

"I know," she told him from the door. She had started out long before he spoke. Impressive stuff, but it got a sniff from Shari.

What Wally got out of his desk had a refreshing shape and color. It was oblong. It was green. It was money. It was, for a fact, a stack of one thousand dollar bills.

Wally shuffled the two cards under his desk again and piled them two-deep in front of Shari and me.

"You heard what Dr. King said," Wally reminded me. "She'll love you no less for being a PC. Now we'll play the game a little more realistically. Every time you guess the top card right, Tex, I'm going to give you a thousand dollars. No strings attached. When you miss, you give one back. But if you have none to give, you don't have to pay. You can't lose. Maybe you can win. All set?"

"One minute," I demanded. "Shari, is this a fair test?"

She shrugged. "Why not?"

"Is it gambling?"

She smiled faintly, her first sign of relaxation. "Hardly," she said.

"Then you don't mind if I win?"
She found a laugh this time. "You can try," she corrected me.
"This could be our nest egg," I said.
She blushed. "If that's a proposal," she said tartly. "The answer is 'no.'"
"I'll talk to you later," I growled. "When I'm richer!"
I looked at the back of the card on the desk. Wally was leaning back in his swivel chair and wasn't within four feet of the pasteboards. If there was any hanky-panky, I couldn't see how he planned to work it.
"Heart," I said.
"Why don't you turn it over, Dr. King?" Wally suggested. "Remove any possible chance of manipulation." It was the two of hearts that Shari turned over. I was a thousand dollars richer.
I won the next. And the next. Every thousand dollars drove another nail into my coffin--went that much farther to prove I was a snake. Well, I wasn't!
I missed the fourth one.
"Cut that out!" Wally snapped at me. I jumped a foot. I had tried to miss it.
With a sickening realization of doom, I called the next four right.
"Stop it!" Shari screeched, grabbing at the cards. "I'll shuffle!" she announced. She hid the pasteboards from me with her body, and took care, in putting them before me on the desk, that I didn't see the face of the bottom card.
Her eyes were violet pools of hate and rage and she spoke to me: "Now try it!"
"Spade!" That made eight straight.
Even Shari succumbed to the ghastly fascination of it. There had been fifty thousand dollars in the stack of bills Wally had taken from his desk. Soon all fifty of the bills were stacked in front of me. Except for the one time I had tried to, I had never missed.
Lefty stuck his sharp chin at Shari. "I'd call that a fairly convincing string," he said. "Will you concede, Dr. King?"
She gave him an awful mouthful of silence. A pitiless blackness descended over my spirit. I looked at the money in front of me. It had been like selling my soul to the Devil. There it was, all that money. All I'd had to give up was any claim to being a human--I wasn't a Normal any more. I was a psi!
Then Shari was talking, in short gasping bursts, half choking, half sobbing. "No wonder Tex is in a whirl," she said. "I've seen some good illusions, worked by the best light-fingered operators in the country, but nothing to compare with this! Just let me see you match this charade in my laboratory! With my apparatus!" She meant her playing cards.
Wally was sweet and reasonable. "You dealt and shuffled most of the hands yourself," he reminded her. "I never touched the cards. How could I control them?" He grinned a little more sharply. "And you can't call it TK," he went on. "Did you feel the cards move or twitch or resist you as you shuffled them? It has to be PC."
She blew her top on that one. It's sickening to see someone you love goaded past all endurance and break down into screams and wild gestures.
"Aah!" she cried, shaking her head blindly. "Before I believe that Tex Robertson can feel things that I can't feel, I'll accept any other explanation. What are those cards of yours? Small TV screens? Is this more electronic hokum?"
Wally quietly tore one of the cards in two. "Now I understand," he said. "That's the real reason."
I looked my surprise at him, and Shari quieted down just a little. "Relax, Dr. King," he advised her. "The possession of psi powers isn't a mark of moral superiority. Part of the problem in the Lodge is that psi powers are possessed as often by evil and stupid people as by the good and intelligent. Yes, I know that you think you deserve precognition, Dr. King. But that ain't the way the ball bounces. You're a Normal, Dr. King, and that's all you'll ever be."
He got a face full of fingers for his trouble. Shari leaped to her feet and really slapped him in the kisser. She stormed out of there. I started to follow, but a tug at my earlobe signaled me to stop.

* * * * *
"Hold on a minute, Tex," Wally said sympathetically. "You're one of us now."
I had to go after her. "I love her," I said hopelessly. "I can't see her hurt and upset like that. I've got to--"
But he was shaking his head. "You haven't got a chance," Wally said. "She'll never forgive you for having precognition! That's why she made the study of psi her life-work. She's wanted PC for herself, and was sure she was pure enough of heart to deserve to have the power. Well, she doesn't have it, and she'll hate you for having what she thinks she deserves. Forget her."
Talk about your cup brimming over! Well, if I had to get used to being cut off from the human race, perhaps Shari was the place to start. That's what happens to superHumans!
There was one desperate hope. "This wasn't hallucination?" I tried.
"No, Tex," he said calmly. "This was on the level. Just for fun," he went on. "Can you do it when there isn't any
money riding on it?"
Reluctantly I came back to his desk and looked down at the back of the top card. "Heart," I said dully. I hit ten in a row for him. The spade was on top four times, the heart six times.
"And was that on the level?" I asked.
He scowled at me and chewed his thin lips. "Yeah," he said.
"That settles it," I said, sagging back into my seat. "I'm a snake. A rotten PC!"
"Don't you believe it!" Wally growled, lunging out of his chair. He started to pace back and forth across the office, his chin stuck way out ahead of him as he prowled. "I don't know what you are, Tex," he declared. "But you're no PC!"
"I'm a Normal after all!" I gasped, feeling a surge of blessed relief.
He swiped at the air with a hand. "Don't be silly!" he snapped. "You've got a psi power so incredible that--" He whirled on me while I died for good.
"You explain it," he insisted. "After your lovely Dr. King flew out of here, I shuffled the cards ten times under the desk, and you hit ten in a row, right?"
"Right." Dismally.
"I cheated on the shuffle," he told me. "I used TK to make sure that I put the two of spades on top all ten times."
"No," I insisted. "Six times the heart was on top. You turned them over yourself."
"That's just it," he whispered, leaning toward me. "I put that spade on top every time! I did! But when I turned it over, more than half the time it was a heart. What did you do?"
"You mean I'm a hallucinator?" I asked. "Look, this is getting ridiculous! I was kidding myself, too?"
"Nonsense. It was real." His face jerked in surprise. "You couldn't!" he gasped, as the idea hit him. "But you did!" he reminded himself. "Wait till Maragon hears this!"
And then he told me. It couldn't be, I knew. But it was. He proved it to me—or I proved it to us.
At some stage you have to get excited about it, if it's no more than a grisly fascination. At that, it was dawn before we could stop our intoxicated talk. Maragon had been yanked out of bed again, and when he heard the news, woke up a darned sight faster than the night before. Pheola of the race-horse legs joined us, and several other psis as well. Before it was over the Grand Master had put on a ridiculous piece of regalia and mumbled me into probationary membership in the Lodge. There was nothing creepy about the ritual--only about the way I felt.
I guess, if we hadn't gotten hungry, we'd be there yet. Wally had one last little wrinkle for me as I started down the corridor for the elevator.
"Pheola," he called.
"Yes, darlin' Billy," she said, coming to his side.
"How's Tex going to make out with that overeducated iceberg he's hot after?" he asked her. I flinched at the thought of Shari--I was getting used to considering her a memory.
Pheola looked into the corner for a moment. "Oh, yum!" she said, smiling and showing the braces on her teeth. She kissed me. I think I was about as startled as Wally was. "Just so you let her be the only Cassandra," she said. "And you call that an iceberg?" She looked at me curiously. "You'd better start eating red meat, Tex," she told me, and would say no more.

* * * * *
I had a heck of a time getting Shari on the 'phone. An hour before lunch she caved in and accepted my call. She looked pale and shaken, even in the black and white of the screen. "Please," she said. "I've had all I can stand. You stayed there all night, didn't you?"
"I'm not a PC, Shari," I said.
Nothing else would have caught her ear.
"Not?"
"Proved it before I left," I said. "I can prove it to you, too."
"Ridiculous. You can't prove a negative."
"Well, in a manner of speaking. What I can do is show you how the card trick was worked."
I had her hooked. "You mean it? It really was a trick after all?" she said, slumping.
"It sure wasn't PC," I said. "Let me show you."
"At the lab," Shari said. "I'll be there in ten minutes."
A couple graduate students were there, fooling around with Rhine cards when we arrived, and Shari chased them out without ceremony. She locked the door behind them. We were to have privacy. She didn't bother with her lab coat this time.
"Show me," she insisted.
"The apparatus, Shari," I grinned. She gave me a deck of cards, and pulled out the two of hearts and two of spades.

"We'll do it face-up," I said. "So you can see how it's done!"

I laid the two cards side by side on her blotter, face up. "Now put a finger on each one," I directed. "And watch them like a hawk. What card is under your right forefinger?"

"Heart," Shari said.

"Wrong," I told her. "Spade."

They could have heard that shriek clear to Keokuk. Good thing we were in a sound-proof laboratory. I got her calmed down after a while. "It didn't happen!" she insisted, clutching at her temples.

"If you won't holler," I said. "I'll do it again. Remember, it's just a phenomenon, like osmosis."

"It is not!" she gasped.

But I did it for her. Ten times in a row. The cards changed under her fingers without moving.

"So it's not PC," I said.

"Oh, Tex, but what is it?"

"You agree it's real?"

Shari nodded. "It's real. You can do it, whatever it is. What is it?"

"TK," I told her. "Telekinesis."

"Nonsense," she said. "Are you trying to make me believe I wouldn't have felt the cards move if you'd snapped them out from under my fingers? I was pressing hard on them every time."

"I didn't move the cards," I explained.

"But you said it was telekinesis!"

"Sure. I just moved the molecules of pigment in the printing ink and reassembled them in the opposite cards. You didn't expect to feel molecular movement, did you?"

"No. Then it really happened?" I nodded. "What an incredible power!" she said. A glow of satisfaction spread over me. "Can you really test this molecular hypothesis?" she asked.

I told her of the hours of demonstrations I had made during the night. "The perception on scanning part of it goes on at some subconscious level, Shari," I said. "But we had evidence that it can be made completely conscious."

She shuddered and hugged her arms to herself. "I hate to say this to you," she said. "But you're a freak."

I took a deep breath and smiled. "Unique is the way the Grand Master puts it," I said, pleased with myself. "He says it has terrific possibilities. And then it hit me, that delicious thought that I was among the elect, that I always had been."

"What possibilities?" Shari demanded, recoiling from me. "Doing card tricks?"

"To name a few," I said. "They feel sure I can operate directly on the molecular chain in genes. This means we can alter heredity to suit ourselves. Next, why not rearrange the DNA molecule in a cancer? If you can change the genes in one cell, you can change them in another. Knock out the ability of cancerous cells to reproduce their own kind and the cancer disappears. A silly one: Maragon says I can be a one-man catalytic cracking station. Pipe a liquid through a tube within my TK range and I can make an equilibrium reaction run uphill as the stuff flows past me. How about a one-step operation to produce those rare drugs that now take forty-nine separate reactions?"

"This does have a significance for science," she admitted. "The genetic part is right down your alley. And it's not PC, is it?"

"Strictly TK," I told her. "You're the only PC in the family."

"Family?" She turned pink as I went around the desk after her. "I told you the answer was 'no.'"

"I have inside information," I said, pulling her to me. "One of the PC's up at the chapter house said this was what would happen."

She didn't fight my kiss more than a couple seconds. Then it was a pure case of self-preservation for me. This girl was a tiger. Looks can be awfully deceiving. But she broke away from me.

"Tex!" she gasped. "Stop, honey! Suppose somebody walks in."

"A PC like you never gets that kind of surprise," I lied valiantly.

"Am I?" she whispered. "Am I really a PC?"

"That's why you locked the door," I said. "Remember?"

THE END
We've all heard of the wonderful invention that the Big Corporation or the Utilities suppressed...? Usually, that Wonderful Invention won't work, actually. But there's another possibility, too....

The workshop-laboratory was a mess.

Sam Bending looked it over silently; his jaw muscles were hard and tense, and his eyes were the same.

To repeat what Sam Bending thought when he saw the junk that had been made of thousands of dollars worth of equipment would not be inadmissible in a family magazine, because Bending was not particularly addicted to four-letter vulgarities. But he was a religious man--in a lax sort of way--so repeating what ran through his mind that gray Monday in February of 1981 would be unfair to the memory of Samson Francis Bending.

Sam Bending folded his hands over his chest. It was not an attitude of prayer; it was an attempt to keep those big, gorillalike hands from smashing something. The fingers intertwined, and the hands tried to crush each other, which was a good way to keep them from actually crushing anything else.

He stood there at the door for a full minute--just looking.

The lab--as has been said--was a mess. It would have looked better if someone had simply tossed a grenade in it and had done with it. At least the results would have been random and more evenly dispersed.

But whoever had gone about the wrecking of the lab had gone about it in a workmanlike way. Whoever had done the job was no amateur. The vandal had known his way about in a laboratory, that was obvious. Leads had been cut carefully; equipment had been shoved aside without care as to what happened to it, but with great care that the shover should not be damaged by the shoving; the invader had known exactly what he was after, and exactly how to get to it.

And he--whoever he was--had gotten his hands on what he wanted.

The Converter was gone.

Sam Bending took his time in regaining his temper. He had to. A man who stands six feet three, weighs three hundred pounds, and wears a forty-eight size jacket can't afford to lose his temper very often or he'll end up on the wrong end of a homicide charge. That three hundred pounds was composed of too much muscle and too little fat for Sam Bending to allow it to run amok.

At last, he took a deep breath, closed his eyes, and let his tense nerves, muscles, and tendons sag--he pretended someone had struck him with a dose of curare. He let his breath out slowly and opened his eyes again.

The lab still looked the same, but it no longer irritated him. It was something to be accepted as done. It was something to investigate, and--if possible--avenge. But it was no longer something to worry about or lose his temper over.

I should have expected it, he thought wryly. They'd have to do something about it, wouldn't they?

But the funny thing was that he hadn't expected it--not in modern, law-abiding America.

He reached over to the wall switch to turn on the lights, but before his hand touched it, he stopped the motion and grinned to himself. No point in turning on the switch when he knew perfectly well that there was no power behind it. Still--

His fingers touched the switch anyway. And nothing happened.

He shrugged and went over to the phone.

He let his eyes wander over the wreckage as his right index finger spun the dial. Actually, the room wasn't as much of a shambles as it had looked on first sight. The--burglar?--hadn't tried to get at anything but the Converter. He hadn't known exactly where it was, but he'd been able to follow the leads to its hiding place. That meant that he knew his beans about power lines, anyway.

It also meant that he hadn't been an ordinary burglar. There were plenty of other things around for a burglar to make money out of. Unless he knew what it was, he wouldn't have gone to the trouble of stealing the Converter.

On the other hand, if he had--
"Police Department," said a laconic voice from the speaker. At the same time, the blue-clad image of a police officer appeared on the screen. He looked polite, but he also looked as though he expected nothing more than a routine call.

Bending gave the cop's sleeve a quick glance and said: "Sergeant, my name is Samson Bending. Bending Consultants, 3991 Marden--you'll find it in the phone book. Someone broke into my place over the weekend, and I'd appreciate it if you'd send someone around."

The sergeant's face showed that he still thought it was routine. "Anything missing, sir?"

"I'm not sure," said Bending carefully. "I'll have to make a check. I haven't touched anything. I thought I'd leave that for the detectives. But you can see for yourself what's happened."

He stepped back from the screen and the Leinster cameras automatically adjusted for the greater distance to the background.

"Looks like you had a visitor, all right," said the police officer. "What is that? A lab of some kind you've got there?"

"That's right," Bending said. "You can check it with the Register."

"Will do, Mr. Bending," agreed the sergeant. "We'll send the Technical Squad around in any case." He paused, and Sam could see that he'd pressed an alarm button. There was more interest in his manner, too. "Any signs that it might be kids?" he asked.

Sam shrugged. "Hard to tell. Might be. Might not." He knew good and well that it wasn't a JD gang that had invaded his lab. He grinned ingratiatingly. "I figure you guys can tell me more about that than I could tell you."

The sergeant nodded. "Sure. O.K., Mr. Bending; you just hold on. Don't touch anything; we'll have a copter out there as soon as we can. O.K.?"

"O.K.," Sam agreed. He cut off as the cop's image began to collapse.

Sam Bending didn't obey the cop's order to touch nothing. He couldn't afford to--not at this stage of the game. He looked over everything--the smashed oscilloscopes, the overturned computer, the ripped-out meters--everything. He lifted a couple of instruments that had been toppled to the floor, raising them carefully with a big screwdriver, used as a lever. When he was through, he was convinced that he knew exactly who the culprit was.

Oh, he didn't know the name of the man, or men, who had actually committed the crime. Those things were, for the moment, relatively unimportant. The police might find them, but that could wait. The thing that was important was that Bending was certain within his own mind who had paid to have the lab robbed.

Not that he could make any accusations to the police, of course. That wouldn't do at all. But he knew. He was quite certain.

He left the lab itself and went into the outer rooms, the three rooms that constituted the clients' waiting room, his own office, and the smaller office of Nita Walder, the girl who took care of his files and correspondence.

A quick look told him that nothing in the offices had been disturbed. He shrugged his huge shoulders and sat down on the long couch in the waiting room.

Much good it may do them, he thought pleasantly. The Converter won't be worth the stuff it's made of if they try to open it.

He looked at the clock on the wall and frowned. It was off by five hours. Then he grinned and looked at his wrist watch. Of course the wall clock was Off. It had stopped when the power had been cut off. When the burglars had cut the leads to the Converter, everything in the lab had stopped.

It was eight seventeen. Sam Bending lit a cigarette and leaned back to wait for the cops. United States Power Utilities, Monopolated, had overstepped themselves this time.

Bending Consultants, as a title for a business, was a little misleading because of the plural ending of the last word. There was only one consultant, and that was Samson Francis Bending. His speciality was the engineering design of atomic power plants--both the old fashioned heavy-metal kind and the newer, more elegant, stellarators, which produced power by hydrogen-to-helium conversion.

Bending made good money at it. He wasn't a millionaire by any means, but he had enough money to live comfortably on and enough extra to experiment around on his own. And, primarily, it had always been the experimentation that had been the purpose of Bending Consultants; the consulting end of the business had always been a monetary prop for the lab itself. His employees--mostly junior engineers and engineering draftsmen--worked in the two-story building next door to the lab. Their job was to make money for the company under Bending's direction while Bending himself spent as much time as he could fussing around with things that interested him.

The word "genius" has several connotations, depending on how one defines a genius. Leaving aside the Greek, Roman and Arabic definitions, a careful observer will find that there are two general classes of genius: the "partial"
genius, and the "general" genius. Actually, such a narrow definition doesn't do either kind justice, but defining a human being is an almost impossible job, anyway, so we'll have to do the best we can with the tools we have to work with.

The "partial" genius follows the classic definition. "A genius is a man with a one-track mind; an idiot has one track less." He's a real wowser at one class of knowledge, and doesn't know spit about the others.

The "general" genius doesn't specialize. He's capable of original thought in any field he works in.

The trouble is that, because of the greater concentration involved, the partial genius usually gets more recognition than the general--that is, if he gets any recognition at all. Thus, the mathematical and optical work of Sir Isaac Newton show true genius; his theological and political ideas weren't worth the paper he wrote them on. Similar accusations might be leveled against Albert Einstein--and many others.

The general genius isn't so well known because he spreads his abilities over a broad area. Some--like Leonardo da Vinci--have made a name for themselves, but, in general, they have remained in the background.

Someone once defined a specialist as "a man who learns more and more about less and less until he finally knows everything about nothing." And there is the converse, the general practitioner, who knows "less and less about more and more until he finally knows nothing about everything."

Both types can produce geniuses, and there is, of course, a broad spectrum in between. Da Vinci, for instance, became famous for his paintings; he concentrated on that field because he knew perfectly well that his designs for such things as airplanes were impracticable at the time, whereas the Church would pay for art.

Samson Bending was a genius, granted; but he was more toward the "special" than the "general" side of the spectrum. His grasp of nuclear physics was far and away beyond that of any other scientist of his day; his ability to handle political and economic relationships was rather feeble.

As he sat in his waiting room on that chill day of February, 1981, his mind was centered on nuclear physics, not general economics. Not that Bending was oblivious to the power of the Great God Ammon; Bending was very fond of money and appreciated the things it could achieve. He simply didn't appreciate the over-all power of Ammon. At the moment, he was brooding darkly over the very fact of existence of Power Utilities, and trying to figure out a suitable rejoinder to their coup de démon.

And then he heard the whir of helicopter blades over the building. The police had come.

He opened the door of the lab building as they came up the steps. There were two plainclothes men--the Technical Squad, Bending knew--and four uniformed officers.

* * * * *

The plainclothesman in the lead, a tall, rather thin man, with dark straight hair and a small mustache, said: "Mr. Bending? I'm Sergeant Ketzel. Mind if the boys take a look at the scene? And I'd like to ask a few questions?"

"Fine," said Sam Bending. "Come on in."

He showed the officers to the lab, and telling them nothing, left them to their work. Then he went into his office, followed by Sergeant Ketzel. The detective took down all the pertinent data that Bending chose to give him, and then asked Bending to go with him to the lab.

The other plainclothesman came up to Sergeant Ketzel and Bending as they entered. "Pretty easy to see what happened," he said. "Come on over and take a look." He led them over to the wall where the Converter had been hidden.

"See," he said, "here's your main power line coming in here. It's been burned off. They shut off the power to cut off the burglar alarm to that safe over there."

Ketzel shook his head slowly, but said nothing for the moment. He looked at Bending. "Has the safe been robbed?"

"I don't know," Bending admitted. "I didn't touch it after I saw all this wreckage."

Ketzel told a couple of the uniformed men to go over the safe for evidence. While they waited, Bending looked again at the hole in the wall where the Converter had been. And it suddenly struck him that, even if he had reported the loss of the Converter to the police, it would be hard to prove. The thief had taken care to burn off the ends of the old leads that had originally come into the building. Bending himself had cut them a week before to install the Converter. Had they been left as they were, Bending could have proved by the oxidation of the surface that they had been cut a long time before the leads on this side of the Converter. But both had been carefully fused by a torch.

"Nothing on the safe," said one of the officers. "No prints, at any rate. Micros might show glove or cloth traces, but--" He shrugged.

"Would you mind opening the safe, Mr. Bending?" Sergeant Ketzel asked.

"Certainly," Bending said. He wondered if the safe had been robbed. In the certainty that it was only the Converter that the burglars had been after, he hadn't even thought about the safe.

Bending touched the handle, turned it a trifle, and the door swung open easily in his hand. "It wasn't even
locked," Bending said, almost to himself.

He looked inside. The safe had been thoroughly gone through, but as far as Bending could see, there were no papers missing.

"Don't touch anything in there, Mr. Bending," said Ketzel, "Just tell us as much as you can by looking at it."

"The papers have been disturbed," Bending said carefully, "but I don't think anything is missing, except the petty cash box."

"Uh-huh," Ketzel grunted significantly. "Petty cash box. About how much was in it, Mr. Bending?"

"Three or four thousand, I imagine: you'll have to ask Jim Luckman, my business manager. He keeps track of things like that."

"Three or four thousand in petty cash?" Ketzel asked, as though he'd prefer Bending to correct the figure to "two or three hundred."

"About that. Sometimes we have to order equipment of one kind or another in a hurry, and we can usually expedite matters if we can promise cash. You know how it is."

Sergeant Ketzel nodded sourly. He evidently knew only too well how it was. Even the most respectable businessmen were doing occasional business with the black market in technological devices. But he didn't say anything to Bending.

"What did the cash box look like?" he asked.

Bending held out his hands to measure off a distance. "About so long--ten inches, I guess; maybe six inches wide and four deep. Thin sheet steel, with a gray crackle finish. There was a lock on it, but it wasn't much of one; since it was kept in the safe, there was no need for a strong lock."

Sergeant Ketzel nodded. "In other words, an ordinary office cash box. No distinguishing marks at all?"

"It had 'Bending Consultants' on the top. And underneath that, the word 'Lab'. In black paint. That 'Lab' was to distinguish it from the petty cash box in the main office."

"I see. Do you know anything about the denominations of the bills? Were they marked in any way?"

Bending frowned. "I don't know. You'd have to ask Luckman about that, too."

"Where is he now?"

"Home, I imagine. He isn't due to report for work until ten."

"O.K. Will you leave word that we want to talk to him when he comes in? It'll take us a while to get all the information we can from the lab, here."

"It still doesn't make sense. Why should they go to all that trouble just to shut off a burglar alarm?" He shook his head and went over to where the others were working.

It was hours before the police left, and long before they were gone Sam Bending had begun to wish fervently that he had never called them. He felt that he should have kept his mouth shut and fought Power Utilities on the ground they had chosen. They had known about the Converter only two weeks, and they had already struck. He tried to remember exactly how the Utilities representative had worded what he'd said, and couldn't.

"Thank you for your time, Mr. Bending," the man whose card had announced him as Richard Olcott. He was a rather average-sized man, with a fiftyish face, graying hair that was beginning to thin, and an expression like that of a friendly poker player--pleasant, but inscrutable.

"I always have time to see a representative of Power Utilities, Mr. Olcott," Bending said. "Though I must admit that I'm more used to dealing with various engineers who work for your subsidiaries."

"Not subsidiaries, please," Olcott admonished in a friendly tone. "Like the Bell Telephone Company, Power Utilities is actually a group of independent but mutually co-operative companies organized under a parent company."

Bending grinned. "I stand corrected. What did you have on your mind, Mr. Olcott?"

Olcott's hesitation was of half-second duration, but it was perceptible.

"Mr. Bending," he began, "I understand that you have been ... ah ... working on a new and ... ah ... radically different method of power generation. Er ... is that substantially correct?"

Bending looked at the man, his blocky, big-jawed face expressionless. "I've been doing experimenting with power generators, yes," he said after a moment. "That's my business."

"Oh, quite, quite. I understand that," Olcott said hurriedly. "I ... ah ... took the trouble to look up your record before I came. I'm well aware of the invaluable work you've done in the power field."

"Thank you," Bending said agreeably. He waited to see what the other would say next. It was his move.
"However," Olcott said, "that's not the sort of thing I was referring to." He leaned forward in his chair, and his bright gray eyes seemed to take on a new life; his manner seemed to alter subtly.

"Let me put my ... our cards on the table, Mr. Bending. We understand that you have designed, and are experimenting with, an amazingly compact power source. We understand that little remains but to get the bugs out of your pilot model.

"Naturally, we are interested. Our business is supplying the nation with power. Anything from a new type solar battery on up is of interest to us." He stopped, waiting for Bending to speak.

Bending obliged. "I see Petternek let the cat out of the bag prematurely," he said with a smile. "I hadn't intended to spring it until it was a polished work of engineering art. It's been more of a hobby than anything else, you see."

Olcott smiled disarmingly. "I'm not acquainted with Mr. Petternek; to be quite honest, I have no idea where our engineers picked up the information."

"He's an engineer," Bending said. "Friends of mine. He probably got a little enthusiastic in a conversation with one of your boys. He seemed quite impressed by my Converter."

"Possibly that is the explanation." Olcott paused. "Converter, you say? That's what you call it?"

"That's right. I couldn't think up any fancier name for it. Oh, I suppose I could have, but I didn't want anything too descriptive."

"And the word 'converter' isn't descriptive?"

"Hardly," said Bending with a short laugh. "Every power supply is a converter of some kind. A nickel-cadmium battery converts chemical energy into electrical energy. A solar battery converts radiation into electrical current. The old-fashioned, oil- or coal-burning power plants converted chemical energy into heat energy, converted that into kinetic energy, and that, in turn was converted into electrical energy. The heavy-metal atomic plant does almost the same thing, except that it uses nuclear reactions instead of chemical reactions to produce the heat. The stellarator is a converter, too."

"About the only exception I can think of is the electrostatic condenser, and you could say that it converts static electricity into a current flow if you wanted to stretch a point. On the other hand, a condenser isn't usually considered as a power supply."

Olcott chuckled. "I see your point. Could you give me a rough idea of the principle on which your Converter operates?"

Bending allowed himself a thoughtful frown. "I'd rather not, just now, Mr. Olcott. As I said, I want to sort of spring this full-blown on the world." He grinned. He looked like a small boy who had just discovered that people liked him; but it was a calculated expression, not an automatic one.

Olcott looked into Bending's eyes without seeing them. He ran his tongue carefully over the inside of his teeth before he spoke. "Mr. Bending." Pause. "Mr. Bending, we—and by 'we', I mean, of course, Power Utilities,—have heard a great deal about this ... this Converter." His chocolate-brown eyes bored deep into the gray eyes of Samson Bending. "Frankly," he continued, "we are inclined to discount ninety per cent of the rumors that come to us. Most of them are based on purely crackpot ideas. None the less, we investigate them. If someone does discover a new process of producing power, we can't afford to be blind to new ideas just because they happen to come from ... ah ... unorthodox sources."

"You, Mr. Bending, are an unusual case. Any rumor concerning your work, no matter how fantastic, is worth looking into on your reputation alone, even though the claims may be utterly absurd."

"I have made no claims," Bending interposed.

Olcott raised a lean hand. "I understand that, Mr. Bending. None the less, others—who may or may not know what they are talking about—have made this claim for you." Olcott settled back in his chair and folded his hands across his slight paunch. "You've worked with us before, Mr. Bending; you know that we can—and do—pay well for advances in the power field which are contributed by our engineers. As you know, our contract is the standard one—any discovery made by an engineer while in our employ is automatically ours. None the less, we give such men a handsome royalty." He paused, opened his brief case, and pulled out a notebook. After referring to it, he looked up at Bending and said:

"You, yourself have benefitted by this policy. According to our records, you are drawing royalties from three patented improvements in the stellarator which were discovered at times when you were employed by us—or, rather, by one of our associative corporations—in an advisory capacity. Those discoveries were, by contract, ours. By law, we could use them as we saw fit without recompense to you, other than our regular fee. None the less, we chose to pay you a royalty because that is our normal policy with all our engineers and scientific research men. We find it more expedient to operate thus."

Bending was getting a little tired of Olcott's "none the less," but he didn't show it. "Are you trying to say that
my Converter was invented during my employ with your company, Mr. Olcott?"

Olcott cleared his throat and shook his head. "No. Not necessarily. It is true that we might have a case on those
grounds, but, under the circumstances, we feel it inexpedient to pursue such a course."

Which means, Bending thought, that you don't have a case at all. "Then just what are you driving at, Mr.
Olcott?" he asked aloud.

"I'll put my cards on the table, Mr. Bending," Olcott said.

You've already said that, Bending thought, and I've seen no evidence of it. "Go ahead," he said.

"Thank you." He cleared his throat again. "If your invention is ... ah ... worth while, we are prepared to
negotiate with you for use and/or purchase of it."

Bending had always disliked people who said or wrote "and/or," but he had no desire to antagonize the Power
Utilities representative by showing personal pique. "Let me understand you clearly," he said. "Power Utilities wants
to buy my rights to the Converter. Right?"

Olcott cleared his throat a third time. "In a word, yes. Provided, of course, that it is actually worth our while.
Remember, we know almost nothing about it; the claims made for it by our ... ah ... anonymous informer are ... well,
ah ... rather fantastic. But your reputation--" He let the sentence hang.

Bending was not at all immune to flattery. He grinned. "Do you mean that you came to me to talk about buying
an invention you weren't even sure existed--just because of my reputation?"

"Frankly, yes," said Olcott. "Your reputation is ... ah ... shall we say, a good one in power engineering circles."

"Are you an engineer?" Bending asked suddenly.

Olcott blinked. "Why, no. No, I am not. I'm a lawyer. I thought you understood that."

"Sorry," Bending said. "I didn't. Most of the financial work around here is done through my Mr. Luckman. I'm
not acquainted with the monetary end of the business."

Olcott smiled. "Quite all right. Evidently I am not as well known to you as you are to me. Not that it matters.
Why did you ask?"

Bending stood up. "I'm going to show you something, Mr. Olcott," he said. "Would you care to come with me
to the lab?"

Olcott was on his feet in a second. "I'd be glad to, Mr. Bending."

* * * * *

Bending led the man into the lab. "Over here," he said. At the far end of the laboratory was a thick-legged table
cluttered with lengths of wire, vacuum tubes, transistors, a soldering gun, a couple of meters, and the other various
paraphernalia of an electronics workshop. In the center of the table, surrounded by the clutter, sat an oblong box. It
didn't look like much; it was just an eighteen by twelve by ten box, made of black plastic, featureless, except for a
couple of dials and knobs on the top of it, and a pair of copper studs sticking out of the end.

Still, Olcott didn't look skeptical. Nor surprised. Evidently, his informant had had plenty of information. Or else
his poker face was better than Bending had thought.

"This is your pilot model?" Olcott asked.

"One of them, yes. Want to watch it go through its paces?"

"Very much."

"O.K. First, though, just how good is your technical education? I mean, how basic do I have to get?" Sam
Bending was not exactly a diplomat.

Olcott, however, didn't look offended. "Let's say that if you keep it on the level of college freshman physics I'll
get the general drift. All right?"

"Sure. I don't intend to get any more technical than that, anyway. I'm going to tell you what the Converter does-
not how."

"Fair enough--for the moment. Go ahead."

"Right." Sam flipped a switch on the top of the box. "Takes a minute or so to warm up," he said.

When the "minute or so" had passed, Bending, who had been watching the meters on the top of the machine,
said: "See this?" He pointed at a dial face. "That's the voltage. It's controlled by this vernier knob here." He turned
the knob, and the needle on the voltmeter moved obligingly upwards. "Anything from ten to a thousand volts," he
said. "Easily adjusted to suit your taste."

"I don't think I'd like the taste of a thousand volts," Olcott said solemnly. "Might affect the tongue adversely."

Olcott didn't look particularly impressed. Why should he? Anyone can build a machine that can generate high
voltage.

"Is that AC or DC?" he asked.

"DC," said Bending. "But it can easily be converted to AC. Depends on what you want to use it for."

Olcott nodded. "How much power does that thing deliver?"
Sam Bending had been waiting for that question. He delivered his answer with all the nonchalance of a man dropping a burnt match in an ash tray.

"Five hundred horsepower."

Olcott’s face simply couldn’t hold its expressionless expression against something like that. His lips twitched, and his eyes blinked. "Five hundred what?"

"I will not make the obvious pun," said Bending. "I said ‘five hundred horsepower’--unquote. About three hundred and seventy-five kilowatts, maximum."

Olcott appeared to be unable to say anything. He simply stared at the small, innocuous-looking Converter. Bending was unable to decide whether Olcott was overawed by the truth or simply stricken dumb by what must sound like a monstrous lie.

Olcott licked his lips with the tip of his small, pink tongue. "Five hundred horsepower. Hm-m-m." He took a deep breath. "No wonder those copper studs are so thick."

"Yeah," said Bending. "If I short ‘em across at low voltage, they get hot."

"Short them across?" Olcott’s voice sounded harsh.

Bending was in his seventh heaven, and he showed it. His grin was running as high an energy output as that he claimed for the Converter. "Sure. The amperage is self-limiting. You can only draw about four hundred amps off the thing, no matter how low you put the voltage. When I said five hundred HP, I meant at a thousand volts. As a matter of fact, the available power in horsepower is roughly half the voltage. But that only applies to this small model. A bigger one could supply more, of course."

"What does it weigh?" asked Olcott, in a hushed voice.

"Little over a hundred pounds," Bending said.

Olcott tore his eyes away from the fantastic little box and looked into Sam Bending’s eyes. "May I ask where you’re getting power like that?"

"Sure. Hydrogen fusion, same as the stellarator."

"It’s powered by deuterium?"

Bending delivered his bombshell. "Nope. Water. Plain, ordinary aitch-two-oh. See those little vents at the side? They exhaust oxygen and helium. It burns about four hundred milligrams of water per hour at maximum capacity."

Olcott had either regained control of himself or had passed the saturation point; Sam couldn’t tell which. Olcott said: "Where do you put the water?"

"Why put water in it?" Sam asked coolly. "That small whirring sound you hear isn’t the hydrogen-helium conversion; it’s a fan blowing air through a cooling coil. Even in the Sahara Desert there’s enough moisture in the air to run this baby."

"And the fan is powered--"

"... By the machine itself, naturally," said Bending. "It’s a self-contained unit. Of course, with a really big unit, you might have to hire someone to hang out their laundry somewhere in the neighborhood, but only in case of emergencies."

"May I sit down?" asked Olcott. And, without waiting for Sam Bending’s permission, he grabbed a nearby chair and sat. "Mr. Bending," he said, "what is the cost of one of those units?"

"Well, that one cost several hundred thousand dollars. But the thing could be mass produced for ... oh, around fifteen hundred dollars. Maybe less."

Olcott absorbed that, blinked, and said: "Is it dangerous? I mean, could it explode, or does it give out radiation?"

"Well, you have to treat it with respect, of course," Bending said. He rubbed his big hands together in an unconscious gesture of triumph. "Just like any power source. But it won’t explode; that I can guarantee. And there’s no danger from radiation. All the power comes out as electric current."

* * * * *

Sam Bending remained silent while Olcott stared at the little black box. Finally, Olcott put his hands to his face and rubbed his eyes, as though he’d been too long without sleep. When he removed his hands, his eyes were focused on Bending.

"You realize," he said, "that we can’t give you any sort of contract until this has been thoroughly checked by our own engineers and research men?"

"Obviously," said Sam Bending. "But--"

"Do you have a patent?" Olcott interrupted.

"It’s pending," said Bending. "My lawyer thinks it will go through pretty quickly."

Olcott stood up abruptly. "Mr. Bending, if this machine is actually what you claim it to be--which, of course, we will have to determine for ourselves--I think that we can make you a handsome--a very handsome settlement."
"How much?" Bending asked flatly.
"For full rights--millions," said Olcott without hesitation. "That would be a ... shall we say, an advance ... an advance on the royalties."
"What, no bargaining?" Bending said, in a rather startled tone.

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Olcott shook his head. "Mr. Bending, you know the value of such a device as well as I do. You're an intelligent man, and so am I. Haggling will get us nothing but wasted time. We want that machine--we must have that machine. And you know it. And I know you know it. Why should we quibble?
"I can't say: 'Name your price'; this thing is obviously worth a great deal more than even Power Utilities would be able to pay. Not even a corporation like ours can whip up a billion dollars without going bankrupt. What we pay you will have to be amortized over a period of years. But we--"

"Just a minute, Mr. Olcott," Bending interrupted. "Exactly what do you intend to do with the Converter if I sell it to you?"

Olcott hesitated. "Why ... ah--" He paused. "Actually, I couldn't say," he said at last. "A decision like that would have to be made by the Board. Why?"

"How long do you think it would take you to get into production?"

"I ... ah ... frankly couldn't say," Olcott said cautiously. "Several years, I imagine..."

" Longer than that, I dare say," Bending said, with more than a touch of sarcasm. "As a matter of fact, you'd pretty much have to suppress the Converter, wouldn't you?"

Olcott looked at Bending, his face expressionless. "Of course. For a while. You know very well that this could ruin us."

"The automobile ruined the buggy-whip makers and threw thousands of blacksmiths out of work," Bending pointed out. "Such things are inevitable. Every new invention is likely to have an effect like that if it replaces something older. What do you think atomic energy would have done to coal mining if it weren't for the fact that coal is needed in the manufacture of steel? You can't let considerations like that stand in the way of technological progress, Mr. Olcott."

"Is it a question of money?" Olcott asked quietly.

Bending shook his head. "Not at all. We've already agreed that I could make as much as I want by selling it to you. No; it's just that I'm an idealist of sorts. I intend to manufacture the Converter myself, in order to make sure it gets into the hands of the people."

"I assure you, Mr. Bending, that Power Utilities would do just that--as soon as it became economically feasible for us to do so."

"I doubt it," Sam Bending said flatly. "If any group has control over the very thing that's going to put them out of business, they don't release it; they sit on it. Dictators, for instance, have throughout history, promised freedom to their people 'as soon as it was feasible'. Cincinnatus may have done it, but no one else has in the last twenty-five centuries."

"What do you suppose would have happened in the 1940s if the movie moguls of Hollywood had had the patent rights for television? How many other inventions actually have been held down simply because the interested parties did happen to get their hands on them first?"

"No, Mr. Olcott; I don't think I can allow Power Utilities to have a finger in this pie or the public would never get a slice of it."

Olcott stood up slowly from the chair. "I see, Mr. Bending; you're quite frank about your views, anyway." He paused. "I shall have to talk this over with the Board. There must be some way of averting total disaster. If we find one, we'll let you know, Mr. Bending."

* * * * *

And that was it. That was the line that had stuck in the back of Bending's mind for two weeks. If we find a way of averting total disaster, we'll let you know, Mr. Bending.

And they evidently thought they'd found a way. For two weeks, there had been phone calls from officers of greater or lesser importance in Power Utilities, but they all seemed to think that if they could offer enough money, Sam Bending would capitulate. Finally, they had taken the decisive step of stealing the Converter. Bending wondered how they had known where it was; he had taken the precaution of concealing it, just in case there might be an attempt at robbery, and using it as power supply for the lab had seemed the best hiding place. But evidently someone at Power Utilities had read Poe's "Purloined Letter," too.

He smiled grimly. Even if the police didn't find any clues leading them to the thieves who'd broken into his lab, the boys at Power Utilities would find themselves in trouble. The second they started to open the Converter, it would begin to fuse. If they were quick, whoever opened it should be able to get away from it before it melted down into an
unrecognizable mass.

Sam Bending took the tape from the playback and returned it to his files. He wondered how the Power Utilities boys had managed to find where the Converter was. Checking the power that had been used by Bending Consultants? Possibly. It would show that less had been used in the past two weeks than was normally the case. Only the big building next door was still using current from the power lines. Still, that would have meant that they had read the meter in the last two weeks, which, in turn, meant that they had been suspicious in the first place or they wouldn't have ordered an extra reading.

On the other hand, if--

The visiphone rang.

It was the phone with the unregistered number, a direct line that didn't go through his secretary's switchboard. He flipped it on. "Yes?" He never bothered to identify himself on that phone; anyone who had the number knew who they were calling. The mild-looking, plumpish, blond-haired man whose face came onto the screen was immediately recognizable.

"How's everything, Mr. Bending?" he asked with cordial geniality. "Fine, Mr. Trask," Bending answered automatically. "And you?"

"Reasonable, reasonable. I hear you had the police out your way this morning." There was a questioning look in his round blue eyes. "No trouble, I hope."

Sam understood the question behind the statement. Vernon Trask was the go-between for some of the biggest black market operators in the country. Bending didn't like to have to deal with him, but one had very little choice these days.

"No. No trouble. Burglary in the night. Someone opened my safe and picked up a few thousand dollars, is all."

"I see." Trask was obviously wondering whether some black market operator would be approached by a couple of burglars in the next few days--a couple of burglars trying to peddle apparatus and equipment that had been stolen from Bending. There still were crooks who thought that the black market dealt in stolen goods of that sort.

"Some of my instruments were smashed," Bending said, "but none of them are missing."

"I'm glad to hear that," Trask said. "And Bending knew he meant it. The black market boys didn't like to have their customers robbed of scientific equipment; it might reflect back on them. "I just thought I'd explain about missing our appointment this morning," Trask went on. "It was unavoidable; something unexpected came up."

Trask was being cagey, as always. He didn't talk directly, even over a phone that wasn't supposed to be tapped. Bending understood, though. Some of the robotics equipment he'd contracted to get from Trask was supposed to have been delivered that morning, but when the delivery agent had seen the police car out front, he'd kept right on going naturally enough.

"That's all right, Mr. Trask," Bending said. "What with all this trouble this morning, it actually slipped my mind. Another time, perhaps."

Trask nodded. "I'll try to make arrangements for a later date. Thanks a lot, Mr. Bending. Good-by."

Bending said good-by and cut the connection.

Samson Bending didn't like being forced to buy from the black market operators, but there was nothing else to do if one wanted certain pieces of equipment. During the "Tense War" of the late Sixties, the Federal and State governments had gone into a state of near-panic. The war that had begun in the Near East had flashed northwards to ignite the eternal Powder Keg of Europe. But there were no alliances, no general war; there were only periodic armed outbreaks, each one in turn threatening to turn into World War III. Each country found itself agreeing to an armistice with one country while trying to form an alliance with a second and defending itself from or attacking a third.

And yet, during it all, no one quite dared to use the Ultimate Weapons. There was plenty of strafing by fighter planes and sorties by small bomber squadrons, but there was none of the "massive retaliation" of World War II. There could be heard the rattle of small-arms fire and the rumble of tanks and the roar of field cannon, but not once was there the terrifying, all-enveloping blast of nuclear bombs.

But, at the time, no one knew that it wouldn't happen. The United States and the Soviet Union hovered on the edges of the war, two colossi who hesitated to interfere directly for fear they would have to come to grips with each other.

The situation made the "Brinksmanship" of former Secretary Dulles look as safe as loafing in an easy-chair. And the bureaucratic and legislative forces of the United States Government had reacted in a fairly predictable manner. The "security" guards around scientific research, which had been gradually diminishing towards the vanishing point, had suddenly been re-imposed--this time, even more stringently and rigidly than ever before.

Coupled with this was another force--apparently unrelated--which acted to tie in with the Federal security regulations. The juvenile delinquent gangs had begun to realize the value of science. Teen-age hoodlums armed with
homemade pistols were dangerous enough in the Fifties; add aimed rockets and remote-control bombs to their armories, and you have an almost uncontrollable situation. Something had to be done, and various laws controlling the sale of scientific apparatus had been passed by the fifty states. And--as with their liquor and divorce laws--no two of the states had the same set of laws, and no one of them was without gaping flaws.

By the time the off-again-on-again wars in Europe had been stilled by the combined pressure of the United Nations--in which the United States and the Soviet Union co-operated wholeheartedly, working together in a way they had not done for over twenty years—the "scientific control laws" in the United States had combined to make scientific research almost impossible for the layman, and a matter of endless red tape, forms-in-octuplicate, licenses, permits, investigations, delays, and confusion for the professional.

The answer, of course, was the black market. What bootlegging had done for the average citizen in the Twenties, the black market was doing for scientists fifty years later.

The trouble was that, unlike the Volstead Act, the scientific prohibitions aroused no opposition from the man in the street. Indeed, he rather approved of them. He needed and wanted the products of scientific research, but he had a vague fear of the scientist--the "egghead." To his way of thinking, the laws were cleverly-designed restrictions promulgated by that marvelous epitome of humanity, the common man, to keep the mysterious scientists from meddling with things they oughtn't to.

The result was that the Latin American countries went into full swing, producing just those items which North American scientists couldn't get their hands on, because the laws stayed on the books. During the next ten years, they were modified slightly, but only very slightly; but the efforts to enforce them became more and more lax. By the time the late Seventies and early Eighties rolled around, the black marketers were doing very nicely, thank you, and any suggestion from scientists that the laws should be modified was met with an intensive counterpropaganda effort by the operators of the black market.

Actually, the word "operators" is a misnomer. It was known by the authorities at the time that there was only one ring operating; the market was too limited to allow for the big-time operations carried on by the liquor smugglers and distillers of half a century before.

Sam Bending naturally was forced to deal with the black market, just as everyone else engaged in research was; it was, for instance, the only source for a good many technical publications which had been put on the Restricted List. Sam wasn't as dependent on them as college and university research men were, simply because he was engaged in industrial work, which carried much higher priorities than educational work did.

Sam, however, was fed up with the whole mess, and would have given his eyeteeth to clear up the whole stupid farce.

* * * * *

Irritated by every petty distraction at his office, Sam Bending finally gave up trying to cope with anything for the rest of the day. At three in the afternoon, he told his secretary that he was going home, jammed his hat on his head, and went out to his car.

He got in, turned the switch, and listened to the deep hum of the electric motors inside. Somehow, it made him feel so good that the irritations of the day lessened a great deal. He grinned.

Power Utilities hadn't even thought of this hiding place. The Converter in the rear of the car gave the vehicle far more power than it needed, but the extra juice came in handy sometimes. The driving motors wouldn't take the full output of the generators, of course; the Converter hardly had to strain itself to drive the automobile at top speed, and, as long as there was traction, no grade could stall the car. Theoretically, it could climb straight up a wall.

Not that Sam Bending had any intention of climbing a wall with it.

He even had power left over for the sound-effects gadget and the air-heater that made the thing appear to be powered by an ordinary turbo-electric engine. He listened and smiled as the motors made satisfying sounds while he pulled out of the parking lot and into the street. He kept that pleased, self-satisfied grin on his face for six blocks.

At Humber Avenue, he turned left and drove southwards. The steel-blue Ford was just a common Ford Cruiser of the nondescript steel blue color that was so popular. But Bending had been conscious of its presence for several blocks. He looked carefully in the mirror.

Maybe he was wrong. Maybe it had been several cars of that same color that had moved in and out of the traffic behind him. Well, he'd soon see.

He kept on going toward the North-South Expressway, and kept watching the steel-blue Ford, glancing at his rear view mirror every time he could afford to take his eyes off the traffic.

It moved back and forth, but it was never more than three cars behind him, and usually only one. Coincidence? Possibly.

At Humber Avenue, he turned left and drove southwards. The steel-blue Ford turned, too. Coincidence? Still
He kept on going down Humber Avenue for ten blocks, until he came to the next cross street that would take him to a lower entrance to the North-South Expressway. He turned right, and the Ford followed.

At the ramp leading to the northbound side of the Expressway, the Ford was two cars behind.

Coincidence? No. That's pushing coincidence too far. If the men in the car had actually intended to go north on the Expressway, they would have gone on in the direction they had been taking when Bending first noticed them; they wouldn't have gone ten blocks south out of their way.

Bending's smile became grim. He had never liked the idea of being followed around, and, since the loss of one of his Converters, he was even touchier about the notion. Trouble was, his fancy, souped-up Lincoln was of no use to him at all. He could outrun them on a clear highway—but not on the crowded Expressway. Or, conversely, he could just keep on driving until they were forced to stop for fuel—but that could be a long and tedious trip if they had a full tank. And besides, they might make other arrangements before they went dry.

Well, there was another way.

He stayed on the Expressway for the next twenty miles, going far north of where he had intended to turn off. At the Marysville Exit, he went down the ramp. He had been waiting for a moment when the Ford would be a little farther behind than normal, but it hadn't come; at each exit, the driver of the trailing car would edge up, although he allowed himself to drop behind between exits. Whoever was driving the car knew what he was doing.

At the bottom of the ramp, Bending made a left turn and took the road into Marysville. It was a small town, not more than five or six thousand population, but it was big enough.

There weren't many cars on the streets that led off the main highway. Bending made a right turn and went down one of the quiet boulevards in the residential section. The steel-blue Ford dropped behind as they turned; they didn't want to make Bending suspicious, evidently.

He came to a quiet street parallel to the highway and made a left turn. As soon as he was out of sight of his pursuers, he shoved down on the accelerator. The car jumped ahead, slamming Bending back in his seat. At the next corner, he turned left again. A glance in the mirror showed him that the Ford was just turning the previous corner.

Bending's heavy Lincoln swung around the corner at high speed and shot back toward the highway. At the next corner, he cut left once more, and the mirror showed that the Ford hadn't made it in time to see him turn.

They'd probably guess he'd gone left, so he made a right turn as soon as he hit the next street, and then made another left, then another right. Then he kept on going until he got to the highway.

A left turn put him back on the highway, headed toward the Expressway. The steel-blue car was nowhere in sight.

Bending sighed and headed back south towards home.

* * * * *

Sam Bending knew there was something wrong when he pulled up in front of his garage and pressed the button on the dashboard that was supposed to open the garage door. Nothing happened.

He climbed out of the car, went over to the door of the garage, and pushed the emergency button. The door remained obstinately shut.

Without stopping to wonder what had happened, he sprinted around to the front door of the house, unlocked it, and pressed the wall switch. The lights didn't come on, and he knew what had happened.

Trailing a stream of blue invective, he ran to the rear of the house and went down the basement stairs. Sure enough. Somebody had taken his house Converter, too.

And they hadn't even had the courtesy to shunt him back onto the power lines.

At his home, he had built more carefully than he had at the lab. He had rigged in a switch which would allow him to use either the Converter or the regular power sources, so that he could work on the Converter if he wanted to. His basement was almost a duplicate of his lab in the city, except that at home he built gadgets just for the fun of watching them work, while at the lab he was doing more serious research.

He went over to the cabinet where the switch was, opened it, and punched the relay button. The lights came on.

He stalked back up the stairs and headed for the visiphone. First, he dialed his patent attorney's office; he needed some advice. If Power Utilities had their hands on two out of three of his Converters, there might be some trouble over getting the patents through.

The attorney's secretary said he wasn't in, and she didn't know if he expected to be back that day. It was, she informed Bending rather archly, nearly five in the afternoon. Bending thanked her and hung up.

He dialed the man's home, but he wasn't there, either.

Sam Bending stuck a cigarette in his mouth, fired it up, walked over to his easy-chair and sat down to think.

According to the police, the first Converter had been stolen on Friday night. The second one had obviously been taken sometime this morning, while he was in the lab with the police.
That made sense. The first one they'd tried to open had fused, so they decided to try to get a second one. Only how had they known he had had more than one? He hadn't told anyone that he had three—or even two.

Well, no matter. They had found out. The question was, what did he do next? Inform the police of the two thefts or--

There was a car pulling up outside the house.

Sam stood up and glanced out the window. It was a steel-blue Ford.

By Heaven! Did they intend to steal the third Converter, too? And right in front of his eyes, before it even got decently dark?

Sam was so furious that he couldn't even think straight. When the two men climbed out of the car and started walking toward the house, Sam ran back into his study, pulled open his desk drawer, and took out the .38 Special he kept there. It was the work of seconds to thumb six cartridges into the chambers and swing the cylinder shut.

The door chime sounded.

Sam went back into the front room with the revolver in his jacket pocket and his hand ready to fire it.

"Who is it?" he called, in what he hoped was a steady voice.

"We're Special Agents of the FBI," said a voice. "May we see you for a few moments, Mr. Bending?"

"Certainly. Come on in; the door's unlocked." Just walk in, you phonies! Just trot right on in, he thought.

And they did. The two men walked in, removing their hats as they did so.

"We--" one of them began. He stopped when he saw that he was addressing a round, black hole that was only a fraction more than a third of an inch in diameter but looked much, much larger from his viewpoint.

"Get your hands in the air and turn around very slowly," said Bending. "Lean forward and brace your hands against the wall."

They did as they were told. Bending frisked them carefully and thoroughly, thankful that the two years he had spent in the Army hadn't been completely wasted. Neither one of them was carrying a gun.

Bending stepped back and pocketed his own weapon. "All right. You two can turn around now. If you want to try anything, come ahead—but I don't advise it."

The two men turned around. Neither of them was exactly a small man, but the two of them together didn't outweigh Samson Bending by more than fifty pounds.

"What's the idea of the gun, Mr. Bending?" the taller of the two asked. He seemed to be the spokesman for the team.

"I'll ask the questions," Bending said. "But first, I want to tell you that, in the first place, you can get in trouble for impersonating a Federal officer, and, in the second, I don't like being followed. So you just trot right back to the boys at Power Utilities and tell them that if they want to play rough, I am perfectly willing to do likewise. That if they come after me again, I'm going to do some very unpleasant things. Understand?"

"I think we understand," said the spokesman, still relatively unruffled. "But I don't think you do. Would you care to look at our credentials, Mr. Bending?"

"Credentials?" Sam looked startled. Had he made a mistake?

"That's right. May I take my billfold out?"

Bending took his gun out again. "Go ahead. But slowly."

The billfold came out slowly. Bending took it. The identification card and the small gold badge said very plainly that the man was a Special Agent of the Federal Bureau of Investigation.

"I ... I'm sorry," Bending said weakly. "I thought you were someone else. Some men were following me this afternoon, and--"

"That was us, Mr. Bending. Sorry."

"May I verify this?" Bending asked.

"Certainly. Go right ahead."

Bending phoned the local office of the FBI and verified the identities of the two men. When he cut off, he asked dazedly: "What was it you wanted?"

"Would you mind coming with us--downtown? We'd like to have you see some people."

"Am I under arrest?"

"No." The agent smiled a little. "I suppose, if we had to, we could get you for speeding and reckless driving; that was pretty fancy dodging you did. But we're not supposed to be traffic cops."

Sam smiled feebly. "What's this all about?"

"I haven't the faintest notion, Mr. Bending. Honestly. We were told to stick with you until we got word to pick you up. We got that word just shortly after you ... hm-m-m ... after you left us. Fortunately, we found you at home. It might have been difficult ..."
"Can we go in my car?" Bending asked. "I'd rather not leave it unguarded just now."
"Certainly. I'll go with you, and Steve can follow." He paused. "But I'm afraid you'll have to take that revolver out of your pocket and put it away."
"Sure," Bending said. "Sure."
* * * * *

Bending's mind simply refused to function during the drive back to the city. The FBI agent beside him just sat silently while Sam drove the car.

Once, Sam asked: "Who is it that wants to see me?"
And the FBI man said: "Sorry, Mr. Bending; I can't answer any questions. My job is over as soon as I deliver you."

A little later, Sam had another question. "Can you tell me where we're going, at least?"
"Oh--" the agent laughed, "sure. I thought I had. The General Post Office Building, on Kenmore Drive."

After that, Sam didn't say anything. That this whole affair had something to do with the Converter, Sam had no doubt whatsoever. But he couldn't see exactly what, and none of his wild speculations made sense.

He pulled up at last into the parking lot behind the Post Office Building. The second FBI man came up in the steel-blue Ford, and the three of them got out of the cars and went towards the building. It was quite dark by now, and the street lights were glowing against a faint falling of February mist. Bending, in spite of his topcoat, felt chilly.

They went in the back way, past the uniformed Postal Service guard, and took an elevator to the sixth floor. None of the three had anything to say. They walked down the hall, toward the only office that showed any light behind the frosted glass. The lettering on the glass simply said: Conference Room A-6.

The FBI man who had driven with Sam rapped on the door with gentle knuckles.
"Yes?" said a questioning voice from the other side.
"This is Hodsen, sir. Mr. Bending is with us."

The door opened, and Sam Bending felt mild shock as he saw who it was. He recognized the man from his news photos and TV appearances. It was the Honorable Bertram Condley, Secretary of Economics for the President of the United States.

"Come in, Mr. Bending," the Secretary said pleasantly. Unnecessarily, he added, "I'm Bertram Condley."
He held out his hand, and Sam took it. "It's a pleasure, Mr. Secretary."

Condley gave out with his best friendly-politico smile. "I'm sorry to have to drag you up here like this, Mr. Bending, but we felt it best this way."

Sam smiled back, with a trace of irony in the smile. "It's a pleasure, Mr. Secretary," he repeated.

Condley nodded, still smiling—but there was a spark in his eyes now. "I see we understand each other. Come on in; I want you to meet the others." He looked at the FBI men. "That's all. For now."

The Federal agents nodded and moved away into the dimness of the corridor.
"Come in, man, come in," the Secretary urged, opening the door wider.
Sam hesitated. The light within the room was none too bright. Then he stepped forward, following the Secretary.
* * * * *

The outer room was dark. Not too dark, but illuminated only by the dim light from the corridor and from the inner room. From that inner room, there was only a glow of light from the frosted glass panel of the door that separated the two rooms.

Condley closed the hall door, and, as Sam stepped forward toward the lighted door, held out a hand to stop him.
"Just a moment," he whispered softly. "I think you ought to know what you're walking in to, Mr. Bending."

Bending stood stock-still. "Yes, sir?" he asked, questioningly.
"I suppose you know what this is all about?" Secretary Condley asked softly.

"The Converter, I imagine," Sam Bending said.

Condley nodded, his gray hair gleaming silver in the dim light. "Exactly. I'm sorry we had to drag you up here this way, Mr. Bending, but, in the circumstances, we felt it to be the best way." He took a breath. "Do you know why we called you here?"

"No," Sam said honestly.

Condley's head nodded again. "You're in for an argument, Mr. Bending. A very powerful one, I hope. We want to convince you of something."
Again he paused. "Are you an open-minded man, Mr. Bending?"

Sam Bending followed the Secretary's lead, and kept his voice low. "I like to think so, Mr. Secretary." He recognized that Condley was preparing him for something, and he recognized that the preliminary statements were calculated to soften him. And he recognized the fact that they did soften him. All right—what was the argument?

"You're an engineer, Mr. Bending," Condley said, in the same low voice. "You have been trained to evaluate
facts. All I ask is that you use that training. Now, let's get in there before Tovarishch Artomonov begins to think we might be stalling him."

Condley strode toward the door and grasped the knob with a firm hand. Sam Bending followed, wondering. Artomonov? Who was Artomonov? The Secretary of Economics had indicated, by his precise enunciation of tovarishch, that the man was a Russian--or at least a citizen of one of the Soviet satellites. Sam Bending took a deep breath and decided that he was prepared for almost anything.

There were four men seated around the conference table in the back room, and the most surprising thing, as far as Sam was concerned, was that he recognized only one of them. From the big buildup, he had had half a notion that the President himself might be there.

"Mr. Samson Bending, gentlemen," said Secretary Condley to the group. They all rose and made half-hearted attempts to smile, but Sam could see that they were watching him as though he had a live grenade in his pocket.

"Mr. Bending, I believe you know Mr. Richard Olcott," the Secretary said.

Bending gave the Power Utilities executive a sardonic smile, which was returned by a solemn nod of the head.

"And, around the table," Condley continued, "are Dr. Edward Larchmont, the research departmental head of Power Utilities--Dr. Stefan Vanderlin, of the United States Bureau of Standards--and Dr. Alexis Andreevich Artomonov, of the Soviet Socialist Republics' representative office at the United Nations."

Sam Bending managed not to blink in astonishment as the last man was introduced--a feat which took every milligram of his self-possession. He recognized the name; A. A. Artomonov, head of the United Nation's International Trade Bureau. What was he doing here?

"If you'll sit down, Mr. Bending," Condley was saying, "we can get to business."

Bending sat down, and the others sat with him. "May I say something before we go any further?" Sam Bending asked. "May I say that I think this is a rather irregular method of doing things and that I think I ought to see my lawyer."

Secretary Condley's eyes narrowed just the slightest. He was a heavy, jowl-faced, graying man who was known for his firmness in his official capacity. "At this stage of the game, Mr. Bending, there is no need for a lawyer. We merely want to explain something to you--we want you to get all the data. If, afterwards, you still want your lawyer, you'll be perfectly free to call him. Right now, we want you to listen with an open mind."

Bending thought it over. "All right. Go ahead."

* * * * *

"Very well. First, I'll agree that all this may seem a bit high-handed. But time was--and is--getting short." He glanced at Olcott, and the glance was not all friendliness. "The Government was notified about this almost too late; we have had to act fast. Almost too fast."

"I notified the Government as soon as I was sure of my facts," Olcott said, completely unflustered.

"That's as may be," Condley said. "The point is that we now have the problem on our hands, and we must find an equitable solution." He took a gold fountain pen from his pocket, and his strong, thick fingers began toying with it while his eyes remained on Sam Bending. "The fact that you have applied for a patent makes it imperative that we get the situation under control immediately."

Before Sam could answer, there was a knock on the outer door that came clearly into the rear room. Secretary Condley rose without saying a word and went out.

Dr. Larchmont, the Power Utilities physicist, decided to make small talk to bridge the hiatus. "That's a really beautiful piece of machinery you've built, Mr. Bending. Really remarkable." He was a small, flat-faced man with a fringe of dark hair around his otherwise naked scalp.

Sam looked a little startled. "You mean you opened a Converter up?"

Larchmont nodded. "I presume you are referring to the fusing device. We X-rayed the thing thoroughly before we opened it. These days, many devices are rigged to be self-destroying, but that, in itself is a specialized field. Most of them are traps that are rather easy to get around if one is expecting them and knows how to handle them. But the Converter itself, if I may say so, is one of the most original and elegant devices I have seen in many a day."

"Thanks," said Bending, with a touch of bitterness in his voice. "I--"

The door opened at that moment, and Secretary Condley came in followed by a tall, round-faced man with dark wavy hair and clear brown eyes.

"Jim!" Sam said in surprise.

The man was James Luckman, Sam Bending's business manager. "Hello, Sam. What's this all about? The FBI men who picked me up said I wasn't under arrest, but I had a hunch it was about as close as you can come without actual arrest."

Sam nodded. "Funny--I had that impression, too." He looked at Condley. "What's the idea, Condley? Jim
doesn't know anything about this."

The Secretary managed to look unoffended at Bending's tone. "Possibly not. We can't be sure, of course, but--frankly, I'd be willing to accept your word." He paused. "But--you're not a businessman, Mr. Bending?" He made it only half a question.

"No. I leave that sort of thing up to Jim. Oh, I don't say I'm completely ignorant of the field; it's just that I'm not particularly interested, that's all. Why should I be?" He went on, half belligerently. "I've known and trusted Jim for years. He knows his business; I know my science. I know enough to be able to check the account books, and he knows enough to be able to understand a technical report. Right, Jim?"

Luckman looked bewildered. "Sure, Sam. But what's all this leading up to? I don't get it." He frowned suddenly. "Has someone accused me of cheating you?"

"No, no, no," Condley said rapidly. "Of course not. Nothing like that." He looked sharply at Luckman. "Do you know anything about the Converter?"

Jim Luckman glanced at Bending before replying. Bending's face remained expressionless. "Go ahead, Jim," he said, "square with him."

Luckman spread his hands. "I know that Sam was working on something he called a Converter. I don't know anything more about it than that. Sam keeps his ideas secret until he gets them to a marketable stage, which is all right with me. I have enough work to do, handling the stuff he's already patented, without worrying about anything that isn't salable yet. So?"

Condley nodded, then gestured toward a chair. "Sit down, Mr. Luckman. Do you know these other gentlemen?" he asked rhetorically. He proceeded to introduce the others. Sam Bending noted with satisfaction that Luckman looked rather puzzled when the Russian was introduced.

Condley himself sat down again, and said: "Well, we're all here. We're not going to make this formal, gentlemen, but I hope it won't develop into a heated argument, either. Let's try to keep our tempers."

* * * * *

"First, as to the Converter itself. We all know, with the possible exception of Mr. Luckman, what it does, but for his benefit, we'll go over that. The Converter, by means of what Dr. Larchmont has been wont to call 'a very elegant method', produces electrical power directly from the fusion of hydrogen into helium. A pilot model, with a total volume of a little more than one and one-quarter cubic feet, is capable of turning out up to five hundred horsepower, either DC or AC in a wide range of frequencies. The voltage can be regulated from zero to one thousand volts by simply setting a dial.

"The device is powered by using ordinary water as fuel. At full capacity, the Converter consumes approximately four hundred milligrams of water per hour, which can easily be drawn from the moisture of the air. The machine is thus self-fueling.

"Since the nuclear energy released is converted almost one hundred per cent into electrical current, there is no danger from radiation; since the process is, by its very nature, self-limiting, there is no danger of explosion. The worst that can happen is for the machine to burn out, and, I understand, it won't do that unless it is purposely tampered with to make it do so."

"Finally, the device is so inexpensive to produce that it could be sold for about one-quarter of the price of an ordinary automobile." He stopped, cleared his throat, and glanced at Larchmont and Vanderlin. "Am I essentially correct, gentlemen?"

Larchmont nodded, and Vanderlin said, "That's about it."

Jim Luckman looked at Sam Bending in open admiration. "Wow," he said softly. "You're quite a genius, Sam."

"Very well, gentlemen," Condley continued, "we know what this device will do on a physical level. Now we must consider what it will do on an economic level. Have you considered what would happen, Mr. Bending?"

"Certainly," Bending said, with an angry glance at Olcott. "The Power Utilities would lose their pants. So what? I figure that any company which tries to steal and suppress inventions deserves a licking."

Secretary Condley glanced at Olcott as though he were trying to hold back a smile, then returned his gaze to Bending. "We won't quibble over the ethics of the situation, Mr. Bending. You are correct in saying that Power Utilities would be bankrupt. They couldn't stand the competition of what amounts to almost unlimited free power. And then what would happen, with every power company in the United States suddenly put out of business?"

Sam looked puzzled. "What difference would it make? People would just be getting their power from another source, that's all."

Richard Olcott leaned forward earnestly. "May I interject something here? I know you are angry with me, Mr. Bending--perhaps with good reason. But I'd like to point out something that you might not have recognized. Public Utilities and its co-operative independent companies are not owned by individuals. Much of the stock is owned by
small share-holders who have only a few shares each. The several billion dollars that these companies are worth is spread out over the nation, not just centered with a few wealthy men. In addition, a great many shares are held by insurance companies and banks. Literally millions of people would lose money--just as surely as if it had been stolen from them--if this device went on the market.

Bending frowned. He hadn't thought of it in exactly that way. "Still," he said tentatively, "didn't blacksmiths and buggy-whip manufacturers and horse-breeders lose money after World War I?"

"Not to this extent," Olcott said, shaking his head. "This is not 1918, Mr. Bending. Sixty years ago, our economy was based on gold, not, as it is today on production and manpower, centered in the vast interlocking web of American industry."

Condley said: "Mr. Olcott said a moment ago that millions of people would lose money just as surely as if it had been stolen from them. I think it would be more proper to say that the money will be destroyed, not stolen. A thief, after all, does put money back into circulation after he steals it. But when vast amounts of wealth are suddenly removed from circulation completely, the economic balance is disastrously upset."

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Sam Bending was still frowning. His grandfather had been a small businessman in 1929--not fabulously wealthy, but certainly well off by the social standards of the day. Two years later, in 1931, he was broke, wiped out completely, happy and eager to accept any odd job he could get to support his family.

Sam's father had had to leave school during the Thirties and go to work in order to bring in enough money to keep the family going. Grandfather Bending, weakened by long hours of labor that he was physically unfit for, had become an invalid, and the entire support of the family had devolved upon Sam's father.

He could remember his dad talking about the breadlines and the free-soup kitchens. He could remember his grandmother, her hands crippled by arthritis, aggravated by long hours at a commercial sewing machine in a clothing center sweat-shop, just so she could bring in that little extra money that meant so much to her children and her invalid husband.

Could one invention bring all that back again? Could his own harmless-looking Converter plunge millions back into that kind of misery? It seemed hardly possible, but Sam couldn't banish the specter of the Great Depression from his mind.

"Just how far-reaching would this economic upset be?" he asked Condley.

Condley had taken out his gold fountain pen again and was rolling it between his palms. "Well, that's a question with a long answer, Mr. Bending. Let's begin small and watch it spread.

"Banks are pretty safe today, aren't they? The Federal Deposit Insurance Corporation insures all depositors for deposits up to twenty thousand dollars now. A bank is hedged in by so many legal fences that it is almost impossible for one to fail in the same way that they failed all over the country in the early Thirties. Even if one does fail, through the gross mismanagement or illegal activities of its governing board, the depositors don't get excited; they know they're covered. There hasn't been a really disastrous run on a bank for more than thirty years.

"But banks don't just keep their money in vaults; they invest it. And a significantly large percentage of that money is invested in power companies all over the nation. In an attempt to keep their heads above water, those banks would be forced to make up tremendous losses if Power Utilities failed overnight. It would force them to draw in outstanding loans for ready cash. It would mean turning in United States Savings Bonds, which would put a tremendous strain on the Government."

"In spite of that, most banks won't be able to stay solvent because their other capital investments will be dropping rapidly in value. As Mr. Olcott said, our monetary system isn't based on gold, but on production and goods. If Power Utilities and its members fail, you and your machine will have destroyed--made worthless--several billion dollars worth of machinery and equipment. You will have thrown tens of thousands of people out of work. You will have cut the underpinnings from beneath the American dollar.

"And it won't stop there. What will happen to the companies that build the dynamos and the boilers and the atomic plants for the power companies? What will happen to the copper industry when the need for millions of miles of copper wire vanishes? They will all suffer tremendous setbacks, throwing tens of thousands more out of work and lowering the value of their stock drastically.

"The banks, then, will find their investments suddenly worth only a fraction of their former value. They'll fail wholesale. And you can see what that will do to the Federal Deposit Insurance Corporation and other insurance companies."

Sam Bending nodded slowly. He could see that. Insurance companies base their business on the prediction that a certain event--death, accident, or the failure of a bank--will happen to a certain percentage of their covered clients, and they adjust their rates accordingly. But something that would change a five-percent-failure rate to a fifty-percent-failure rate would break the company.
And the unemployment rate would go up even higher. And Sam thought of something the Secretary hadn't even mentioned. State and Federal Unemployment Insurance. What would that drain do to the treasuries of the various governments involved?

Sam Bending felt as if the thing were snowballing on him. Where would the State and Federal Governments get that money? Taxes? Don't be silly. How can you collect sales taxes when sales are dropping off because of unemployment? How can you get income taxes from depleted incomes? How can you charge luxury taxes when no one is buying luxuries?

Certainly essentials like food, rent, and clothing couldn't be taxed. People would buy as cheaply as possible, which would force down prices. Which would--

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"Where would it go from there?" Sam asked Condley in a shaken voice.

Condley glanced over at the Russian. "I believe Dr. Artomonov can answer that one for you."

Artomonov was a red-faced, fleshy man with almost no hair and a huge, bristling, gray mustache. His eyes were a startling blue. "Mr. Bending," he said in excellent English, "you may recall that your depression of the Thirties was not confined to America. All of Europe became involved. The same will happen again, to a greater degree, if your machine is released to the world at this time." He brushed at his mustache with a fingertip.

"You may wonder what I am doing here, Mr. Bending. You might think that the traditional rivalry which has existed between our countries for so many decades would preclude my being admitted to such a secret session as this one. I might have thought so, too, fifteen years ago. But when something threatens both our countries, the picture changes. We fought together during the Motherland War--what you call World War II--because of the common threat of German Nazi terrorism. We co-operated to suppress the brush-fires that threatened us in Europe and the Middle East during the so-called Tense War. In big things we must co-operate.

"Again we are both threatened by a common source, Mr. Bending, and again we must co-operate."

Sam Bending felt a chill. The thought that he and his machine were a threat as great as that, a threat to the two greatest nations of Earth, was appalling.

"I am not a scientist, Mr. Bending," the Russian went on. "My title comes from a degree in economics and political science, not in physical science. As soon as this machine was demonstrated to me, however, I could appreciate its power--not only physically, but economically. I immediately contacted my superiors in Moscow to discuss the problem.

"Naturally, we would like to know the ... ah ... 'elegant' principle behind its operation. Equally naturally"--he smiled politely at Secretary Condley--"you will not tell us. However, my superiors in Moscow assure me that we need not worry on that score; a machine identically similar to yours was invented by one of our brilliant young scientists at the University of Moscow over four years ago. As a patriot, of course, he was willing to have the machine suppressed, and no news of it has leaked out."

Sam Bending found it difficult to keep from smiling. Sure, he thought, and a man named Popov invented radio, and Yablochkov invented the electric light.

"You see, Mr. Bending," Dr Artomonov continued, "while we do not have the unstable setup of money-based capitalism, and while we do not need to worry about such antiquated and dangerous things as fluctuating stock markets, we would still find your machine a threat. Communism is based on the work of the people; our economy is based on the labor of the working man. It is thus stable, because every man must work.

"But we, too, have a vast, power network, the destruction of which would cause the unemployment of millions of our citizens. The unemployment alone would cause repercussions all over the Soviet Republics which would be difficult to deal with. We would eventually recover, of course, because of the inherent stability of our system, but the shock would not be good for us.

"The same thing would happen in every industrialized nation on Earth," Artomonov went on. "In my work with the United Nations, I have studied just such problems. European governments would fall overnight. In Germany, in the 1920s, it was cheaper to burn bundles of one-mark notes than it was to buy firewood with them. Such things will be repeated, not only in the Germanies, but all over Europe.

"Some countries, of course, will not be so drastically effected. China, and other parts of Asia which have not built up a vast industrial system, will be affected only slightly. The South American countries still have a more or less agricultural economy and will not be bothered greatly.

"But the great industrial civilizations of East and West will collapse."

With one breath, Artomonov was saying that the Soviet Union could weather the storm, and with another he was hinting that it probably wouldn't. But Sam Bending could see the point in spite of the Russian's tortuous logic.

"I think that is all I have to say for the moment," Artomonov said, "except to emphasize one point. The Great Depression hit the world some fifty years ago. It was a terrible thing for everyone concerned. But it was as nothing
at all--a mere zephyr of ill wind--compared to what the Depression of the Eighties will be if your machine goes on the market."

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There was silence for a minute. Sam Bending was thinking hard, and the others could see it--and they knew there was no point in interrupting at that moment.

"Just a second," Sam said. "There's one thing that I don't really quite see. I can see that the situation you outline would develop if every power plant in America--or in the Soviet Union or Europe--were to be suddenly replaced by Converters. I can see that chaos would result." He paused, marshaling his thoughts, then went on, with a tinge of anger in his voice.

"But that's not the way it will work! You can't do a thing like that overnight. To mass produce the Converter will take time--factories will have to be tooled up for it, and all that. And distribution will take time. It seems to me that there would be plenty of time to adjust."

Condley started to say something, but Dr. Artomonov burst in explosively.

"Don't you see, Mr. Bending? The threat of the machine is enough! Even here in your own country, just the knowledge that such machines were to be made at some time in the immediate future would have a disastrous effect! Who would invest in Power Utilities if they knew that within a short time it would be bankrupt? No one would want to buy such stock, and those who had it would be frantically trying to sell what they had. The effect on the banking system would be the same as if the machine were already being used. Your Mr. Roosevelt pointed out that fear was the problem."

Bending frowned puzzledly. "I don't see--"

He was interrupted by Dr. Larchmont. "Let me see if I can't give you an analogy, Mr. Bending. Do you know anything about the so-called 'nerve gases'?"

"Some," admitted Sam. "Most of them aren't gases; they're finely dispersed aerosols."

Larchmont nodded. "Have you any idea how much it takes to kill a man?"

"A drop or so of the aerosol on the skin is enough, I understand."

"That's right. Now, how can such a minute amount of poison damage a human being?"

Bending began to get a glimmer of what the man was driving at. "Well, I know that some of them suppress the enzymic action with acetylcholine, which means that the nerves simply act as though their synapses had been shorted through. It only takes a small percentage of that kind of damage to the nerve fibers to ruin the whole nervous system. The signals get jammed up and confused, and the whole mechanism ceases to function. The victim dies."

Larchmont nodded. "Now, as I understand it, our banking system is the vital nerve network of our economy. And our system is built on credit--faith, if you will. Destroy that faith--even a small percentage of it--and you destroy the system.

"If your machine were to go on the market, there would be no more faith in the present utilities system. Their stocks would be worthless long before your machine actually put them out of business. And that would hit our banking system the same way a nerve gas hits the nervous system. And the victim--the American economy--would die. And the nation, as a nation, would die with it."

"I see," said Bending slowly. He didn't like the picture at all; it was more frightening than he cared to admit, even to himself. He looked at his business manager. "What do you think, Jim?" he asked softly. He knew he could depend on Luckman.

Jim Luckman looked worried. "They're right, Sam. Clean, dead right. I know the investment pattern in this country, and I have an idea of what it must be abroad. This country would be in the middle of the worst depression in its history. At least we had Federal help during the Thirties--but there won't even be a United States Government if this hits. Nor, I think, will there be a Soviet government, in spite of what Dr. Artomonov's personal beliefs may be."

Significantly, the Russian economist said nothing.

Sam Bending closed his eyes. "I've worked on this thing for years," he said tensely. "It was ... it means something to me. I invented it. I perfected it." His voice began to quaver just a little. "But if it's going to do ... to do all that--" He paused and took a deep breath. "All right. I'll smash my apparatus and destroy my plans and forget about it."

Jim Luckman looked at Secretary Condley. "I don't think that would be fair. Sam's worked hard on this thing. He deserves recognition. And the people of Earth deserve to get this machine somehow. Can't something be worked out?"

"Certainly," said Condley. "In some countries, and in some eras, dangerous inventions were suppressed by the simplest method. If it was discovered in time, the inventor was executed summarily, along with anyone else who knew the secret, and the invention was destroyed. The United States isn't that kind of country." He looked down at
his hands and the gold pen again before he went on.

"Please don't misunderstand, Mr. Bending; we are not trying to keep the Converter under wraps forever. In the
first place, I don't think it would be possible. What do you think, Dr. Vanderlin?"

The Bureau of Standards man said: "I doubt it. Granted, the Converter is not something one would accidentally
stumble across, nor automatically deduce from the 'previous state of the art'. I'll admit frankly that I doubt if I would
ever have thought of it. But I doubt gravely that it is so unique that it will never be rediscovered independently."

"So," said Condley, "we have no intent to hold it back on that score. And, in the second place, such an
invention is too valuable to allow it to be lost.

"So here is our proposition. You will sell your rights to the Converter to Power Utilities. It won't even be
patented in the usual sense; we can't allow the Converter to become public property at this time. We can't make it
possible for just anyone to send in a quarter to the Patent Office to find out how it works. That's why we stopped the
patent application.

"But the Government will see that a contract is written up which admits that you are the inventor of the
Converter, and which will give you royalties on every unit built. High royalties.

"Under strict Government supervision, Power Utilities will proceed to liquidate their holdings--slowly, so that
there will be no repercussions on an economic level. The danger lies, not in the Converter's replacing existing power
equipment, but in the danger of its replacing them too quickly. But with care and control, the adjustment can be
made slowly. The process will take about ten years, but you will receive a lump sum, plus a monthly payment, as an
advance against future royalties."

"I see," said Bending slowly. "That sounds all right to me. What about you, Jim? What do you think?"

Jim Luckman was smiling again. "Sounds fine to me, Sam. We'll have to work out the terms of the contract, of
course, but I think Mr. Olcott and I can see eye to eye."

Olcott seemed to wince a little. He knew he was over a barrel.

"I suppose I'll have to be sworn to secrecy, eh?" Bending asked. He was beginning to recover his poise.

Condley nodded. 'You will.' He made his characteristic pause, looking down at the gold pen and back up. "Mr.
Bending, don't think that this is the first time this has happened. Yours is not the first dangerous invention that has
come up. It just so happens that it's the most dangerous so far. We don't like to have to work this way, but we must.
There was simply nothing else to do."

Sam Bending leaned back in his chair. "That's all right. To be perfectly honest, there are a lot of details that I
still don't understand. But I recognize the fact that I'm simply not an economist; I can see the broad outlines plainly
enough."

Dr. Artomonov smiled widely. "I do not understand the details of your machine, either, Mr. Bending, but I
understand the broad outlines of its operations well enough to be frightened when I think of what it could do to
world economy if it were to be dumped on the market at this time. I am happy to see that America, as well as
Mother Russia, can produce patriots of a high order."

Sam gave him a smile. "Thanks." He didn't know quite what else to say to a statement like that. "But Jim, here,
is going to spend the next several days trotting out facts and figures for me. I want to see just what would take place,
if I can wrestle with that kind of data."

"Oh, brother!" said Jim Luckman softly. "Well, I'll try."

"I'll have the reports from the computers sent to you," Condley offered. "They show the whole collapse, step by
step."

Artomonov cast a speculative glance in Condley's direction, but he said nothing.

"There's one other thing," Sam said flatly. "The Converter is my baby, and I want to go on working on it. I
think Power Utilities might put me on as a permanent consultant, so that I could earn some of the money that's
coming in over the next ten years. That way, my royalties won't suffer so much from the advance payments."

Jim Luckman grinned, and Richard Olcott said: "I thought you said you were no businessman, Mr. Bending."

"I may be ignorant," said Sam, "but I'm not stupid. What about it?"

Olcott glanced at Dr. Larchmont. The little scientist was beaming.

"Definitely," he said. "I want Mr. Bending to show me how he managed to dope that thing out. And, to be
perfectly frank, there are a couple of things in there that I don't get at all."

"That's understandable," said Dr. Vanderlin. "We only had a few hours to look at the thing. Still, I must admit
it's a lulu."

"That's not what I meant," Larchmont said. "There are some things in there that would take a long time to
figure out without an explanation. I'll admit that--"

"Wait a minute," Bending interrupted. "You said 'a few hours', Dr. Vanderlin. You mean only since this
morning?" He grinned. "What happened to the one you got Friday night? Did my fusing device work the first time?"
Vanderlin looked puzzledly at Larchmont. Larchmont said wonderingly: "Friday? You mean you had two pilot models?"

Olcott said: "Where was the other? We checked your power drain and saw you weren't using any at your house, so—"

"I had three models," Bending said. "I've got one left in my car; you took one from my house, and the third was taken from my lab sometime Friday night. Somebody has it..."

Condley said: "Dr. Artomonov, do you know anything about this?"

The Russian shook his head. "Nothing." He looked plainly frightened. "I assure you, my government knew nothing of this."

Condley leaped to his feet, said: "Where are those FBI men?" and ran out the door.

"The black market," said Bending softly. "They found out somehow."

"And they've had three days to study it," Larchmont said. "It's too late now. That thing is probably somewhere in South America by this time."

Artomonov stood up, his face oddly pale. "You must excuse me, gentlemen. I must get in touch with Moscow immediately." He strode out of the room.

The four men remaining in the room just stared at each other for a long moment. There wasn't much else they could do.

THE END
MECCANIA: THE SUPER-STATE
By Owen Gregory

INTRODUCTION
A FEW WORDS ABOUT MR. MING AND HIS JOURNAL

As this book is little more than a transcript of a document originally written in the form of a journal by a man who, until about a year ago, was an entire stranger to me, and as the document itself contains not a few statements which make large demands upon the credulity of the average reader, it seems necessary to offer some explanation regarding both the journal and its author, Mr. Ming—or, to give him his full name, Ming Yuen-hwuy.

If I were able to go bail for Mr. Ming and assure the British Public that he was an entirely credible and impartial witness, the book might have stood on the same foundation as other volumes of 'revelations' concerning a country with which Englishmen are still insufficiently acquainted. But I cannot go bail for Mr. Ming. The chief source of my knowledge of him is the journal itself. It has even been suggested to me that Mr. Ming did not write the journal, but must have stolen it from some European, probably an Englishman. On this point I shall have something to say presently. Perhaps the best solution of these difficulties will be to say what I know of the origin of the book.

Mr. Ming was introduced to me, by a friend whose name it is unnecessary to give, in November or December 1917. My friend said he remembered meeting him in London as far back as 1909. Since then, however, Mr. Ming had not only lived in London and travelled throughout England, but had also spent about two years in France and Italy, and had visited America. What his previous career had been I do not know, nor did my friend know. He appeared always to have plenty of money, and we surmised that he might have been attached in some way to the Chinese Legation; but he never gave the least hint about any such connection. What I do know is that he had a remarkable knowledge of our language, and a remarkable familiarity with our laws, customs and political institutions. He professed a great admiration for our British Constitutions, a circumstance which may account for some of the political views to which he gives expression in his journal.

A day or two after he had been introduced to me I invited him to dinner and on this occasion we found much to talk about—chiefly European politics. At length, after we had finished a bottle of wine and a liqueur or two, he remarked that of all the countries he had visited in Western Europe he had been most impressed by Meccania. (He pronounced the word 'Mek-kah'-nia.)

My knowledge of Geography is not complete, I admit, but I thought I knew all the countries of Western Europe (the war has helped wonderfully to fill up certain gaps). I replied that I had never heard of such a country.

"Probably not," he answered. "But it exists. And the proof of it is that I spent some five months there in 1970, and kept a journal of my experiences."

"You mean 1870," I said.

"No, 1970," he replied.

I hardly knew whether he were experimenting upon my sense of humour, or had got confused between Chinese and European chronology; or whether the liqueur had gone to his head. Possibly and here I became a little nervous—he was a little abnormal. "Anyhow," he said, "one of my chief objects in seeking an interview with you was to consult you about publishing this journal."

We were dining in my chambers and he begged permission to fetch his hand-bag from the anteroom. He returned with a bulky manuscript. I wondered if he were hard up and wanted to draw me into some sort of bargain, but I reflected that he seemed to be a much wealthier man than I. He said he was convinced that his journal was an important contribution to political literature, and would be found of interest not only in Great Britain but in France and America as well. It would be a good thing also if the Meccanians themselves could read it. Unfortunately there was no chance of that, he said, because nothing was read in Meccania except by permission of the Government. He went on to explain that the journal had been kept partly in English, partly in Chinese and partly in Meccanian; but that he had since written a rough translation of the whole in English. His knowledge of English, though sufficient for most practical purposes, was not such as to satisfy the literary critics; and that was one of the reasons why he sought my assistance. The upshot was that I promised to read the manuscript, which I did in a few hours next day.

I found that it purported to be the journal of a visit or tour, made in 1970, to a country he called Meccania. I had little difficulty in penetrating the fiction. (It was obvious what country was meant.) As to the date, 1970, I soon came to the conclusion that this was another literary device, to enable him to describe with greater freedom what he considered to be the probable, or as he would be inclined to say, the inevitable development of the tendencies he had
observed in that country. Whilst some parts of the description were clear, and even vivid, many things were left in obscurity. For instance, the extent and the limits of the country were quite vague. Only two cities were described in any detail. Little was said about domestic life, little about religion, little about women and children.

When I questioned him subsequently on these points, he said that the obstacles to obtaining full information had proved insuperable: he had not been at liberty to travel about when and where he pleased, nor to get into close contact with the common people. The journal itself if carefully read, he said, gave a sufficient answer on these points, and he had preferred to give a faithful account of what had actually happened to him, and of the conversations he had had with representative Meccanians, leaving the evidence to speak for itself. If he had said little about Education the little that he had said would be found most illuminating, by the aid of insight and imagination. If he had said little about military matters, that was because it would have been positively dangerous to be suspected of spying.

I then questioned him about his references to Luniland, which occur on the very first page of the journal and are scattered throughout the book. Did he mean to indicate England by this term? If so, it was not exactly flattering.

Mr. Ming said he intended no offence. The references were perhaps a little obscure. The simple fact was that some years ago he had, for his own amusement, written a harmless satire upon some of our national characteristics. He had then hit upon the phrase Luniland and Lunilanders, and he could not get it out of his head. It was just an instance of his whimsicality.

"But why Luniland?" I asked.
"Why not?" he said. "You do such funny things without seeing that they are funny."
"Such as what?" I asked.
"Well, to take a few things that have happened recently in connection with your great war. You are intensely proud of all your soldiers, and rightly. Yet you seem to pay the citizens who stay at home about three times as much as the soldiers who go out to fight; and I have been told, although this seems more difficult to believe, that you pay the men who volunteered from the very first less than those whom you subsequently had to compel to serve in your armies."
"I am afraid these things you allege are true," I replied, "but they do not seem funny to us."
"No, probably not," he said. "Each nation has its own sense of humour!"
"Have you noticed anything else of the same kind?" I asked.
"Oh, a great many things," he said, "but I just gave you a sample of what first occurred to me. I did hear of some men being excused from serving in the army because they were engaged in carving gravestones."
"For the soldiers, I suppose?"
"Oh no," he replied, "there is no time to carve gravestones for the soldiers; for people who die in their beds at home. Yet you do not profess to be worshippers of the dead."
"Do not misunderstand me," he added. "You are a wonderful people, and it is perhaps because you are Lunilanders that I cannot help liking you. We are Lunilanders ourselves if only we knew it. If you were to come to my country you would find many things just as funny as those I have observed here. Perhaps when you have more time and the opportunity is favourable you may like to read my book of observations on Luniland, but Meccania is a more important subject."

After a careful reading of Mr. Ming's account of Meccania I was inclined to agree with him. Indeed, I would go so far as to say that the dangers to be apprehended from Meccania, or Meccanianism, are far more real and imminent than the dangers from what he would call our Lunilandishness, and for that reason I have done my best to bring before the British Public his account of Meccania, although I hope at some future time to produce, perhaps for a smaller circle of readers, his notes on Luniland and the Lunilanders.

Lastly, a word about the suggestion that the journal cannot be the work of a Chinaman. It is implied that the sentiments professed by Mr. Ming, his interests and his way of looking at things, are those of an Englishman. What does this really amount to? Mr. Ming does not like the Meccanians. Certainly we should not like the Meccanians. Therefore Mr. Ming is an Englishman. Mr. Ming does not like interferences with his personal habits: he has some belief in the political value of individual liberty. An Englishman resents interference and is also credited with a passion for Liberty. Therefore Mr. Ming must be an Englishman. Now I would suggest that, so far from Mr. Ming's sentiments being evidence against him, they really substantiate his character as a Chinaman and remove all suspicion of his having stolen the document from some Englishman, or some other European. In the first place, he submits calmly to indignities that a typical Englishman would fiercely resent. In the second place, he records things with a detachment that few Englishmen would be capable of, and resigns himself to the customs of the country in the manner of a mere spectator. In the third place, he betrays a philosophical interest, which is again very different from the behaviour of most of our countrymen. He records at great length conversations which we perhaps find tedious, because he thinks the ideas of the Meccanians even more significant than their customs. An Englishman's journal, in
the same circumstances, would be certain to contain angry diatribes against the Meccanians, whereas Mr. Ming writes with singular restraint, even when he is describing features of Meccanian life which we should consider revolting.

Possibly the style in which the book is presented, the turns of expression and the colloquialisms, give the journal an English appearance; but for these features the editor is responsible, as it was Mr. Ming's wish that the book should not suffer from the most common defects of a mere translation.

NOTE ON PERSONAL NAMES

The names which occur in the narrative are exactly as given by Mr. Ming in his journal, but it would appear that he has taken some liberties with the language in attempting to give an approximate English equivalent for the original meaning. The translation of personal names and place-names is notoriously difficult as many names are either corrupt or obscure.

MECCANIA
THE SUPER-STATE
CHAPTER I
I BECOME A FOREIGN OBSERVER

I had already spent several years in various parts of Western Europe, staying for long periods in Francaria, Romania and Luniland, before I made up my mind to pay a visit to Meccania. Before coming to Europe I had read a great deal about Western civilisation generally and had conceived a great admiration for many of its features. My experiences during my travels had, on the whole, strengthened my feelings of admiration; although even an Oriental may be allowed to criticise some of the characteristics of Western nations. In Romania I had been delighted with the never-ending spectacle of history displayed in every part of the country. The whole land was like an infinite museum; but it was not in Romania that the living forces of the present were to be found. In Francaria, on the other hand, the people were more interesting than the country, charming as that country was in many ways. One perceived that the people were highly civilised; they displayed a combination of intellectual and moral refinement, an appreciation of the material and sensuous enjoyment of life as well as a traditional standard of conduct and manners, while at the same time they were keenly alive to the most modern political ideas, and were perpetually discussing new phases of all those problems which must constantly emerge wherever political liberty is held as an article of popular faith.

But it was in Luniland that I felt most at home. Just what it was that kept me constantly pleased and interested it would take long to tell, and I must reserve my observations on Luniland for another occasion. It will be sufficient to say here that I was not so much impressed with the wealth of ideas current in society in Luniland--Francaria was more prolific in ideas, and in Francaria intellectual discussion was more brilliant--as with the stability of certain political principles which, as it seems to me at any rate, are destined to prevail ultimately throughout the world.

For many reasons I thoroughly enjoyed the three or four years which, with short intervals of absence, I had spent there. I had made many acquaintances and even a considerable number of friends. In fact, I had stayed so long, contrary to my original intention, that there was little time left for carrying out the project of visiting Meccania, and I was in some doubt whether I should not have to return home without seeing that remarkable country. For I had already received one or two pressing reminders from my family that they were expecting my return. Before leaving home, however, I had promised some of my political friends, who were interested in the subject of Meccanian culture, that I would not return without investigating the social and political life of Meccania. They had, in fact, written several times to remind me of my promise, and I had put them off by explaining that, whilst travelling in the rest of Europe was a simple and easy matter, I could not enter Meccania without elaborate preparation.

When I began to talk to some of my friends in Luniland of my idea of investigating Meccanian culture on the spot, I received the most conflicting advice. Some said, "Don't go on any account. You will be arrested as a spy, and probably shot!" Others said Meccania was ahead of Luniland in every respect, and that I should certainly see something worth remembering if I went there. Others, again, said that if I did go, I should be looked upon with suspicion on my return. In fact, I gathered that most of my friends would never open their doors to me again. Finally, I took counsel with Mr. Yorke, a gentleman occupying an important position in Lunopolis, a man of wide culture and sober views, whom it was a great privilege to count among my friends.

He discussed the matter very frankly with me. I remember it was a cold evening early in March, and we sat by the fire in his study after an excellent dinner. "We Lunilanders," he said, "do not like the Meccanians, and few of us ever visit Meccania. We prefer to have nothing to do with that country, and if you followed the advice which nine out of ten of my countrymen would give you, you would not go near Meccania. But you have come to Europe partly, at all events, to study our civilisation, and not simply to amuse yourself; and although there is little intercourse between the Meccanians and the rest of us, if you want to know Europe you cannot afford to neglect Meccania. If I may advise you, I should say, Go there by all means. See as much as you can with your own eyes. But
try to see the country as a whole. Don't be content to see just what interests you, or amuses you, or what excites your admiration. If you do that, you will be like certain cranks from this country who come back and tell us there is no poverty in Meccania, there are no strikes, there is no disorder, no ignorance, no preventible disease. You at any rate are not a simpleton to be taken in by any sort of hocus-pocus. But the Meccanians are very clever, and they manage to impose on many people who are not so wideawake as you are. How much you will be allowed to see I don't know. It is a good many years since I was there, but, if things are managed as I am told they are now, you will not see all you want by any means. In fact, in one sense, you would learn far more from books—you read Meccanian easily already, I know—than from an actual visit. But unless you go there you will not feel satisfied that what you read is true, and you will not have the same sense of reality.

"The great thing is to look at the country as a whole—I don't mean geographically, but spiritually. There is always a tendency for foolish people to take this idea from one country and that institution from another. Enthusiastic reformers are ready to shut their eyes to everything else if only they can get support for their particular fads. If you find after a real study of Meccanian life that you would like to turn your own country into a second edition of Meccania, I shall say, like old Dogberry, that you are not the man I took you for."

He impressed upon me the importance of a thorough knowledge of the language, but I was able to satisfy him on that score; for I had learnt to read easily before coming to Europe, and had already undertaken a long course of colloquial Meccanian under a good teacher during a visit to Francaria. Besides, I rather prided myself on my aptitude for languages, and considered myself well equipped. So I packed up all the miscellaneous goods I had collected, and stored them in Lunopolis, reserving only a couple of trunks filled with the usual necessaries for a mere tourist.

I procured my passport from our own Government.

I procured another from the Luniland Foreign Office. I obtained, further, the necessary permission from the Meccanian Government, and, choosing the shortest route, arrived at the outer frontier on March 28th. As most people know, Meccania has a double frontier on the Western side. A belt of country twenty miles wide is preserved as neutral territory, a veritable No Man's Land. This is a relic from the Great War. It is entirely uninhabited and uncultivated. Not a single line of railway crosses it, and only five roads, which are merely rough tracks, lead across it from various points to the five frontier towns on the inner side. These are the only gates into Meccania on the West. The small town on the outer frontier in Francaria, through which I was to pass, is called Graves. Here my first delay occurred. Intercourse with Meccania is so limited that although the official conveyance goes only once a week, I found no more than a dozen persons collected there in readiness for the journey across No Man's Land. I was about to take my place in the conveyance provided to carry us to Bridgetown on the inner frontier, when it was discovered that I had no ticket authorising me to make this journey. I produced my passports and the letter giving me permission to travel in Meccania, but the official who took charge of foreigners pointed to a printed instruction on the back of the letter informing me that a ticket would be forwarded by a later post.

No explanations or expostulations were of any use. Until I had that ticket I could not enter Meccania. The conveyance went only once a week. There was nothing for it therefore but to stay at some hotel in Graves, or return to Lunopolis in search of my missing ticket. I put up at a small hotel in Graves and telegraphed to my last address for my letters. These arrived two days later, and among them was my precious ticket.

The week I spent in Graves forms no part of my Meccanian tour, so I will say nothing about it except that it gave me an opportunity of seeing the extraordinary sight of No Man's Land. It stretched like a belt of desert as far as one could see. Rough grass grew here and there, but no other vegetation. Every year, in the warm weather, the grass was fired, and other means were taken also to ensure that the weeds should not injure the vegetation on the cultivated side, which by contrast looked like a garden. At intervals of every twenty yards or so an iron pole was erected with wire between. Otherwise there was no obstacle; but no unauthorised person, so I was told, ever crossed the line.

At the end of the week a few more travellers arrived and were met by the conveyance from Bridgetown. It was something like a large prison van, but quite comfortable inside except for the fact that the passengers could not see outside. My fellow-passengers were evidently strangers to one another. One or two, I thought, were Meccanians returning home, but as there was little conversation and the journey lasted not more than an hour, I was able to learn nothing about any of them. When the car stopped—it was a sort of large motor-omnibus—the door was opened by a porter in a dark blue uniform, and I found myself in the large courtyard of the Bridgetown Police Office. What became of my fellow-passengers I have no idea, but I was conducted to a waiting-room, where another subordinate official in a grey uniform took my papers, and about ten minutes after led me into a small office adjoining, where a man in a green uniform sat at a desk surrounded by neat little bundles of papers of various colours. He was a rather stout man of middle age, with bushy iron-grey hair and whiskers, yet rather bald in front. With his light grey eyes slightly protruding, he looked at me for a few seconds and said, 'Mr. Ming?"
I said, "I am Mr. Ming."
"I am Inspector of Foreigners Stiff," he said very distinctly, "and whilst you are in Bridgetown you will be responsible to me for your good conduct. By what title are you authorised to be addressed?"
"I am plain Mr. Ming, or Citizen Ming," I replied.
"But you have some other title, doubtless," he said. "What office do you hold in your own country?"
"Well," I replied, "I am what we call a National Councillor. I am also the President of the Literary Society of my own province, and I have been once the Mayor of my native town."
"Then you had better be addressed as National Councillor Ming, or as Literary President Ming, or Mayor Ming," he answered promptly. "Choose which you prefer, and write down the title on the third line of this form."
I wrote down, with a smile, "National Councillor Ming."
"National Councillor Ming," he said, as I handed the form back to him, "before we have any further conversation, you will please pass into the next room and undergo your medical examination."
I passed into the next room, where I found a man, also in a green uniform, but with different facings from those worn by Inspector of Foreigners Stiff. "National Councillor Ming," he said, "allow me to make my necessary medical examination." I wondered how he had got my name so pat. Then I remembered that immediately before passing me into the next room, Inspector Stiff had put a card into a pneumatic tube by the side of his desk. The doctor led me out of his office into a small bedroom, next to which stood a bathroom fitted with various apparatus. After undressing in the bedroom, I was ordered to step into the bathroom, where first of all I was carefully measured in at least a score of places: head, ears, arms, hands, legs, feet, chest, etc. etc. Thumb-prints and footprints were taken; I was weighed; my chest was sounded; my organs were investigated with various curious instruments; a record of my speaking voice was taken, for which purpose I had to pronounce several long sentences in Meccanian and in my own language. A lock of my hair was cut off, and finally I was photographed in several different positions. I was then ordered to bathe, at first in water, afterwards in a fluid which was evidently some sort of disinfectant. At the end of about an hour and a half the doctor pronounced me to be "disease -free," and asked me to dress myself in some garments specially used on these occasions. The garments were made either of paper, or of some substance like paper, and were intended to be destroyed after use. I was now in the bedroom. The doctor had disappeared, but a sort of orderly in a grey uniform knocked at the door and brought in a tray with some food and coffee. He announced that Inspector of Foreigners Stiff would be ready to see me again in fifteen minutes. I was very glad of the food, the first I had eaten since my arrival, and at the end of the fifteen minutes I was again led into Mr. Stiff's room, still wearing my paper suit.
"Now," said he, "you will remain in your room until morning, when your own clothes will be restored to you after having been thoroughly disinfected. You can have supper supplied to you in your room, and as you will have a few hours to spare I should advise you to make yourself acquainted with the contents of these documents. You will find they contain all the instructions you require for the first few days."
I retired to my room feeling rather fatigued by the various experiences I had already gone through, but for want of something more interesting I began to study my' Instructions.' The first document was a closely printed circular of eight foolscap pages containing numerous extracts from the Law relating to the Conduct of Foreign Observers. By the time I had waded through this I thought I had done enough for one day, and as the orderly came in with preparations for some supper I asked him if I might see the daily paper. He did not seem to understand what I meant.
"Oh," I said, "just to see the current news."
"News what about?" he asked.
"About anything," I replied. "One likes to see the newspaper to see what is going on."
"But no one wants anything except for some purpose," he replied, "and you have not explained the purpose for which you require a newspaper. Also, there are no general newspapers. There are the various gazettes issued by the different departments of Government, and there are a few local gazettes dealing with purely municipal matters. But until you have entered upon your authorised tour of observation, I should have no authority to supply you with any
of these."

What a fuss about such a trifle, I thought, and wished I had never troubled him. I apologised for making the request, whereupon he said, "If you wish for something to read after supper there is a case of books in the office, from which, no doubt, I can supply your needs."

I thanked him, and presently went to see the books. There was a work on the Law in Relation to Foreign Observers, in three volumes; a History of the Development of Town Planning, in five volumes; a treatise on Sewage, in two volumes; a series of Reports on the various Municipal Departments of Bridgetown; an Encyclopedia of Building; and a few other works equally interesting. I took away a volume, hardly noticing what it was, intending to use it only as a means of inducing sleep, which it did most effectively.

I was awakened about half-past six next morning by the orderly in the grey uniform entering the bedroom to announce that my bath would be ready in five minutes, and that it was against the rules to be late. I promptly went into the bathroom and found the bath half filled with a thin, greeny-yellowish fluid which smelt like a strong disinfectant. The orderly explained that all foreigners were obliged to be disinfected in this way. "But," I said, "I was disinfected only yesterday." "The bath yesterday," he explained, "was to ensure that you brought no disease into the country."

"And what is this for?" I asked. "This is to prevent you from contracting any new disease through the change in climate," he answered.

I remarked that the authorities were very solicitous of the welfare of foreigners, to which he replied:

"Ah, we must look after ourselves; a sick man is a source of infection."

I was told to remain in the bath forty-five minutes. I found I had no choice, for, once in, I had no power to get out.

At the end of the forty-five minutes the orderly came and lifted me out, turned on a shower bath, and said, "Breakfast in ten minutes." My own clothes had been returned to me. I dressed quickly, ate my breakfast, which was the usual light continental early breakfast of rolls and coffee, and was preparing to leave the Police Office when the orderly informed me that Inspector of Foreigners Stiff was ready to see me.

"National Councillor Ming," he began, as soon as I entered his room, "I find you have with you letters of introduction to several persons in Meccania." (So my private papers had been closely scrutinised during the process of disinfection.) "You will, of course, not present these until you have received permission from the proper authority. In no case can this be given until a period of three months has elapsed. Now after completing these forms, in accordance with the Instructions I handed you yesterday, you will be authorised to begin your tour of observation in Bridgetown." Here he handed me four forms. "You must first decide whether you mean to stay a week, or a month, or longer; for that will naturally determine the programme of your tour of observation. You cannot in any case leave without giving three clear days' notice and completing your arrangements as to the place you are proceeding to."

"Oh," I said in some surprise, "I had no idea that would be necessary. I thought I would just look round, perhaps for a day or two, then go on to one of your other important cities and make my way by degrees to Mecco."

"Then you cannot have read the Instruction Form No. 4, or you would know that is quite impossible. If you intend to stay a month, please fill up this blue form."

"I think, perhaps, it would be better to say a week," I replied; "then if I want to stay longer I suppose I could do so?"

"If you had read the Instructions you would have seen that the plan of a tour of a week is on quite a different scale from that of a tour of a fortnight or a month. You must decide now which you will take."

I stuck to the week, and we filled up the necessary forms for Tour No. 1.

"Your conductor will be Sub-Conductor of Foreign Observers Sheep," he said next.

"My conductor?" I exclaimed. "Is it necessary to have a conductor?"

"You are not still in Luniland," he replied testily, "and I must again remind you that if you had read the extracts from the Law with reference to Foreign Observers you would not have asked the question. Sub-Conductor Sheep will be here in five minutes," he said, evidently anxious to get rid of me, "and as soon as you have discharged this bill of expenses he will take you to the Hotel for Foreign Observers, and you will begin your tour." Here he handed me a sort of invoice containing the following items:--

To food, 5s.; to bed, one night, 4s.; to medical examination, 10s.; to temporary garments, 2s.; to service, 2s.--total, 23s.

There was certainly nothing exorbitant about the charges; all the same, I grudged the 10s. for the medical examination.

CHAPTER II
BRIDGETOWN, TOUR No. 1
SUB-CONDUCTOR of Foreign Observers Sheep came in as I was paying the bill. He was a well-set-up man about fifty, and had the appearance of an old Non-Com. He looked quiet and rather stolid. I never saw him smile during the whole week I was with him, but he was not offensive in his manner. Like Inspector Stiff he wore a green uniform, but one with fewer facings and with chocolate-coloured buttons. Before we started to walk across to the hotel he asked if I had got my pocket-diary. I fished out a small notebook, such as I had used in Luniland for marking engagements.

"That is of no use for the purpose," he informed me. "You must have one like this--;" and he showed me a book about six inches by four inches, with four pages for each day.

"Oh!" I said, "I shall never need all that; besides, it is spaced for a month only."

In a perfectly matter-of-fact voice he said calmly, "Every person in Meccania uses a pocket-diary like this. You will find it indispensable in order that you may make your entries correctly in your weekly diary for the Time Department."

"The what department?" I asked, rather puzzled.

"The Time Department: but never mind; I will explain all that in its proper place. We will get a pocket-diary as we go along."

We walked to the hotel, and on the way Sheep slipped into an office of some kind and handed me a pocket-diary of the regulation type. As we entered the hotel, which was a very small affair,-- evidently the number of foreigners in Bridgetown at any one time could not be more than a dozen if they were all lodged here,--he popped his head into a sort of box-office near the door and said in a loud voice, "Nine o'clock. National Councillor Ming." A girl in the box-office echoed the words whilst making an entry on a large sheet, and handed him a buff-coloured sheet of cardboard, divided or ruled into small squares. This he presented to me, telling me to note down on it the exact time when I entered and left the hotel, and to get it initialed every other day by the girl clerk in the box-office. If the times did not tally with her record I was to consult the manager of the hotel.

"The first thing to do is to report yourself to the manager of the hotel," said Sheep when he had taken me to my room, where I found my baggage, which I had not seen since I left Graves.

The manager was a rather fussy little man, also in a green uniform like Sheep's but with different facings. He did not seem specially pleased to see me. All he said was, "I hope you will not give so much trouble as the last of your fellow-countrymen we had here. If you will study the regulations you will save yourself and me much inconvenience. Meals are at eight, one, and six, and at no other times. And remember that conversation with other Foreign Observers is prohibited until you have received the Certificate of Approval."

Conductor Sheep had rung up for a motor-car, and as we waited a few minutes for its arrival he said, "As you will have seen from the printed programme of Tour No. i, we shall first make a geographical survey of the town, then we shall visit the public buildings, taking note of their architectural features, and beginning first with those under local control, following on with those under the joint control of the Central and Local Government, and concluding with those solely under the control of the Central Government. And of the first category we shall see those first which have to do with the bodily needs, and of these we shall take first those connected with food, then with clothing, then with housing; for that is the only logical order. Everything has been carefully prescribed by the Department of Culture and the Department of Sociology, and the same plan is followed by all Foreign Observers, whatever city they may be visiting."

We went first to a look-out tower which stood on a hill about a mile outside the town. Here we had a view of the surrounding country. The town lay in a bend of the river. It was not exactly picturesque, but the large number of new public buildings near the centre, the broad streets lined with villas, each surrounded by a garden in the large residential quarter on the western side, and even the orderly streets of houses and flats on the more thickly populated eastern side, produced altogether a fine effect. The country round was magnificent. Low wooded hills rose on three sides, backed by higher hills in the distance. Sheep talked almost learnedly about the geology of the district and the historical reasons for the situation of Bridgetown. Then he pointed out that the plan of the town was like a wheel. In the centre were the public buildings and squares. The main streets radiated like spokes, and between these came the residential quarters of the seven social classes; those of the first three on the west side, those of the fourth to the north and south, those of the fifth, sixth and seventh, to the east. On the east side also lay the factories, workshops and warehouses. The shops were arranged in a sort of ring running through the middle of each of the residential quarters.

"The seven social classes?" I asked. I had heard in a vague way of the existence of this arrangement, but had little idea what it meant.

"Yes," answered Sheep, as if he were reading from a guide-book, "the first consists of the highest aristocracy, military and civil; the second, of the military and naval officers, all of noble birth; the third, of the highest mercantile class with an income of £5000 a year and the officials of the first grade in the Imperial civil service; the fourth,
the officials of the civil service of lower grades and the bulk of the professional classes; the fifth, of the skilled artisan class; the sixth, of the semi-skilled; and the seventh, of the menial industrial groups."

I asked him to go over it again whilst I took a note for future reference.

The rest of the morning passed in listening to Sheep's elaborate descriptions of the drainage and sewage systems, the water supply, the power and light and heat supply, the tramway system, the parcels system, the postal delivery system, the milk delivery system, all from the geographical point of view. After lunch we spent some time in going all over the town on the tramways. This completed the geographical survey.

At six o'clock I was deposited in the hotel just in time for dinner. Presently I prepared to go out to some place of amusement; but on attempting to leave the hotel I was stopped by the porter, who told me I could not leave the hotel unless accompanied by my conductor.

So I spent the evening in writing up my journal.

During the day I had noticed that everywhere all the men were dressed in a sort of uniform, and that the colours of these uniforms corresponded to the rank or class of the wearers. Perhaps I ought to have mentioned this circumstance earlier, for certainly it was one of the first things I noticed when I began to go into the streets. The colours of the uniforms are very striking and even crude. They supply the only touch of the picturesque in Bridgetown, for, judging by my first day's impressions of the town, I should imagine that the authorities responsible for rebuilding it have swept away every vestige of the tiny mediaeval city which once existed on this spot and have replaced it by a perfectly uniform piece of Meccanian town-planning. In such a setting these uniforms strike one at first as out of place, but perhaps I have not yet grasped their purpose or significance. The colour of the uniforms of the members of the First Class is white; that of the Second Class, red or scarlet; of the Third, yellow; of the Fourth, green; of the Fifth, chocolate; of the Sixth, grey; of the Seventh, dark blue. But so far I have seen no white uniforms, and only a few scarlet. I saw several yellow uniforms to-day, but the most common were the green uniforms of the Fourth Class and the chocolate uniforms of the Fifth Class, to which the skilled artisans belong. Greys and dark blues were also fairly numerous; but what surprised me most of all was the small number of people to be seen in the streets. I must ask Sheep for the explanation of this.

Promptly at nine o'clock next morning Sub-Conductor of Foreign Observers Sheep made his appearance at the hotel, and we began our tour of the public buildings. He took me first to the 'Import-Food-Hall,' which stood alongside the railway on the outskirts of the town near the industrial quarter. It was a great warehouse through which all the food brought into the town has to pass before it is allowed to be sold in the markets and shops. (The sole exception is milk, which is distributed by municipal servants.) The building was very extensive and several stories high. The two ends were open for the passage of railway wagons. The architecture was not without a certain coarse dignity. The arches were decorated in Romanesque style, and the whole front facing the street was covered with rude sculptures in high relief of scenes connected with the production of food. The interior walls were covered with frescoes depicting similar scenes. Conductor Sheep grew almost enthusiastic over this exhibition of Meccanian Art. All these decorations, he said, had been executed by the students of the Bridgetown Art School. I was not altogether surprised to hear this; there was something so very naive and obvious about the whole idea.

We next saw the municipal slaughter-houses, which were almost adjoining. Inspector Sheep informed me how many minutes it took to kill and prepare for the meat market a given number of cattle, sheep or pigs. He dilated on the perfection of the machinery for every process, and assured me that not a single drop of blood was wasted. The amount of every particular kind of animal food required for each week in the year was ascertained by the Sociological Department, and consequently there was no difficulty in regulating the supply. The perfection of the methods of preserving meat also effected some economy. Conductor Sheep assured me that the Meccanian slaughter-houses had become the models for all the civilised world, and that a former Director of the Bridgetown slaughter-houses had been lent to a foreign Government to organise the system of technical instruction for butchers.

The five markets were in five different parts of the city. They served to distribute perishable foods only which were not allowed to be sold in the ordinary shops. All women in the Fifth, Sixth and Seventh Classes were obliged to do their marketing in person. Each person was obliged to deal solely with one dealer for a year at a time, and to attend at the market at a particular hour, so that there should be no congestion and no waste of time on the part of the dealers. This, I suppose, explains the wonderful orderliness of these markets. There was no gossiping or chaffering. Whether the people enjoy this arrangement is a matter upon which Sheep did not enlighten me. He said it had been calculated by the Time Department that an economy of 50 per cent had been effected in the time spent upon the daily purchase of food since the introduction of the modern market system.

Foods that are not perishable are sold in the shops, and as regards certain articles there is the same system of choosing each year the shop at which one buys a particular article, whilst as regards others trade is free. The housewife must buy her bread always from the same baker; but things like mustard, spices, coffee or preserved food may be bought at any shop.
The sale of drink is regulated in a different way. The three lowest classes are not allowed to keep drink in their houses; but as the favourite national drink is a mild kind of beer which can be got in any restaurant, there is no apparent hardship in this regulation. The way in which excess is checked is very curious. The weekly budgets of every family, in all classes below the fourth, are checked by the authorities--by which department I do not know--and if the amount spent on drink exceeds a certain sum per head, a fine is inflicted and the offender warned. If the offence is persisted in, the offender is forbidden to buy any drink for a specified period. One might suppose that such regulations could easily be evaded; so they could in most countries, but not in Meccania. Everything is so perfectly scrutinised that no evasion seems possible--at any rate as far as the three lowest classes are concerned.

"This scrutiny of family budgets," I remarked, "is it not resented and even evaded?"

"I do not think it is resented," answered Sheep, "but it certainly cannot be evaded. Why should it be resented? The facts are only known to the officials, and in any case they would be required by the Sociological Department. How else could it obtain the necessary data for its researches? Every woman is taught how to keep her household accounts in the proper manner, and she sends in her account book at the end of each quarter. That is necessary for many reasons. No," he concluded, as if the idea had not occurred to him before, "I have never heard of any complaints. Only those would wish to complain who desired to evade some salutary regulation; consequently there is no reason why, out of regard for them, we should interfere with a practice that has so many advantages."

"What are the advantages?" I asked, for so far I had seen no advantage except the possibility of checking expenditure upon drink.

"The use of these accurate family budgets and household accounts to the Sociological Department is simply indispensable. To the Department of Trade and Industry also they are very valuable. In fact, you may take it that all our Meccanian institutions are so arranged that they serve several purposes and fit in with the whole Meccanian scheme of life."

Incidentally, in connection with the family expenditure on food, he mentioned model dietaries. I was curious to know what these were. He explained that there were three recognised kinds of dietaries. First, the Food Department prescribed model dietaries for families of the three lowest classes in normal health. Secondly, when each person was medically examined--and this happened at least once a year--the medical officer might prescribe a dietary for the individual; and lastly, if a person were positively ill, it would be the duty of the medical officer in charge of the case to prescribe a dietary. I was going to ask some further questions about the Medical Department, when Sheep reminded me that we had still several other municipal departments to visit before we came to the Medical Department, and that we must not depart from the programme of our tour.

The Department for the Inspection and Regulation of Clothing came next. I was rather surprised that this should be a municipal institution, seeing that the regulations were uniform for the whole country.

Sheep explained that it was just because the regulations were so perfectly uniform that the function of administering them could be entrusted to the municipality. The department was quite a small affair. Only about ten inspectors were required for Bridgetown. Their duties were to see that no person wore any uniform to which he was not entitled, and that on ceremonial occasions full-dress uniform was worn. It was quite easy to ensure that a uniform of the right colour was worn, but in addition to that the various grades of each class were indicated by the various facings, stripes, buttons and badges, as were also the different occupations within each class and grade. The penalties for wearing unauthorised decorations were very heavy, and infringements were very rare, as detection was almost certain.

"I should have thought that the whole clothing trade would be in the hands of the Government," I remarked.

"That is not part of our system," replied Sheep. "The production of all the kinds of cloth for all the uniforms is so standardised that there would be no advantage in the State taking over the mere manufacture. Each person chooses his tailor from a small panel. Naturally the members of the higher classes have the best tailors. In fact, a tailor of the first grade would not be allowed to make suits for the three lowest classes; it would be a waste of talent."

"And what about the women's clothing?" I inquired. "They do not wear uniforms. Is their dress regulated in any way?"

"Only in two ways," answered Sheep. "Every woman must wear, on the front upper part of each of her outdoor dresses, a piece of cloth of the regulation pattern and colour, to indicate the class to which she belongs. Also the expenditure on dress is limited according to the social class."

When we came to the offices of the Department of Health, Sheep said I had made a grave error of judgment in choosing Tour No. i--the tour for a single week only--as there was enough to occupy us for a week in the Department of Health alone. It included the Sanitation Section, the Medical Inspection Section, the Medical Dispensing Section, the Medical Attendance Section, the Hospital Section, the section of the Special Medical Board, the Marriages and Births Section, the Post-Mortem Section, and the Buildings Section.
After this I was not surprised to hear that over a thousand persons were employed in the Health Department, in addition to the workmen—chiefly of the Sixth and Seventh Classes—who did the actual menial work of keeping the sewage system in order and keeping the streets clean. I might write a whole chapter on the Health Department, but it will perhaps suffice if I mention the most singular features.

Inspectors visit every house twice a year to see that each house and flat is kept in a sanitary condition. Each person is medically examined once a year--this is in addition to the system of medical inspection in schools—and whatever treatment is prescribed he must submit to.

"What happens," I asked, "if a person declines to submit to treatment?"

"He would be taken before the Special Medical Board," answered Sheep.

"And what is that?" I asked.

"We shall come to that presently," said Sheep reprovingly. He went on to explain that the Dispensing Section treated all persons of the three lowest classes who did not require to go into a hospital. The doctors were municipal officials and there was no choice of doctor.

"Why do you not allow choice of doctor?" I asked.

"That would interfere with the proper classification of the diseases," he answered. "As soon as a complaint is diagnosed, it is handed over to the appropriate doctor for treatment. The same applies to the Medical Attendance Section; but persons in the three lowest classes are not generally attended in their homes, they are brought into the hospitals. The chief work of the Medical Attendance Section is in connection with births; consequently we employ a number of women doctornurses in this Section. Now we come to the Special Medical Board. It is a sort of Higher General Staff. It collates the results of the work of all the other medical sections, and is responsible for the annual report. It receives the instructions of the Central Medical Department of Meccania, and sees that these are carried out. It directs special investigations in all abnormal cases. In the case of so-called incurable diseases it pronounces its decree as to whether the case is incurable, and in that event it authorises the death of the patient."

"Authorises the death of the patient?" I said. "Without the patient’s consent?"

"The patient can hardly be the best judge," said Sheep.

"What about the relatives then?" I asked.

"The relatives have no voice in the matter," said Sheep.

"That sounds very drastic," I remarked; "and what about the sort of case you mentioned a little while ago?"

"The case you mentioned?" said Sheep. "I do not remember any such cases, but if one occurred it would be dealt with under Section 143 of the Medical Regulations, which prescribes that in case of persistent disregard of the instructions of the authorised medical officer, with the consent of the Special Medical Board, the person guilty of such refusal is to be removed to an asylum for mental abnormality."

"A lunatic asylum!"

"We do not call them lunatic asylums. The term is obsolete; it does not accord with our system of classification."

Sheep next dealt with the Marriages and Births Section. This is in some ways the most remarkable of all. It appears that a licence to marry is issued to all persons in normal health, the Department prescribing the number of children to be born within each period of five years. Persons classified as abnormal are specially dealt with, and on this subject Sheep referred me to the Report of the Central Medical Department, which I could obtain in the Great Meccanian Library at Mecco. The Post-Mortem Section carried out an examination in all cases of interest to the Health Department before cremation.

I asked what the Buildings Section was. It seems to be a sort of link between the Architectural Department and the Health Department, and supervises the building regulations from the hygienic point of view.

The next day Conductor Sheep called punctually at nine o’clock to continue the tour of observation. We had come to the end of one section, as marked out in the mind of the Authority, and were now to begin another, namely, the institutions controlled partly by the City and partly by the State. I suspect that the control by the City is a good deal of a fiction, for the State has power to take over any of the functions that are not performed to its satisfaction.

We began with the Police. The office of the Central Police Station was in the building where I had first been inspected, examined and instructed, on my arrival. It was a large building for a town of the size of Bridgetown, and seemed full of officials, police officers and clerks. Yet I had noticed very few police officers in the streets. I remarked upon this to my guide. I said, "In the country I have just come from they have a great many police officers in the streets of the large towns, but very few other officials connected with the police service. Here, apparently, you have few police officers in the streets, but a great many other officials connected with the police service. Can you explain that?"

"Yes," he said; "I have heard something of the kind before, and although I have never been abroad to other countries, the books in our libraries describe the police systems so fully that I think I can answer your question. The
police in Luniland—so I am informed—do little else besides keeping order in the streets and following up criminals."

"Exactly," I remarked. "What else should they do?"

"Here," said Sheep, "these are the least of their functions. We employ fewer police in keeping order in the streets, and in detecting criminals, than any country in the world. Crime and disorder are almost unknown in Meccania. Our people are so well brought up that they have little desire to commit crime. Those who do show any propensity in that direction are deported to criminal colonies and give very little trouble afterwards. Besides, there is, after all, very little opportunity to commit crime, as you would soon discover if you attempted to do so."

"I can well believe that," I said. "But what, then, do your police find to do?"

"Speaking generally, their function is to see that the regulations devised for the good of the State are properly carried out."

"And those regulations are rather numerous, I suppose?"

"Undoubtedly. As they affect every department of life, there are many occasions upon which the assistance of the police is necessary in order that people shall not make mistakes," said Sheep.

"But," I said, "I thought that the officials of each department of State attended to so many things that there would be little left for the police. For instance," I added, "the inspectors of food and clothing, of buildings, of public health, of education, and so forth."

"Yes, yes," answered Conductor Sheep; "but suppose some matter arises which may belong to several departments; the citizen needs guidance. Quite apart from that, the police watch over the life of the people from the point of view of the general public interest. They collect information from all the other departments. Suppose a man neglects his attendance at the theatre: the amusement authority must report the case to the police. Similarly with all the other departments. Suppose, for instance, a man were to try to make an unauthorised journey, or to remain absent from work without a medical certificate, or to exceed his proper expenditure and get into debt, or try to pass himself off as a member of a higher class: in such cases it is the police who take cognisance of the offence. Then there is the annual report and certificate of conduct with respect to every citizen. How could this be filled up without exact information? All this involves a great deal of work."

"Indeed it must," I replied.

"You see, then, that our police are not idle," said Sheep triumphantly.

"Indeed I do," I replied.

After this enlightening explanation the offices of the Police Department no longer presented a mystery to me. I looked with awe at the hundreds of volumes of police reports in the official library of the Bridgetown police office, and wondered what the Central Police Office Library would be like; for I was told it contained a copy of every police report of every district in the country, as well as those for the great capital Mecco.

When we came to the Department of Education, which was one of the institutions managed by the State and the Municipality, Conductor Sheep regretted once more that I had chosen Tour No. 1. We could only spare half a day at most for this important department. Here, again, I can only note a few of the unusual features of the system as explained to me by my encyclopaedic conductor. We saw no schools except on the outside, but I noticed the children going to and from school. They all marched in step, in twos or fours, like little soldiers. They did not race about the streets or play games. Wherever they started from they fell into step with their comrades and carried their satchels like knapsacks. The State Inspectors, it seems, decide what is to be taught, and how it is to be taught: the local officers carry out their instructions and classify the children. In the office of the Department there is a sort of museum of school apparatus in connection with the stores section. The books are all prescribed by the Central Department, and no others may be used. The children of the Sixth and Seventh Classes attend common schools in order to get the benefit of better classification. There are no schools in Bridgetown for the members of the First and Second Classes. They go elsewhere, but the other classes have separate schools. The children of the Sixth and Seventh Classes stay at school until they are twelve; but their instruction is largely of a practical and manual kind. Those of the Fifth Class remain until fifteen, and are trained to be skilled workmen. After fifteen they receive instruction in science in connection with their several occupations.

Closely connected with the system of education, for the three lowest classes, is the Juvenile Bureau of Industry. This is controlled by the Department of Industry and Commerce. No young person in Meccania can take up any employment without a certificate granted by this Department. The officials of the Juvenile Bureau, after consultation with the officials of the Education Department, decide what occupation boys and girls may enter, and no employer is allowed to engage a boy or girl except through the medium of the Bureau.

"What about the inclinations of the boys and girls, and the desires of their parents?" I remarked to Sheep.

"The inclinations of the boys?" said Sheep, more puzzled than surprised. "In what way does that affect the question?"

"A boy might like to be a cabinet-maker rather than a metal worker, or a mason rather than a clerk," I said.
"But such a question as that will have been determined while the boy is at school."
"Then when does he get the chance of choosing an occupation?"
"It will depend upon his abilities for different kinds of work. And he can hardly be the judge of that himself," added Sheep.
"Where do the parents come in, then?" I asked.
"The parents will naturally encourage the boy to do his best at school. And after all, does it matter much whether a boy is a mason or a carpenter? In any case, the number of carpenters will be decided each year, and even each quarter, by the Department of Industry. It is not as if it would alter his class, either; he will be in the same class unless he is very exceptional and passes the State Examination for promotion."

I saw it would be useless to suggest any other ideas to Sub-Conductor Sheep, who seemed constitutionally unable to understand any objections to the official point of view. I could hardly hope to learn much about education in a single afternoon. All we saw was the mere machinery from the outside, and not even a great deal of that. I gathered that there was a most minute classification, with all sorts of subdivisions, of the children according to their capacities and future occupations. There were sufficient local inspectors to provide one for each large school, and their chief business was to conduct psychological experiments and apply all sorts of tests of intelligence in order to introduce improved methods of instruction. The inspectors themselves were all specialists. One was an expert on mental fatigue, another devoted himself to classifying the teachers according to their aptitude for teaching particular subjects, another specialised in organising profitable recreative employments for different grades of children; another superintended all juvenile amusements. Sheep showed me the exterior of a large psychological laboratory attached to the Technical College. Bridgetown was too small to have a University of its own, but it had two large Secondary Schools for pupils in the Third and Fourth Classes, and an enormous technical school for the boys of the Fifth Class. It was fitted up like a series of workshops for all sorts of trades, with class-rooms and laboratories attached. Sheep asserted that it was through these schools that the Meccanian artisans had become by far the most efficient workmen in the whole world. I had not time to ask many questions about the provision for games or physical training, but from something Sheep said I inferred that whilst games had been reduced to a minimum the experts had devised a system of physical training which satisfied all Meccanian requirements.

Sheep strongly advised me to study Meccanian education in Mecco if I ever got there. All true Meccanians recognised, he said, that the whole national greatness of Meccania rested on their system of education. No doubt statesmen had done much, but the ground had been prepared by the schoolmasters, and the statesmen themselves had been brought up in the Meccanian system of education. He himself, he confided, was the son of a Meccanian village schoolmaster.

Why then, I asked, begging his pardon if the question were indiscreet, did he wear the chocolate button which indicated that he had once been a member of the Fifth Class?
"When the sevenfold classification was introduced," he answered, "village schoolmasters who were not graduates were in the Fifth Class, and I was in the Fifth Class until I was thirty and gained my promotion in the Police Department."

Tour No. i made no provision for studying the lighter side of life in Bridgetown. Sheep said that practically all forms of amusement were controlled by a section of the Department of Culture, but t at the Organising Inspectors of Private Leisure were appointed locally, subject to the approval of the Central Department.

"Organising Inspectors of Private Leisure I "T exclaimed. "What an extraordinary institution!"
"In what way extraordinary?" said Sheep.
"I am sure they do not exist in any other country," I replied.
"Perhaps not," replied Sheep; "but, then, our culture is not modelled on that of any other country. Possibly other countries will discover the use of such officials when they have developed a better system of education."
"But what is their function?" I asked.
"Any person who has more than an hour a day unaccounted for, after doing his day's work, and fulfilling all his other duties, is required to submit a scheme every half-year, showing what cultural pursuit he proposes to follow. The inspectors will assist him with expert advice and will see that he carries out his programme."
"Is there nothing left unregulated in this country?" I asked in as innocent a tone as I could command.
"That is a very interesting question," replied Sheep. "If you will consult the Forty-eighth Annual Report of the Ministry of Culture you will find an interesting diagram, or map, showing the whole field of Meccanian life and the stages in its organisation. One by one all the spheres of life have been gradually organised. If you examine the diagram showing the present state of Meccania, and compare it with similar maps for other countries, you will perceive how very much more advanced our culture is than that of any other country."
"And what regions still remain for the Department of Culture to conquer?"
"An investigation is going on at the present time into the interesting question of individual taste," he answered.
"It is being conducted by the "Esthetic Section of the Department, but they have not yet reported."

Where everything is so completely regulated it is not surprising to find that poverty, as understood in many countries, no longer exists; but I was not quite clear how it was provided against. Once more Sheep was ready with a complete explanation.

"Our laws," he said, "do not permit anyone to remain idle, and the regulation of the expenditure of the lower classes secures them against improvidence. Besides, as they contribute to insurance funds, they receive a pension in old age, and allowances during sickness or disablement. Poverty is therefore impossible."

"Apparently, then," I remarked, "if the labouring classes will surrender their liberty to the State they can be relieved of all danger of poverty."

"I do not understand what you mean by surrendering their liberty," replied Sheep.

"In many other countries," I said, "people desire to please themselves what they will work at, and indeed whether they will work at all. They have the liberty of striking, for instance, against wages or other conditions that do not satisfy them, and I have heard people in such countries declare that they would rather preserve their freedom in such things than be secured even against poverty."

"It is no part of my business to discuss such questions," replied Sheep, "but I have never heard such a question even discussed in Meccania. The foundation of Meccanian law is that the private individual has no rights against the State."

It was towards the end of the week that I mentioned to Conductor Sheep that I had had great difficulty in procuring a copy of the local newspaper published in Bridgetown; in fact, I had not managed to get a sight of it. Sheep explained that Tour No. i did not allow time for the study of local social life in such detail as to provide a place for such a thing, but he was good enough to procure me a sight of the Bridgetown Weekly Gazette. It was well printed on good paper, but it was more like an official municipal record than a newspaper. It contained brief reports of municipal committee meetings, announcements as to forthcoming examinations, lists of persons who had passed various examinations; and statistics of births, death sand marriages. The figures for the births were given in an unusual form. There were fifty first-born boys, forty-five first-born girls; forty-seven second-born boys, forty-eight second-born girls; and so on down to three fourteenth-born boys and seven fourteenth-born girls. There were statistics of accidents, with brief details. There was a list of small fines inflicted for various infringements of regulations, and announcements of forthcoming legal cases. The only advertisements were a few concerning sales of property and household goods. It was altogether the driest document calling itself a newspaper I had ever seen. I tried to draw Sheep on the subject of newspapers in general, but he seemed rather annoyed.

"I procured this Gazette," he said, "as a concession to your curiosity, although it forms no part of our programme, and now you wish to go into a subject which is totally unconnected with our tour. The question is of historical interest only, and if you stay in Meccania long enough to study the historical development of our Culture, you will study the history of the Press in its proper place and connection. I will, however, add for your present information that the Central Government issues a complete series of Gazettes, which serve the same purpose for the country as a whole as the Bridgetown Weekly Gazette for his locality." With that the subject was closed for the present.

Although I had now been here nearly a whole week, I had not yet had an opportunity of strolling round to see anything that might catch my fancy. Everything had been done according to the programme. Nevertheless, I had noticed a few things in the course of my daily tours which Conductor Sheep did not think worthy of comment. I got very tired of his guide-book style of explanation. Bridgetown was hardly worth the painful and systematic study which he compelled me to give to it, and I decided to go straight on to the capital in a few days.

I saw no drunken people--the regulations do not permit drunkenness. I saw no loose women in the streets. On this subject I can get no information from Sheep, but I suspect there is something to learn. There were no advertisement hoardings. I must confess I rather missed them; they may be ugly, but they are often interesting. The shops were very dull. Nothing was displayed in the windows to tempt people to buy, and there were no people about the streets shopping in a casual way. People must know what they want, and go to the shops which specialise in the particular article. There were large stores; but even these were so divided into departments that there was little fun in shopping. Indiscriminate and casual shopping is distinctly discouraged by the State. Advertising is restricted to trade journals, except for a little in the miserable local gazettes. Only those forms of production which the State considers necessary are allowed to expand indefinitely; all the others are regulated. Consequently there are none of the incitements to expenditure which exist in most modern countries. I have never been a great shopper, but I could not have believed how much duller life was without the attractions of the shop windows and the stores, if I had not been here. For instance, I found that I had very foolishly come without a pair of bedroom slippers, so I wanted to buy a pair. I looked round naturally for a shop where I should see such things displayed in the window, but I had to go to the slipper section of the boot department of a store, choose from an illustrated catalogue the quality I wanted, and
I thought I should have seen book-shops displaying all the most recent books and publications. In other countries I found it possible to pick up a great deal of information by noticing the kind of literature exposed for sale. Booksellers' shops have always an attraction for me. To my amazement the booksellers' shops have disappeared from Meccania, yet I know from my own reading they used to be quite a feature in the life of the old Meccania. The censorship of the printing trade has apparently revolutionised the book-selling business. At any rate, the only place in which I could get to see books in Bridgetown was at a sort of office in the Technical College. It seems that the Publications Department of the Ministry of Culture--I think that is the right name--has in every town a public room, fitted up like a small library, in which all the current books published are exhibited for six months at a time. This is really a very useful institution in itself, but the books exhibited were not on sale, so all the pleasurable excitement of a book-shop was wanting. To buy books one must order them through an authorised book-agent, who has a sort of monopoly. I wondered why such an extraordinary arrangement should have been made, but when I got the explanation from Sheep it was quite consistent with the general scheme of things here.

I asked him whether the Government discouraged the public from reading. He said, "Not at all. Our people are great readers; they do not need any incitements to read. They consult the lists of new books and come to the book-room to see any book in which they are interested. Then they decide whether to buy it or to borrow it from the public library."

"But why do you not permit people to open book-shops?"

"It would be a sheer waste," replied Sheep. "One book-agent can supply all the books required in Bridgetown without keeping a stock of thousands of books that would never be wanted or not wanted for years. Apply the same principle to other towns and you will see that by keeping only one central stock we effect a great economy."

I pointed out that in other countries the publishers kept the stock and supplied booksellers with what they wanted, allowing them to keep a few copies for the immediate sales; and that consequently this was almost as economical an arrangement.

"But," said Sheep, "we have no publishers in your sense of the word. When a book is written it cannot be printed without the sanction of the Government censors, who decide how many copies in the first instance are to be issued. The publishers are really printers who arrange the form and style of the book, but undertake no responsibility such as publishers in other countries undertake."

"Then the Government are really the publishers?" I suggested.

"Well," answered Sheep, "the Government are the publishers of most books. That is to say, the number of Government publications exceeds the number of private publications, but as regards the latter the publishers or printers assume the financial responsibility for the sales but are insured by the Government against loss, so long as they comply with the conditions imposed by the Publishing Department."

But I have digressed too far. My interest in book-shops must be my excuse. Not only were there no casual shoppers, but I saw no one sauntering about the streets. Everybody seemed to have an object in view. There were no children playing. The children were either marching in step to or from school, or they were performing some kind of organised game--if it could be called a game--under the supervision of a teacher or guardian. The workmen going to their work, or returning, also marched in step like soldiers. The women going to market went at the appointed time and took their place in a little queue if there were more than three or four in front of them. At the theatre there was no crowd outside; every one had his numbered seat and went to it at the minute. Each man's ticket has printed on it the day of his attendance, the number of the seat and the exact time at which he must be present.

There are no such things here as football matches or other sports witnessed by crowds. The men attend military drill once a week, some on Sundays and some on Saturdays. This is in addition to their annual periods of drill. The only custom which survives from old times, resembling the customs of other countries, is that of sitting in the evening in gardens attached to restaurants. Here the people listen to bands of music whilst they drink a thin kind of liquor and smoke cigars.

The sense of orderliness is almost oppressive. Every hour of the day has been mapped out for me, except when I have been writing my journal in the evening. The day before yesterday we began to visit the State institutions. The chief of these is the Post Office, but the most remarkable is the Time Department. The Post Office is very much like any other post office, except that it has a Censor's Department. All letters are actually read by the clerks in the Censor's Department. Sheep gave me a curious explanation in justification of this extraordinary institution. Put briefly, his case was this. The State could not, with due regard to the interests of the community, allow all letters to go uncensored. All sorts of mischief might be hatched. If the State censors any letters it cannot logically stop short of censoring all. As to the labour involved, this pays for itself. For the public, knowing that its letters are liable to be read, does not indulge in unnecessary letter-writing. Thus time is saved, which can be devoted to more useful purposes. The statistics compiled by the Time Department have completely proved that the labour of the fifty clerks
employed in censoring the letters effects a saving of more than four times the amount of time which would otherwise be spent by the public in useless letter-writing.

This Time Department is the most extraordinary institution of all I have seen so far. Every person over ten years of age is required to fill in a diary form each week showing the time spent daily on every separate operation. The diary form is a stout double sheet of foolscap providing four page altogether. The first page is stamped with the name, address, and other particulars of the diarist. The two open pages are ruled into 336 small oblong spaces, one for each half-hour of the week. In these spaces brief entries are made, such as ‘breakfast,’ ‘tram-journey,’ ‘conversation,’ ‘sleeping,’ etc. This part of the diary thus gives a chronological account of each day in successive half-hours. On the back page is printed a long list of about 150 categories in three columns. I noticed such headings as these:—Sleep, dressing, meals (subdivided), travelling (conveyance specified), employment (specified under many heads), study (specified), reading, letter-writing, interviews with officials, attendance at theatre, concert, church, museum, etc., conversation (subdivided into family, friends, others), other amusements (specified), public ceremonies, drill, etc. Against each of these headings the total number of minutes spent during the week is recorded.

The information derived from these diaries is scrutinised and worked up into elaborate reports and statistics for the benefit of the Sociological Department, the Police Department, the Department of Trade and Industry, and so forth. I hope to learn more of this most remarkable feature of Meccanian life when I reach the capital, where the Central Time Department carries on its work.

I have good reason to remember the Time Department, for on Sunday morning after breakfast I was sent for by the official who manages the Hotel for Foreign Observers. He told me rather curtly that he had just received a telephone message from the local office of the Time Department inquiring whether I had sent in my diary, as it had not been received. I told him I knew nothing about such a thing. He said, "Nonsense. You have had the usual instructions given to all foreigners. Look among your papers." I did look, and there, sure enough, was a sheet of instructions and three blank forms. He said, "You had better fill it up at once." So I went to the writing-room and began. But I could not remember what had happened at all clearly enough to fill the half of it in. At the end of an hour the hotel manager came to ask what I was doing all this time. I explained my difficulty. He asked if I had not kept a pocket-diary: it was indispensable. I suddenly remembered the pocketdiary Sheep had procured for me; but I had forgotten to make use of it. What a fool I was! We spent the next hour doctoring up the diary and then sent it in. He told me I should have to pay a fine of ten shillings for the delay. I did not mind that, but the next day I received a visit from an official from the Time Department, who came with Conductor Sheep to point out that there were many errors in the diary. The times for a number of items did not tally with those in Conductor Sheep’s diary, although we had been together the whole week from 9 a.m. to 6 p.m. each day. I should have to make out a fresh diary with the assistance of Conductor Sheep, and pay a fine of £1. The charge of falsifying my diary would not be made, in view of my colossal ignorance; the charge would be reduced to that of negligence to verify particulars. Conductor Sheep was rather disagreeable about the affair, as it might be considered to reflect on him. I certainly thought he might have taken the trouble to instruct me more fully upon such a momentous business. However, as I was on the point of leaving Bridgetown for Mecco, I was not much disturbed by his ill-humour.

CHAPTER III
INTRODUCTION TO MECCO

IT is a week since I arrived in Mecco, and for the first time I have leisure to write up my journal. The life of a Foreign Observer is very strenuous, for the Meccanian method of seeing everything according to programme and timetable is very fatiguing. Already I feel that a holiday will be welcome at the end of my tour. In the whole of this vast city of Mecco there is nothing casual, nothing incidental, nothing unprovided for. Although I am only a spectator, I feel like a little cog in the huge complicated machine. The machine seems to absorb everything; the individual counts for nothing. That is perhaps the reason why it seems impossible to get into contact with any human being other than the officials who instruct me and conduct me every moment of my time. I begin to wonder whether the individual Meccanian really exists, or whether his personality is merged in the official personality which is all that is visible to me.

To resume the record of my experiences. Before I left Bridgetown, Sub-Conductor Sheep repeated his opinion that in choosing Tour No. I, which allowed only a week for the study of an important town, I had revealed my incapacity as a Foreign Observer. He evidently put me down in one of the pigeon-holes of his mind as a mere tourist—-a creature almost extinct in Meccania. The day before my departure I paid the bill for his services, which were reckoned at the modest rate of 16s. a day. My hotel bill was also discharged, and I proceeded to my final interview with the Police Authorities. I had to submit to another disinfecting bath, but apart from this the medical examination was a formality.

At the Police Office, Inspector of Foreigners Stiff was very sarcastic at my expense. "So you think there is nothing more to be learnt in Bridgetown," he remarked. "It is not more than ten days since you left Luniland, and
you think yourself qualified to proceed to the very centre of our national Culture. Evidently your stay in Luniland has not improved whatever powers of appreciation you may have possessed; but that is what one would expect from that country of amateurs, charlatans and cranks. You have seen nothing of our Museum, our Art Collections, our Libraries: you are not interested in such things. How, then, do you suppose you will be able to appreciate what you will find in Mecco? Do we not assist all Foreign Observers, but it is rather a waste of time to provide an experienced and qualified Conductor for persons who are so clever that they only require a week to learn all there is to know in a whole city. However," he added, "the law with respect to Foreign Observers does not forbid you to proceed to Mecco. You have your medical certificate, I suppose, to show that you are still disease-free?" I produced it. "Have you notified the Railway Authority of your intention to travel to Mecco?" I had not done so.

"Turn to paragraph 44 of your Instructions and you will see that a day's notice must be given," he said brusquely. "You will have to stay another night in the hotel and travel to-morrow. Good morning."

Sheep accompanied me to the booking-office at the station, where I filled up a form of application. When this was presented to the clerk in charge, a fussy little old man in a chocolate-coloured uniform, he turned to Sheep in great excitement and whispered something which I did not hear. Then he turned indignantly to me and said, "But you are not an Ambassador, nor even a Government Agent."

"No," I said; "I am merely National Councillor Ming."

"So I see," he answered testily, "but why do you wish to travel First Class?" (I had filled in the word "First " in the space for "Class.") "Are you not aware," he said, "that only foreigners who are Ambassadors are ever permitted to travel First Class? You will travel Third Class in the compartment for Foreign Observers."

Next morning I went to the station in good time. An attendant from the hotel brought my bags over and handed them to one of the porters. I did not see them again until I found them in the hotel at Mecco. I was handed over to an official at the station. This person looked at my travel-permit and informed me curtly that I had arrived too early. I said, "Oh, that does not matter. I can look about the station until the train starts."

"That is not permitted," he said. "You will go to the waiting-room—that is what a waiting-room is for. Your train will come in a quarter of an hour before it is due to leave, and you will then take your seat, Coach Third Class, Compartment IV., Seat No. 12."

So I was taken to the waiting-room. Apparently I did not miss much of interest, for the station was one of the quietest and dullest I have ever seen. There is very little traffic across the frontier, so that Bridgetown station is a sort of dead-end. Only three passenger trains a day go direct to Mecco, and these are by no means crowded. I have since learnt that the restrictions on travelling in all parts of Meccania are part of the general policy designed to keep down unnecessary forms of expenditure to a minimum.

The train was due to leave at ten o'clock. At a quarter before ten exactly, as I looked through the window screen I saw it gliding along the platform into the bay. A bell rang, and my porter came to take me to my place. As I stepped across the platform I saw about a hundred people preparing to get into the train. Where they had been up to this moment I do not know. There was no bustle. Each person took his place as if he had been taking his seat in a concert-room. There was no examination of tickets. Every one had booked his seat the day before, and every seat was numbered. The train was made up of five passenger coaches, a post-office van, a baggage wagon, two wagons for perishable goods and a special coach for soldiers (privates). One of the passenger coaches painted red bore a large Roman II., indicating that it was a Second Class coach, another painted yellow was marked III., two others painted green were marked IV., and another painted chocolate was marked V. There was no First Class coach on this train, as there were no persons of the First Class travelling by it. Neither, apparently, were there any Sixth or Seventh Class passengers. Every one travelling wore a sort of uniform overcoat of the same colour as that of the coach in which he travelled. It was only later that I was able to recognise readily and without confusion the colours appropriate to the seven social classes, but I did notice that the Fifth Class wore chocolate, the Fourth green, the Third yellow and the Second red or scarlet.

I was taken to a compartment temporarily set apart for foreigners in the Third Class coach.

There was still ten minutes before the train started, so I looked out of the window and saw the porters and minor officials storing the luggage, putting in the mails, and so forth. The perishable goods had already been loaded, in a siding I suppose. No one was permitted on the platform except the railway servants, so that the station looked almost deserted. Presently the stationmaster, dressed in a green uniform with chocolate facings and a bit of gold braid on his cap, came on the platform and looked at his watch. Then, exactly as the big bell of the station clock began to strike ten, he waved a signal and the train glided out.

In a few minutes we were going at 100 miles an hour, and in less than a quarter of an hour the speed increased to 150. The track was smooth, but I began to feel dizzy when I looked out of the window. There was little to be seen, for every now and then we passed between embankments that shut out the view. I pulled down the blinds, turned on the light and tried to read. In a short time I had almost forgotten the immense speed at which we were travelling.
I had previously learnt that if I went to Mecco by the express I should see nothing of the country, and had consequently proposed to travel by a stopping train, perhaps breaking my journey a few times. But when I mentioned this to Sheep he said it would be impossible. I could not stop at any place to make a stay of less than three days, and each of the places I stopped at would have to be notified. I must either go direct to Mecco, or to some other city. So here I was, almost flying to Mecco. After about an hour, one of the guards came in to see that everything was in order. He wore a chocolate uniform, with a number of stripes and other symbols to indicate his particular, grade, occupation and years of service. After stamping my ticket he grinned good-humouredly for a Meccanian, and said, "So you are going to see the wonders of our wonderful Mecco. Lucky man! There is nothing like it anywhere in the world."

"Indeed," I said, "you have travelled abroad a good deal, then?"

"Oh no. I have never been out of Meccania, thank God!"

"What makes you think there is nothing like it, then, in any other country?" I asked.

"Oh, the wide streets, the buildings, the gardens, the monuments, the uniforms, the music, everything—it is c-o-l-o-s-s-a-I! When you have seen the great monument, the statue of Prince Mechow! There is nothing like it anywhere. You will see! And you must not miss the Memorial Museum of Prince Mechow! I tell you it is a privilege to live in Mecco. But I must not gossip," he said, as if half ashamed; "I have many duties," and off he went. Towards the end of the journey, which lasted a little over two hours, he looked in again and said, "You must not leave Mecco until you have seen the great festival on Prince Mechow's birthday." I promised to remember it.

As we drew near to Mecco the train slackened speed, and I could see, but only for a minute or two, a great city spread over a wide plain. There were domes and towers, steeples and pinnacles, huge masses of masonry suggesting great public buildings, then miles of houses and gardens and in the far distance warehouses and factories, but no smoke. We plunged into a tunnel and then emerged suddenly into a blaze of light. The train glided along the platform, and as I stepped out I could not help looking round in admiration at the truly magnificent arches and lofty dome of the great Central Station of Mecco. The roof seemed to be made of some wonderful prismatic glass that radiated light everywhere. The ground was covered with immense tiles in coloured patterns, all as clean as if they had been washed and scrubbed that very hour. Not a speck of dirt or smoke was to be seen. Although hundreds of people were in the station, there was no bustle. No one sauntered about; every one seemed to go just where he had business. There was no scrambling for luggage or for cabs. No one was allowed to take luggage with him unless it could be carried in one hand; the rest was all registered and sent to its destination by the railway servants. Only persons of the third or a higher class were allowed to use motorcabs, and these were all ordered beforehand. The impression of orderliness was almost uncanny. As I reached the end of the platform I was touched on the shoulder by a man in the green uniform of the Fourth Class, decorated with several stripes and badges. "You are National Councillor Ming," he said, "and I am Conductor of Foreign Observers Prigge."

He seemed to be in very good spirits, but this made him rather offensive than amiable. He treated me as if I were a sort of prisoner, or at any rate as if I were a very juvenile pupil. He said that as my bags had gone to the Hotel for Foreign Observers we need not go there first, but could proceed straight to the Police Office. This was not far from the station and was a large building, almost like a fortress in front. Viewed from the other side, as I afterwards saw, it was more like a set of offices with large windows.

First of all I was taken to the police doctor, who spent nearly two hours upon a minute medical examination of me. The object of this could not have been to make sure that I was "disease-free," for I had been seen the day before by the police doctor at Bridgetown. It could not have been for the purpose of identification, seeing that the authorities had obtained all the finger-prints and everything else they required, on my first arrival. I could only conclude that it was for the purpose of scientific research. I judged from the remarks made by Doctor Pincher in the course of his investigations that he was an expert anthropologist. He took samples of my hair, not only from my head, but from various parts of my body. He took a sample of my blood, and of the perspiration from several different glands. He even removed a small particle of skin, without any pain. He tested my eyesight, hearing and smell, my muscular powers, and all sorts of reactions to various stimuli. He informed me that I should require a pair of spectacles. I said I did not think it was worth while, as I had never yet experienced any discomfort. He replied that that made no difference, and proceeded to write out a prescription which he told me to take to a certain office, where, in a few days, I should be supplied with the necessary glasses. He then took a cast of my mouth and of my ears, and measured me in twenty different places. Finally he gave me a drink of what appeared to be water, but which made me unconscious for several minutes. What he did during those few minutes I do not know, and he did not deign to inform me. As I left him he smiled—I suppose he thought he was being amiable—"We do not have the pleasure of seeing a Chinaman here every day."
and after noting the time and my name on a sort of tablet, took out a yellow form, foolscap size, upon which he proceeded to make notes of my answers to his questions. He put me through a catechism as to what I had seen in Bridgetown. Which of the local institutions had I visited, which of the national, which of the local and national? What had I learnt of the industrial and social economy of Bridgetown? What had I learnt of the cultural institutions? Had I made notes of my daily tours, and could I produce them? (Luckily all my notes were in a language that Inspector Bulley could not read.)

He then proceeded to discuss plans for my tours of observation in Mecco. In the first place, how long did I propose to stay? I did not know. What did the length of my stay depend upon? I said it would largely depend upon my ability to stand the strain of it.

I thought this would perhaps annoy him, but on the contrary it pleased him immensely. "Good!" he said. "You are here to study the institutions of Mecco, and you will stay as long as you have the strength to carry out your task."

That was not what I meant, but I let it pass.

"I think you had better select the preliminary six months' tour of observation," he said. "After that, you can begin the study of any special branch for which you are qualified, and for which you have an inclination; possibly industry, possibly art, possibly sociology, possibly education. We can decide that at the end of your preliminary period.

You will have for your guide, for the first few weeks, Lower Conductor Prigge. As, however, he has just been promoted to a higher rank in the police service, he will not be available after the first few weeks, but I will arrange for a suitable successor."

He then presented me with several documents. "This," he said, handing me a thick notebook of some two hundred pages, "is the preliminary diary in which you make your notes in whatever form you like. There are four pages for each day. This is the formal diary for the Time Department, to be carefully entered up each week and posted before Sunday morning. These are the sheets of Instructions specially drawn up for Foreign Observers in Mecco; you will notice they are all marked' Tour No. 4,' and numbered consecutively. And this," handing me a thin metal plate about half the size of a postcard, "is your identification ticket."

It was now the middle of the afternoon. I had had no luncheon, so when Prigge came to take me off to the hotel, I proposed that we should have some tea. He demurred a little, as he did not drink tea, but he consented to have some coffee and a cigar in the smoke-room if I would drink my tea there. So we went on talking over our tea and coffee, and this is a specimen of the conversation:--

"You will understand," said Prigge, "that everything depends upon your own energy and intelligence. If you apply yourself thoroughly to the work before you, you will learn more in a fortnight under my guidance than in a whole year in Luniland. I have had a long experience in conducting foreigners. Most of them have no idea how to observe, especially those who come from Luniland. They want to roam about without any system or method at all. They want to see an Art Gallery one day, and a manufactory the next; or even on the same day. Then they want to see a natural history museum on the same day as an archaeological museum; they will fly from pottery to pictures, and from geology to botany. Why, I was taking one of them through our great museum illustrative of the stages of culture, which is arranged in twenty successive centuries, and when we had reached the sixteenth he actually wanted to turn back to look at something in the twelfth!"

"I think it will be a good thing," I said, "if I ask you questions as we go along, about matters that strike me. With all your knowledge you will be able to tell me many things outside the regular routine."

"Your proposal implies," he replied, "that I shall not give you the appropriate information in proper order. If you will follow my directions you will learn more than by any amount of aimless and desultory questioning. I have studied the principles of Pedagogy as applied to conducting Foreign Observers, and I shall accommodate the presentation of new matter to the existing content of your mind, in so far as your mind has any definite content. You will not be precluded from "asking questions, but whether I shall answer them will depend upon their relevance to the subject in hand."

Before we parted he gave me some general instructions. "For the first week," he said, "you will not be permitted to converse with other foreigners staying in the hotel. To-night you will be free to attend to your private affairs and prepare for to-morrow. We shall begin by a survey of the general geography of the city, and in the evening you will have permission to attend one of the lectures specially given to Foreign Observers by Professor Proser-Toady on Prince Mechow, the re-Founder of the Meccanian State. Professor Proser-Toady is the Professor of Historical Culture in Mecco, and this course of lectures is given periodically, so that foreigners may have no excuse for being ignorant of the true history of the rise and development of Meccanian culture."

So I spent the evening in writing letters, looking up my' Instructions,' and filling up my diary. For this day, interviews with officials accounted for at least five hours. Next morning at nine o'clock Conductor Prigge turned up, looking more perky than ever. He had all the airs of a professor, a police officer, and a drill sergeant rolled into one.
"Our first business will be to study the map," he said. "To that we will give one and a half hours. After that we will ascend the look-out tower in the Meteorological Department and take a view of the city in the concrete. In the afternoon we will go by tram-car in three concentric circles, and in the evening you will attend Professor Proser-Toady's lecture."

We began with the maps. I remembered something of the maps of the old city from my geographical studies at home, and I remarked on the great changes, for hardly a vestige of the old city seemed to remain.

Prigge appeared rather pleased. "That is an instance of the superiority of our culture," he remarked. "All the other capitals of Europe," he said, "still preserve the plan of the mediaeval city, in the central parts at least. And the central parts are the most important. The authorities profess to have preserved them because of their historical interest. In reality it is because they do not know how to remodel them. Against human stupidity the very gods fight in vain, but to intelligence all things are possible. Any dolt can plan a new city, but we are the only people in Europe who know how to remodel our old cities. Now you will notice," he went on, "that we have preserved the old royal palace and several other important buildings. They do not interfere with the general plan. The large central ring, over a square mile in extent, is occupied by Government buildings; and although there is a larger number than in all the European capitals put together, they are not crowded. The square of Prince Mechow, where the great statue stands, is the largest in Europe. The ring outside that is occupied by Cultural Institutions, Museums, Art Galleries, Libraries, the University, the Zoological Gardens, the Botanical Gardens, and so forth. Next comes a very much larger ring, occupied almost entirely by the residential quarters of the six social classes. (In Mecco itself there are no members of the Seventh Class.) The whole presents a superficial resemblance to a great wheel."

"Where, then, is the manufacturing quarter and the business quarter?"

"Now where would you expect?" he asked, as if to show off his own cunning.

"I saw a number of factories in the distance," I said.

"Yes," he answered, "the manufacturing quarter lies outside the ring and forms a sort of town by itself."

"And the business quarter? That must be centrally placed," I said.

"Not necessarily. If you draw a line from the centre of Mecco to the industrial quarter you will find the commercial quarter occupying a long rectangle between the second ring and the outer edge of the exterior circle. The commercial quarter thus cuts the residential ring on one side. The residential quarters of the Sixth and Fifth Classes lie on each side of the commercial quarter and are therefore nearest to the industrial quarter.

"You will observe," he continued, "that we have no Seventh Class in Mecco itself. We are an Imperial city, and even the servants of the well-to-do belong to the Sixth Class. It is the greatest privilege of a Meccanian citizen to live in Mecco, and all the citizens of Mecco are, so to speak, selected. None but loyal upholders of the national and imperial ideal are allowed the privilege of living here. It would not be right. There again, it is our superior national culture that has enabled us to realise such a plan. What Government in Europe could drive out of its capital all citizens who did not actively support the State?"

"It is indeed a wonderful thing," I said. "But what becomes of such disloyal citizens when they are, shall I say, expelled or exiled?"

"Ah! You must not believe that we have had to indulge in any policy of expulsion. You will not find any disloyal element anywhere in Meccania. A few individuals you might find, but most of them are in lunatic asylums."

"But surely," I said, "I have read in the histories of Meccania, that formerly there were large numbers of people, among the working classes chiefly, who were, well, rather revolutionary in their ideas, and whom I should not have expected to see becoming loyal to such a State as the Meccania of to-day."

He smiled a very superior smile. "Really," he said, "the ignorance of our country which foreigners betray is extraordinary. Disloyalty to the State is found in every country except Meccania. We have got rid of it long ago by the simple process of Education. If we find an odd individual who displays disloyal sentiments we regard him as a lunatic and treat him accordingly."

"How?" I asked.

"We put him in a lunatic asylum."

"And your lunatic asylums? Have you enough for the purpose?" I ventured to ask.

Conductor Prigge luckily did not see the point. "In most cases," he said, "the threat is sufficient. We require very few lunatic asylums, just as we require few prisons. But we are wandering from the subject," he remarked; and he drew out a map of the residential quarters, coloured in white, red, yellow, green, chocolate and grey, the colours of the classes, omitting the Seventh.

I noticed that the parts coloured white, red and yellow covered about half the circle. I was going to put some questions to Prigge as to the relative numbers of the classes, when he said, "I do not think you have yet grasped our sevenfold classification of the citizenship of Meccania."

"Somewhat imperfectly, I am afraid," I replied.
"Then you have not grasped it," he said. "You cannot be said to grasp it if you are not perfectly clear about it. I will explain. Attend! Begin with the lowest. That is the logical order. The Seventh Class consists of persons of the lowest order of intelligence who cannot profit by the ordinary instruction in the schools beyond a very moderate degree. They are not very numerous. From the age of ten they are taught to do simple work of a purely mechanical kind, and when strong enough are set to do the most menial work which requires little intelligence. A few other persons, who have failed in life through their own fault, are relegated to this class as a punishment.

"The Sixth Class corresponds to the unskilled labouring class of most foreign countries. They are recruited from the children who at twelve years of age show only average ability. They are then trained to do either simple manual work, or to act as servants in families below the Second Class.

"The Fifth is the largest class; it is larger than the Sixth and Seventh together. We require a very large number of skilled artisans and clerks in a subordinate capacity. Consequently, we train all who are capable of profiting by a combination of theoretical and practical instruction until the age of fifteen, and even for some years after that, in industrial schools, where they study the practical aspects of mathematics and science. Consequently, they are by far the most skilled artisan class in the world. We have no trouble in inducing them to apply themselves to study, for any member of the Fifth Class who failed to profit by the system of instruction provided for him would soon find himself in the Sixth Class, which enjoys much less in the shape of privileges and material well-being than the Fifth.

"The Fourth Class includes most of the bourgeoisie, the bulk of the officials and clergy, as well as the small group of professional people who are not officials. In detail it comprises tradesmen, managers of businesses and foremen in responsible positions. All these are in the Industrial and Commercial world. Then come all Civil servants below the first grade, all non-commissioned officers in the Army and Navy, all the Clergy below the rank of Bishops. The professional people I referred to are a few who have not been absorbed in the official class. We have no journalists in Meccania, no doctors who are not in the State service, and no lawyers who are not officials."

"Then who are these professional people?" I interrupted.

"They are merely a handful of people, mostly possessed of small private means, who write books that are never published, or cultivate art, or music, or science. They are not good enough to be taken into the State service, and they are gradually disappearing altogether.

"The Third Class," he resumed, "corresponds partly to the Higher Bourgeoisie of other countries, but it also includes several more important elements. It comprises the richer merchants and manufacturers, who must possess an income of at least Â£5000 a year; the first class of Civil servants, the Higher Clergy, those University Professors who have held their posts for ten years and are approved by the Ministry of Culture, landed proprietors who are District Councillors and Magistrates, and all Fundholders with an income of Â£10,000 a year.

"The Second Class is the military class. It includes all officers, who must be of noble birth. A few of the highest Civil servants are in this class, but they must have previously served as officers in the Army or Navy.

"The First Class is partly military and partly civil; but, except members of royal or ducal families, all in the First Class have previously passed through the Second. Ambassadors are in the First Class, but they have all served for a period as officers in the Army. Even the head of a department of State is not admitted to the First Class unless he has previously been in the Second Class.

"Lastly, the relative numbers of the various classes are as follows: out of a total population of 100,000,000 only about 10,000 are in the First Class; 4,000,000 are in the Second; 6,000,000 are in the Third; 20,000,000 are in the Fourth; 40,000,000 are in the Fifth; 20,000,000 are in the Sixth; and the rest, nearly 10,000,000, in the Seventh Class.

"All women take the rank of their fathers or their husbands, whichever is the higher; children take the rank of their parents until their sixteenth year. Is that clear?"

"Quite clear," I replied, "except in one particular."

"What is that?"

"I take it that some, at any rate, pass from one class to another. By what means, for example, does a person who starts life, let us say in the Fourth Class, obtain admission to the Third?"

"We must take some particular category."

"A business man, a small manufacturer who is highly successful, perhaps makes some valuable discovery which enriches him. How does he obtain admission to the Third Class?"

"He must have an income of at least Â£5000 a year, and he must have performed some service to the State," answered Prigge promptly.

"And a Civil servant?"

"If he is promoted to the first grade he also is admitted to the Third Class, but this does not frequently happen."

"Then, on the whole, the children of those in each class respectively remain in the class in which they are born?"
of the civilisation of the modern world. Here are three million thoroughly efficient Meccanians, every one in his
whole capital. We ascended the look-out tower. The sight was magnificent. From where we stood the details of the
architecture could not be seen, nor even the style of the buildings. But the general impression produced by such a
vast assemblage of massive edifices was one of grandeur and power, while the bright sunlight and the absence of
smoke and dirt gave the whole city the appearance of having suddenly sprung up in a night, like Aladdin's palace.

The colossal statue of Prince Mechow, a gigantic portrait-figure of a man in the uniform of the First Class, his breast
covered with decorations, a sword in one hand and a mace or some symbolical weapon in the other. The impression
of brute force which it conveyed was terrific. Every person in the square, as he came within sight of it, took off his
hat; those in military dress saluted it, and pronounced the words, "Long live Meccania and God bless Prince
^Mechow!"

My first feeling on seeing it was one of intense disgust at the barbarity of the thing, and I was just going to
make some satirical remark when I caught sight of Prigge's face. It wore an expression of absolute ecstasy, and the
look of fierce disdain with which he said "Uncover!" was startling. He added something which sounded like
"Mongolian monkey," but in the excitement of the moment I was not quite sure what he said.

I tried to pacify him by saying, in as innocent a tone as I could assume, "It is indeed the most remarkable statue
I have ever seen."

"It is the most perfect embodiment of Meccanian Culture: no other country could produce such a work," he
replied solemnly.

"I am inclined to agree," I said. "Who was the artist who conceived and executed a monument of such
wonderful proportions?"

"The artist? What other nation could produce a man who united such gifts with such a true Meccanian spirit?
He desired that his name should never be spoken. When the work was completed after ten years, he gave up his life,
and begged to be allowed to be buried underneath the rock with all the tools that had been used in the execution of
the statue. His dying request was respected. His name is never uttered, but every child in Meccania knows it, and
every citizen in Meccania comes once every ten years to salute the statue of Prince Mechow and do honour to the
hero-artist who lies buried beneath."

"I shall never forget the story," I said, and we walked on to the look-out tower. On the way, I noticed that every
person in the street saluted every other person of higher rank than himself. I have since learnt that there are six
different forms of salute, one for each class above the Seventh, and that it is a point of strict etiquette to give the
right salute. A salute appropriate to the Fourth Class given to a member of the Third is an insult, and the wrong
salute given to a member of the Second (military) Class may cost the offender his life.

"That is so as a rule. The percentage has been worked out carefully by the statistical branch of the Sociological
Department. About 4 per cent of the Seventh Class enter the Sixth, about 5 per cent of the Sixth enter the Fifth,
about 3 per cent of the Fifth enter the Fourth, about 8 per cent of the Fourth enter the Third. No one, strictly
speaking, enters the Second from the Third, but as many of the men of the Second Class marry women in the Third
Class, which is the rich class, the sons may enter the Second Class, if they are suitable as officers in the Army. Also,
a number of the women of the Second Class marry men in the Third Class, and their sons also may enter the Army."

"It is a wonderful system," I ventured to observe.

"It is simplicity itself," said Prigge, "yet no other nation has had the intelligence to discover it, nor even to copy
it. As a matter of fact, it is the only logical and scientific classification of society; it puts everybody in his proper
place."

After this conversation, or rather this discourse, we walked out to ascend the look-out tower; but on the way we
had to cross the great square of Prince Mechow, and there, for the first time, I saw the great monument about which
I had heard so much. I had expected something extraordinary, but I was not prepared for the actual thing. It was as
high as a church steeple. At the base was a huge shapeless mass of basalt. Above this rose a square granite block,
twenty feet high, covered with high-relief sculptures representing in allegorical form the reconstruction of the
Meccanian Super-State. At the four corners were four figures representing Arms, Intellect, Culture and Power.
Above this again towered a great pedestal a hundred feet high and forty feet in diameter. On the top stood the
colossal statue of Prince Mechow, a gigantic portrait-figure of a man in the uniform of the First Class, his breast
covered with decorations, a sword in one hand and a mace or some symbolical weapon in the other. The impression
of brute force which it conveyed was terrific. Every person in the square, as he came within sight of it, took off his
hat; those in military dress saluted it, and pronounced the words, "Long live Meccania and God bless Prince
^Mechow!"

Conductor Prigge seemed duly satisfied with the impression made on me. "Here," he said, "you are at the centre
of the civilisation of the modern world. Here are three million thoroughly efficient Meccanians, every one in his
proper place, every one fulfilling his appointed duty. Think of the disorder, the squalor, the conflict of aims, the absence of ideals, represented by a city like Lunopolis, or Prisa, and look on this picture!"

We descended and returned to the hotel.

After luncheon we proceeded with our tour of the tramway system. By this means I got a good view of the exterior appearance of the houses of the various classes. It confirmed the impression I had gained from the look-out tower, except in one respect. The houses of the well-to-do looked as if they had all been designed by the same school of architects, and except that they differed in size they might have been turned out by machinery. The houses of the rest of the population were 'standardised' to an even greater degree. The dwellings of the Sixth Class are really blocks of small flats of a standard size; those of the Fifth Class are similar, except that the rooms are a little larger and there are more of them. One curious fact came to light in the course of Conductor Prigge's explanation of the housing system. It seems that the Births Department determines the number of children each family is expected to have within a given period of years, and the houses are distributed accordingly. Thus a family in the Fifth Class which is due to have, let us say, four children within the next seven years, is assigned a flat of five rooms. Then, if the same family is due to have two more children within the next five years, they move into a house with seven rooms. Persons in the first grade of the Fifth Class are allowed to take a flat with more rooms on payment of a special rate or tax.

Apparently there is very little choice of houses. As all the houses of a certain grade are practically alike, if a tenant wishes to move to another street he has to furnish valid reasons; and it is not easy to furnish reasons satisfactory to the authorities. Besides, the number of houses or flats is very closely proportioned to the number of tenants, and there are never many vacant houses. The members of the Third and higher classes own their own houses, and can therefore change their residences by purchasing or exchanging. By special privilege members of the Fourth Class can obtain permission to buy their houses, but as these are mostly flats they are usually rented from the municipality.

CHAPTER IV
PROFESSOR PROSER-TOADY'S LECTURE

FOLLOWING Conductor Prigge's instructions, I presented myself at six o'clock in the evening at the entrance to the Great University of Mecco. It was the first time I had been out without my 'keeper,' but as everybody else was dressed in the Meccanian costume, whilst I was wearing the clothes I had been accustomed to wear in Luniland and Francaria, there was little risk of my going astray. A porter darted out of a box in the entrance hall and directed me to Room 415, where the Professor of Historical Culture was to deliver his monthly four-hour lecture to Foreign Observers. I found about a dozen Foreign Observers of various nationalities waiting in the small lecture-room, and presently a few more arrived. Some were Scandinavians, some South Americans; a few, I thought, were Turks; several were from some part of India. At 6.10 precisely the Professor came in. He wore a brilliant yellow uniform of the Third Class, with green facings and buttons and a number of little ribbons indicating,

I suppose, various services rendered to the cause of Meccanian Culture. Apart from his dress he resembled the caricatures of Meccanian professors in our comic prints. His head was bald on the top and at the front, but at the sides great tufts of white hair protruded. His grey beard was of ample proportions. His coarse wizened face and staring eyes, covered by a pair of huge spectacles, gave him the appearance of a Jack-in-the-box as he sat behind a high reading-desk. His voice was tough and leathery. At the end of three hours it sounded as fresh and as harsh as in the opening sentences. I cannot reproduce the whole lecture; if I did it would almost fill a book by itself. I can only hope to give a rough idea of it by paraphrasing some of the most salient passages.

He began by saying that to accommodate himself to the culture of his foreign auditors he would endeavour to present his subject in the simplest possible form, which was the narrative, and would sketch the biography of the great re-founder of the Meccanian State, the true architect of the First Super-State in the world, the greatest political creative genius that had ever stepped upon the World Stage, Prince Mechow. We had all seen his memorial statue, which is due to have, let us say, four children within the next seven years, is assigned a flat of five rooms. Then, if the same family is due to have two more children within the next five years, they move into a house with seven rooms. Persons in the first grade of the Fifth Class are allowed to take a flat with more rooms on payment of a special rate or tax.

He began by saying that to accommodate himself to the culture of his foreign auditors he would endeavour to present his subject in the simplest possible form, which was the narrative, and would sketch the biography of the great re-founder of the Meccanian State, the true architect of the First Super-State in the world, the greatest political creative genius that had ever stepped upon the World Stage, Prince Mechow. We had all seen his memorial statue, , a unique monument to a unique individual, and no doubt it had made an impression upon our imagination; but it was impossible for any work of art however great--and here he paid a tribute to the hero-artist who built the monument--to convey more than a symbolic suggestion of the all-embracing magnificence of Prince Mechow's truly Meccanian personality. For that we must look around at the Super-State itself.

Prince Mechow, he said, was historically the culminating figure of the national development of Meccania. Compared with many countries in Europe, Meccania could not boast a long history. Some historians sought a false glory for Meccania by tracing its greatness back to the so-called Roman Empire of the Middle Ages, but true Meccanian history went back only a few hundred years. In fact, it was not until the eighteenth century that the Meccanian State was in the proper sense of the word began, and only in the nineteenth century did it take its place among the powers of the modern world. In the nineteenth century the Meccanian State was saved by the genius and will of one great man, the worthy predecessor of Prince Mechow, his great-uncle Prince Bludiron. From a scientific
or philosophical point of view it was difficult to say whether Prince Bludiron had not contributed as much to the
greatness of Meccania as Prince Mechow; for it was he, undoubtedly, who laid the foundations upon which the final
structure rested. The work of Prince Bludiron was very different from, but also similar in spirit to, the work of
Prince Mechow. His task had been to rescue the young and inexperienced State from the perils and distractions of
the false ideals of Liberty and Democracy, to secure the power of the State over all sections and classes, to create the
proud and confident Meccanian spirit and to set the nation on the right path.

The task of Prince Mechow was to erect the Super-State on the foundations laid by Prince Bludiron; in other
words, to organise the energies of the whole nation to one supreme end, to train and direct the powers of every
individual so as to produce one mind and one will.

Turning to the work of Prince Bludiron, the Professor said that when he began his work Meccania was
distracted by false and conflicting ideals, of foreign origin. Revolution was in the air. People were ready to drive out
their lawful rulers. Popular government was demanded. Parliaments were being set up. It was the saddest page in
Meccanian history. Had these anarchic forces triumphed, Meccania would have sunk to the level of other nations,
and the Super-State would never have arisen. It was the greatest testimony to the intellectual genius and moral
power of Prince Bludiron that, after forty years of strenuous work, the whole outlook for Meccania was completely
changed. The false ideal of individual liberty was dead and buried. Popular government was a discredited
superstition. The military aristocracy were secure in their rightful position. The efficiency of the Government was
demonstrated in every direction, and not least on the field of battle. Wars had been won with a rapidity
unprecedented in any age.

Prince Bludiron's success was so complete that it was almost impossible for us now to realise how great his
difficulties had been. So strong were the forces of Democracy that even he had to temporise and set up a Parliament.
He even granted manhood suffrage.

Dr. Proser-Toady then explained how Prince Bludiron outwitted the disloyal elements among the people by
securing the reality of power to the organised centralised State, whilst leaving the semblance of control to the
representative bodies. He quoted a Foreign Observer, at the end of Prince Bludiron's career, who declared that the
institutions set up by him enabled the State to wield the maximum of power with the minimum of opposition.
Strangely enough, said the Professor, the very movement that threatened to undo all his work was in reality of the
greatest service. He referred to the movement of Meccanian Socialism or Social Democracy which owed its peculiar
caracter to a certain demagogue named Spotts. The career and influence of Spotts was for a time almost as
remarkable as Prince Bludiron's. Spotts persuaded his followers that the economic tendencies of modern life must
inevitably create the Socialist State. The people need only wait until these tendencies had worked themselves out
and then seize the power of the State, which would drop into their hands like ripe fruit. He saw in the existing State
nothing but organised Capitalism. Consequently he encouraged his followers to take no part in the actual
Government, but to maintain themselves in permanent opposition until the inevitable revolution came about, when
they were to assume the whole control. Spottsian Socialism became the universal doctrine of the Meccanian
proletariat of those days. They talked about the economic interpretation of history, about economic forces, about
economic revolutions, mixed with vague notions of Liberty and Equality. But in reality they cared not a straw for
Liberty; what they sought was Power. Yet by standing in permanent opposition to every other element in the State
they played into Prince Bludiron's hands. Whilst they waited for the inevitable revolution, he had accustomed the
people to prosperity; and had raised the prestige of the State at home and abroad. He had gained the support of all
the strongest elements in society, had trained an efficient bureaucracy and an efficient military aristocracy. And yet
at his death the followers of Spotts went on waiting for the economic revolution!

The Professor then dealt briefly with what he said was the most difficult period for a Meccanian historian, the
period between the death of Prince Bludiron and the rise of the still greater statesman, Prince Mechow. In that
interval no great leader arose, but a number of foolish statesmen who fancied they were cast in the mould of the
great Bludiron. At that time Meccania had commercial relations with the whole world, and was rapidly penetrating
every country with its peculiar culture. Its army and navy were growing in strength, and the temper of the people
was becoming restless and aggressive. They lacked the controlling hand of Prince Bludiron. They were carried away
by dreams of sudden world-conquest. Foolish statesmen allowed the country to be plunged into war with half the
world at once. The Meccanians performed wonders, but they could not perform miracles, and in the end the country
was reduced to great straits. Provinces were torn away. Its accumulations of wealth were exhausted; its manhood
was decimated. The situation was terrible, yet it was this tremendous ordeal that indirectly created the most
favourable conditions for the work of Prince Mechow.

During the war the Government had been compelled to take over, more and more, the control of every
department of life. Under the pressure of war the last vestiges of the obsolete doctrines of Individualism had
disappeared. Now that the war was over, the necessity for increasing all the means of wealth-production placed a
new power in the hands of the State. It was in these years of what was called 'Reconstruction' that Prince Mechow came to the front. Every one was depressed. The most conflicting views were expressed. Some people lamented that the whole work of Prince Bludiron had been destroyed. Others said it had been all a mistake, and that the nation ought to have followed the example of the rest of Europe. Some advocated hare-brained schemes of Internationalism,' as they called it.

Prince Mechow was one of the few who kept a clear head. He saw exactly where the blunder had been made. Meccania had ventured upon projects of world-conquest before completing the internal work of perfecting the Super-State on the foundations laid down by Prince Bludiron. He saw that we must go back exactly to the point where Prince Bludiron left off. But the first step was the most difficult. Prince Mechow was quite a young man, not more than thirty, and was only an Under-Secretary. He had one advantage in that he was a grand-nephew of Prince Bludiron and had the ear of the Emperor, who very soon made him Minister of the Interior, a post created to relieve the Chief Minister.

Professor Proser-Toady said we should obtain the clearest conception of Prince Mechow's views and the best key to his policy in a volume of correspondence with his cousin General Count Block. Count Block, like many of his military colleagues, was alarmed at the general confusion. He declared there was nothing for it but to sweep away all popular representative institutions, restrict education to the upper classes and fall back upon the direct rule of the military. Prince Mechow pointed out that such a policy would fail utterly: it would bring about the very revolution it sought to avoid. Efficiency could never be created by the military alone. Industrial efficiency was absolutely necessary to military power. He agreed in the main with Count Block's objects, but declared that his means were clumsy and inadequate. The work of Prince Bludiron must be continued by the creation of a Super-State. The term had already been coined, but the thing did not yet exist.

It is in Prince Mechow's clear conception of the Super-State that we see his intellectual genius, but it is in the steps he took to bring it into being that we realise his kinship with his famous predecessor, Prince Bludiron. Prince Bludiron had had to live from hand to mouth relying upon his statesman's instinct. Prince Mechow, even before he became Chief Minister, foresaw every detail of the structure he was determined to erect.

The State, he said, has hitherto done only what is forced upon it by necessity. It has never attempted to utilise the whole energies of the Nation. The Super-State will only come into being by uniting in itself the will, the knowledge, the wisdom, and the multifarious energies, of the whole people. The State has been merely the strongest organ of society: the Super-State must be the only organ, uniting all others in itself.

How was such a conception to be realised concretely? In explaining his plans he found ample illustration in the circumstances of the recent Great War. The State had not only controlled everything essential to the conduct of the war; it had not only regulated the manufacture of all supplies, including food and clothing for the whole nation, but had undertaken a thousand activities never previously dreamt of, except by the Socialists.

He proposed to capture the whole armoury of the Socialists by gradually seizing everything for the State itself. The motto of the Super-State must be Efficiency. But to be efficient the State must absorb all the persons who represented efficiency. The whole conception of Bureaucracy must be revolutionised by being carried to its logical conclusion. The efficiency of a business firm depends upon the efficiency of the persons composing it. The efficiency of the Super-State will depend upon the efficiency of the new Bureaucracy and the Military Class. There was no instance in history of an efficient Government being overthrown by any popular forces.

A century of industrial development had transformed the material world, whilst in the meantime the organisation of the State had almost stood still. The Super-State must borrow from the Socialists the conception of an all-embracing power and activity, and from the Industrial world the machinery for the execution of its will. The most efficient and successful business firms were those which got every ounce of work out of every member of the firm. The Super-State must not be less resourceful.

Now as to the methods, said the Professor. How was the State to absorb into its service all the energies of the nation, without at the same time becoming a Social Democracy? Already the Social Democrats, as in Prince Bludiron's time, were proclaiming that the Capitalist State was working out for them the Social Revolution predicted by Spotts; and as in Prince Bludiron's days so under Prince Mechow they went on waiting for the Social Revolution. They are waiting still. In the meantime Prince Mechow got into the saddle and began his practical reforms. He was a man of the most extraordinary energy and versatility. He was not content to begin with Education and wait for a generation. He attacked a dozen different problems at the same time: Education, Industry, Commerce, Railways, Finance, the Press, the Stage, the Professions, the Church--every side of national life received his attention; but the prime instrument through which he worked was the Bureaucracy. He laid it down as an axiom that the machinery of the State must work so smoothly that the people should be unaware of its operations.

There have been instances in history, he wrote in one of his letters, in which a Government has been overturned in a single day. How? By a perfectly planned coup d'etat. What can be accomplished on a single occasion can be
done as a part of the regular working of the State Machinery. Our Super-State must be capable of a coup d'état every day. Those of his friends who did not see the necessity for his reforms he silenced by showing them that if they did not capture the State the Social Democracy would do so.

During the first ten years of his regime he worked wonders. He renewed the State control of all the large industries. He took into the service of the State all the most capable business men and manufacturers, all the best scientists and engineers as well as the best administrators. The Censorship of the Press was continued and extended to every form of literature. He bought up all the big newspapers and drove all the little ones into bankruptcy. When every clever journalist was engaged on the State newspapers and all advertisements were controlled, there was not much room for an 'opposition' Press. The Schools and Universities were already well under control, but he revised the whole system. He made every teacher and every professor a direct servant of the State. Every textbook was revised. He paid particular attention to history, philosophy and literature. The new generation were thus educated in an atmosphere calculated to cultivate the true Meccanian spirit. Inspectors, organisers and directors of Education infused new energy into the system and trained the whole population to co-operate with the Super-State.

As to the proletariat, he saw to it that there was no unemployment. Production went up by leaps and bounds, wages were increased, but there was no waste. Goods that could not be disposed of immediately were stored, but methods of control and regulation were introduced to direct industry into the right channels. Whilst he controlled the wage-earners he at the same time controlled the employers. All surplus wages and profits were invested in the State funds.

Of course there was opposition to these reforms. The Military Class were slow to understand his methods, so he established periodical military councils, took them into his confidence and eventually won them over completely. As for the Social Democrats, he did not scruple to employ against them the same methods they would have employed against him. He made use of secret agents to preach the doctrine that by his methods the way would be prepared for the social revolution. When at length he inaugurated the system of the seven social classes the Social Democrats professed to see in this a means of stimulating class consciousness; but after a few years they discovered that no class was willing to surrender its privileges. The Fifth Class, which includes the most skilled artisans in Europe, began to see that no revolution would improve their position, whilst it might lower them to the level of the Sixth or Seventh Class. The boasted solidarity of the proletariat proved to be an illusion, like most of Spotts's ideas.

When he reformed the railway system he made travelling free. But of course if travelling were to be free, restrictions must be imposed. Similarly in regard to housing. He applied all the technical knowledge in the country to the problem. Standardised houses and other devices made it possible to rebuild any portions of our cities and to transfer population from one region to another with the greatest ease. On the other hand, restrictions were necessary. You cannot have free trade in houses and at the same time guarantee a house to every family.

I have condensed Dr. Proser-Toady's lecture, which lasted several hours, into such short compass that it gives very little idea, I am afraid, of the complete revolution worked out by Prince Mechow's reforms. For instance, he showed how the whole character of politics had been transformed, how the questions that agitated Meccania sixty years ago had entirely disappeared; how the Press no longer existed, because its functions had been absorbed by other agencies; how the Parliament, which I was surprised to hear still existed, was now organised to correspond with the seven social classes; how the State was so wealthy that control over taxation was no longer necessary.

He ended with a remarkable passage about the seven social classes and the national Meccanian uniforms. "Many Foreign Observers," he said, "in times past, have made merry over our sevenfold classification and our national costumes. What have other nations to put in their place? They too have these classes, for they are natural and inevitable. They have their nobles, their soldiers, their officials and professional men, their bourgeoisie, their artisans, their labourers and their degraded submerged tenth. But they are afraid to call them by their proper names, afraid to recognise them. They have no uniforms, no dignified and pleasing costumes; but you never mistake one class for another. You never mistake the labourer for the wealthy bourgeois or the popinjay aristocrat. Nowhere else, they say, would people consent to wear the servile badge of their caste. We Meccanians are proud of our seven national colours. So far from being a degradation, the historical origin of the costumes proves that it is a privilege to wear them. The seven uniforms were once the ceremonial dress of the seven guilds established by Prince Mechow. When permission was granted for all the members of the classes to wear the ceremonial dress it was the occasion of national rejoicings everywhere. The national costumes are part of the Ritual of the Super-State."

Long-winded as some parts of the lecture were, I must confess it was most illuminating, and to me, as a student of politics and sociology, exceedingly interesting. I begin to understand now what the Meccanian Super-State really is.

CHAPTER V
CULTURE IN MECCO
DURING the first few weeks of my tour in Mecco--Tour No. 4--Conductor Prigge kept my nose well to the
grindstone. At times he made me feel like a small schoolboy, at times like a prisoner in charge of a warder. It would be tedious to detail all the incidents of my daily rounds, or to describe everything in the exact order in which it was presented to my view. So I propose to set down, as they remain in my mind, the most interesting or remarkable features of this truly remarkable city. One circumstance, however, annoys and almost distresses me. I cannot get into contact with any individual living people. I see everything as a spectacle from the outside.

As I go about, the impression of orderliness, cleanliness, and even magnificence of a kind, is such as I have seldom felt in any part of the world. At times the whole city gives one the same sort of feeling that one experiences in going through a gigantic hospital, where everything is spotless and nothing is out of its place. I am even getting used to the coloured uniforms of the seven classes. In the central parts of the city green and yellow predominate; for the number of people belonging to the official class is enormous. Even apart from their actual number they are the most conspicuous, because the lower classes are at work in their factories and business houses, and are consequently seldom seen except when returning home in the evening. Occasionally I notice a few white uniforms (of the very select First Class) and occasionally, too, a crowd of officers in their brilliant scarlet uniforms. At the other end of the scale, the most common colour visible is the grey, worn by the numerous servants in the well-to-do quarters. The few servants who wear chocolate are mostly the lackeys of the very rich, and the upper servants in the large hotels.

On the day after Dr. Proser-Toady’s lecture, Conductor Prigge was more than usually "pedagogic." I wanted to look about the streets and ask questions about many things that occurred to me at the moment, but he insisted upon pouring out detailed information about the drainage system, the postal areas, the parcels' delivery areas, the telephone system, the market system, and so forth. What did interest me, however, was the organisation known as the Time Department, of which I had already seen something at Bridgetown.

There is, as I have said, an enormous number of public buildings in Mecco, but nobody can miss the gigantic office of the Time Department. It towers up, about seven stories high, over the surrounding buildings, and above it rises a great clock that can be seen for miles. In this central department alone, ten thousand people are employed—that is, of course, in addition to all those employed in the local offices of the Time Department in various parts of the country.

Conductor Prigge was tremendously proud of the Time Department. "Other nations," he said, "have never thought of establishing such an institution for themselves. They have not even had the intelligence to imitate ours. We Meccanians were the first to discover both time and space: our philosophers were the first to understand time and space: we have been the first Government to organise time and space. We can tell you," he went on, "the exact amount of time occupied by any person, or any group of persons, in doing anything. We know exactly how much time is devoted to eating and drinking, as well as the time required to produce a picture, or a piece of sculpture, or a poem, or a musical composition; or how long it takes to learn any language, or any subject of study."

"But," I said, "what about the time spent by all the clerks and officials employed all over the country, as well as here, in the Time Department itself; isn't it rather extravagant? What is the object of it all?"

"Do you think," he replied, "that we should keep up such an institution if it had not proved to be useful in the highest degree? Foreigners have such childish ideas of organisation," he continued. "This was one of the most brilliant inventions of Prince Mechow, but it has taken thirty years to bring it to its present state of perfection. It pays for itself over and over again, in the mere economy it effects; and it has other far-reaching effects on the whole social and economic life of the nation. In the first place, in the matter of material production, in every trade and occupation it enables us to speed-up scientifically. An increase of 1 per cent in the productiveness of the four main industries alone would more than pay all the expenses of the Time Department. We have increased productiveness all round by at least 20 per cent since the introduction of the Time Department; and although not all of this increase is due to the Time Department, we may safely reckon 5 per cent. We have done away with all the dawdlers in art, all the incompetent painters and novelists and poets. In connection with the Post Office we have been able to diminish the amount of time spent in writing useless letters by 50 per cent. Why, without the Time Department the Department for the Direction of Leisure would be helpless. In Education, how should we know the right proportion of time to be devoted to the various subjects, the right amount to recreation or amusement? And apart from economy, the aid given to the researches of the Sociological Department is simply invaluable. The efficiency of the Police Department is due in great measure to the Time Department."

"But," I inquired innocently, "is there no feeling of resentment on the part of the public at the somewhat inquisitorial methods of the Time Department?"

"Resentment!" he said, almost angrily. "Why should there be resentment?"

"At having to give an account of all that one does even in one’s leisure time?"

"But when everybody knows that we save millions a year by it, and when the State has decided that it is for the public benefit, and the obligation is imposed upon everybody; why should anyone raise objections?"

"Still," I said, remembering my unfortunate experience, "you find it necessary to inflict fines in order to ensure..."
compliance with the regulations about filling up the weekly diaries."

"Naturally. But perhaps you overlook the educative effect of having to keep the diary. The proper keeping of the diary is almost an education in itself." My conductor said this with such an air of finality that I thought it was not worth while to pursue the question further.

I was much amused by a conversation I had a few days ago on another subject. It was about five o'clock and I was feeling rather tired, so I proposed that we should have a meal in a restaurant, and then go to some place of amusement in the evening.

"You may return to the hotel if you are indisposed," said Prigge, "and rest there during the evening; or you may have a meal in a restaurant and resume your tour. But until we have completed at least the first week's tour of observation, you cannot possibly be permitted to visit any place of amusement, as you call it. Besides, such places as you probably have in mind, do not exist in Mecco. I have seen, in other countries, what are termed music halls, where a lot of so-called actors were making fools of themselves."

"Perhaps," I ventured to say, "you did not look at the performance from the right point of view."

"I see! You mean that I should have regarded these childish performances as illustrating the stage of mental culture of the people. From that point of view your music halls may be of some interest, just as the drama of foreign countries is of interest; but it is so very primitive."

"Primitive? In what way primitive?" I asked.

"Primitive by comparison with our highly developed drama. For example, all the foreign dramas I have seen are written in the narrative form, or rather, I should say, the drama is still in the chronological stage. We have left that behind."

"Indeed," I said, "I am afraid I can hardly conceive of drama in any other form."

"Exactly. You cannot understand. But our Meccanian culture is not exactly designed for the intelligence of foreigners. If you are specially interested in the subject of the drama--it is not one of my specialities, although of course I am not ignorant of the drama, no Meccanian is--I will introduce you to my friend in the Department of Public Amusement, which is a branch of the Ministry of Education and Culture. He will probably enable you in the shortest period of time--and that is always a consideration, although most foreigners are often quite oblivious of the time aspect of such matters--to understand the Meccanian drama, in so far as it is possible for a foreigner to understand it."

I thanked him, and he made a note in his pocketbook to remind him of his promise. "Perhaps you can tell me," I said, "how your people do amuse themselves, apart from going to the theatre; for they cannot go to the theatre every evening."

"I notice that, like all foreigners, you are more interested in amusement than in the serious aspects of life. You will receive full information at the proper time if you will avail yourself of my offer to take you to my friend Dr. Dodderer, the Sub-Controller of Public Amusements (Section B); but I do not mind giving you a few facts such as are common knowledge among all Meccanians."

"Well," I said, "take your commercial travellers, who must spend a good deal of time in towns away from home. What do they do in the evenings?"

"If you were to go to the Great Meccanian Library," he replied, "and consult the Reports of the Sociological Department for the last twenty years, you would be able to see exactly how all these persons have spent their time. But you would perhaps be surprised to find that the number of persons travelling about and staying away from home is very small. When you have studied our industrial and commercial system you will see that we require comparatively few commercial travellers. As to the way they spend their time, you must understand that in every town there are guilds of all the professions. Consequently, as every commercial traveller naturally wishes to improve his knowledge, he frequents the guild house, where he meets with other members of his profession and discusses matters of interest. If he comes from Mecco he will be welcomed, as the provincial members will be only too glad to learn anything from one who comes from the very centre of Meccanian culture. Also, he may wish to visit the local museums, or other cultural institutions. If not, he will attend either an outdoor or an indoor concert."

"The commercial travellers of Meccania must be quite unlike the commercial travellers of all other countries if they spend their leisure in the way you have described," I remarked. "You spoke of concerts," I continued. "I suppose music is still the most popular form of amusement in Meccania?"

"Neither the drama nor music are, strictly speaking, mere amusements," answered Conductor Prigge. "They may be so regarded in other countries, but not in Meccania."

"Then what are they?" I asked.

"They form part of our general scheme of culture," replied Prigge. "As you probably know, attendance at the theatre once a week is compulsory for all persons over eighteen. Those below eighteen attend the juvenile theatre as part of their school course in literature."
"Attendance compulsory?" I said. "But if Meccanians are so advanced in the cultivation of the drama, why should it be necessary to enforce attendance?"

"Perhaps it is not really necessary, but I doubt whether our scheme of dramatic culture could be carried out without strict regulation. For instance, there are some plays more popular than others. People would want to see these plays in great numbers and there would not be room for them; whilst the less popular plays would not be well attended."

"Just so," I said, "that is what one would naturally expect; and where is the harm?"

"Our scheme provides a succession of plays throughout the year, all designed as part of our culture, and if people were at liberty to pick and choose what they would see, and what they would not see, we should have no guarantee that they would have gone through the course."

"Would that matter," I asked, "so long as they were amused?"

"May I repeat that the Meccanian drama is something more than amusement," he replied testily. "You will learn more of this subject from Dr. Dodderer. We need not pursue it further."

"Then may I ask whether attendance at concerts is compulsory also?"

"It is not compulsory, but it is strictly regulated as regards the different grades of music," he answered. "I should like to know how you regulate attendance at concerts," I said; "I have never heard of it elsewhere."

"I daresay not," said Prigge. "Other countries are still in a very backward state as regards musical culture. In the first place, all persons below eighteen have to pass an examination in some branch of practical or theoretical music, unless they are defective in the musical sense. Then, before any adult is admitted to the first, second or third grades of concerts, he has to pass an examination in musical appreciation. That is to say, only those are admitted to concerts of the first class who hold a first-class certificate in musical appreciation, and so on with the other grades. Otherwise we should have people whose musical knowledge is very moderate listening to the best music by the best performers. By means of our system we can provide exactly the right standard of music at all public concerts. At the beginning of each season the programmes of all the concerts of the first three grades are issued. Each person enters his name for a course of concerts according to the grade of musical culture attained by him. He is informed how many concerts he may attend in the season; he then chooses which concerts he will attend, and after that there is no difficulty."

"No," said I, "I should think there would be no difficulty after such careful preparation. Then the open-air concerts in the beer gardens," I said; "where do they come in?"

"Those are not regulated in the same way. We can tell from the Time Department whether any person is spending too much time at these performances, and any person who neglects to pass his examination in musical appreciation before the age of thirty is forbidden to attend such concerts--if they can be called concerts--more than once a week."

"And is it possible to carry out such a regulation?" I asked.

"You have not studied our Time Department to much purpose if you ask such a question," answered Prigge. "I suppose, then," I said; "as I have no certificate I shall not be permitted to hear any of your best music?"

"Foreigners who are Doctors of Music of any University," replied Prigge, "are admitted by special leave of the Ministry of Culture to attend a specified number of concerts even of the first grade, and others can attend a few concerts of the third grade, likewise by special permission of the Ministry of Culture."

I think it was on the same day that Prigge said to me, "I notice you are not wearing your spectacles."

"I have never worn spectacles," I said.

"But you were ordered to wear spectacles by Dr. Pincher."

"He did prescribe them," I said; "but I have not troubled to get them, as I do not really require them."

Conductor Prigge looked positively aghast. "You must go at once," he said; "you have the address. You had better pretend that there has been some delay--but no, your diary will show that you have not been to the optician. You will certainly be fined in accordance with Regulation 127 of the Instructions to Foreign Observers."

I went accordingly, and in a few days I had the spectacles. I suppose this incident caused me to notice that nearly all Meccanians wear spectacles or eyeglasses. Some wear two pairs at once, and I have seen even three pairs worn. I felt thankful nothing wrong with my teeth had been discovered.

A day or two later I was taken by Prigge to see Dr. Dodderer. What I learnt from him was even more remarkable than what my conductor had told me, so I will not apologise for giving a fairly full account of my interview.

We were due at ten o'clock, and a whole hour had been reserved for me. As we entered his room he noted the exact time on his tablet and said, "The object of your visit is to learn something of the Meccanian drama, as part of the system of culture, and the relation of amusement to our system of culture. Very good; if you will be seated I will do my best to enlighten you."
He was a dried-up little man, with bright black eyes and a narrow but lofty forehead. I thanked him and prepared to listen. I knew he would think me disrespectful if I did not make use of my notebook, so I prepared to make copious notes.

When he saw I was ready, he sat with his eyes shut and his hands clasped together in front of him, and proceeded to pour forth a long discourse. He began by saying that all the higher animals showed some disposition towards play; and that, in particular, the human animal was pre-eminently distinguished in this respect. Some anthropologists had argued that the persistence of the play-instinct was a proof of the essential usefulness of play, in developing both muscular and intellectual power. He himself did not adopt this view, or, at any rate, only in a modified form. He held that play was one of the most wasteful methods of nature, and that if the competition between the various races and subdivisions of the human species had been perfect, the race that could reduce play to an absolute minimum, confined perhaps to the first three years of life, would--ceteris paribus--succeed in winning the foremost place. Play was certainly the least profitable form of mental activity, and one of the problems of education was the gradual elimination of play from the scheme of national culture. It was unfortunately true that even the best system of education had to make concessions to this instinct of play, and it would take many generations before it could be reduced to a minimum. But the experiments of the Meccanian psychologists had demonstrated that the amount necessary, both in the case of children and in the case of adults, had been grossly exaggerated in the past, and was still grossly exaggerated by other nations. These experiments would have been impossible without the assistance of the Time Department, and the absence of a Time Department in other countries probably accounted for the little progress they had made in this direction.

"For example," he continued, "other nations have almost entirely neglected the value of cultural toys. They have been content, even where they have given any thought at all to the subject, to devise toys which gave a little more opportunity for ingenuity, but their object has been mainly to amuse; they have had no clear conception of the ultimate purpose of toys in a complete cultural scheme. Now we have a carefully thought-out scheme, and although it does not come under my department, but under Section Ai, it affords a good illustration of the basis of our system. All our toys are classified in fifteen stages. We began with only five stages, but the number has gradually increased, for the system necessarily becomes more complex as it becomes more perfect. Stage I. is represented by simple objects which a baby can grasp and recognise before the age of eighteen months. Stage II. is represented by balls and cubes and objects of that order. Stage III. by dolls and images. Stage IV. by objects which can be grouped so as to afford a basis for the teaching of number. Stage V. by simple mechanical toys and simple tools. Stage VI. by constructive blocks of various kinds...."

Here, I am afraid, I became confused, but I remember that Stage XIII. was represented by toys which formed an introduction to chemistry, and that the toys of Stage XIV. could only be worked by boys whose mathematical knowledge was far in advance of what I should have thought possible. He explained that visits were paid by the domestic Inspectors of Child-Life to see that the parents made proper use of the system of cultural toys. There had been great difficulty at first, but the parents were now properly instructed; and in a short time there would be no need to instruct them, as they would have grown up in familiarity with the system.

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"I have been trying to show you the basis of our system of public amusement. With us, amusement is never an end in itself. We find a certain crude kind of interest in the drama, or shall I say in the theatre, in almost all peoples, and some of the greatest poets have utilised that interest in order to reach the minds of their hearers. The greatest poets are those who have conceded least to the mere instinct for amusement. We have followed the same principle. But we could not carry out this scheme of dramatic culture without first getting control over the theatre. Prince Mechow, with his usual insight, saw that it was useless to control and direct the Press, if he did not at the same time control and direct the Theatre. First of all he made the censorship a reality. Then he took all the most popular playwrights into the State service. Then he was able to weed out those who were incapable of entering into his purpose. Gradually all the theatres became cultural institutions of the State. All this took time, of course. Even now there are a few popular theatres where only the lower kinds of dramatic varieties are performed. Attendance at these is not compulsory."

"I do not yet understand," I said, "why it should be necessary to make attendance compulsory when the drama is so popular."

"For the majority of the people," replied Dr. Dodderer, "compulsion is quite unnecessary; but it is just those who are most in need of the culture that can be given through the medium of the drama who would be lax in their attendance. The whole subject has been investigated," he continued, "by the aid of the Time Department, and we are satisfied that we get the best results through our present system."

"Since your playwrights became Civil servants has there been no decline in the quality of your dramatic productions?" I asked.

"On the contrary," replied Dr. Dodderer. "Our modern plays are on a much higher level. There are several reasons for this. In the first place, in the old days the uninstructed public were hardly fit judges of dramatic or literary excellence. They often preferred plays of little cultural value. Consequently, the men who could write really good plays often found it impossible to get them produced. Our Board of Dramatic Criticism is now able to decide the merits of all plays, and the dramatists are quite independent of the caprice of the public. Also, we can carry specialisation to a point undreamt of in former times."

"Specialisation?" I said; "that is quite a new idea to me."

"Naturally, there are writers who have plenty of ingenuity in devising plots, but who are lacking in literary style; others who write excellent Meccanian, both prose and verse, but who are weak in the dramatic instinct. It is, in fact, very seldom that a modern Meccanian drama is the sole work of any single author. Moreover, the drama as developed by us lends itself particularly to specialisation. For example, most of our classical plays are presented in four phases. The simplest phase comes first. The subject is presented in chronological-dramatic form, somewhat resembling the dramas of other days and other countries. Next comes the analytical phase, and after that the synthetic. The last phase or act is a complete philosophical symposium in which the whole subject is presented in its highest and most abstract form."

"When you speak of the subject of a play, what do you mean exactly?" I asked.

"The old plays had often no real subject; they had titles, it is true, but these titles were mere names of persons, or mere names of places or incidents. What, for instance, can you make of a title such as Julius Ccesar? or The Emperor of the East? or Catherine? or The Tyrant of Genoa? or The Crime of Boniface? If you are acquainted with the development of the drama, you will know that about ninety years ago a great advance was made by means of what was then called 'The Problem Play.' Some of these plays had a real subject. We have gone much further, of course. Take the subjects of some of our best-known plays: Efficiency, Inefficiency, National Self-Consciousness. What was then called 'The Problem Play.' Some of these plays had a real subject. We have gone much further, of course. Take the subjects of some of our best-known plays: Efficiency, Inefficiency, National Self-Consciousness."

"Uric Acid!" I exclaimed; "what an extraordinary subject!"

"It is one of a series of medical plays," explained Dr. Dodderer, quite undisturbed. "The subject lends itself splendidly to the methods of Meccanian Art. The part played by uric acid in the life of the individual, the family, the State, treated physiologically, pathologically, sociologically, ethically and philosophically, is almost infinite in its possibilities, and Grubber has made the most of them."

"And do the public enjoy these medical plays?"

"You appear to be obsessed, if I may say so," replied Dr. Dodderer, "with the idea of enjoyment. You must bear in mind our standpoint, which I have already explained. But certainly the public take great interest in the medical plays. Sub-Dramatist Smellie wrote a series, Phthisis, Nephritis and Meningitis, which are almost equal to Grubber's Uric Acid, but he fails a little in the higher aspects of the subject, and consequently his fourth acts fall short of the highest philosophical perfection. I remember reading the proofs of his first play, Gall Stones. It was excellent until he came to the philosophical phase. It reminded me of an older play produced in the transition period, some fifty years ago, called The Blind and the Deaf. It had a considerable vogue for several years, but you see from its title that
the conception was not fully developed."

"These medical plays," I said, "are not the most typical productions of the dramatic genius of modern
Meccania, I suppose?"

"In some ways they are," replied Dr. Dodderer. "That is to say, they are almost peculiar to our country. But one
of our younger playwrights has developed the subject of economics in a way almost equally unique. His
Significance of Food, and his Insurance, and Distribution, are a mere introduction to his masterpiece, Value. A very
slight work on Inaccuracy, which was almost a farce, first attracted the attention of the Board of Criticism. They
refused to produce Inaccuracy in its original form, and he embodied it in a more mature work, Production, which
was the first of his genuine economic plays."

"I suppose, then, you have historical or at least political plays?"

"Historical plays are mostly performed in the juvenile theatres," he said. "I have very little to do with them.
They fall under Section A, and, as you know, I am the Sub-Controller of Section B," replied Dodderer. "But," he
continued, "we have a certain number of more advanced historical plays for adults. For instance, The Evolution of
Society, with its sequel, The Triumph of Meccania, are excellent historical plays. Political plays have become almost
obsolete, but there are still a few produced occasionally. The Principle of Monarchy is still quite a classic in its way,
and The Futility of Democracy is one of the most brilliant pieces of Meccanian satire. Obedience is another classic."

"It seems to me a very remarkable fact that your Sixth and Seventh Classes should be able to appreciate such
plays as those you have been describing," I said, "especially in parts of the country which cannot be so far advanced
as the capital."

"I do not say that they appreciate the drama in the same degree as the more educated classes; but you must
remember they have gone through a long course of training. You perhaps now appreciate our wisdom in making
attendance compulsory. Without regularity in attendance we could not arrange for a proper sequence of plays.
Also, I must admit that on the days when the Sixth and Seventh Classes are due to attend, we put on the less
advanced plays as a rule."

"What happens," I asked, "to the old plays which were written, say, a hundred years ago; are they never
performed?"

"Oh dear, yes," replied Dr. Dodderer; "the performance of such plays forms a regular part of the literature
course at all our Universities and Colleges. We also utilise quite a number of them in the courses of plays for the
Fifth, Sixth and Seventh Classes; but the form in which they are written is so simple and childish, such a contrast to
the ripe perfection of the fully developed Meccanian drama."

"It must be a difficult matter," I remarked, "to arrange for progressive courses of plays for so many people as
you have in Meceo."

"On the contrary, the larger the city the easier it is. Members of the Third Class and, of course, of higher
classes, are considered capable of appreciating all kinds of plays. Class Four consists of four grades, and the two
higher grades, all the members of which are over thirty, are likewise eligible to attend any plays. We have a very
simple plan of classifying all the others. At the age of eighteen they are all at liberty to attend plays which are
classed as Stage I.; then after six months any one is at liberty to apply for a certificate entitling him to attend plays in
Stage II. After another year they can obtain a certificate for Stage III.; and so on. We seldom refuse an application,
and in fact we rather encourage our people to advance, otherwise many people would be content to remain in Stage
II., or Stage III., all their lives. Then, at the beginning of each season, we know how many to provide for in each
class, and at each stage; and the greater the number of theatres the easier it is to arrange the plays accordingly."

"What about the actors?" I asked. "In most countries the leading actors are very much sought after, and can
make large fortunes. I should imagine your system does not allow of that kind of career for a successful actor."

"All our actors," replied Dr. Dodderer, "are trained in the Imperial Meccanian Dramatic College. The lower
grades belong to the Fifth Class, the higher grades to the Fourth. The technique of acting has been brought to such
perfection that the 'star' as he used to be called, has entirely disappeared. There is no room for him in our system.
The 'star' was a mere product of popular enthusiasm."

"How do you judge, then, of the popularity of any particular actor?"

"We take no account of it at all," replied Dr. Dodderer. "Our expert Board of Dramatic Criticism determines the
standing of each actor. We have, of course, expert psychologists, who are able to test the particular psychological
effect both of each phase of the play and of the impression made by individual actors. Their experiments are of great
value both to our dramatic managers and to the writers of plays."

At this point Dr. Dodderer announced that the hour he had reserved for me was at an end.

CHAPTER VI
MORE CULTURE IN MECCO
I RETURNED to Conductor Prigge and my daily grind. But as most of this first period was spent in visiting
systematically a number of institutions similar to those I had seen in Bridgetown, but on a larger scale, it is hardly necessary to describe them here. For instance, the arrangements for receiving and distributing food are on the same principle: the markets are managed in the same way. The general system of shopping is the same, except that, as the city is much larger, there is very much more’ shopping by post.’ As the shops are not permitted to display anything in shop windows, nor to advertise except in the trade gazettes and catalogues, there is not much incentive to spend time in desultory shopping. The great Stores are more like warehouses than shops. I had gathered from my conversations with Sheep that the State seemed to place obstacles in the way of personal expenditure, and yet at the same time production was encouraged. Sheep’s explanations had not seemed to me entirely satisfactory, so I decided to question Prigge on this interesting point. As his services were charged for at double the rate of Sheep’s, I thought I ought to get more complete information from him. So one day I said to him >"How is it that in Meccania, as far as I can judge, you have brought production to such a pitch of perfection—I mean as regards the enormous quantities manufactured—whilst at the same time you seem to restrict expenditure or consumption in so many ways?"

Prigge tilted back his head and put on his professorial air.

"Such a question would be better dealt with when you come to make a definite study of our National Economy, but as it is really quite an elementary question—a commonplace of all our textbooks— I do not mind explaining it briefly now. Your first error is in supposing that the State encourages production indiscriminately. We produce what we require and no more, but we are able to measure our requirements better than other nations. In other countries people are allowed to buy a lot of things they do not require; this causes unnecessary production, of course. Unregulated consumption gives rise to unregulated production."

I still felt puzzled as to what became of the wealth produced by the wonderfully efficient system of wholesale production, for, as far as I could tell, the people seemed less luxurious in their habits than those of countries far less advanced in machine production. But I felt I should be getting on dangerous ground, and forbore.

The commercial quarter, in which we spent a whole day, was remarkably small for so large a city, especially considering that the city is not commercially self-contained. But I learnt that Mecco is not really the commercial centre of Meccania. The merchants are little more than the agents for the distribution of goods. The quantities are largely fixed by the Department of Industry and Commerce, consequently there is not much room for enterprise, except in effecting economies in distribution, in bargaining with the Government as to the kinds of goods to be produced, and in discussing with manufacturers matters of detail as to patterns and styles. For example, the Schools of Art produce every year designs for cloth for women’s dress. The merchants select from these the patterns to be manufactured. There is little excitement in a merchant’s career. Most of the clerks seem to be occupied in the preparation and revision of catalogues, which are the substitute for advertisements. No new article can be produced until it has been approved by the Improvements Section of the Department of Industry and Commerce.

All this side of the life of Meccania was very tame and stereotyped. Prigge discoursed at length on the merits of the Post Office and all its works, but the only remarkable thing I noticed about it, besides the censorship of letters, and the enormous number of people employed, was the ingenious arrangement whereby a conversation carried on in any part of Meccania could be overheard at the Central Office.

The absence of life and bustle in the streets was as striking as in Bridgetown. Most of the people in the Government offices belonged to the Fourth Class, and as these all lived in the two quarters running north and south of the central ring, they could reach their offices in a very short time. The midday meal was taken in a canteen within the office. The few inferior employees, messengers, porters, cleaners, etc., who belonged to the Fifth or Sixth Class, lived almost as near. The higher Civil servants of the Third Class, who of course were less numerous, did not make a crowd in the street. The green uniforms of the Fourth Class were the most conspicuous object everywhere. The industrial classes, living as they do on the side nearest the industrial town, are transported by an ingenious system of trams and underground and overhead railways, so that in half an hour they can all get from their homes to their work, where they remain all day. All goods arriving from the industrial town for distribution to the Stores are carried by a regular service of motor-vans. The distribution of goods to houses is so systematised as to require comparatively few vehicles. For instance, certain kinds of goods can be delivered only once a month for each household, others only once a week. Consequently one sees a perfectly regular stream of traffic, which is never very dense and never congested. All this might have been very interesting to a student of municipal socialism and mechanical organisation, but my chief interests lay in other directions, and it was not until we came to the cultural institutions that I found things so remarkable, at any rate from my own point of view, that I shall make no apology for describing them with some fullness here, even at the risk of being tedious to those who think more of locomotion than of liberty, or who regard the Post Office as the highest symbol of civilisation.

I had looked forward with some curiosity to my first visit to a Meccanian Art Gallery, for, as I had not been into any private houses, and as there are no shop windows, I had seen hardly any signs of Meccanian Art Culture, except in Architecture. The decorative work in the public buildings did not impress me favourably. It was Patriotic
was placed together as if the gallery were a collection of butterflies. "Madonnas" together in another, all the "Adam and Eves," all the "Deluges," all the "Susannas," all the pictures. They were arranged strictly according to subject. All the "Nativities" were together in one room, all the pictures which are soundly Meccanian in spirit but which do not come up to the standard of the Great Gallery."

On four days in the year. For them we have a few local galleries, as we have for the Sixth Class also, containing pictures which are soundly Meccanian in spirit but which do not come up to the standard of the Great Gallery."

The Great Meccanian Gallery, he said, was the temple of all that was sacred in the aesthetic world. I must be properly prepared for it, so that I could concentrate my attention upon what I saw and not be distracted by having to ask questions about extraneous matters. If I would pay careful attention he would describe the general arrangements.

"The Great Meccanian Gallery," he said, "is one of the four galleries in Mecco; the other three are subsidiary. The first gallery is devoted to the old historical collections that existed before the time of Prince Mechow, and contains only foreign pictures. The second gallery contains Meccanian pictures of a date previous to the foundation of the Great Meccanian Gallery by Prince Mechow. The fourth gallery contains foreign pictures contemporary with those in the Great Meccanian Gallery. And now we come to the Great Meccanian Gallery itself.

"Every picture in that gallery is an expression of the Meccanian spirit; otherwise it is not admitted. Its technique must also satisfy the Board of Art of the Department of Culture. Consequently, as soon as you enter you are in the atmosphere of pure Meccanian Art. Previous to the creation of this gallery, the influence of Art was rather de-nationalising. The aesthetic sense was cultivated in total ignorance of the possibility of marrying it to the Meccanian spirit. The Meccanian spirit is the active, creative male; the aesthetic sense is receptive, conceptive, essentially female. Of the two, Meccanian Art is born."

He went on in this style for several minutes until I thought I had better get something more definite from him for my guidance. So I said, "How does one tell whether a picture is an expression of the Meccanian spirit?"

"To the true Meccanian, all things truly Meccanian are sacred, and by the inward cultivation of the sense of reverence for what is most characteristically Meccanian he arrives at a certainty which is incommunicable to others."

"But suppose opinion is divided. Suppose, for example, one man says, here is a picture which is full of the Meccanian spirit, and another man says the contrary."

Musch smiled in a sad, superior way, by which I saw that after all, in spite of his 'decadence,' he was a true Meccanian. "You are evidently not well acquainted with either Meccanian history or philosophy," he said. "Even our early philosophers taught that the Meccanian spirit must embody itself in institutions or it would evaporate. The Imperial Meccanian Academy is the visible embodiment of the highest manifestation of the Meccanian aesthetic spirit. All Meccanian artists are trained under the influence of the Academy. Its judgment, as expressed by the Central Board, is infallible. None of its decisions has ever been reversed. I do not think you realise how completely the influence of the Academy has moulded the Meccanian appreciation of Art during the last generation," he went on in his slow, soft speech. "You have heard something from my friend Dr. Dodderer of the care taken by our all-benevolent Super-State in the cultivation of the appreciation of the Drama, and you have probably heard something too of our musical culture. Other forms of Art are equally sacred, since they are all Meccanian. Every person in the Fourth and higher classes goes through a course of art appreciation, which extends over several years. No person is admitted beyond the fifth stage of the Great Meccanian Gallery unless he has passed the advanced test. Attendance at the gallery is compulsory, once a fortnight, for all persons of the Fourth and Third Classes between the ages of fourteen and twenty-five. The Fifth Class are not admitted to rooms beyond Stage III, except by special permission on four days in the year. For them we have a few local galleries, as we have for the Sixth Class also, containing pictures which are soundly Meccanian in spirit but which do not come up to the standard of the Great Gallery."

Presently we proceeded to the gallery containing the old historical collection. Musch said that we should see what we wanted of this in an hour, in fact it was rather a formality to visit it, but the Regulations for Foreign Observers made it necessary that I should see this first. It turned out to be really a fine collection, such as I had seen in many others parts of Europe; but I almost gasped at the strange freak which had inspired the curators in arranging the pictures. They were arranged strictly according to subject. All the "Nativities" were together in one room, all the "Madonnas" together in another, all the "Adam and Eves," all the "Deluges," all the "Susannas," all the "Prodigal Sons," all the "Venuses," all the "Bacchuses;" whatever the subject, every picture relating to that subject was placed together as if the gallery were a collection of butterflies.

Musch took no interest in this collection. It was all dead, he said, obsolete, pre-Meccanian, untouched by the
spirit. When we came to the second gallery containing the older Meccanian pictures he showed more interest. Some
painted three centuries ago I thought very fine, but Musch said they were lacking in self-consciousness. The
Meccanian spirit was overlaid by false foreign culture. Only when we came to some weird and powerful but almost
revolting pictures, dating from the beginning of the century, did he grow enthusiastic. These, he said, were the
genuine precursors and pioneers of Meccanian Art.

It was afternoon when we entered the first section or stage of the Great Meccanian Gallery. This was the first
stage for young persons, and was divided into a section containing elementary general pictures, and another
containing historical pictures. The general pictures were mostly scenes of places of interest in various parts of
Meccania, or national customs and public ceremonies. The technique was distinctly good. The historical pictures
mostly represented wars against foreign enemies. I noticed that the Meccanians were represented as heroes, and their
enemies as brutalised hordes of semi-lunatics. Others represented Meccanians discovering all the arts of peace and
war. I spent a dreary day and more, working painfully through Stages I., II. and III., up to XIX., until, on the third
day, we came to the most advanced specimens. These reminded me of Dr. Dodderer's account of the Meccanian
drama. There was a number of allegorical subjects--"The Birth of the Meccanian Spirit," "The Victory of Time over
Space," "The Festival of Chemistry," "The Nuptials of Science and Force," "The Conquests of Culture." Others were
more mystical--"War the Servant of Culture," "The Deity instructing Monarchy," "The Eternal Principle of

Some of these were immense canvases forty feet long, full of life-size figures drawn with microscopic
exactness. The artists had certainly managed to catch and even accentuate the Meccanian features of every face. I
felt the Meccanian atmosphere, but I still could not understand why such careful cultivation should have been
required to produce this extraordinary collection. I would gladly have given the whole gallery for a few masterpieces
from the old collection.

I could not imagine that any effect produced on the mind even of patriotic Meccanians could be worth all the
trouble spent upon either the creation of the gallery itself or the organisation of artistic culture that centred round it. I
was therefore curious to see what sort of effect the sight of the pictures had upon other visitors. In one of the lower
rooms I had seen some groups of schoolgirls accompanied by a teacher. They all had their notebooks, and were
taking down notes in shorthand. Musch explained enthusiastically that these girls would spend a whole afternoon on
half a dozen pictures, and that by the time they were twenty years of age they would have studied every picture up to
Stage XIX. in the gallery. What I overheard from the teacher's lecture was something like this: "Now let us analyse
the colour scheme. By the aid of the colour divider you perceive at once the proportions in which the colours are
distributed. Now notice that red, which occupies only 7 per cent of the canvas, is more conspicuous than green,
which occupies more than 25 per cent." I did not catch the next passage, but presently I heard: "All the pictures by
the same artist have the same distribution of colour. Consequently it would be possible to determine by an analysis
of the colour scheme the authenticity of any picture by this artist. Next notice the method of the brush strokes. Under
the microscope "(here the microscope came into play) "you will see the characteristic quality of the brush stroke. It
has been already ascertained that in this picture there are 5232 down-strokes of an average length of 3 millimetres,
1079 strokes from right to left of an average length of 1 1 millimetre, only 490 from left to right, and 72 upward
strokes. The same proportion of strokes has been discovered in several other pictures by the same artist, according to
the size of the picture. This picture was painted in exactly 125 hours. The quantity of paint used must have been
almost exactly three-quarters of a litre, so you can make a calculation to ascertain the number of brush strokes to the
litre."

In another gallery I noticed some superior young men of the Fourth Class in their green uniforms, discussing
the merits of a popular artist. One of them was saying, "And I maintain that his morality is pre-Meccanian; he lacks
super-masculinity." In another room a few stolid citizens of middle age were slowly making a pilgrimage. I
wondered why they did not move faster and get it over, until I discovered there was a rule that, at each visit, non-
students were not allowed to spend less than half an hour in one room, or more than three-quarters of an hour. This
regulation did not apply to me so long as I was under the charge of Musch, who had access to the whole gallery.

I found Musch a less desirable acquaintance than Prigge. I suspected him of being addicted to drugs, and
wondered how far his enthusiasm for the Meccanian spirit was an official pose; for, after completing my visit to the
Great Gallery, I was asking him whether all artists were employed by the State, and whether there were not other
types of pictures produced, besides those represented in the Great Gallery, when he began to tell me of another
phase of art.

"All artists," he said, "who in the seventh year of their training are accepted by the Academy are employed
permanently by the State; the others are found other employment according to their capacity, but are not permitted to
produce pictures."

"I suppose," I said, "the artists who are taken into the service of the State are controlled in some way. What
happens, for instance, if they turn out to be idlers?"

"They are certainly controlled. The Board selects the subjects for the year, for each artist, according to his capacity. Of course he may suggest subjects too, but until they are approved he is not allowed to proceed. He must also submit a plan or sketch of his proposed treatment."

"And is a painter not allowed even in his own leisure to paint subjects of his own choice?"

"Ah, there you touch upon an interesting subject," replied Musch, with something like a leer. "The Board are naturally desirous of preserving the Meccanian spirit in all its purity, but the effort to rise to the sublime heights of emotion which that demands, produces a reaction, and many of our artists find an outlet for this, so that beside the pure stream of Meccanian Art there flows, as it were, another stream."

"In other words," I suggested, "they carry on an illicit production of works of a lower ethical quality, which can only be disposed of by being sold to the rich."

"Your intuition is remarkable," he replied.

"Not in the least," I said. "One only requires a little knowledge of human nature to see what must happen. But how does this practice escape the attention of the Super-State?"

"There are many patrons of Art among the higher official class," replied Musch significantly.

"Perhaps you can tell me," I said, "something which has puzzled me ever since I came here, and that is--Why your Super-State occupies itself so meticulously with such things as Music, and the Drama, and Art. Such interests seem rather foreign to the main purpose for which, as I understand it, the great statesmen who have made Meccania what it is, designed it."

"I have often wondered the same thing myself," replied Musch. "I can only say that if all this side of life were left unregulated, the life of the State would be incomplete. Sooner or later the consciousness of the State must embrace all things."

I said no more, and this was the last I saw of poor Musch, for next day he was ill, and I was taken by another Sub-Conductor, whose name was Grovel, to see the Mechow Memorial Museum. Almost everything in Mecco is a sort of memorial or reminder of Prince Mechow. Mechow Street, Mechow Square, the Mechow Monument, Mechow Park, the Mechow Palace, Mechow Hotels meet one at every turn. There are even Mechow whiskers, of a pattern seldom seen outside Meccania, but immensely popular among middle-aged officials of the Third and Fourth Classes. Curiously enough, I learnt that the higher officials rather resent the wearing of this style of whisker by subordinate officials, but as it is a sort of symbol of loyalty it is not considered proper to repress it.

The Museum is near the square and is the largest biographical museum in existence. It contains a model of the house Prince Mechow was born in, with all his clothes and toys, all the schoolbooks he used, and models of all the rooms he lived in, including his bedrooms. One room contains all the letters he wrote, all the letters written to him, all the minutes he wrote as a Civil servant, the very pens he used, the office furniture, etc. etc. The library contains not only the books he read, and the few he wrote, but an enormous number of books and pamphlets written about him personally and about all his work.

Besides his printed speeches, which run into many volumes, there are phonographic records of them, which are 'performed' daily in a special hall, to youths and girls from the High Schools.

One large room contains models of all the towns in Meccania, as they were before his reforms and as they are now. Another room is devoted to the great Monument. It contains the original plans and models, as well as a model of all the copies erected in various towns. Adjoining this room is a large collection of photographs of Prince Mechow, casts of his face and waxwork models of him as he appeared on several great historical occasions. One case in the library struck me as very characteristic. It was a series of volumes in folio, sumptuously bound. The first was entitled Prince Mechow as Statesman; and there were at least thirty others with such titles as Prince Mechow as Subject, Prince Mechow as Conservative, Prince Mechow as Reformer, Prince Mechow as Student, Prince Mechow as Author, Prince Mechow as Orator, Prince Mechow as Philosopher, Prince Mechow as Husband and Father, Prince Mechow as Agriculturist, Prince Mechow's Taste in Art, Prince Mechow's Taste in Music, Prince Mechow's Taste in Literature, Prince Mechow's Taste in Nature, Prince Mechow's Loyalty, Prince Mechow's Generosity, Prince Mechow's Pets, Prince Mechow's Religion.

CHAPTER VII
A MECCANIAN APOSTLE

It was a week or two after my visit to the Mechow Museum that I made the acquaintance of one of the Foreign Observers who was staying at the hotel. A day or two before, I had been sent for by the Hotel Manager, and had been presented with a small certificate authorising me to take my meals in the common dining-room, and to converse with other foreigners whose names I was instructed to enter in my diary. I had previously noticed a certain gentleman from Luniland whose face seemed familiar to me. On this particular evening he came across to my table
and introduced himself as Mr. Johnson, a friend of Mr. Yorke, in whose house I had stayed and where he had met me. We soon fell into conversation, and when dinner was over we retired for a long chat to a corner of the smoke-
room. It appeared that he had been in Mecco over a year, and had travelled also in various parts of the country. In
fact, this was his second visit, he said, his first having been made a few years before. He was a man of about forty-
five, tall and slim, with a rather large bony nose and a grave but kindly expression. His manner was quiet and
dignified, and at first he spoke with a certain obvious restraint; but afterwards he became more genial and was rather
humorous, after the manner of many of his countrymen.

"I should rather like to ask what you think of this country, but it would hardly be fair, because the chances are
that every word we say here is overheard. I always suspect they have one of those beastly contrivances fixed in the
walls, to enable the manager or somebody representing the Authorities to listen to everything that goes on. I don't
much mind if they turn me out of their precious country, but I wouldn't like to get you into trouble. Anyhow, I
believe if we were to begin talking in my language, which I remember you speak very well, we should presently
have somebody round reminding us that it is against the rules."

"Yet you have spent quite a long time in the country apparently," I remarked. "I have really been wondering
whether to stay here much longer, and perhaps you could give me some tips if I decide to stay."

"Well," he replied, "it's just a matter of taste whether you like the country. I shouldn't be able to stand it but for
one thing."

"And what is that?" I asked.

"It enables me to thank God every hour that I am not a Meccanian."

"Yes," I said, "there's something in that. I myself object to some of the inconveniences that these numerous
regulations about everything entail, but they are nothing, I suppose, compared with what it would feel like if one
expected to spend one's life here."

"It's just possible they really like it. But what sort of tips were you thinking of? Perhaps I know the ropes a
little better than you, if you have been here only a month or two."

"Well, there are two things I would like to know," I replied. "I am rather tired of being 'conducted' about
everywhere. That's the first. And I want to get to know individual people as I did in Luniland. Here, so far, I have
met only officials, always on duty. It seems impossible to get into contact with real live people. Until lately, as you
know, I was forbidden to talk to the people staying in the hotel; but now that I have got over that difficulty,
although, no doubt, I can pick up a certain amount of information from my fellow Foreign Observers and enjoy their
conversation, I am no nearer getting to know the Meccanian private citizens themselves."

"And do you particularly want to know them?" asked Mr. Johnson.

"One naturally wants to know what the people of any country are like, and unless one has some fairly intimate
intercourse of a social kind with people of different ranks and types, one might almost as well stay at home and read
the matter up in books," I replied.

"I see. You are a genuine Foreign Observer. Well, to tell the truth, so am I," he said more confidentially. "I am
not here because I like it. I detest the whole lot of them. I came here for the first time five or six years ago. I had
heard a lot about the country and its wonderful organisation. Organisation! Blessed word! I had also heard some
rather tall stories, and thought the accounts had been exaggerated. I came with an open mind. I rather prided myself
on being an impartial observer. I was prepared to allow a lot for the natural differences of taste between one nation
and another. At first I was so keenly interested that I didn't mind the little restrictions, but when the novelty had
worn off, and I began to realise what it all meant, I determined to make a more thorough study of the country than I
had at first thought would be worth while. So I am here now studying Meccanian education. Now the only way, so
far as I know, of getting rid of your everlasting' conductors' is to get permission to study some special subject. I went
through just the same experience. I was what they call merely a' general' observer. The Authorities don't exactly like
the 'general' observer. They can't find it in their hearts to let him alone. As they regulate their own people they must
keep as close a watch on the foreigner. As he doesn't fit into their system, they have to invent a system for him. It is
troublesome to them, and not very pleasant for the foreigner; but Meccanian principles make it necessary. However,
if you can satisfy them that you are a bona fide student of some special subject â€” it doesn't matter what it is, you
may choose anything from the parasites in the intestines of a beetle to the philosophy of the Absolute--they will treat
you quite decently, according to their lights."

"How do you account for this difference?" I asked.

"They are immensely flattered by the notion that if you come here to study anything, it must be because their
knowledge is so superior to what can be found elsewhere. However, if you want to get rid of the daily worry of a'
conductor,' that is what you must do. But you must be a specialist of some sort, or they won't admit you to the
privilege."

"But there is no special subject I want to study," I said. "I am just a 'general' observer, and if I undertake to
study a special subject I shall miss seeing what I most want to see."

"That is a difficulty. Perhaps you had better go on as you have been doing, and when you have had enough of
that, go in for some political institutions; they have got you registered as a National Councillor, so you can pretend
to study the working of the Constitution or some such thing."

"That's rather a good idea," I said; "but, judging from what I have seen, I should doubt whether they will let me
see what I want to see."

"Why, what do you want to see?"

"Just what I cannot get from an inspection of the machinery of the State--the effect of the laws and customs on
the actual life of the people."

"Ah, that you will have to get by the aid of your imagination."

"But," I suggested, "is it not possible to get permission to live in some family, or with several different families
in different classes in succession?"

"Oh yes," replied Johnson, "quite possible, if you are prepared to go through all the necessary formalities; but I
doubt whether you will get much by it. You see, each family is a sort of replica, in miniature, of the State. They will
have to report to the Police once a week upon all your doings. Every word you say will be listened to. They will be
studying you, just as you will be studying them. I have tried it. There is no natural intercourse in this country. Try it
if you like, but I am sure you will come to my opinion in the end.

"Don't forget to enter the time of this conversation in your diary," Mr. Johnson said as we parted. "If you make
a mistake, or if I make a mistake, we shall have an interview with an inspector from the Time Department, and the
hotel manager will worry us to death about it."

The next day I resumed my tour of observation with a new' conductor' whose name was Lickrod. He was
almost affectionate in his greeting when we met at the Police Office, and we had not been long together before I
recognised that he was a different type from Prigge, or Sheep, or any of the others I had met. He was to take me to
see the Industrial town, and he was full of enthusiasm for everything we were to see. As we went along in the tram
he explained rather effusively that it was a great pleasure to him to meet foreigners. He had a mission in life, just as
Meccania had a mission among all the nations. He was a loyal Meccanian â€” in fact, he yielded to no man in his
loyalty to the State; but for that very reason he ventured to criticise one defect in the policy of the Government. I
began to wonder what that could be.

"I have travelled abroad," he said, "and I have seen with my own eyes the benighted condition of so many
millions of my fellow-creatures. I come home, and I see everywhere around me order, knowledge, prosperity,
cleanliness--no dirt, no poverty, no disorder, no strikes, no disturbance, no ignorance, no disease that can be
prevented--Culture everywhere. It makes me almost weep to think of the state of the world outside. We have not
done all that we might have done to carry our Culture abroad. We have kept it too much to ourselves. In my humble
way, as a Conductor of Foreigners, I take every opportunity I can of spreading a knowledge of our Culture. But
instead of a few score, or at most a few hundred, foreigners every year, we ought to have thousands here. Then they
would become missionaries in their own countries. I always impress upon them that they must begin with the reform
of education in their countries; and I would advise you, before you return, to make a thorough study of our system of
education. Without that you cannot hope to succeed."

"But," I suggested, "if other countries followed your example would they not become as strong as you? Perhaps
your Government looks at it from that point of view."

"There are, on this question," he observed sagely, "two opposite opinions. One is that it is better to keep our
Culture to ourselves; the other is that we ought to teach other nations, so that ultimately all the earth can become one
great and glorious Meccania."

By this time we had arrived at the entrance to the Industrial town. Conductor Lickrod broke off to note the time
of our arrival, and to lead me into the office of the Governor or Controller of what, for convenience, I may call
Worktown. Indeed the Industrial quarter is known by a similar term in Mecco. This Controller is responsible for the
preservation of order; but as there is no difficulty about discipline in the ordinary sense of the word, his functions are
rather to promote a high standard of Meccanian conduct among the workers of all ages and grades. In this work he is
assisted by scores of Sub-Controls of Industrial Training, as they are called.

The organisation of the Controller's Department was explained before we proceeded to any of the works. There
was a large room filled with thousands of little dossiers in shelves, and card-index cases to correspond. The
particulars of the character and career of every worker in the town could be ascertained at a moment's notice. All the
workers were either in the Fifth or Sixth Class, but they were divided into more than a dozen subgrades, and the
card-index showed by the colour which of the many grades any particular person had attained.

I asked how the workmen were engaged.

"The industrial career of a workman," said Lickrod enthusiastically, "begins, if I may so express myself, with
the dawn of his industrial intelligence. In our schools—and here you perceive one of the perfections of our educational system—our teachers are trained to detect the signs of the innate capacity of each child, and to classify it appropriately. In 70% per cent of cases, as you will see from the last report of the Industrial Training Section of the Department of Industry and Commerce, the careers of boys are determined before the age of thirteen. The rest is merely a question of training. By a proper classification we are able to adjust the supply of each different kind of capacity to the requirements of our industry.

We avoid all the waste and uncertainty which one sees in countries where even the least competent workmen are allowed to choose their employment. We guarantee employment to everybody, and on the other hand we preserve the right to say what the employment shall be."

"Does that mean," I asked, "that a workman can never change his employment?"

"In some of the more backward parts of the country it is sometimes necessary for workmen to change their employment; but here, in Mecco, we should think we had managed our business very badly if that were necessary."

"But without its being necessary, a man might wish to change. I have heard of many cases, in Luniland and Transatlantica, of a clever and enterprising man having risen to eminence, after an experience in half a dozen different occupations. Here, I understand, that is impossible."

"Ah," replied Lickrod, "I see you have not grasped the scientific basis of our system. You say such and such a person rose to eminence, shall we say as a lawyer, after having been, let us say, a printer or even a house-painter. If there had been a sufficient supply of good lawyers it is probable that he would not have succeeded in becoming an eminent lawyer. Now, we know our requirements as regards lawyers, just as we know our requirements as to engineers. We have also the means of judging the capacity of our young people, and we place them in the sphere in which they can be of most service."

I thought I could see holes in this theory, but all I said was, "So you think of the problem from the point of view of the good of the State, regardless of the wishes of the individual."

"Certainly of the good of the State; but you mistake the true meaning of the wishes of the individual. The apparent wish of the individual may be to follow some other course than that which the State, with its fuller knowledge and deeper wisdom, directs; but the real inward wish of all Meccanians is to serve the interests of Meccania. That is the outcome of our system of education. We must talk about that some other time, but just now I want you to see that our system produces such wonderful fruits that it never enters the head of any Meccanian workman to question its wisdom."

We entered a gigantic engineering works, full of thousands of machine tools. Everything appeared as clean and orderly as in the experimental room of an engineering college. Some of the workmen wore grey-coloured overalls, showing that they belonged to the Sixth Class, but most of them wore the chocolate uniform of the men of the Fifth Class. These were evidently performing highly skilled work. Even the moulding shops were clean and tidy, and the employment of machinery for doing work that elsewhere I had been accustomed to see done by hand astonished me. The workmen looked like soldiers and behaved like automatons. Conversation went on, but I was informed by Lickrod, again in a tone of pride, that only conversation relative to the work in hand was permitted. Here and there I saw a man in a green uniform, applying some mysterious instrument to one of the workmen. I asked Lickrod what this meant.

"That is one of our industrial psychologists, testing the psycho-physiological effects of certain operations. By this means we can tell not only when a workman is over-fatigued, but also if he is under-fatigued. It is all part of our science of production."

"What happens if a man is under-fatigued persistently?" I asked.

"He will have to perform fatigue duty after the usual hours, just as he would in the army," he answered.

"And do they not object to this?"

"Who?"

"The workmen."

"Why should they? The man who is guilty of under-fatigue knows that he is justly punished. The others regard the offence as one against themselves. It is part of our industrial training. But we have indeed very few cases of under-fatigue in Mecco. You know, perhaps, that all our citizens are, so to speak, selected. Anyone who does not appreciate his privileges can be removed to other cities or towns, and there are thousands of loyal Meccanians only too eager to come to live in Mecco."

One of the most remarkable industries I saw carried on was the House-building Industry. The plans for houses of every kind, except those for the Third and higher classes, are stereotyped. That is to say, there are some forty or fifty different plans, all worked out to the minutest detail. Suppose ten houses are wanted in any particular quarter, the Building Department decides the type of house, the order is given for ten houses, Type No. 27 let us say. This goes to the firm which specialises in Type No. 27. There are no architect's fees, and the expenses of superintending
I asked Conductor Lickrod why it was that, when the whole industry of house-building had been reduced to a matter of routine, the State did not itself carry on the work, but employed private firms. "That question," he said, "touched one of the fundamental principles of our Meccanian policy. If you study our National Economy you will learn all you require about it, but for the moment I may say that the control of the State over Industry is complete, yet we have not extinguished the capitalist. We do not desire to do so, for many reasons. The Third Class, which includes all the large capitalists, and the Fourth Class, which includes the smaller capitalists, furnish a most important element in the National Economy. Their enterprise in business and manufacture is truly astonishing."

"But what motive have they for displaying enterprise?" I asked.

"What motive? Why, every motive. Their livelihood depends upon the profits made; then promotion to a higher grade in their own class, and in the case of those in the Fourth Class their promotion to the ranks of the Third Class, also depends upon their skill and enterprise. But most of all, the Meccanian spirit, which has been inculcated by our system of education, inspires them with the desire to excel the business men of all other nations for the sake of Meccanian Culture."

Certainly the organisation of industry was marvellous, and the production of everything must be enormous. We spent three days going through factory after factory. There was the same marvellous order and cleanliness and perfect discipline, wherever one turned. On leaving the works the men all marched in step, as if on parade. Inside, they saluted their officers, but the salute was of a special kind—the hand was raised to the shoulder only, so as to avoid a sweeping motion which might have brought it in contact with some object. One of the triumphs of organisation, to which Lickrod called my attention, was the arrangement whereby the workmen reached their work at the proper time, got their midday meal, and reached home in the evening without any congestion. Each separate workshop had its appointed time for beginning work; some began as early as 6, others at 6.15, the last to begin were a few that had a comparatively short day, starting at 7.30. The midday meal began at 11.30, and was taken by relays until about 1.30. All the women employed in the canteens were the wives and daughters of workmen, who spent the rest of their time in household work at home.

At the end of the third day, as I was taking coffee with Conductor Lickrod, I took advantage of his communicativeness, which was rather a contrast to the brusqueness of Prigge, to get some light on several matters that had so far puzzled me.

"Your industrial system," I remarked, "as a productive machine, appears to me to be quite marvellous."

Lickrod beamed. "I knew you would think so," he said. "We have a word in our language which, so far as I am aware, has no exact equivalent in other languages, because their culture does not include the thing. It means the adaptation of the means to the end. Our industrial system exemplifies the virtue connoted by that expression; but our whole industrial system itself is only a means perfectly adapted to its end. We have no 'Industrial Problem' in the old sense of that word. Of course we are always effecting improvements in detail."

"But I have been wondering how it is," I said, "that with all this marvellous efficiency in production, your workmen in the Fifth and Sixth, and I suppose in the Seventh Class also, appear to work as long as those in other countries; they do not appear to be richer and they seem to have fewer opportunities of rising in the social scale."

"I have heard the same question put by other Foreign Observers," replied Lickrod, "and I am glad you have come to me for information on the subject. A complete answer involves a correct understanding of our whole Culture. To begin with, the supreme good of the State can only be determined by the State itself. The wishes or opinions of the private individual are of no account. Now, the State knows what its requirements are, and determines the amounts and kinds of work necessary to meet these requirements. By means of our Sociological Department, our Industrial Department, our Time Department, and the various sections of our Department of Culture, we know perfectly how to adjust our industries to the end determined by the State. Every class and grade therefore is required to contribute towards the supreme good of the State according to its ability."

"I quite understand," I interrupted, "the point of view you are expounding; but what I am wondering is why, with all this efficient machinery of production, everybody in the country is not in the enjoyment either of wealth or of leisure."

"I am afraid it is not easy for a foreigner, without longer experience, to appreciate the different value we attach to things such as wealth and leisure, and other things too. Suppose, purely for the sake of argument, that our working class worked only five hours a day instead of nine or ten: what would they do with their leisure?"

"I suppose they would enjoy themselves," I replied; "and seeing that they have had the benefit of a good education, I take it that they would know how to enjoy themselves in a decent manner. Besides, your regulations would be able to prevent any excesses or disorders."

"And you think they would be better employed in enjoying themselves than in serving the State as they do now?" asked Lickrod.
"Who is to judge whether they would be better employed?" I answered.
"That is just the question," said Lickrod, "and it is there that our Culture is so much in advance of other nations. Private enjoyment is not the supreme end of the State."
"But surely," I said, "you do not go on producing wealth simply for the sake of keeping your working classes employed ten hours instead of five? What becomes of the wealth?"
"As I said before, we produce just the wealth we require."
"Then I confess I am baffled," I said. "Possibly a great deal is required for your army and navy and other public services. You have, you must acknowledge, a very large number of people employed as officials of all kinds. As these are not producing material goods, perhaps the surplus wealth is drained away into these channels?"
"All that is included in my statement, that we produce what we require," answered Lickrod.
"Can you give me any idea," I asked, with some hesitation, fearing I was getting on delicate ground, "how much of the industrial product is required for military and naval purposes? I don't suppose you can, because I am aware that your Government does not publish its military estimates; and even if it did, it would not be possible to tell how much of the labour of the working classes is absorbed in that way. But whilst I do not ask for any information that it is not usual to give, I suggest to you that when I see the extraordinary productivity of your economic machine, coupled with the comparative simplicity of the mode of life pursued by the bulk of your population, I am bound to infer one of two things: either a vast amount must be absorbed by some rich class, or it must be in some way absorbed by the State itself."
"I think your reasoning is perfectly sound," replied Lickrod. "I could not tell you what proportion of the wealth product is absorbed by the army if I wished; for I do not know, and nobody in Meccania knows, except the Supreme Authority. The Finance Department knows only in terms of money what is spent upon the various services. But without knowing either exact amounts or proportions, I have no hesitation in saying that a very great deal of the wealth product does go in these directions. But that is part of our Meccanian ideal. The army is the nation, is it not? Every workman you have seen is a soldier; and he is a soldier just as much when he is in the factory as when he is in the camp or the barracks. He spends five years of his life between twenty and thirty in the camp, and he spends from one to two months of every year afterwards in keeping up his training. Then of course there is the equipment of both army and navy, which of course is always developing. Your idea is, I suppose, that if we devoted less to such objects as these, the people of the working classes, or even the whole body of people, would have more to spend upon pleasure, or could enjoy more leisure."
"Yes," I said, "in most other countries every penny spent upon either military purposes or upon State officials, beyond what is strictly necessary, is grudged. The people scrutinise very keenly all public expenditure. They prefer to spend what they regard as their own money in their own way. It seems to me therefore, that either your people do not look at the matter in the same way, or if they do, that the State has discovered a very effective way of overcoming their objections."
"What you say," replied Lickrod, "only brings out more and more the difference between our Culture and that of other nations. This sense of antagonism between the interests of the individual and the interests of the State, which has hindered and apparently still hinders the development of other countries, has been almost entirely eradicated among the Meccanians."
"What!" I said, "do you mean that a Meccanian pays his taxes cheerfully?"
"What taxes?" asked Lickrod blandly.
"I do not know in what form your taxes are paid," I said, "but they must be paid in some way, and I suspect that even in Meccania, if they were left to voluntary subscription, the Exchequer would not be quite so full."
"Now that is a very curious instance of what I am tempted to call the political stupidity of other nations. Instead of removing all circumstances that provoke a consciousness of difference between the individual and the State, they seem to call the attention of the private citizen, as they call him, to these differences. They first allow a man to regard property as entirely his own, and then discuss with him how much he shall contribute, and finally make him pay in hard cash."
"And how do you manage to get over the difficulty?" I said.
"All Meccanians are taught from their youth-- even from early childhood--that all they have they owe to the beneficent protection of the State. The State is their Father and their Mother. No one questions its benevolence or its wisdom or its power. Consequently all this haggling about how much shall be paid this year or that year is avoided. The State is the direct paymaster of nearly half the nation. Hence it can deduct what is due without any sense of loss. Through our Banking system the collection of the rest is quite easy. The private employers deduct from the wages of their employees, and are charged the exact amount through the Banks. No one feels it."
"But does your Parliament exercise no control over taxation?" I asked in some surprise.
"Our Parliament is in such complete accord with the Government that it would not dream of disturbing the system of taxation, which has worked so well for over thirty years," replied Lickrod.

"Have they the power to do so?" I asked.

"They have the power to ask questions, certainly," he replied; "but the taxes are fixed for periods of seven years. That is to say, the direct taxes falling upon each separate class are fixed every seven years in each case; so that the taxes for the First Class come up for revision one year, those for the Second Class the next year, and so on. The Constitution does not allow Parliament to increase the amount asked for by the Government, and as the vote is taken not individually but by classes, it is hardly to the interest of any of the classes to try to reduce the amount assessed upon any one class. Besides, the Government derives a considerable proportion of its income from its own property in the shape of mines, railways, forests, farms, and so forth. When we hear foreigners speak of Parliamentary Opposition we hardly know what the term means. It is entirely foreign to the Meccanian spirit."

"You speak of the Government," I remarked, "but I have not yet discovered what the Government is."

"I am afraid I must refer you to our manuals of Constitutional Law," replied Lickrod.

"Oh, I know in a general way the outline of your Constitution," I said, "but in every country there is a real working Constitution, which differs from the formal Constitution. For instance, Constitutions usually contain nothing about political parties, yet the policy and traditions of these parties are the most important factors. The merely legal powers of a monarch, for instance, may in practice lapse, or may be so rarely exercised as not to matter. Now in Meccania one sees a powerful Government at work everywhere—that is, one sees the machinery of Government, but the driving force and the controlling force seem hidden."

"You may find the answer to your question if you make a study of our political institutions. At present I am afraid your curiosity seems directed towards matters that to us have only a sort of historical interest. It would never occur to any Meccanian to ask who controls the Government.

His conception of the State is so entirely different that the question seems almost unmeaning."

"I have recently spent a long time in Luniland," I remarked at this point, "and I am afraid a Lunilander would say that if such a question has become unmeaning to a Meccanian the Meccanians must have lost the political sense."

"And we should say that we have solved the problem of politics. We should say," he went on, "that the Lunilanders have no Government. A Government that can be changed every few years, a Government that has to ask the consent of what they call the taxpayers for every penny it is to spend, a Government that must expose all its business to an ignorant mob, a Government that must pass and carry out any law demanded by a mere majority— we do not call that a Government."

"They regard liberty as more important than Government," I replied, with a smile.

"They are still enslaved by the superstitions of the eighteenth and nineteenth centuries," he replied solemnly.

"No nation will make real progress until it learns how to embody its physical, intellectual and spiritual forces in an all-embracing State. Our State may be imperfect—I know it is—but we are in the right way; and developed as it may be in another century it will completely answer all human requirements."

"Developed?" I said, almost betraying my amusement for I wondered what further developments the Super-State was capable of. "In what directions do you anticipate development?"

"There is still an immense fund of religious sentiment that is squandered upon unworthy objects: this may be— I feel sure it will be—directed into a nobler channel. Our ritual, too, in no way corresponds to the sublimity of the Idea of the Super-State. The ritual of the Catholic Church—which is after all a section of the whole State—is still superior, from the sensuous and the artistic point of view, to our State ritual. Our reverence for the State is too cold, too inarticulate. I have sometimes thought that the Emperor might found an order of priests or monks who would cultivate an inward devotion that would inevitably give birth to a real religion of the State."

"You are a true missionary," I said; "in fact, I think you are entitled to be considered a Meccanian Apostle. I have learnt a great deal from our intercourse, and just as you have suggested that the Government might bring more foreigners to see the wonders of your Meccanian Culture, I would suggest that they should send you and others like yourself into other countries to enlighten them as to the real mission of Meccania."

He was pleased to accept this testimony from an innocent and well-disposed Foreign Observer, and said that I could best show my appreciation by inducing more of my fellow-countrymen to come and study the wonders of Meccanian Culture.

CHAPTER VIII
THE MECHOW FESTIVAL

I TOLD Mr. Johnson of this conversation when next we met, and he seemed immensely amused by it. "You will have a chance of seeing a bit of Meccanian ritual to-morrow," he said.

"You mean this Prince Mechow Festival," I replied. "What is it like? I suppose you have seen it before?"
"Haven't you noticed the whole town is crowded with visitors?" he said. "But I won't take the edge off by telling you anything about it. You shall see it for yourself without prejudice."

I was aroused about five o'clock next morning by a tremendous booming of guns. It lasted for half an hour, and sounded like a bombardment. Then, for the next half-hour, all the bells in Mecco began ringing. By this time I was dressed and out on the veranda of the hotel. I had tried to go outside the hotel, but was reminded by the porter that we were instructed to remain indoors until we were taken to a building in the great square to watch the proceedings. At a few minutes after six we were conveyed in a motor-car to one of the hotels in the square, and provided with seats at the windows. There were only about twenty Foreign Observers in Mecco altogether, and as most of them were not very desirable acquaintances I sought the company of Mr. Johnson.

The streets were rapidly filling with people, the great majority being dressed in grey and chocolate uniforms, with a fair sprinkling of green. There were also quite a number of dark blue uniforms. As there is no Seventh Class in Mecco, I pointed this out to Johnson, who said that all the people in the streets were from the provinces.

"You will see the citizens of Mecco presently," he said.

"Where have they lodged all these people?" I asked, for I knew the hotels would not hold them.

"Oh, every person is billeted upon somebody of his own class as far as possible. Some of them have relatives here."

At seven o'clock, about fifty bands of music struck up, in different parts of the great central circle. They all played the same tunes and kept wonderful time. As soon as they struck up, Johnson said, "That means the processions have started."

"We waited about a quarter of an hour. The square itself was quite clear of people, but a few sentries in brilliant uniforms stood guarding the entrances from the four streets that led into it. The great statue towered above everything. Presently, headed by a band, the first of the processions, composed of members of the Sixth Class, in their best grey uniforms with all their badges and stripes, reached the square. Six men, at the head, carried a great banner, and were followed by another six, carrying an enormous wreath, which they deposited at the foot of the statue. Then, as the procession moved on across the square, six abreast, the two outside files left the procession, and separating, one to the right the other to the left, filled up the back of the whole square four deep. How many men there were altogether of the Sixth Class I have no idea, but they took half an hour to file past. Then followed another still bigger procession of the Fifth Class. These performed a similar ceremony, and proceeded to fill up the square ten deep. After them came the Fourth Class, in their green uniforms. This procession was much more brilliant in appearance than even the Fifth Class in its bright chocolate uniform. There were apparently ten grades of the Fourth Class, including as it does nearly all the professional men, as well as officials and business men. Some of the men in the first two grades had their breasts almost covered with badges and decorations. Last came a much smaller procession of the Third Class. The yellow against the background of green and chocolate and grey, as they filed into the square, filling the inner part about four deep, made a brilliant colour effect. There were no women in the processions, but the buildings in the square were full of the wives and daughters of the men of the upper classes, who watched the proceedings from the open windows and balconies. The bands went on playing all the time the processions were moving in and rilling up the square. It must have been half-past nine when the music suddenly stopped. There was silence for five minutes. Then suddenly the guns burst forth again, and for a quarter of an hour the noise was deafening. Then the bells rang for half an hour, but after the guns they sounded like a mere tinkling. At half-past ten, after a short silence, a subdued kind of murmur went through the crowd, and we saw advancing from the Imperial Church, which stands back from one side of the square, a new procession, this time in military uniforms. They seemed to be arranged in companies of about fifty, and there must have been a hundred companies. They were all on foot, as it would have been very inconvenient to have cavalry in the crowded square. They filled up the central space. Immediately after came a group of about fifty generals, all belonging to the Army Council. They were followed by the members of the Imperial Council, all dressed in Generals' uniforms. Then came the Emperor himself, followed by the Prime Minister and some of the chief officials of the State. I could not see the face of the Emperor from where I stood. He was dressed in the most gorgeous sort of uniform I have ever seen, and as he appeared, at a given signal (which I did not see), a great shout went up from all the people present, "Hail the Emperor! Hail the Emperor! Hail the Emperor!" Then everybody knelt on one knee for about half a minute, whilst he uttered some kind of blessing which I could not hear. The bands then struck up the National Hymn, after which there was complete silence for a minute or two. Suddenly a loud voice was heard. It must have been produced by a kind of megaphone, but it was perfectly clear. We were listening to the Emperor's formal speech on the occasion. I have not the exact words, but as near as I can reproduce it the speech was something like this:

"We meet for the sixteenth time since the death of the illustrious Prince Mechow, to commemorate his never-to-be-forgotten services and to thank God for the blessings which, through the divinely appointed instrumentality of that noble Statesman, he has so abundantly bestowed upon this his most beloved country...."
"Superior to all other nations and races in our God-given endowments, we had not achieved those triumphs of culture of which our noble race and nation was capable, until by God's grace my father's Minister, Prince Mechow, showed my people of all ranks and classes how to direct their efforts, through discipline and knowledge and devotion, to the strengthening and glorifying of our divinely founded State....

"To-day we again show our gratitude to God for having raised up, in the direct succession of great servants of the State, one who knew how to serve his Emperor and his God, and thus to defeat the evil intentions of all the host of envious and malignant enemies--enemies to God as well as to our nation--by whom we are surrounded....

"Let those enemies beware how they set God at defiance by thwarting the divine mission he has entrusted to us. He has set our glorious and invincible State in the midst of all the nations, but in their blindness and ignorance they have scorned our mission.... If, whilst all other nations are striving within themselves, class against class and man against man and rulers against ruled, in our nation and among my people there is but one will, one purpose, one mind, we owe it, under God, more to Prince Mechow than to any other.... This monument, which to-day we decorate with the wreaths of memory, is but a symbol of that monument which exists in the shape of the whole nation, whose forces he organised and whose purposes he directed to one end, the strength and unity of the State. Hail to Prince Mechow! Hail! Hail! Hail!"

The whole crowd burst out in shouts of "Hail to Prince Mechow! Hail!" Then came renewed shouts of "Hail the Emperor! Hail!" After he had bowed a dozen times or so, those near him prepared to form the procession back towards the Imperial Church, and for the next two hours the processions filed out to the sound of music. It grew very tiresome, and I was getting hungry, so we got permission to return to our hotel for a meal. Until now everybody had fasted, but the rest of the day was given up to a sort of carnival. Banquets were arranged to take place in every part of the city, and the whole population prepared to enjoy itself. At these banquets it is the custom to make patriotic speeches, which are faithfully reported. The man who is adjudged to have made the best patriotic speech is awarded a special decoration called the Prince Mechow Prize.

As the streets were liable to be crowded with strangers, it was not thought fit to allow us to wander about; but I learnt from Johnson that as the day goes on, and a large quantity of beer is drunk, the streets become filled with a boisterous crowd, which is a most unusual sight in Mecco.

Two things seemed to me rather odd about this festival: why was it that the Emperor allowed such adulation to be paid to a former subject; and why was the commemoration of Prince Mechow, who had done so much to introduce the strictest discipline, and the one occasion when licence was allowed? I put these questions to Mr. Johnson as we sat talking in the smoke-room, where we could faintly hear the murmur of the crowd in the streets in the distance.

"It is just as well you did not ask these questions of any of your Meccanian conductors," replied Johnson. "The real reason is one which I don't believe any Meccanian would avow. This Mechow Festival is a genuine expression of national character. They used to enthuse about Bludiron in almost the same way, some eighty years ago. I have heard my father tell of some of the scenes he saw here. They have a childish belief in national heroes. Then, the upper classes have a very special reason for encouraging this cult of Mechowism. They realise how completely he did their work for them and made their power secure, and it suits them to cultivate the superstition that there is something sacred about everything he established. Perhaps you know that the Military Class are the real power behind the Throne here. They let the Emperor play his part on the stage in public, but he takes good care not to do anything to offend them; and this worship of Mechow is a sort of symbol of their power. The real effect of Mechow's reforms was not to make the Emperor himself supreme, but to make the Military Caste all-powerful. They take care, therefore, to make this festival popular. I don't suppose the Emperor altogether enjoys the part he has to play on an occasion like to-day."

"What you say about the Military is rather interesting," I replied, "for only a day or two ago I was trying to get Lickrod to tell me what the Government really is. I couldn't make out whether he knew or not, but he certainly didn't enlighten me much."

"Of course it's the Military Class," said Johnson, with a laugh. "I thought everybody knew that. It's a very open secret."

"I have heard that theory put forward," I said, "but I can't quite make it square with the facts."

"Why not?" asked Johnson.

"Well, if the Military are the supreme power, why should they have such an elaborate Bureaucracy and make such a parade of culture in every direction?" I said.

"Ah," replied Johnson, "you must remember we are living in the twentieth century; in fact, you must remember all that this wonderful rascal of a Mechow taught his countrymen. The clumsy methods of the Military Autocracy of a barbarous age would not be of the slightest use in our times. Human society in modern times, even under an Autocracy, is tremendously complex. An elaborate Bureaucracy is a necessary part of the machine. Suppose, for
instance, that you were an autocrat, and you wanted to be able to wield the whole force of the nation over which you ruled, how could you give effect to your will unless the whole nation were organised with that end in view? Suppose you had absolute power, as far as the law could give it you, and suppose you wanted a powerful army; you would want also the best equipment. How would you get it unless your industries were already organised and under control? There is no doubt at all that the nation that can control and mobilise all its resources for whatever purposes it happens to require them, has a great advantage, from the military standpoint, over other nations not so organised."

"But," I said, "they organise all sorts of things that have nothing to do with military efficiency. Look at the theatres, and at Art, and Music: their organisation of these is carried to an absurd point."

"That is quite true, but did you ever know any big organisation that did just exactly what it ought to do, and stopped short of the things it ought not to do? Once set up a Bureaucracy and it will inevitably extend its functions. People are dirty, so the bureaucrat says, let us make them wash. Then, he says, let us make them keep their houses clean. Then, he says, let us make them keep their clothes tidy. He doesn't like the way they walk, so he makes them march in step. You can see that there was a tremendous advantage in having a well-instructed middle class and a well-instructed working class. To secure this, a powerful department to organise and enforce education was necessary. Once the Bureaucracy was created there was hardly any limit to its functions. Besides, and this seems to me rather important, the more widely extended are the functions of the Bureaucracy, the more effectually is its main purpose disguised. The people are accustomed to being directed and 'organised.' They imagine, in a vague sort of way, that it is all for their good. Another little turn of the screw is not felt. If the State tells me what to eat, why shouldn't it tell me what to wear, and what to read, and what to think?"

"There is another reason why it 'organises' all this culture. In every nation some kind of intellectual life goes on. It must be either free or controlled. If it is let alone, the force of ideas is such that, in the long run, they will shape the political structure. The State, if it means to preserve itself as an Autocracy, must get control over the intellectual life of the nation. In ancient times it succeeded for a time. In the Middle Ages the Church tried the same thing. In modern times most States have not made the attempt, but this State has made the attempt. It has done no more than Plato would have done. It has done it rather differently perhaps, but it has followed the same idea."

"They would feel rather flattered, don't you think," I said, "if you told them they were carrying out Plato's principles?"

"Perhaps they would, but that only means they have learnt nothing from twenty centuries of political experience."

"On the contrary, it looks as if they have learnt a good deal," I said.

"They have learnt how to make a nation of slaves and tyrants."

"And yet they don't seem to mind being slaves, if they are slaves."

"I wonder," replied Johnson. "A hundred years in the life of a nation is not a long time. Human nature is a strange thing. They kiss the rod so affectionately that I don't mind how long they remain in bondage: all I care about is that they should not make slaves of the rest of us."

"Do you think there is any danger?" I asked.


"Why, how could it be brought about?" I said.

"In all sorts of ways. Liberty is the most precarious possession of the human race. Very few nations have possessed it for long together."

"But surely," I said, "Meccania is so unpopular, to put it mildly, with almost all other nations, that her influence can hardly be dangerous."

"Oh, but it is," insisted Johnson. "The danger takes several forms. Meccania is tremendously strong as a military power. She knows it, and other nations know it. Suppose a great war took place, and she were successful; she would bring other nations under her power, as she has done in the past. These would soon be compelled to adopt her institutions. Then, in self-defence, other nations would feel themselves compelled to resort to the same means as have proved successful in her case, to make themselves strong too. To a certain degree that has already taken place. Lots of our military people now are always agitating to introduce what they call reforms, to place us on a level with Meccania. Then all sorts of cranks come over here: Sanitary Reformers, Eugenists, Town Planners, Educationists, Physical Culturists, Temperance Reformers, Scientific Industrialists, and so forth. Each of them finds some idea he wants to push. There are people who think that if they could only cure unemployment they would bring in the millennium, and they are willing to reconstruct society for the sole purpose of doing away with unemployment. And so we get disconnected bits of Bureaucracy set up, first for this and then for that. By and by some one will come along who will try to co-ordinate the whole thing."

I had evidently set Mr. Johnson on to a train of thought that excited him, for he usually took things very calmly. After a short pause he went on: "And yet I don't think the greatest danger comes from these would-be bureaucrats of
ours. With us the bureaucrat only gets his chance when we have played the fool so badly that somebody has got to step in and set things right. For instance, we had what we called magistrates at one time. They were supposed to be the prominent citizens with common sense and initiative; but they became so incompetent, and the authorities chose them so foolishly, that they lost the public confidence; so we had to replace them partly by officials and partly by paid judges. Then look at our manufacturers; they hadn't the sense to apply a reasonable proportion of their profits to developing their business on scientific lines, so the State had to step in and compel them to. They hadn't the sense, either, to encourage their workpeople to become educated, nor even to pay them any more than they could help. Consequently the State had to step in again. No, what I am most afraid of is our disinclination to set things right ourselves. We can't let mothers go on murdering their babies, we can't let food dealers poison the public, we can't let seducers of children traffic in obscenity; and as the public is apathetic about all these things the bureaucrat steps in and adds another Department to the fabric. What I am afraid of chiefly is that we shall get into a bad mess that will place us at the mercy either of the Meccanians over here or of our own Meccanians at home."

CHAPTER IX
MECCANISATION
WHEN I came to reflect that night upon the experience of the last few days, I was much impressed by three things which somehow seemed to hang together. There was first my conversation with Lickrod. If all Meccanians, or even a majority, took the same view of the State that he did, there could be no limit to the functions of the State. He seemed to claim for it all the moral authority of the Mediaeval Church, and although in other countries theories are put forward for academic discussion without having much influence upon practical politics, in Meccania the powers that be are able to carry out their ideas without the obstruction which necessarily arises in countries where public opinion is more spontaneous. He had evaded the question as to the control of the Government, and had maintained that such a question had no meaning in a country where the people were not conscious of any difference between the State and themselves. Then there was this Mechow Festival. Now, it was either a sincere manifestation of a national admiration of Prince Mechow, and an approval of his work in creating a Super-State with unlimited powers, or it was a proof that the ruling class, whatever that was, could manipulate the whole life of the nation as it pleased. Lastly, there was the idea that Johnson had thrown out. He was quite confident of the accuracy of his own view that the Military Class was the power behind everything, and that the whole elaborate bureaucratic organisation of society had for its motive and driving force the desire and the will to make Meccania a perfect instrument of militarism.

Up to this time I had been partly amused and partly annoyed by what I had seen and heard and experienced. I was amused by the meticulous regulation and organisation of all the petty details of life, by the pedantic precision of all the officials I had met, and by the utter absence of a sense of humour in the mentality of the Meccanian people. I had been annoyed by the meddlesome interference with my private habits, but I tried to disregard this, because, as an experienced traveller, I had sufficient experience to tell me that in every country one has to accommodate oneself to the customs and prejudices of the community. But most of all, I felt baffled by my failure to find out anything about the real life and thought and feeling of the people.

I determined that I would make a more serious attempt to get behind the screen which all this officialism set up between the people and a well intentioned Foreign Observer like myself or Mr. Johnson. I would find out whether the screen was erected only between the foreigner and the people, or whether the people themselves were so organisers that, even for them, intercourse was made difficult. I promised myself that Lickrod, with his genuine enthusiasm for every feature of Meccanian culture, would be much more likely to enlighten me than any person I had come in contact with before. We had still some days to spend in completing our general survey of industry in Mecco. As President of an important Literary Society, I expressed a desire to see how the whole business of literary production was conducted in Meccania, for I understood that several features in the system were quite unlike what could be found anywhere else in the world. Conductor Lickrod was almost eager to gratify my curiosity—at any rate up to a certain point.

"The printing industry," said he in answer to my questions, "is a perfect example of the effect of Prince Mechow's reforms. It would be impossible in any other country to do what we do, even if they employed three times the number of men. In other countries the waste of labour, not only manual labour but brain labour and business enterprise, is ridiculous. Look at the amount of advertising, the number of rival newspapers and magazines, the number of rival publishers of all sorts. It is a perfect chaos. Now we have no advertising, as advertising is understood abroad. Every commodity can be classified, whether it be a hair restorer or a mansion for sale. Our system of commerce gets rid of advertising miscellaneous commodities. The wholesale merchants have their regular catalogues issued to the trade, and the same system is extended to retail trade. For example, if you want to buy an article of clothing, apart from your regular uniform, you consult a directory of the retail dealers. Then you consult a catalogue of any particular firm at the bureau for retail trade, where you will find a catalogue of every shop in the
town you happen to be in. There are no hoardings covered with posters tempting people, out of mere curiosity, to buy things they don't want. Now look at a typical newspaper in any foreign country. Half of it is covered with advertisements of concerts, theatrical performances, other amusements, sales, situations vacant and wanted, clothing, patent medicines, books—every imaginable thing. With us that is all unnecessary. The bureaux of employment do away with all advertisements for employment—but in any case we should require few of these, because our system of employment is so much better organised. As to concerts and theatres, everybody knows, through the official gazettes, what amusements are available for months in advance."

"You have not only got rid of the advertisements," I remarked, "but even of the newspapers themselves, I understand. I have certainly seen none except the local gazettes."

"Exactly; I was coming to that," he continued. "Look at the enormous waste of effort that goes to the production of forty or fifty big newspapers. What is the use of them? Every item of information can be classified. It may be a crime, an accident, an event in foreign politics, a new law, a trial, a new discovery in some branch of science or industry, and so on. Now look at all the ingenuity displayed in getting hold of some sort of account of these things at the earliest moment, in order to gratify the mere curiosity of crowds of ignorant people. Then look at the special articles, all or nearly all produced in haste, and the so-called leading articles, all designed to influence the mind of the public by giving some particular colour or interpretation to the alleged facts. Our official gazettes give the public all they require to know. The Law Gazette, issued each week, gives information about all the breaches of the law committed, all the important processes before the Law Courts, all the changes in the Law. All the articles which are necessary to throw light upon legal matters are written by real experts. As you know, the journalist is extinct in Meccania. The Industrial Gazettes—one for each of the main branches of industry, with a general Industrial Gazette for matters affecting industry generally, contain everything required in a much more complete form than can be given in a daily newspaper. So you see that, applying the same principle to the various aspects of our public life, we are able to substitute one well-organised publication, dealing completely with all matters and issued with all the authority of the State, for the miscellaneous jumble of scraps which are called newspapers in other countries."

"Then look at the number of magazines; they represent a stage of culture which we have left entirely behind. We have our Literary Gazettes to keep the public informed about all the recent publications. We have our Quarterly Records for every department of knowledge. If you want the latest contributions to history or archaeology, philology, ethnology, or anthropology, you know where to go for them. Everything is done by experts, and we do not go to the trouble of printing anything by anyone else on such subjects."

"Then you have no popular magazines such as would interest people who are not strictly students, but who take an interest in things?" I asked.

"No. As I said a moment ago, we have left that stage of culture behind. We provide a good education for all those who, we think, are able to utilise it for the good of the State. After that, every one is encouraged to pursue that branch of knowledge which will be most useful to him in his calling. In a certain sense every man is a specialist. We do not encourage people to dabble in things they only half understand."

"But is there not also a need," I said, "for what I may call general knowledge on the part of the public? For instance, suppose a new law is to be introduced which is to affect people's lives, everybody is concerned, whether he is a specialist or not. Or suppose some question of public morals, or some question of political interest arises, you surely want the public to discuss such things. How, indeed, can your authorities keep in touch with the public mind unless there is some medium by which the general public can express itself?"

"What you say," answered Lickrod, "only serves to demonstrate the truth of what I am trying to convey to you, namely, that our Culture is so differently conceived that you foreigners cannot understand our attitude. You use the expression 'public opinion.' Our psychologists will tell you exactly how that public opinion is formed. They made a careful study of it before we decided to replace it by something better. It was one of the superstitions of the nineteenth century, which has not only lingered on but has become a serious hinderance to the development of scientific government in all countries except Meccania. They actually allow their fiscal policy to be determined by 'public opinion.' Fiscal policy is entirely a matter for the State, and the only persons qualified to advise the State are the experts. You speak of public morals, but the business of guiding the morals of the nation is the highest function of the State itself. Now the organs through which every nation or State functions are determined and developed by the national consciousness: this consciousness expresses itself just as legitimately through experts as through an uninstructed public opinion."

"So you would be prepared to say, then," I said, "that your people fully acquiesce in the suppression or abolition of one of the institutions which most foreigners consider almost the last safeguard of liberty? I mean, of course, the daily press."

"The present generation of Meccanians, that is, the young people, say between twenty and thirty, have never known the Press. The older men were, I confess, bitterly opposed for some years, or at least a section of them were;
but if anyone proposed to revive the Press nowadays he would be regarded as one would be who wished to revive steam-trams, or wigs, or general elections."

"But suppose some people were mad enough to want to publish a newspaper, could they not do so?" I asked.

"Well, there is no positive law against it, but it would be impossible, all the same."

"Why?"

"The expense would be very great, for one thing. There would be no advertisements, remember. They would not be allowed to publish news before it had been submitted to the censor, or before it was given to the public through the official gazettes...."

"You need say no more," I said. "I quite see it would be impossible. The censorship extends to all printed matter, I gather?"

"Certainly," he replied. "The State would be guilty of a grave neglect of its function as guardian of the Meccanian spirit if it permitted any scribbler who wished to seduce the minds of the people to mislead them."

"But," I could not help replying, "I thought that your people were on the whole so well educated that there would be less danger of their being misled in Meccania than in any country. Also I have been informed that all the best writers are already in the employ of the State; and, further, that the people generally are so completely at one in sentiment with the spirit and policy of the State that there could be no real danger from the free expression of opinion."

Conductor Lickrod smiled. It was a benevolent, almost a pitying smile.

"I perceive," he said, "that some of the most commonplace axioms of our policy seem like abstruse doctrines to people whose culture is less advanced. But I think I can make all this clear. Your argument is that our people are well instructed, our writers--the best of them--are employed by the State, and our common loyalty to the Meccanian ideal is so firmly established that even a free Press, or at least the free expression of opinion in books, would give rise to no danger. Now do you not see that it is only by means of our system--so wisely conceived by the greatest statesman who ever lived--that we have this instructed public, that we have all the best writers in the service of the State, that we possess this common allegiance to the Meccanian spirit? When we have achieved what no other nation has achieved, should we not be fools to introduce an entirely contrary principle, and for the sake of what? In order to provide an opportunity for the few people who are not loyal to Meccania to attack the very State whose children they are. For, examine what it is you propose. No one who is a loyal Meccanian finds the least fault with our present system. It has the enormous advantage over all the systems of other countries that, without any waste, it provides the most authentic information about every conceivable subject, it gives the public the benefit of the services of such a body of experts as no other country possesses. And the people who would write such books as you are thinking of; who would support them? They are already fully employed in some manner, and in the manner considered by the State to be the most useful. I assure you this is a purely academic discussion, for no one would dream of putting into practice such a proposal."

"There must be something in the mentality of the Meccanians very different from that of other nations, and that is all the more surprising because, at least according to the ethnologists, they are not racially different from several of the surrounding nations."

"That is quite true, with some slight reservations. We are not a pure race by any means. We have racial elements within our nation which are indeed distinct from those of the surrounding nations, and they have perhaps contributed to the final result much more than in proportion to their actual numbers. What you call Latin culture has never done more than furnish us with the material for such elements of our culture as we wished to utilise. You see it has hardly affected our language. No, the Meccanian culture of to-day is the result of education and scientific statesmanship."

"Excuse my putting the question so bluntly," I said, "but it seems to me that the principles you have put forward would justify even a revival of an institution known in mediaeval times, and even later, as the Inquisition. I suppose there is no institution corresponding to that in Meccania?"

"It is quite unnecessary. And that is one powerful argument in favour of our system of controlling the Press. That control, together with our other institutions of which it forms part--our whole polity is a perfect harmony--makes an Inquisition, as you call it, an anachronism."

"But," I said, "I was told by one of your own people of something that seems to a mere outsider to resemble an incipient Inquisition."

"Indeed," he said, "and what is that?"

"Well, I gathered that in certain cases the Special Medical Board uses its discretionary power to incarcerate persons whose opinions or convictions make it impossible for them to embrace what I may call the Meccanian ideals of life."

I felt I was treading on delicate ground, but as Prigge on a previous occasion had openly approved of putting
people into lunatic asylums if they did not accept the Authority of the Super-State I felt justified in sounding Lickrod on the point. To my surprise he betrayed no embarrassment.

"You are probably not aware," he said, "of the remarkable strides that have been made by our medical scientists in Meccania during the last fifty years. The pathological side of psychology has received great attention, with the consequence that our specialists are able to detect mental disease in cases where it would not be suspected by less skilled doctors. I believe I am right in saying that our experts detected the disease now widely recognised as Znednetlapseiwick (Chronic tendency to Dissent) long before it was known in other countries that such a characteristic was in any way connected with brain disease. The microbe has been fully described in the twenty-seventh volume of the Report of the Special Medical Board. The first clue to the existence of this disease was discovered during the great war, or perhaps a little later. A number of people persisted in putting forward views concerning the origin of the war, which were totally at variance with the official, and even the Imperial, explanatory statements made for the enlightenment of the public. At the time, it was regarded as just mental perversity. But what led to the discovery was that, after ten, and even fifteen years in some cases, notwithstanding every natural inducement to desist from such perversity, these people deliberately and persistently maintained the objectivity of their hallucinations. Experiments were made; they were under close observation for some years, and at length Doctor Sikofantis-Sangwin produced his theory and confidently predicted that the bacillus would be found in a few years. From that time the path was clear. The disease was most rife some forty years ago, soon after the beginning of Prince Mechow's premiership; but since then it has almost disappeared. You see it is not hereditary, and the normal conditions of Meccanian life are very unfavourable to its development. But coming back to your point, although no doubt this is what has given rise to the calumny that the Special Medical Board uses its powers as an Inquisition, there is not a vestige of truth in the charge. Each case—and the cases are becoming very rare indeed—is investigated on strictly psycho-physiological lines. The patients in all cases are isolated, and placed under observation for some months before any pronouncement is made."

"Your explanation is as usual most illuminating,"

I replied, "and the patience with which you deal with my questions emboldens me to put to you some further difficulties that have been puzzling me."

"Proceed," replied Lickrod encouragingly.

"Well now," I said, "your whole national culture is so elaborately perfect, from the standpoint of its basic principles, that it is certainly well worth studying by any student of sociology or politics or economics; yet we foreigners find ourselves hampered at many points whenever we wish to get into contact with certain kinds of facts. For instance, we may wish to find out what are the ideas, the current thoughts and feelings, of the various groups, and even individuals, who make up society. We cannot go and live with people and converse freely with them. I have not been able to understand why your Government takes such precautions to keep secret, as it were, facts which in any other country are as open as the day."

"That is not at all difficult to answer by anyone who really understands the principles of our Culture, and I am surprised that none of the conductors who have instructed you have explained it—-that is, if you have asked them," he answered, "You have been hampered, you say. Yes, but you have been assisted too. You have been shown things in a way that would be impossible in most other countries within such a short time. Our Government has paid great attention to the instruction of foreigners. Instead of leaving them to gather all sorts of erroneous impressions, it provides them with authentic information. If, on the other hand, there are things which it does not wish foreigners to know, it takes care, and quite rightly, that they shall not obtain the information by any illicit means. For instance, if you were foolish enough to attempt to obtain information about our military affairs, you would find yourself against a blank wall; and, if I may say so, you might hurt your head against the wall. But then there are matters which, without being secret, cannot well be investigated by the individual inquirer. Take such a thing as the current thought of any particular class or group. Only a trained and well-equipped social-psychologist is capable of making such an inquiry. The liability to error is tremendous. All the books written by travellers reveal this. We do not wish to be exploited by casual and irresponsible travellers. We provide opportunities, under proper conditions, for expert investigators; but very few are willing to comply with the conditions. Besides, our Culture, like all the finest products of the human intellect, is a very delicate thing. When we have carefully educated our people in the Meccanian spirit we are not prepared to expose them to the insidious influences of irresponsible busybodies. Every Meccanian is valuable in our eyes, and just as we protect him from infection in the shape of physical disease, so we protect him from the more insidious but not less injurious influence of foreign ideas. You will find plenty of philosophical justification for that policy in the writings of Plato and Aristotle—two philosophers who are studied in all the foreign universities but whose systems of thought are utterly misunderstood except in Meccania."

CHAPTER X
CONVERSATIONS
IT must have been more than a week after my long talk with Conductor Lickrod that I was sitting one evening in the hotel with Mr. Johnson and a certain Francarian gentleman to whom he had introduced me, when the latter made a suggestion that has since proved very useful to me. Mr. Villele the Francarian is a short and rather stout man of middle age, with a pair of merry black eyes, a swarthy complexion, and dark hair beginning to turn grey. He professes to find Meccania and the Meccanians amusing, but I suspect from the nature of his sarcasms that he entertains a deep hatred of them. We were talking of my journal when he said, "And what is the use of it?"

"Well," I said, "I do not flatter myself that I can produce a great literary work, but the facts I have been able to place on record are so interesting in themselves that I believe my countrymen would welcome a plain straightforward account of my visit to this most extraordinary country."

"I have heard," he said, "that the Chinese have very good verbal memories. Have you committed your record to memory in its entirety?"

"Why should I?" I replied; "it is to save my memory that I am taking the trouble of making such full notes, even of such things as conversations."

"And how do you propose to get your journal out of the country?"

"I propose to take it with me when I return," I said. At this he turned to Johnson and laughed, but immediately apologised for his apparent rudeness.

"And what about the Censor?" he asked.

"Surely," I replied, "these people take such precautions not to let us foreigners see anything they do not want us to see, that they cannot object to a faithful record being made of what they do permit us to see!"

"Then you have not even read Regulation 79 of the Law concerning Foreign Observers."

"What is that?" I asked.

"Simply that foreigners are not allowed to take out of the country anything they have not been permitted to bring in, except with the consent of the Chief Inspector of Foreign Observers."

"And you think they will object?"

"I have not the slightest doubt."

"But it is written partly in Chinese; they would have to translate it."

"All the more reason for detaining it. If you ever get it again, it will be in a few years, after it has been translated for the benefit of the Sociological Section of the Ministry of Culture."

"What do you advise me to do, then?" I asked. "Have you any friends at the Chinese Embassy?" he asked.

"I have no personal friends. At least I have not troubled to inquire. I have had no business at the Embassy; there seemed no reason why I should trouble them."

"There is a fellow-countryman of yours here in Mecco who is persona grata with the Authorities," said Villele, "but he is rather a dark horse." "A dark horse?" I said.

"He is a sort of convert to Meccanianism. He has written books in appreciation of Meccanian principles, Meccanian ideals, Meccanian institutions, and so forth. They are eagerly read by the Meccanians. They even use them in their colleges. I have read them, and they seem to me very clever indeed. I translated them for the benefit of my countrymen, and I am not exactly an admirer of things Meccanian."

I must have looked rather puzzled, for Mr. Johnson came to my rescue.

"Mr. Villele means," he said, "that these books have a double meaning. I have read one of them. Under cover of the most exuberant flattery he gives such an impression of the cold-blooded devilishness of the system, that some of us suspect his real purpose to be that of exposing the whole business."

"He knows more of Meccania than anyone who is not a high official," said Villele; "and if you want to pursue your investigations any further, and incidentally get your manuscript conveyed out of the country, I should advise you to seek an interview with him."

"Will that be possible," I asked, "without arousing suspicion?"

"Oh, quite easily," answered Villele. "He is above suspicion, if you are not," he added, smiling. "He holds a weekly salon for foreigners, and you can easily get permission to attend. After that I leave it to you, and him."

That evening we went on talking a long time. Mr. Villele related some remarkable things, but I was not sure whether he was merely making fun of the Meccanians.

"You have not seen much of the Meccanian women?" he remarked.

"No," I said; "I have had no opportunity."

"They are quite as wonderful as the men," he said. "You never heard, for instance, of the great Emancipation Act, Regulation 19 of the Marital Law?"

"No," I replied; "what is it?"

"No Meccanian woman is obliged to submit to the embraces of her lawful husband."

"But how did the men ever consent to such a law?" I asked; "for in this country it is the men who make the
laws."

"It is rather a queer story," he replied. "It is quite a long time ago, forty years or more, since a movement arose among the women, influenced no doubt by the women's movement in Europe, which had for its object, or one of its objects, greater freedom from the domestic tyranny of the Meccanian husband. Some of them, of course, thought that the way to secure everything they wanted was to get the right to vote for the National Council; but the wiser among them saw that the vote was merely a bad joke. Anybody could have the vote, because it was worth nothing; seeing that the powers of the representatives were being reduced to nothing. All the same, this women's movement, such as it was, was the nearest approach to a revolutionary movement that the Meccanians have ever shown themselves capable of. Once more our dear old Prince Mechow came to the rescue. He was a real genius."

"But I thought you did not admire the Mechow reforms?" I interrupted.

"I do not; but I recognise a genius when I see him. Believe me, Prince Mechow was the first Meccanian to understand his countrymen. He knew exactly what they wanted, what they would stand, what they could do, what they could be made to believe. He was absorbed in his early reforms when this women's movement broke out, and some people were afraid of it. He attacked the problem in his characteristic fashion. He knew the women didn't want political power; he knew also that there was not the slightest danger of them getting it; but he saw immense possibilities in having the women as his allies in certain of his reforms, especially his Eugenic reforms. He hit upon a really brilliant idea. I don't suppose you can guess what it was?"

"How can I?" I said. "All this is quite new to me."

"Well, if you had read Meccanian literature, or even the writings of the old travellers in Meccania—you would know that the Meccanian women are the most primitive in Europe. They have one ideal as regards men. They have a superstitious admiration for physical strength. If a Meccanian woman were really free to choose her mate, in ninety-nine cases out of a hundred she would choose the strongest man. They have always been like that. Probably many primitive peoples have had that characteristic, but the Meccanians have preserved that trait longest. You think I am joking or spinning a theory?"

"I was thinking that they had the same marriage laws as the rest of Europe for many centuries, the fact, if it is a fact, cannot be of much practical importance," I said.

"The fact itself is vouched for by dozens of writers among the Meccanians. They pride themselves on having preserved these primitive characteristics; they glory in never having been influenced by Latin culture. The marriage laws you speak of have been adopted by the men, in self-defence, so to speak. In very early times the Meccanian marriage laws were essentially the same as they have been for two thousand years, and the penalties on the women for infractions of the marriage laws were more severe in practice than in any other country. Notice the facts: breaches of the 'moral code' before marriage are regarded very lightly: illegitimacy in Meccania, as is proved by statistics, was more prevalent than in most countries; but the men took care that breaches after marriage should be severely dealt with. I told you it was a long story, and I have not yet come to the point. For twenty or thirty years before Prince Mechow got into the saddle all the young hot-headed Meccanian patriots got Eugenics on the brain, but none of them knew how to put their ideas into practice. Mechow himself was an Eugenist of the most brutal type. He believed that if he could once utilise this primitive instinct of the Meccanian women, he could do something much more effective than eliminating certain feeble types, which was all that the Eugenist theorists had so far aimed at. He proposed to give every woman the right to choose, within limits, the father of her children. He knew that all the Meccanian women were obsessed with a frantic admiration for the Military Class—in the old days it was the ambition of every woman to marry an officer, and that was why the officers who were not well-to-do never had any difficulty in getting a rich partie. Well, he actually made a law to the effect that any woman could claim a sort of exemption from the marital rights of her husband, upon the recommendation of an authorised medical man."

"But why on earth did the men consent to such a law?" I asked once more.

"That was easily done. You had only to invoke the Meccanian spirit, devotion to the supreme interests of the State, the opinion of the experts and all the rest of it. The opposition was stifled. The three highest classes were all for it; the women supported it, and although they had no political power they made opposition impossible."

"And what effect has this law had? I am afraid I do not see how it would effect the purpose Prince Mechow had in view," I said.

"The consequences have been enormous. I do not mean that the law by itself effected much, but taken as part of a system it solved the whole problem from Mechow's point of view."

"But how?" I asked, somewhat puzzled.

"You understand, I suppose, the system of medical inspection and medical supervision and medical treatment?"

"To a certain extent," I replied.

"Well, you realise perhaps that, in the hands of a patriotic medical staff, the system can be so worked that every woman who is 'approved' can be provided with a 'eugenic' mate from an approved panel, drawn chiefly from the
Military Class, eh?"

"Is this one of Mr. Villele's jokes at the expense of the Meccanians?" I asked Mr. Johnson.

"He is telling the story in his own way," answered Johnson, "but in substance it is quite true."

"But it sounds incredible," I said. "What do the husbands say to it?"

"Oh, the business is done very quietly. A woman is ordered a 'cure' by the medical authority,' and she goes away for a little time. The men on the panel are kept in training, like pugilists used to be. As for the husbands--did you ever attend any lectures in the Universities on Meccanian ethics? Of course you have not been in the country very long. Jealousy is regarded as an obsolete virtue, or vice, whichever you like. Besides, you must not imagine the custom affects large numbers. Probably not more than 10 per cent of the women, chiefly in the Fifth and Sixth, and to some extent in the Fourth, Class, are affected."

"But I should have thought that social caste would be an insuperable obstacle," I said.

"Surely not! When did you hear that women were chosen for such purposes from any particular class? It is not a question of marriage."

"There is one circumstance," interposed Mr. Johnson, "that has some bearing on this subject.

Domestic life in Meccania for generations past has been based on quite a different ideal from that prevalent in other parts of Europe. A Meccanian in the old days used to choose a wife very much as he would choose a horse. She was thought of as the mother of children; in fact, the Meccanian sociologists used to maintain that this was one of the marks of their superiority over other European nations. Conjugal affection was recognised only as a sort of by-product of marriage. Of course they always pretended to cultivate a kind of Romanticism because they wrote a lot of verse about the spring, and moonlight and kisses and lovelonging, but their Romanticism never went beyond that. As the object of Meccanian sentiment, one person would do just as well as another."

"Our friend seems very much surprised at many things he finds in Meccania," remarked Mr. Villele, "and my own countrymen, and more especially my own countrywomen, only half believe the accounts they read about this country, simply because they think human nature is the same everywhere; but then they are ignorant of history. Civilisations just as extraordinary have existed in ancient times, created through the influence of a few dominant ideas. The Meccanians are a primitive people with a mechanical culture. They have never been civilised, because they have no conception of an individual soul. Consequently they find it easy to devote themselves to a common purpose."

The conversation went on for a long time. It was a warm summer evening and we were sitting in the garden at the back of the hotel, otherwise we should have been rather more guarded in our remarks. As we parted, Mr. Villele repeated his advice to seek an interview with Mr. Kwang, as he called him. (His name was Sz-ma-Kwang, but for convenience I shall allude to him as Mr. Kwang.) A day or two later, I contrived to get an interview with him, and although Conductor Lickrod was present I soon discovered that Mr. Kwang and I were members of the same secret society. He promised that I should see him again before long, and that he would be happy to assist me in any way he could. He told Lickrod that he had been doing his best, for the last five years, to induce the Chinese Government to send more 'observers' to Meccania; but his enthusiasm for Meccania had perhaps defeated its own object, as it caused him to be mistrusted. His writings on Meccania were well known, and it was thought that he was trying to proselytise. He spoke most flattering of me to Lickrod, and said that, in view of the influence I should have in my own country, it was well worth while giving me every facility to see all I wished. He would guarantee that, under his tutelage, I should soon learn to appreciate things from the right point of view.

Two days after this, I received a message to call on the Chief Inspector of Foreigners. He received me most politely, and almost apologised for not having had time to see me before. He had only just learnt that I was a friend of the excellent Mr. Kwang. He said I should be permitted to visit Mr. Kwang whenever I chose, and that I was now at liberty to make use of the letters of introduction I had brought with me to several persons in Meccania. It would not be necessary for me to be accompanied by a 'conductor' every day. He would transfer me to Class B, Stage II. Class B meant Foreign Observers staying not less than six months; and Stage II. meant that they were permitted to submit a plan each week showing how they proposed to spend the following week; so that on the days which were occupied to the satisfaction of the Inspector of Foreign Observers for the district, the services of a 'conductor' could be dispensed with.

I did not know whether to avail myself of my new-found liberty or not. For when I came to talk the matter over with the only person at hand, Conductor Lickrod, I found that it was not very easy to prepare a plan that would be accepted by the Authorities, unless I were prepared to pursue some definite line of research. When I talked of taking a few walks in the poorer quarters, calling in for a few lectures in the University, hearing some concerts, and seeing some plays and other amusements, looking round the museums,--a programme innocent enough in all conscience,--Lickrod said no Inspector would sanction such a miscellaneous time-table for an observer in Stage II. I was not qualified to attend concerts; I had not yet received permission to visit the theatre. Unless I were pursuing some
particular study, I could only visit the museums in company with a conductor. As for a stroll through the poorer quarters, he failed to see the object of that. On the whole, I decided to stick to Lickrod for another week at any rate. I asked if I might see something of Education in Mecco. He said certainly, if I desired to make a study of Meccanian Pedagogics for a period of not less than four months. Otherwise it would not be possible to enter any of the educational institutions. I could get permission to read in the Great Library, if I would specify the subject, or subjects, and show that I was qualified to pursue them. In that way I could read up Meccanian Education. If I were not willing to do this, he advised me to talk to Mr. Johnson, who was a keen and capable student of Meccanian Pedagogics.

I suggested investigating Meccanian political institutions, but similar difficulties arose there. I could only study Meccanian politics if I were registered as a specialist, and for that I should have to obtain permission from the Department for Foreign Affairs as well as from the Chief Inspector of Foreign Observers. He remarked, however, that in his opinion there was little to study beyond what could be got from books. The political system of Meccania was really simplicity itself when once the fundamental principles had been grasped. I replied that in most countries it took a foreigner rather a long time to understand the views and policy of the many different groups and sections in the representative assemblies. Each of them usually had their organisations and their special point of view. He replied that in Meccania the State itself was the only political organisation.

"But," I said, "when your members of the National Council meet, do they not fall into groups according to their views upon policy?"

"They are grouped according to classes, of course," he answered. "Each of the seven classes has the same number of representatives, and there is no doubt a tendency for the representatives of each class to consider things somewhat from the point of view of the interests of their class. But the members have no meetings, except in the full assembly and in the committees. Such groupmeetings form no part of the Constitution. We do not do things by halves. When the State decided to have nothing to do with party government, it decided also not to have anything to do with group government. There is no room for such trifling in Meccania. So you see there is nothing for you to investigate in this direction."

"The classes themselves, then? Is there no body of opinion, no collective political tradition or sentiment cultivated by the various classes?"

"You might find something there," said Lickrod, musing a little. "But except in the shape of books I do not know how you would get at it."

"But all books are censored, are they not?" I said.

"Certainly, but how does that affect the question?"

"Books would hardly give me a truthful idea of all the currents of thought."

"But surely you cannot suppose that the State would assist you in trying to discover things which, by its deliberate action, it had already thought it desirable to suppress?" he answered. " Besides," he added, "such things belong rather to the pathology of politics. By the way, you would find some useful matter in Doctor Squelcher's great work on Political Pathology."

"That is a new term to me," I said. "Doctor Squelcher's researches have proved invaluable to the Special Medical Board in connection with the disease Znednettlapeseiwz (Chronic tendency to Dissent) which you also had not heard of."

In view of this conversation my attempt to investigate Meccanian politics did not seem likely to meet with much success.

Before seeing Mr. Kwang again, I received an invitation to dine with a certain Industrial Director Blobber, one of the persons to whom I had a letter of introduction. He lived in a very pleasant villa in the Third Quarter, and as it was the first time I had had an opportunity of seeing the interior of any private menage, I was naturally rather curious to observe everything in the house. The door was opened by a servant in a livery of grey. The hall was spotlessly clean, and decorated in yellow tones, to indicate the class to which my host belonged. I was shown into what I took to be a drawing-room, the prevailing tone of which was also yellow. The first thing that struck me was the peculiar construction of the easy chairs in the room. They were all fitted with mechanical contrivances which enabled them to be adjusted in any position. At first I thought they were invalids' chairs, but they were all alike. The other furniture suggested the latest phases of Meccanian decorative Art, but it would be tedious to describe it in detail. The frieze was decorated with a curious geometrical design executed in the seven colours. There were silk hangings which at first I took to be Chinese, but which I soon saw were imitations. The carpet had the Imperial arms woven in the centre. It seems it is one of the privileges of officials of the Third Class to have the Imperial arms as a decoration on certain articles of furniture; only members of the Second and First Classes may have their own arms. The mantelpiece was large and clumsy. A bust of the reigning Emperor stood on one side and one of Prince Mechow on the other.
Mr. Blobber joined me in a few minutes. He was dressed in a lounge suit of bright yellow with green buttons. (The buttons indicated that he had been promoted from the Fourth Class.) He was polite, in a condescending sort of way, and spoke to me as if I had been a child. He was a foot taller than I am, and decidedly portly in build. He had a red face, a rather lumpy nose and a large bald forehead. He wore spectacles and was decorated with the Mechow beard, which he not only stroked but combed in my presence.

After the first formal greetings, he said, "So you have come all the way from the other side of the world to see our wonderful country. You had all the countries in the world to choose from, and you had the good sense to come to Meccania. You decided well, and I hope you have been profiting by your stay."

"Yes," I said; "I have seen a great many things to admire already."

"For example?" he said.

"The wonderful roof of your Great Central Station," I said.

"Ah, yes, unique, is it not? We have, of course, the finest railway stations in the world, and the finest railway system too. But that is only part of our industrial organisation."

"You have indeed a wonderful industrial system," I said, "and no industrial problem."

"No industrial problem?" he replied. "We have a great many. We do not produce half enough. Of course, compared with other countries, it may seem that we are doing very well, but we are not satisfied."

"I meant rather that you have no disturbances, no strikes, no Trade Unionism or anything of that sort."

"Of course, you cannot help thinking of what you have seen in other countries. No, we have no time for nonsense of that kind. But I take no interest in that sort of thing. I have enough to do with my work. The chief Director of the Imperial Porcelain Factory is a busy man, I assure you."

At this moment Madame Blobber came in and I was introduced to her. She was a great contrast to her husband in many ways. She was tall and rather thin—at any rate for a Meccanian—and would have been graceful but for a certain stiffness and coldness in her manner and bearing. She had a pale face with cold blue eyes. Her mouth was rather large, and her lips thin and flexible. While her husband's voice was leathery, like that of most Meccanians, hers was thin and penetrating, but not loud. We crossed into the dining-room. A butler in a chocolate-coloured livery saw that all was in order, and left the room. Waiting was unnecessary. The first dishes were on the table, where they were kept hot by electricity, and others on the sideboard were afterwards handed by a woman servant in a grey uniform.

It was a rather silent meal. Mr. Blobber was much occupied with his food, which he evidently enjoyed, and at a later stage he relapsed into a sleepy condition. Madame Blobber then took the lead in the conversation. She was evidently a very well-read woman, especially in all matters relating to Art. I suspected she had no children and had made herself a blue-stocking. She talked like a professor, and with all the dogmatism of one. She said the Chinese had never had any true knowledge of colour. They had merely hit upon some colours which were pleasing to a crude taste. The Meccanians in fifty years had absorbed all the knowledge the Chinese had ever possessed, and much more besides."

I ventured to say that there were still some secrets of artistic production in porcelain that foreigners had not discovered. She laughed at the idea. The' secrets,' she said, were the very things the Meccanian experts had rejected as of no value. I might as well say that the Chinese political constitution was a secret because the Meccanians had not adopted it. When I suggested that scientific knowledge was not a complete equipment for Art, and would not necessarily increase the artistic powers of a nation, she said this was a mere superstition. Art was not a mystery. Every work of art admitted of being analysed; the laws of its production were ascertainable; and it could be reproduced or modified in every conceivable way.

I asked if the same were true of music. I had heard, I said, that for nearly a hundred years even the Meccanians had produced no great musician.

"Another superstition," she declared. "The great musicians, as they were called, were merely the pioneers of music. Their works were much overrated in foreign countries. We have proved by analysis," she said, "that they were merely groping for their effects. We know what they wanted to effect, and we have discovered how to get those effects. Musical psychology was an unknown science a hundred years ago. Why, the old composers had simply no means of testing the psychological effects of their works by experiment."

"I am afraid I am very ignorant of musical science," I said. "In fact, I did not even know there was such a thing as a science of music."

"What did you think music was?" she almost snapped.

"Simply one of the Arts," I said.

"There can be no art in the proper sense without a science."

"But I thought you Europeans considered that in Sculpture, for example, the Ancients had never been surpassed; and yet they had no science of sculpture."
"Their science was probably lost: but we have recovered the true science. The basis of all sculpture is accurate measurement. Whatever has bulk, whatever occupies space, can be measured, if your instruments are fine enough. Our instruments are fine enough. We can reproduce any statue ever made by any artist."

"But that is only copying," I said. "How do you create?"

"The process is a little more elaborate, but the principles are exactly the same. Even the classical sculptors had models, had they not? Well, our sculptors also use models; they pose them in thousands of different positions until they have the attitude they want; they have instruments to enable them to fix them in position, and the rest is merely accurate measurement."

"I should never have imagined that sculpture had been carried to such a point," I remarked. "Is there much of it in Meccania?"

"Not a great deal of the finer work. Accurate measurement is a slow and costly business even with our improved instruments."

"Tell me," I said,--"you see I am very ignorant of Art as understood in Meccania,--has Literature been pursued by the same scientific methods?"

"It depends upon what you mean by Literature," replied Madame Blobber.

"Broadly speaking," I said, "I mean the art of expressing ideas in language that satisfies one's sense of beauty."

"All our professional writers go through a period of training in the particular department they cultivate. For example, our writers of history are very carefully trained, writers of scientific treatises also."

"But what of your novelists and poets?" I asked.

"We do not specially encourage the writing of novels. All stories are merely variations of a few themes: all the stories worth writing have been written long ago. We print a certain number of the old novels, and we employ a few specialists to 'vamp' up new stories from the old materials, chiefly for the benefit of the lower classes. We Meccanians never really took to novel-writing, except under foreign influence, and that passed away long ago. The theme of almost all novels is domestic life and individual passion: they treat of phases of thought and feeling that our Culture tends more and more to make obsolete. We have developed the Drama much more; in fact, the drama takes the place of the novel with us."

"I have heard something of your Drama from Dr. Doddeler," I said.

"Indeed! Then you understand the fourfold treatment. That in itself would explain why we have discarded the novel. We still keep up the philosophical parable, which is a sort of link between the novel and our modern drama."

"I am afraid I should find it difficult to appreciate some of your plays," I said; "Uric Acid, for instance."

"That is only because our mental environment is in advance of the rest of Europe. Physical science, including of course medical science, is part of our mental furniture: we have assimilated whole masses of ideas that are still unfamiliar to other peoples. Naturally our drama finds its material in the affairs that interest us."

"And Poetry?" I said. "Is Poetry still cultivated?"

"Naturally! Most of our dramas are in poetry: our language lends itself admirably; it is almost as easy to write poetry as prose in our language."

"But is there no lyrical poetry?"

"Certainly; we utilise it as one of the means of cultivating the Meccanian spirit, especially among the young. No poetry is published unless it contributes to the uplifting of the Meccanian spirit."

At this point Director Blobber woke up and proposed that we should retire to his study for a glass of spirits and a cigar. Madame Blobber left us, and for the next half-hour I did my best to keep Mr. Blobber awake. But it was evident he wanted to go to bed, and by half-past nine I left the house, without any desire to see either of my hosts again.

Two days later I received another invitation, this time to dine with an Under-Secretary of the Ministry for Foreign Affairs. I had not presented any letters of introduction to him. I could therefore only suspect that this invitation was in some way due to Mr. Kwang. I went, of course; but I could hardly help wondering what was in store for me. Under-Secretary Count Kraft belonged to one of the great families and wore the uniform of the Second Class, with a badge to indicate that he was now in the Civil Service, although of course he had served as an officer in the army. His wife was apparently dining elsewhere, for I saw no sign of her, and we dined tete-a-tete in a small apartment in his large mansion in the Second Quarter. He was much more a man of the world than the others I had met, and in his manners resembled the men of good family whom I had met in Luniland. After a short preliminary talk, about nothing in particular, he said he was sorry that he had not learnt of my presence in Mecco when I first arrived, particularly as I was a friend of Mr. Kwang.

"The applications from foreigners for permission to travel in Meccania," he said, by way of apology, "are not very numerous, and they are always referred to me for my signature. Yours reached us from Luniland, and was regarded as that of a mere globe-trotter. It is a pity you did not give the name of your friend, Mr. Kwang, as a
reference. We think very highly of Mr. Kwang, and I should be pleased to give special facilities to any of his friends.

"I don't suppose you have been neglected," he added; "our officials have instructions to pay attention to the comfort of all Foreign Observers, and I am sure we do more for them than any Government I am acquainted with."

We were by this time about half-way through dinner, and under its influence I ventured upon a mild joke.

"You do everything for them," I said, "except leave them alone."

He took this in good part.

"You have been in Luniland," he remarked, "where every one does what he pleases. When you have spent as long a time here you will appreciate the wisdom of our arrangements. No doubt it seems a little irksome at first, and perhaps rather dull, especially as you have seen only the mere routine aspects of the life of the lower and middle classes--I use the old-fashioned terms, you see. But how else would you arrange matters? We cannot invite all foreign visitors, indiscriminately, to take part in our higher social life, and it would not be fair to our own citizens to allow foreigners a greater liberty than we allow to ourselves."

"So you put us in a strait-jacket," I said, laughing, "because you have to put your whole nation in a strait-jacket."

"Our whole nation in a strait-jacket," he replied, with a smile. "So that is how it strikes you, is it?"

"Well, isn't it so?" I said. "Your children are sorted out while they are at school, their play is turned into useful employment, their careers are decided for them; hardly any of them rise out of their original class. Then everybody is under the eye of the Time Department, everybody is inspected and looked after from the cradle to the grave. It is almost impossible to commit a real crime or to set up any independent institution. There is, you must admit, a certain want of freedom in your arrangements."

"But of what people are you speaking?" said Count Krafft. "You seem to have confined your attention to the lower classes. For them, in all countries, something of a strait-jacket is needed surely. Certainly it is for ours. We know our own people. When they are properly drilled and led they do wonders, but left to themselves they have always relapsed into laziness and barbarism, or else have burst out into anarchy and revolutionary fury."

"But what scope does your system allow for their energies?" I asked. "Every aspect of life seems confined by your meticulous regulations."

"That is an illusion," he replied. "You see, we are a highly intellectual people and it is quite natural for us to formulate regulations. Modern life is necessarily complex, and the chief difference between us and other nations is that we recognise the complexity and organise our activities accordingly. We are simply in advance of other nations, that is all. Take a simple thing like Railways. We organised our Railway system to suit our national purposes instead of leaving them to commercial enterprise. Take the Education of the people. The State took charge of it fifty years before other nations recognised its vital importance. Take the question of Public Health; even those States which prate about individual liberty have had to follow in our wake and organise the medical service. Besides, it is only by organising the activities of the lower classes that the State can maintain its supremacy."

"I see," I replied, "the strait-jacket is for the lower classes. I thought it was a garment worn by everybody."

"The expression was yours," he said, with an indulgent smile. "We certainly do not regard it as a strait-jacket."

"That is perhaps because the ruling classes do not wear it," I replied.

"We do not recognise any classes as ruling classes," he said suavely. "It is an obsolete expression."

"But I thought you liked to recognise facts and call things by their proper names," I replied.

"Certainly we do," he answered. "But which are the ruling classes? The Super-State is the supreme and only ruler in Meccania."

"Even in a Super-State," I said, "I should have thought, from what you have said, that some groups of persons really wielded the power of the State."

"Under the crude organisation of most foreign States that is quite possible," answered Count Krafft; "but the essence of the Super-State is that, in it, power cannot be exercised without authority, and only these persons are authorised through whom the Super-State chooses to express its will. It places everybody in such a position as enables him to render the greatest service to the State that he is capable of rendering. Consequently no fault can be found, by any class or section, with the power exercised by any other class or section; because they are merely the instruments of the State itself."

"That sounds a very comfortable doctrine for those who happen to wield the power," I said. "It leaves no room for any opposition."

"The Super-State would not be the Super-State if it contained within it any opposition," he replied. "You ought to read the speech of Prince Mechow on the Super-State as the final expression of the Meccanian spirit," he went on. "Foreigners are apt to confuse the Super-State with an Autocracy. It is essentially different. In an autocracy of the crude, old-fashioned type, an exterior power is visible, and your talk of ruling classes would be appropriate there. In the Super-State all the functions are so organised that the whole body politic acts as one man. We educate the will of
the component units in such a way that all conflicting impulses are eradicated. After all, that was the ideal of the Catholic Church. Prince Mechow applied the same principle when he reformed our Educational system. A good Meccanian would no more seek to violate the obligations laid upon him by the Super-State than a good Catholic would seek to commit deadly sin.

"Then there is no room for a Free Press in the Super-State," I remarked.

He saw my point and replied, "A' Free Press,' as you call it, would be an anachronism. What necessity is there for it? Its function has disappeared. It only existed during a brief historical phase in the earlier development of the modern State. Our great Prince Bludiron was the first to perceive its inconsistency with the line of true development. Prince Mechow absorbed all the functions of the independent professions, and among them those of the journalists, who were always an element of weakness in the State."

"But what, then, is the object of this complete Unity which, as far as I can make out, the Super-State seems always to be aiming at?" I asked.

"The object?" he replied, almost bored by my pertinacity. "Unity is the law of all organic life. We are simply more advanced in our development than other States, that is all."

"Then it is not true that all this super-organisation is for the purpose of fostering national power?" I said.

"That is the argument of the weak against the strong, the poor against the rich, the ignorant against the educated. Every healthy person is a strong person; the rich man is stronger than the poor man; the educated man is stronger than the ignorant. The modern State, even among our neighbours, is infinitely' stronger' than the incoherent political organisms of earlier times. It cannot help itself. Its resources are enormously greater. How can the Super-State help being strong? No State deliberately seeks to weaken itself, or deprive itself of its natural force." Then, as if tired of the discussion into which our conversation had led us, he said, "But these are all matters about which you will learn much more from my friend the Professor of State Science. I am afraid I have been dishing up one of his old lectures. You will find this liqueur quite palatable."

We then drifted on to more trivial topics. He said I had spent too long among the petty officials, grubbing about with my Tour No. 4. I ought to see something of better society. Unfortunately it was the dead season just then, and I might have to wait a little time, but there were still some dinners at the University. Some of the professors never went out of Mecco and would be glad to entertain me.

We parted on very good terms. His manner had been friendly, and if he had done little besides expound Meccanian principles he had had at any rate not been dictatorial. I wondered whether he really believed in his own plausible theories or whether he had been simply instructing the Foreign Observer.

When I saw Mr. Kwang a day or two afterwards â this time alone--he greeted me cordially and said, "So things are improving?"

"They promise to do so," I said, "but so far, all that has happened has been a very tedious visit to Director Blobber and an academic discussion with Count Krafft."

"So you don't appreciate the honour of dining with an Under-Secretary of the Super-State?" he said. "You have stayed too long in Luniland."

"I am promised the privilege of seeing something of the best Meccanian Society, but what I was more anxious to see was the worst Meccanian Society."

"They will take care you don't," he answered, laughing.

"But why? In any other country one can associate with peasants or vagabonds or artisans or tradesmen or business men."

"You ought to know by this time--I am sure it has been explained to you over and over again. You would gather false impressions, and you might contaminate the delicate fruits of Meccanian Culture."

"That is the theory I have heard ad nauseam. But there is nothing in it."

"Why not?"

"Because by keeping us apart they arouse the suspicions of both."

"Oh no, they may arouse your suspicions, but the Meccanian knows that what the State prescribes for him must be for his good. This is the only country where theories are carried into practice. It is a Super-State."

"And you admire it? You have become a proselyte," I said jokingly.

"Have you read my books yet?" he asked. "I saw one for the first time this week," I said.

"Well?"

"I recognise it as a masterpiece." He bowed and smiled. "From the President of the Kiang-su Literary Society that is high praise indeed."

"I am undecided whether to remain here longer," I said, "or to return home, perhaps calling for a rest and a change to see my friends in Lunopolis. I should like your advice."

"Of course that depends upon circumstances. I do not yet understand your difficulty or the circumstances."
"Well," I said, "I came here prepared to stay perhaps a year, if I liked the country, with the intention of obtaining general impressions, and some definite information on matters in which I am interested; but every Meccanian I have met is either a Government agent or a bore."

"What, even Madame Blobber?" he interposed, smiling.

"Even Madame Blobber," I said. "I am getting tired of it. I try all sorts of means to gratify my perfectly innocent curiosity, and am baffled every time. Now I am promised a sight of high Society, but I expect they will show me what they want me to see and nothing they don't want me to see."

"Why should they show you what they don't want you to see?" he laughed.

"I don't know how you stand it," I said.

"I have had the virtue of patience," he said, "and patience has been rewarded. I, too, am going home before long. I have got what I want."

He made the signal that bound me to absolute secrecy, and told me what his plans were. When I said that he ran a risk of being victimised he shook his head. "I am not afraid," he said. "By the time I reach home, every Meccanian agent in China will have been quietly deported. And they will not come back again. We are not a Super-State, but our country is not Idiotica."

"And in the meantime," I said, "suppose I stay here another month or so, what do you advise me to do?"

"Oh, just amuse yourself as well as you can," he said.

"Amuse myself! In Meccania?"

Yes; it is not worth while trying now to do anything else. You will find out nothing new--nothing that I have not already found out. It takes ten years to penetrate beneath the surface here, even with my methods," he said. "But I have got what I want."

"And how am I to amuse myself?" "Accept all the invitations you get, keep your ears open and use your own considerable powers of reflection. By way of relief, come and talk to me whenever you want."

I followed Sz-ma-Kwang's advice: I gave up all thought of investigating either Meccanian Politics, or social problems, or anything of the kind. I thought I should probably get better information at second hand from Mr. Kwang than I could get at first hand for myself, in the short time that I was prepared to stay, and I am satisfied now that I decided rightly.... I saw Lickrod almost daily, and went with him to a number of places, museums, the great library, industrial exhibitions, manufactories and so forth. We spent a day or two looking at examples of Meccanian architecture, which was more interesting from the engineering point of view than from the artistic. I began to receive invitations to several houses, chiefly of high officials in the Civil Service and one or two members of the higher bourgeoisie.

In the meantime I had some interesting conversation with my friends, Mr. Johnson and Mr. Villele, as we sat in the garden after dinner. I had never yet asked Mr. Johnson why he was pursuing what I could not help thinking was the distasteful study of Meccanian Pedagogics, but as Lickrod had recommended me to talk to Mr. Johnson about Meccanian education the question came up naturally. I put it to him quite frankly.

"You are what I should describe as an Anti-Meccanian by temperament," I said, "and it seems very odd that you should be studying Meccanian Pedagogics of all things in the world."

"It is because I am an Anti-Meccanian, as you put it, that I am doing so," he replied. "You see in Luniland we never do things thoroughly--thank God!--and we have no pedagogical system. But every now and then a sort of movement arises in favour of some reform or other. For a long time Meccanian education was out of court; people would hear of nothing that savoured of Meccania, good or bad. Then there was a revival of interest, and societies were started to promote what they called Education on a scientific basis--by which they meant, not the study of science, but Meccanian education. As Professor of Education in one of our smaller Universities I was obliged to take some line or other, and the more I studied Meccanian Education from books, the less I liked it. So I came to equip myself with a better knowledge of the whole thing than the cranks who have taken it up."

"I suppose you find some things worth copying," I suggested, "in a field so wide, especially seeing that they have applied psychological science to methods of study?"

"Oh yes, there are certain pedagogical tricks and dodges that are decidedly clever. In fact, if the human race were a race of clever insects, the Meccanian system of education would be almost perfect. The pupils store up knowledge as bees store honey, and they learn to perform their functions, as members of an organisation, with wonderful accuracy. I cannot help thinking sometimes that Meccania is a society of clever insects."

"Exactly," struck in Mr. Villele. "There are the soldier ants, and the slave ants, and the official ants, and the egg-producing ants. We ought to call Meccania the Super-Insect-State, eh?"

"Yes; the land of the Super-Insects," said Johnson. "No person in Meccania, certainly no child, is ever looked upon as an' end in itself; he is simply one of a community of ants."

"Of course," I said, "to be quite fair, we cannot consider anybody strictly as an end in himself, even in
"Luniland."

"Theoretically that is so," replied Johnson, "but in practice it makes all the difference in the world whether you regard a man as an individual soul, or as a cell in an organism or a wheel in a machine."

"Why do you Lunilanders and Francarians, if I may ask such a large question, allow yourselves to be influenced at all by what is done in Meccania?

There is so little intercourse between the countries that it hardly seems worth while having any at all," I said.

"Because in both countries there are still many people who regard the Meccanians not as Super-Insects, but as human beings," answered Johnson. "And there is always, too, the ultimate possibility of conflict. If they were on another planet it would not matter, providing they could invent no means of communicating with us. In itself Meccanian education is of little interest, except, of course, as education in the insect world might be interesting, or perhaps as a branch of pedagogical pathology or psychological pathology."

"In effect," interrupted Mr. Villele, "it all comes back to what Mr. Johnson was saying a few nights ago, that the key to the whole polity of Meccania is military power. Meccanian education is merely a means to that end, just as the Time Department, and every other institution--and the absence of certain other institutions like the Press, for example -- is. The Super-State is the grand instrument of Militarism."

"Is it not possible," I said, "that the real key to the Super-State is the desire of the ruling classes to keep themselves in power?"

"But the two things go together," answered Villele. "The Meccanian maxim is that 'The State must be strong within in order to be strong without.'"

"And is not that true doctrine?" I said, wondering how they would answer the argument.

"To a certain extent," answered Johnson cautiously. "But where are their enemies? Why should they want all this 'Super-Strength'?"

"They say they are surrounded by unfriendly nations," I replied.

"So they are," answered Villele, "but they have done their best to make them unfriendly. If you knock a man down, and trample on him, and rob him into the bargain, you can hardly expect him to be a friendly neighbour next day."

"We started by talking about education," I remarked, "but we have very soon got into a discussion about Militarism--somehow we seem to get to that no matter what point we start from."

"And with very good reason," said Villele. "There used to be a saying that all roads lead to Rome. In Meccania all roads lead to Militarism. You who are not faced by the problem it presents may regard it as an obsession, but a man who refuses to admit the plainest evidence is also the victim of an obsession."

"And you think the evidence is unmistakable?" I said.

"For what purpose does the Meccanian Parliament--if it can be called a Parliament--surrender its control over taxation? For what purpose does the Government conceal its expenditure upon army and navy? For what purpose does it destroy the freedom of the Press, and freedom of speech? For what purpose does the Government keep every person under supervision? For what purpose does it control all production?"

"I cannot answer these questions," I said; "but what evidence is there that the Meccanian system of education is designed as part of the scheme of Militarism?"

"The evidence is abundant," answered Johnson, "but it is not so plain as to be unmistakable. If you see one of our elaborate pieces of modern machinery, a printing-machine or a spinning-machine, you will find that it contains a thousand separate contrivances, and unless you are an expert you will not be able to perceive that every part is absolutely necessary to the performance of the simple function of printing or spinning. Yet that is the fact. It is just the same with the Meccanian educational machine. Its chief purpose, according to the Meccanian theory, is to enable the citizen-- or, as Villele and I might say, the Super-Insect-- to perform his functions as a member of the Super-Insect community. But the chief end of the Super-Insect State is Power. The Meccanians say so themselves. Anyhow, we can easily see for ourselves that their system of education fits in exactly with Militarism. It makes men efficient for the purposes required of them by the Super-State; it makes them not only docile and obedient, but actively devoted to the interests, not of themselves individually, but of what they are taught to regard as something more important, namely, the Super-State; it fosters the superstition which makes possible such an incredible custom as Villele has told you of; it keeps them ignorant of all other ideals of civilisation."

"All that may be true," I replied. "It may very well be that the system of education does favour Militarism, but it may not have been deliberately designed to that end. It has been put to me," I added, "that all this elaborate organisation, including education, is part of the inevitable tendency of things in the modern world, and that the Meccanians are only doing a little in advance of other people what they will all do sooner or later."

"That won't do at all," interposed Villele. "They cannot have it both ways. What becomes of the genius of Prince Mechow if it is all an inevitable tendency? They tell us other nations are not clever enough, or not far-seeing
enough, or not strong-willed enough, to produce such a system. These reforms had to be introduced in the teeth of opposition. Other nations have not adopted them and will not adopt them except under the pressure of fear. It is Militarism alone that is strong enough to impose such a system."

"But," said I, "I find it difficult to believe that any civilisation, even Meccanian, can be really the result of the domination of a single idea. Not even the communities of the ancient world were so simple in their principles."

"That fact tells in favour of our contention," answered Villele.

"How so?" I said.

"Why, you admit the natural tendency of all civilised peoples towards diversity of aims. The more highly developed, the more diversified. If, therefore, you find a people becoming less diversified, subordinating all individual wills to the will of the State, you must suspect some extraordinary force. You would not deny the fact that individual liberty has been suppressed?"

"No," I said, "I do not deny that."

"But you think the Super-State has such an interest in the tender plant of the individual souls of its children, their moral and spiritual and physical life, that it is merely a meticulous grandmother trying to prepare them all for a better world, eh?"

I laughed.

"No, that won't do. Only two things are strong enough to suppress the spirit of liberty: one is superstition calling itself religion; the other is Militarism."

"If it were less well done," resumed Johnson, "it would be easier to detect. But it is diabolically well done. Who but the Meccanians would think it worth while to control the whole teaching of history for the sake of cultivating Militarism? In most countries anybody may write history, although very few people read it. Here only the official historians may write: only the books prescribed by the State may be read. And all the people while they are at school and college must read it. In this way they create a powerful tradition. One need not laugh at the idea of State historians. They have done their work too well for that. Their falsification of history is not a clumsy affair of inventing fairy tales. It is scientific falsification. They utilise every fact that can tell against, or discredit, other nations, and every fact about their own people which can raise their national self-esteem. The method is not new, for you may say that all historians are biased. But in other countries the bias of one historian is counterbalanced by the bias of others. The method is not new but the system is. As an example, take their treatment of a well-known Luniland statesman of the beginning of the last century—and this is a fairly harmless instance. He was undoubtedly a single-minded, public spirited man, a patriot who was also a good European, for he did as much as any one man to save Europe from a military tyranny. But he shared many of the current ideas of his age and lived according to its customs. In Meccanian history all we are told of him is that he drank heavily, gambled, persecuted ignorant and misguided labourers, bribed the people's representatives, enriched capitalists and landlords by his fiscal system, and displayed his ignorance of finance by inventing a fallacious Sinking Fund that any schoolboy could see through."

"Mr. Johnson is putting the case much too mildly," interposed Villele. 'There are in the 'reports' issued by the Government on all sorts of matters, but particularly with regard to foreign affairs, falsifications of fact of the most barefaced character. Now the writers of the school and college histories quote very extensively from these official reports, implying always that the statements are true. Further than this, you know, but not perhaps as well as we do, that in countries where speech is free and the Press is free there are any number of libellous writers who vilify their opponents in a shameless fashion. In Luniland in particular, if my friend will pardon my saying so, there are enthusiasts for some particular cause who have no sense whatever of proportion. For instance, to hear some of the so-called Temperance advocates you would imagine that the Lunilanders were a nation of drunkards, wifebeaters, seducers, abandoned wretches of every kind. To listen to their Socialist fanatics you would imagine that every working man was a down-trodden slave. To listen to their anti-vivisectionists you would imagine that the whole medical profession spent its leisure in the sport of torturing animals. To listen to some of the priests you would think the whole nation was sunk in vice.

To listen to the anti-priests you would think the priests were a tribe of grasping hypocrites, and so on and so on. Now you will find Meccanian histories, and works on the social and political life of foreign nations, full of quotations from such writers."

"As I said at the outset," remarked Johnson, "this may seem a little thing in itself, but it is symptomatic and characteristic. Look at an entirely different aspect of the system. The whole teaching profession is honeycombed with sycophancy. Every teacher is a spy upon every other. Every one tries to show his zeal, and gain some promotion, by a display of the Meccanian spirit. As you know, there are no private schools. There is not a single independent teacher in the whole country. It is in the Universities even more than in the schools that sycophancy runs riot."

"That may be perfectly true," I said, "but would you not get this disease of sycophancy wherever you have a
bureaucracy, quite apart from Militarism? Suppose there were no army at all, but suppose that the State were the sole employer and controller of every person and thing, you might still have all the petty tyranny and sycophancy that you describe."

"But there is a difference," said Johnson. "Under a mere bureaucracy it is still possible for the large groups of workers to combine, and very effectually, to safeguard their interests; especially if at the same time there is a real parliamentary system. Indeed, many years ago one of the strongest arguments brought forward in Luniland against any large extension of State employment was that the employees, through their trade combinations, would be able to exert political pressure, and rather exploit the State than be exploited by it. No, I maintain that a military autocracy without a bureaucracy may be brutal and tyrannical, in a spasmodic sort of way; but it is loose-jointed and clumsy: a bureaucracy apart from a military control of the State may be meddlesome and irritating; but it is only when you get the two combined that the people are bound hand and foot. Anyhow, I cannot conceive of the whole teaching profession, including the highest as well as the lowest branches, being so completely enslaved as it is here, without there being a driving power at the back of the bureaucratic machine, such as only Militarism can supply in our times--for religion is out of the question."

"Well, now, is there any other sort of evidence," I said, "that the educational system is inspired by Militarism? So far the case is not proven."

"The cultivation of the Meccanian spirit,' which is one of the prime aims of all the teaching, points at any rate in the same direction."

"But the Meccanian spirit is only another name for patriotism, is it not?" I said.

"Your scepticism," remarked Villele, 'would almost make one suppose you were becoming a convert to Meccanianism."

"Not at all," I said. "I have tried to get firsthand information on these matters and I have failed. Here I am, listening to you who are avowedly, if I may say so in your presence, anti-Meccanians."

"Would it not be foolish of me to accept your views without at any rate sifting the evidence as fully as I am able? It has this advantage, I shall be much more likely to become convinced of the correctness of your opinions if I find that you meet the hypothetical objections I raise than if I merely listen to your views."

"The Meccanian spirit is another name for patriotism," said Johnson; "but it is Meccanian patriotism. Patriotism is not a substitute for Ethics in the rest of Europe, nor was it in Meccania two centuries ago. Absolute obedience to the State is definitely inculcated here. No form of resistance is possible. Resistance is never dreamt of; the Meccanian spirit implies active co-operation with the Super-State, not passive obedience only but reverence and devotion. And remember that the Super-State when you probe under the surface is the Second Class, the Military Caste."

"But do not all States inculcate obedience to themselves?" I said.

"No," replied Johnson bluntly. "They may inculcate obedience to the laws for the time being; it is only Churches claiming Divine inspiration that arrogate to themselves infallibility, and demand unconditional obedience. In the rest of Europe the State is one of the organs--a most necessary and important organ--of the community: here, the State or the Super-State is the Divinity in which society lives and moves and has its being. It is omnipresent, omniscient, omnipotent."

"Admitting all you say about the deliberate policy of the Super-State," I answered, "is it not strange that a hundred millions of people submit themselves to it, and that even outside Meccania there are many advocates of Meccanian principles?"

"Tyrannies have flourished in the world in every age," replied Johnson, "because there is something even worse than Tyranny. To escape a plague a man will take refuge in a prison. Anarchy, such as that which broke out in Idiotica some fifty years ago, was a godsend to the rulers of Meccania. They persuaded the public that there was a choice only between the Super-State and Anarchy or Bolshevism as it was then called. We know that is false. Liberty may be attacked by an open enemy or by a secret and loathsome disease; but that is no reason for surrendering either to the one or the other."

CHAPTER XI
AN ACADEMIC DISCUSSION

It was some days after this conversation with my friends at the hotel that I was present at a dinner-party given by the President of Mecco University. There were about thirty guests, so that at table a general conversation was almost impossible; I could hear only what was said by those close to me. I was seated between a member of the diplomatic corps and a general. General Wolf, a benevolent-looking old gentleman with a large, coarse face and a double chin, seemed rather disappointed that I could not discuss with him the Higher Mathematics. He deplored the neglect of Mathematics in Meccania. He admitted that unless a person had a mathematical brain it was useless to attempt to make him a mathematician; but he said the Eugenics section of the Health Department was not
sufficiently alive to the importance of improving the mathematical stock. He railed very bitterly against a member of the Eugenics Board who had tried to get authority to improve the supply of artists. Happily the Board had turned down his proposals. Count Hardflorgg, who wore the Mechow whisker and an eyeglass, and frowned fiercely at everything one said to him, was full of a recent report by the experts in the Industrial Psychology section of the Department of Industry and Commerce. It seems they had recommended a shortening of hours for the members of the Sixth and Fifth Classes in a number of provincial towns, to bring them more on a level with the same class of workers in Mecco itself. He said it was the thin end of the wedge; that they ought not to have reported until experiments had been made with a different diet: he blamed the Eugenics Section, too, for not being able to produce a tougher strain of workers. Reduction of working hours should not be resorted to, he maintained, until every other expedient had been tried: it was so very difficult to increase them afterwards. Besides, in the Strenuous Month, it had been proved over and over again that the men could easily stand a longer working day without physical injury.

"And what is the Strenuous Month?" I asked.

"Oh, of course," he said, "you have not studied our industrial system as a factor of military organisation. There is a very good account of it in Mr. Kwang's Triumphs of Meccanian Culture. Briefly it is this. Every year, but not always in the same month, the signal is given for the Strenuous Month to begin. The workmen then work at top speed, and for as many hours a day as the Industrial Psychologists determine, for thirty days consecutively. It is excellent training, and incidentally has a very good effect on the output for the other months of the year. The men are so glad when it is over, unconsciously, they work better for the rest of the year."

"But I should have thought they would be so fatigued that you would lose as much as you gain, or more perhaps," I said.

"Oh no," he answered; "they are allowed one day's complete rest, which they must spend in bed; their diet is arranged, both during the time and for a month after. They must go to bed for two hours extra every night for the following month. The effect is most beneficial. They like it too, on the whole, for they get paid for all the extra product—that is to say, it is added to their pension fund."

"But I thought the pension fund was so calculated," I said, "that it tallies exactly with what is required for the support of each man from the time he ceases to be able to work."

"Certainly," he replied. "After fifty-five most of our men work an hour a day less every two years, with variations according to their capacity, as tested by the medical examinations."

"Then how do they benefit," I asked, "by the product of the strenuous month, if it is only added to their pension and not paid at the time?"

"If it is added to the pension fund," he replied, "it is obvious that they must benefit."

I did not pursue the matter further. He asked me if I had been to the Annual Medical Exhibition. I said I had not heard of it, and did not suppose I should receive permission to see it, as I was not altogether well qualified to understand it. He said it was most interesting. He was not a medical man himself, of course; but as an officer in the army he had had to get some acquaintance with physiology.

"The medical menagerie gets more interesting every year," he said.

"The medical menagerie!" I exclaimed. "Whatever is that?"

"It is a wonderful collection of animals, not only domestic but wild animals too, upon which experiments have been carried out. There are goats with sheep's legs. There are cows with horses' hearts, and dogs with only hind-legs, and pigs without livers—oh, all sorts of things. The funniest is a pig with a tiger's skin."

"And what is the object of it all?" I said.

"Oh, just a regular part of medical research. The most valuable experiments are those with bacilli, of course; but only the experts can understand these, as a rule."

"But it is not safe to infer that the results of experiments on animals will be applicable to human beings," I said. "Of course not, without further verification; but the Special Medical Board have ample powers to carry out research."

"What, upon human beings?" I exclaimed.

"People do not always know when they are being experimented upon," he remarked significantly. "Besides, if a man is already suffering from an incurable disease, what does it matter? Of course, we use anaesthetics, wherever possible at least; that goes without saying."

After dinner we drank wine for a little time, seated in little groups after the manner of a custom in some of the colleges in Luniland. Here, instead of being placed with the two gentlemen who had been my neighbours at table, I was one of a group of four, the others being two professors and a high official in the Sociological Department. One of the professors was Secret Councillor Sikofantis-Sauer, an Economist; the other was Church Councillor Muhgubb-Slimey, a Theologian. We talked of indifferent matters for some time until the High Official left us, when the idea occurred to me to try whether the Economist would enlighten me upon the subject of the ultimate destination of the
phenomenal production of the Meccanian economic organisation.

I remarked that I had never seen in any country so few signs of discontent as in Meccania, and I asked if this was due to the great wealth that must necessarily be produced by the efficiency of the methods of production. Professor Sikofantis-Sauer, the Economist, said that my question betrayed that I was not acquainted with the Meccanian System of Ethics. I wondered why the Professor of Economics should begin talking of Ethics. He went on, "Social discontent was never really due to lack of wealth. Properly speaking, it has no relation to material wealth at all. This has been proved up to the hilt—if it needed any proof—by our researches in Economic and Social History. In a nutshell the proof is this. What was called poverty in the early nineteenth century would have been considered affluence in, let us say, the fifth or even the tenth century. The whole idea of wealth is subjective. Now anyone knows that, where wealth is allowed to become the main objective of the social activities of the people, the desire for individual wealth is insatiable. The notion that you can ever reach a state of contentment, by increasing the wealth of the people, is one of the greatest fallacies that even the economists of Luniland ever entertained—and that is saying a good deal. Consequently, if we have succeeded in eradicating discontent, it has not been by pursuing the mirage of a popular El Dorado. No, you must replace the insane desire for the gratification of individual indulgence by a conception of a truer kind of wellbeing. If the individual once grasps the fact that in himself, and by himself, he is little better than an arboreal ape, and that all he possesses, all he can possess, is the gift of the State—which gives him nourishment, language, ideas, knowledge; which trains him to use his powers, such as they are—he will assume an entirely different attitude. Our system of education, far more than our system of production, is responsible for the eradication of social and of every other kind of discontent."

"Then I suppose," I said, "the lower classes, as we sometimes call them abroad—your Fifth and Sixth and Seventh Classes, for example—never inquire whether they receive what they consider a fair share of the national product?"

Professor Sauer laughed aloud. "Pardon me," he said, "but you remind me of a story I used to hear when I was a boy, of a man who had slept in some cave or den for fifty years, or was it a century, and woke up to find a different world. Such a question belongs to the buried fossils of economic theory. Who can say what is a fair share? You might as well ask whether one musical composition is more just than another."

"Well, perhaps you can tell me this," I said. "Considering the superiority of your methods of production, I should have expected to find a much higher standard of individual wealth, or comfort, or leisure—yes, you know what I mean—among not only the lower classes, but all classes. I cannot help wondering what becomes of all the surplus."

"We have all enough for our needs," he said, "and the requirements of the State are of far more importance than the gratification of the tastes of individuals."

"May I put in a word?" said Professor Slimey the Theologian. "In the modern world, the productive powers of man have outstripped his other powers. It is one of the mysteries of the ways of Providence. The discipline of labour is necessary for the development of the soul, but the devil has sought to seduce mankind by teaching him how to produce more than is good for him, in the hope that he will become corrupted by luxury. In other countries that corruption has already taken place. The strenuous life is the only life consistent with moral health. Under the Divine guidance our ruling classes—I am old-fashioned enough to use that expression, for in the eyes of God there are no First or Second Classes—have preserved the sense of duty; they are a discipline unto themselves. God's blessings have been multiplied unto them, and they have not forgotten the Divine injunctions. We cannot expect that the masses of mankind can discipline themselves, and for them the only safety lies in well-regulated and well-directed labour. There can be no greater curse for a people than idleness and luxury. Fortunately, we have been able to preserve them from the evil effects of superabundant wealth."

"I have sometimes wondered," I said, "whether the requirements of the State in regard to what is called National Defence were so great as to account for the surplus product."

"Undoubtedly the demands of the army are very considerable," replied Sauer. "You must remember that we have to protect ourselves against the whole world, so to speak."

"But no estimate has been made, I suppose, of what is required for such things?" I said.

"That is a matter of high policy," replied Sauer. "It would be impossible to estimate for it as a separate item in National expenditure. There again you betray your Lunilandish conceptions of National finance. No doubt they keep up this practice still in Luniland, but such a notion belongs to a bygone age. The State must be able to mobilise all its resources; that is the only logical policy, if you mean to conduct the affairs of the nation successfully, not only in time of war but in time of peace. Your asking how much National wealth is devoted to Defence is like asking a man how much of his dinner is devoted to sustaining his religion."

"But is it not important to be able to form some approximate idea, from the economic point of view?" I said. "For, in one sense, it represents so much waste."

"So much waste?" exclaimed Professor Slimey indignantly; "to what nobler purpose could the energies of the
people be directed than to the defence of their Emperor, their God and their Fatherland?"

"I did not mean that it might not be necessary," I replied, "but it is like a man who has to build a dyke against floods. It may be necessary, but if he could be sure that the floods would not come, he could devote his energies to something more profitable."

Professor Slimey shook his head solemnly. "No, no," he said, "that is another of the fallacies current among foreign peoples. We should sink to their level if our people had not ever before them the duty of serving God by upholding the power of Meccania, his chosen nation. Indeed, I often think what a dispensation of Providence it is that it involves so much labour. Imagine the state of the common people if they could maintain themselves by the aid of a few hours' work a day!"

"Would there not be so much more scope for the spread of your Culture?" I said. "In fact, I had been given to understand that your Culture had reached such a high level that you could easily dispense with the discipline of long hours of labour."

"Our Culture," he replied, speaking with authority, "is not an individual culture at all. It must be understood as a unity. It includes this very discipline of which you seem to think so lightly. It includes the discipline of all classes. The monks of the Middle Ages knew that idleness would undermine even their ideal of life, for they knew that life is a discipline. Our National Culture is the nearest approach to the Christian ideal that any nation has ever put into practice."

"I cannot, of course, speak with confidence upon such a question," I replied, "but I thought the Christian ideal was the development of the individual soul, whereas the Meccanian ideal--I speak under correction--implies the elimination of the individual soul: everything must be sacrificed to the realisation of the glory of the Super-State."

"The Super-State," answered Slimey, "is itself the Great Soul of Meccania; it includes all the individual souls. What you call the sacrifice of the individual soul is no real sacrifice; it is merely a losing oneself to find oneself in the larger soul of Meccania. And just as the individual soul may inflict suffering on itself for the sake of higher self-realisation, so the Super-Soul of Meccania may inflict suffering on the individual souls within itself for the sake of the higher self-realisation. The soul of Meccania is as wonderful in the spiritual world as the material manifestation of Meccania is in the material world."

"I am sure you are right," I said, "although it never struck me in that light before. The soul of Meccania is the most wonderful phenomenon in the history of the world."

"No," replied Professor Slimey, with his solemn air, "it is not phenomenon: it is the thing in itself." Here he paused to drink a liqueur. Then he went on, "It is purely spiritual. It has existed from eternity and has become clothed and manifest through the outward and inward development of the Super-State. You foreigners see only the outward forms, which are merely symbols. It is the Super-Soul of Meccania that is destined to absorb the world of spirit, as the Super-State is destined to conquer the material world."

Professor Sikofantis-Sauer gazed with his fishy eyes, as if he had heard all this before. "Some day," I said, "I should like to hear more of the Super-Soul, but while I have the privilege of talking to both of you I should like to learn some things which probably only a Professor of Economics can tell me. You, as Meccanians, will pardon me, I know, for seeking to acquire knowledge." They nodded assent. "I know something of the economic ideas of other nations in Europe," I said, "but your conditions are so different that I am quite at sea with regard to the economic doctrines of Meccania. What Economic Laws are there within the Super-State?"

"A very profound question," answered Sauer, "and yet the answer is simple. What you have studied in other countries is merely the economics of free exchange, as carried on among peoples of a low culture. Our Economics have hardly anything in common. Some of the laws of large-scale production are similar, but beyond that, our science rests upon other principles. Our science is based upon Meccanian Ethics. The laws of demand have quite a different meaning with us. The State determines the whole character and volume of demand, and entirely upon ethical grounds."

"And distribution too, I suppose?"

"Naturally. That is implied in the regulation of demand. The State determines what each class may spend, and in so doing determines both demand and distribution."

"But I was under the impression that the well-to-do--the Third and higher classes generally--had much more latitude than the lower classes in these respects," I said.

"Quite so. That again is part of our national ethical system. Just as our Economics are National Economics, so our Ethics are National Ethics. The higher functions discharged by the higher classes demand a higher degree and quality of consumption. You will find some most interesting researches upon this subject in the reports of the Sociological Department. Dr. Greasey's monograph on the Sociological Function of the Third Class is also a masterpiece in its way."

"And the Second Class?" I said. "They will require still more latitude?"
"The Second Class, like the First," replied Sauer, "stands outside and above the purely Economic aspect of Society. Their function is to determine what the National-Social Structure shall be. Our business as economists is to provide ways and means. No doubt they are unconsciously guided, or shall I say inspired, by the workings of the Meccanian spirit, of which they are the highest depositaries; and all the organs of the State are at their service, to give effect to their interpretation of the will of the Super-State."

"You do not find any tendency on their part, I suppose, to make large demands for themselves in the shape of what we non-Meccanians persist in calling 'wealth'?" I said.

"Such a question," answered Sauer, "does not admit of any answer, because it involves a conception of wealth which we have entirely discarded. The Second Class—and with them, of course, I include the First Class, for they are indivisible in their functions and spirit—exists for the Super-State. Whatever they consume is consumed in the discharge of the highest duties of the State. Whatever is required by them is simply part of the necessary expenditure of the State. But although no limit is set—and who would presume to set any limit?—it is remarkable how little of this expenditure assumes the form of personal consumption. For the sake of the dignity of the State, their life must be conducted—collectively—on a magnificent scale. But, as you know, a dignitary like the Pope may live in the finest palace in Europe and yet be a man of simple tastes and habits; so our noble class—and no nobler class has ever existed—may represent the glory of the Super-State and yet be the embodiment of the purest virtues."

"I would go further," said Professor Slimey at this point. "Our noble Second Class—and of course I associate the First Class with them, for in reality they are all one—are the true Protectors of the State: they are the guardians of us all. Have you not noticed throughout all history that, after a successful war, the people are ready to bestow all manner of honours and benefits upon those who have saved their country? Well, I say those who have given us all the glory and honour, ay, and the spoils of victory too, without going to war, are as deserving of the rewards as if they had come back from a long campaign. We cannot honour them too much. Besides, it is good for the people to feel that there is a class upon whom they can bestow the natural warmth of their affection and their admiration. The desire to bow down in reverent admiration, the desire to do honour to the worthiest of our race, is a God-given impulse, and should be encouraged, not checked. Our people feel this. We do not bargain with them as to what share they shall have: we do not lay aside a tenth, or some such absurd proportion: we say, take our wealth, take whatever we can give, it is all yours, you are the fathers of the State, you are our saviours."

"And you think this spirit prevails throughout Meccania?" I said.

"I am perfectly sure of it," replied Slimey. "All our greatest artists offer their works freely to the members of the Second Class; all the most gifted scientists compete for places in the colleges for the training of the Military; the services of our best writers are at their disposal: we withhold nothing from them."

"Then it is true, I gather, that the custom I have heard of, by which wives and daughters of other classes, if they are thought worthy by the Eugenics Board, are—shall I say—dedicated to the service of the Second Class, arouses no feeling of indignation?"

"Indignation!" exclaimed the Professor of Theology. "It is a duty and a privilege."

"But is it not contrary to the principles of the Christian religion? I confess I speak with some hesitation, as I do not belong to the Christian communion; but I have been told by some of the strictest of the Christian sects in other countries that such a practice is a violation of the Christian code."

Professor Slimey refreshed himself, and I could see another long speech was coming. "That is a sample of the uncharitable criticism which is constantly being aimed at us, by those who cloak their envy and spite under the name of Christian doctrine. Yet they are utterly inconsistent with themselves. They admit the Doctrine of Development, yet they deny its application, except to suit their own purposes. Take Usury, for example. Christian doctrine, as expounded by the Fathers, regarded usury as sinful. Yet usury is practised in all so-called Christian countries without protest. Why? Because their system of Economics cannot work without it. I might give other illustrations, but that will suffice. Now Ethics must undergo development if there is to be progress in morals. The supreme well-being of the State gives the key to all progress in Ethics. If the custom you refer to were due to private concupiscence, we—and I speak for all Meccanian theologians—would be the first to denounce it. The sin of adultery is a spiritual sin, and exists only where carnal desire is the motive. Every theologian knows that the same physical act may be performed in conformity with the behests of the Mosaic law, or in direct disobedience of it. The one is a sacred duty, the other is sin. It is like the alleged obligation to speak the truth upon all occasions. There is no such obligation. We must look to the end in view. Where the supreme needs of the State demand concealment or even deception, the private ethical impulse to speak the truth to an enemy is superseded by the greater obligation to the State. The virtue of Chastity is not violated; it is raised, if I may say so, to its transcendent degree, by an act of sacrifice which implies the surrender of merely private virtue to the interests of the State; for you must remember that the State as developed by the Meccanian spirit is the highest embodiment of the will of God upon earth."

"We seem to have been carried rather a long way from Meccanian Economics," I remarked, turning to
Professor Sauer by way of apology for having carried on the conversation for so long with Professor Slimey.

"Not at all," he answered. "Meccanian Ethics and Meccanian Economics cannot be separated."

"It must make the science of Economics much more difficult in one sense; but, on the other hand, what a relief it must be to have got rid of all those old troublesome theories of value!" I observed.

"We have not got rid of theories of value," answered Sauer; "they too have only been developed. The basis of our theory of value is to be found in Meccanian Ethics."

"In other words," I said, laughing, "the value of a pair of boots in Meccania is determined by the theologians!"

"How do you mean?" asked Sauer.

"I mean that the remuneration of an artisan in the Fifth Class will purchase so many pairs of boots; and the remuneration of the artisan is determined by what the State thinks good for him; and what the State thinks good for him is determined by Meccanian Ethics; and I suppose the theologians determine the system of Meccanian Ethics."

At that point our conversation was interrupted by an announcement that the toast of the evening would be drunk. This was the signal for the party to break up. We drank to the success of the Meccanian Empire and the confounding of all its enemies, and I went home to the hotel to find a message from Kwang asking me to see him the following day. I spent the morning as usual with Lickrod, who was initiating me into the method of using the catalogues in the Great Library of Mecco. It was indeed a marvel of librarianship. There was a bibliography upon every conceivable subject. There was a complete catalogue of every book according to author, and another according to subject. There was a complete catalogue of the books issued in each separate year for the last twenty-five years. There were courses of study with brief notes upon all the books. Lickrod was in his element. As we came away, about lunchtime, I said to him, "Suppose I want to take back with me, when I leave the country, a dozen books to read for pure pleasure, what would you recommend me to take?"

"Upon what subject?" he asked.

"Upon anything, no matter what. What I am thinking of are books which are just works of art in themselves, pieces of pure literature either in poetry or prose."

"A book must be about something," he said; "it must fall into some category or other."

"Is there any imaginative literature?" I asked.

"Oh, certainly, we have scores of treatises on the imagination."

"But I mean books that are the work of the imagination."

"I see. You want them for your children, perhaps: they would be found in the juvenile departments; fables and parables, and that sort of thing."

"No, I mean books without any serious purpose, but for grown-up people. I seem to remember such works in the old Meccanian literature."

"How very odd," answered Lickrod, "that you should express a wish to see works of that kind."

"Why?" I asked, in some surprise.

"Because we find works of that kind in great demand in the asylums for the mentally afflicted. You see, we treat the inmates as humanely as possible, and our pathologists tell us that they cannot read the books by modern authors. We have to let them read for a few hours a day, and they beg, really rather piteously, for the old books. It is always old books they ask for. I suppose in a way they are cases of a kind of arrested development. At any rate, they have not been able to keep pace with the developments of our ideas. Doctor Barm reported only last year that the only books that seem to have a soothing effect on these patients are those written, oh, two hundred years ago, and of the very kind you probably have in mind."

CHAPTER XII

THE LATEST INSTITUTION

I WENT to see Kwang in the afternoon, and found him in a state of suppressed excitement—at least I could not help having that impression. After a little time, when I had given him some brief account of my experience at the dinner-party, he said, "I told you the other day that I had some thoughts of returning home. I shall be off in a fortnight."

"This is rather sudden," I said; "have you received bad news from home?"

"No," he said; "I told you I had practically completed my work. The fact is, that things are beginning to develop rather fast here. I see signs of preparation for a forward move."

"Oh!" I said. "Not another war?"

"Not necessarily," he replied. "Light your cigar and I will tell you all you need know. I did so and waited.

"The next war," he said, "will be a chemical war."

"A chemical war? What on earth is that?" I said.

"They have been experimenting for thirty years and more, and they think they have discovered what they want. It may take them several years to perfect their arrangements; it will certainly take them a year or two, and may take
six or seven. But one never knows. I suppose you never heard of the three days' war, did you?"

"No," I replied; "what was it?"

"The State of Lugrabia, with which the Meccanians are in permanent alliance, refused to ratify a new treaty that seemed unfavourable to them in some respects, and feeling ran so high that there was some talk in Lugrabia of putting an end to the alliance. Without any declaration of war the Meccanian Government dispatched a small fleet of air-vessels, planted about a dozen chemical 'Distributors,' as they are euphemistically called, and warned the Lugrabian State that, unless their terms were complied with, the twelve chief cities would be wiped out. The war was over in three days. And to this day the outside world has never heard of the event."

"How can it have been kept secret?" I said.

"Ask rather how could it leak out," replied Kwang.

"Anyhow," he went on, "they think they have got something that will enable them to defeat any combination. There is no question in dispute with any foreign power. The political horizon is perfectly clear. But it is time for me to go home."

"Do you think this idea of theirs is really dangerous?" I asked.

"Undoubtedly."

"But can it not be counteracted in any way?"

"If it can't it will be a bad look out for the rest of us," he said.

"But do you see any means of meeting it?"

"There is, if I can get the Governments to act. But they are at a tremendous disadvantage."

"Why?" I said.

"Because everything they do will be proclaimed from the housetops. However, what I wanted to do immediately was to arrange with you about leaving the country. Of course you will stay as long as you like, but I should advise you not to stay too long. I shall not announce that I am going away permanently, and I shall leave nearly all my things here to avoid suspicion; but within three months they will know that I am not likely to come back, and then they may want to look you up if you are still here."

"I shall go as soon as you think it is advisable for me to go," I said. "The only thing I wanted to make sure of was the thing you have apparently found out. Once or twice since I came I have felt sceptical about the Machiavellian designs attributed to the Meccanian Government by all these neighbours. Naturally they see a robber in every bush."

"I have sometimes been inclined to think the Meccanians like organising just for the love of it, but you are satisfied that there is more in it than that," said Kwang. "My dear child," he said, "there are some people who can't see a stone wall till they knock their heads against it, and who can't tell that a mad bull is dangerous till he tosses them in the air; and from what I learn you are almost as bad," he said, laughing. "You have been here, how long? Four or five months at any rate. Well, you have a very unsuspicious mind. But I am going to give you an interesting experience. I am going to take you to see a friend of mine who has been a prisoner in an asylum for the mentally afflicted for the last fifteen years. I enjoy the privilege of talking to him alone, and I have permission to take you. I won't stop to explain how I obtained the privilege, but it has been very useful."

In another quarter of an hour we were rolling along in Kwang's motor-car to a place about forty miles outside Mecco. The roads were as smooth as glass and the car made no noise, so we could converse without raising our voices. Kwang observed that if I wished to stay in Meccania there was only one way of getting behind the screen, and that was to become a convert. The role of a convert, however, was becoming more difficult to play. He had lately begun to suspect that he was being watched, or at any rate that one or two people at the Foreign Office were jealous of his privileges. Some years ago, the Head of the Foreign Office had given him practically the free run of the country, and had utilised him as a sort of missionary of Meccania. His books on the Triumphs of Meccanian Culture and on Meccania's World Mission had been given the widest possible publicity, both in Meccania and abroad. He still enjoyed all his privileges, for Count Krafft was a powerful friend at the Foreign Office. Consequently the Police Department had orders not to interfere with him, and he had free passes for almost everything. But another Under-Secretary had lately begun to question the wisdom of his colleague, not openly but secretly, and was trying to get hold of evidence.

"They lie so wonderfully and so systematically themselves," said Kwang, "that they naturally suspect everybody else of lying too. But this suspicion very often defeats its own object. Still, they can't expect to have a monopoly of lying. I have seen official pamphlets for circulation in the departments, on the methods of testing the bona fides of foreigners; and elaborate rules for finding out whether foreign Governments are trying to deceive them."

"And you have satisfied all their tests?" I said.

"Absolutely," replied Kwang, with a smile; "but I am not yet out of the country, and I don't propose to risk it.
tempted to lose patience. And their conceit! To presume that they--a few hundreds of them at most--know better. We cannot shut our eyes to the fact of moral responsibility, and when I think of the obstinacy of these men I am minister who realises his duties to the State as well as to the Church, always to feel charitably towards these patients. Have now fully demonstrated. As I say, it is self-induced, and it is therefore very difficult, even for a Christian.

Disease itself is certainly not inherited, and can be counteracted in its early stages by prophylactic treatment, as we about this disease," he said, "that the patients suffer no pain directly from it; and you must remember that in practically all cases--just as in alcoholism--it is self-induced. There may be some little hereditary tendency, but the younger generation are attacked by the disease, and the authorities hope "he smiled sardonically--"that in a few years the disease will have disappeared entirely." We first went to call upon Hospital-Governor Canting. He was in his office, which was comfortably furnished in very characteristic Meccanian taste. The chairs were all adjustable, and covered with 'Art' tapestry. The large table had huge legs like swollen pillars--they were really made of thin cast-iron. There were the usual large portraits of the Emperor and Empress, and busts of Prince Mechow and Prince Bludiron. There was the usual large bookcase, full of volumes of reports bound in leather-substitute, and stamped with the arms of Meccania. Governor Canting wore the green uniform of the Fourth Class, with various silver facings and buttons, and a collar of the special kind worn by all the clergy of the Meccanian Church. He was writing at his table when we were shown in. He greeted Kwang almost effusively and bowed to me, with the usual Meccanian attitudes, as I was introduced.

"So you have brought your friend to see our system of treatment," he said, smiling. "It is very unusual for us to receive visits at all,"--here he turned to me,â€”but Mr. Kwang is quite a privileged person in Meccania. If only there were more people like Mr. Kwang we should not be so much misunderstood, and the victims of so much envy, malice and uncharitableness. Still, it is a sad experience for you."

"Do many of them 'recant'?' I asked. "Very few. Most of them do not want to return to the ordinary life of Meccania, but occasionally the desire to be with some member of their family proves too strong for them. They are nearly all old people here now. None of the younger generation are attacked by the disease, and the authorities hope "he smiled sardonically--"that in a few years the disease will have disappeared entirely."

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"Do many of the patients suffer acutely?" I asked, hardly knowing what was the right cue. "Oh, I did not mean that. No, no, they don't suffer much. But it is sad to think that men who might have been worthy citizens, some of them as writers, some as teachers, some even as doctors-- men who might have served the State in a hundred ways--are wasting their talents and hindering the spread of our Culture." "It must be a terrible affliction," I said. "Do they not sometimes feel it themselves in their moments of clearness of mind?"

He looked at me, a little in doubt as to my meaning, but my face must have reassured him. "The strange thing about this disease," he said, "is that the patients suffer no pain directly from it; and you must remember that in practically all cases--just as in alcoholism--it is self-induced. There may be some little hereditary tendency, but the disease itself is certainly not inherited, and can be counteracted in its early stages by prophylactic treatment, as we have now fully demonstrated. As I say, it is self-induced, and it is therefore very difficult, even for a Christian minister who realises his duties to the State as well as to the Church, always to feel charitably towards these patients. We cannot shut our eyes to the fact of moral responsibility, and when I think of the obstinacy of these men I am tempted to lose patience. And their conceit! To presume that they--a few hundreds of them at most--know better
than all the wise and loyal statesmen of Meccania, better than all the experts, better than all the millions of loyal citizens. But it is when I see what a poor miserable handful of men they are after all that I can find in my heart to pity them."

"And how is my special case?" asked Kwang, when he could get a word in.

"Just the same," said Canting--"just the same. You will find him perhaps a little weaker. I will not go with you. You seem to succeed best with him by yourself; and no doubt you have instructed your friend as to the peculiar nature of his malady." "Yes," said Kwang; "my friend has read my little monograph, and he thought the case so remarkable that with the consent and approval of Dr. Narrowman I brought him to see Patient Stillman in the flesh. I shall get him to talk a little."

"Good," replied Canting; "but you will never cure him. You were quite right in what you once said--Prevention is the only cure. If we had developed our prophylactic system earlier it might have saved him, but he is too old now."

After some preliminary formalities we were taken by one of the warders, who was evidently acquainted with Kwang through his many previous visits, to a room at the end of a long corridor, where we found Mr. Stillman, who greeted us cordially but with old-fashioned dignity. His manner struck me as being very different from that of the modern Meccanians. Clearly he belonged to another generation. The room, which was about twenty feet by ten, was a bed-sitting-room, furnished with one of those contrivances which becomes a bed by night and a false cupboard by day. There was an easy chair with the usual mechanical adjustments, a table, two bedroom chairs, a small sideboard and cupboard, a few other articles of necessity and a shelf of books. There were no bolts or bars or chains--the room suggested a hospital rather than a prison. Mr. Stillman was a fine old man, and, although growing feeble in body, was still vigorous in mind. When seated he held his head erect, and looked us frankly in the face, but with a wistful expression. He had evidently been a good-looking man, but his face bore traces of long suffering. Except that he did not pace about his cell, he reminded me of a caged Hon. One of the orderlies brought in a tray of tea for the three of us. Mr. Stillman said what a pleasure it was to see a human being now and then, and, turning to me, explained that, except to Mr. Kwang and the officials and the doctors, he had not spoken to anyone for five years. "Until five years ago," he said, "I was able to do a little work in the gardens, and could converse with my fellow-prisoners--patients, I mean--but only about our work, and in the presence of a warder. Still, that was some relief. Indeed, it was a great relief, for every one of the patients is a kind of brother--otherwise he would not be here. There are only a few hundreds of us left--perhaps a couple of thousands altogether--I don't know. We have about two hundred here, and this is one of the largest hospitals, or prisons, in the country--so at least I was told."

"But why is conversation not permitted?" I said. "To be deprived of conversation must surely aggravate any tendency to mental instability."

"The theory is that communication with our fellow-patients would hinder our recovery," he replied, with a significant smile.

"But what are you supposed to be suffering from?" I said.

"A mental disease known only to the Government of Meccania," he answered. "You must have heard of it. Mr. Kwang knows all about it. The real name for it is' heresy,' but they call it Znednettlapseiizw. I suffer very badly from it and am incurable--at least I hope so," he added bitterly.

At this point Kwang announced that he wished to visit another patient, and that he would leave us together so that I might have a long talk undisturbed. It was evident that he occupied a privileged position, or he would never have been able to have such access to these patients. When he had left the room I did my best to get Mr. Stillman to talk, but I hardly knew how to induce him to tell me his story. I said, "I suppose you are not treated badly, apart from this prohibition about conversing with your fellow-sufferers?"

"We are fed with the exact amount of food we require," he replied; "we are clothed--and thank God we do not wear any of the seven uniforms; and we are decently warm, except sometimes in winter when, I suppose, something goes wrong with the apparatus."

"What?" I said. "Can any apparatus go wrong in Meccania?"

"Well," he said, "perhaps the fact is that I want to be warmer than the experts think is necessary. Yes; that is probably the explanation."

"And for the rest," I said. "Have you no occupation? How do you spend the time?"

"In trying to preserve the last remains of my sanity," he answered.

"And by what means?" I asked gently.

"Chiefly by prayer and meditation," he replied after a short pause. He used the old-fashioned expressions which I had not heard from the lips of any Meccanian before. "But it is difficult," he went on, "to keep one's faith, cut off from one's fellow-believers."

"But they allow you to attend religious services surely?" I said.
"The Meccanian State Church keeps a chaplain here, and holds a service every day which is attended by all the officials and a few of the patients; but you have heard the maxim Cujus regio ejus religio, have you not?" I nodded. "It has acquired a new significance during the last fifty years. I have not attended any of the services since they ceased to be compulsory about ten years ago."

"That sounds very remarkable," I said.

"What does?"

"It is the first time I have heard of anything ceasing to be compulsory in Meccania," I said.

"The fact was that they discovered it had a very bad effect upon the disease. My chief relief now is reading, which is permitted for three hours a day."

"And you are allowed to choose your own books?"

"As a concession to our mental infirmity," he said, "we have been granted the privilege of reading some of the old authors. It came about in this way. Dr. Weakling, who is in charge of this hospital, is the son of one of my oldest friends--a man who spent several years in this place as a patient. He came in about the same time as I did, but his health gave way and he recanted, or, as they say, he recovered. But while he was here he begged to have a few of the old books to save him from going mad. The authorities refused to let him have any books except those specially provided, and I believe it was this that made him give way. Anyhow he used his influence with his son afterwards, for his son had become one of the leading medical specialists, to obtain for the older patients at any rate a number of the books of the old literature which nobody else wanted to read. He only got the concession through on the ground that it was a psychological experiment. He has had to write a report on the experiment every year since its introduction. That is our greatest positive privilege, but we have a few negative privileges."

"What do you mean exactly?" I said.

"We have no compulsory attendances; we have no forms to fill up; we are not required to keep a diary; we are not required to read the Monthly Gazette of Instructions, nor play any part in State ceremonies. Indeed, if I could talk to my friends who are here I should have little to complain of on the score of personal comfort."

"Then why do you speak of the difficulty of preserving your sanity?" I said, rather thoughtlessly, I am afraid.

"Why do you think I am here at all?" he replied, for the first time speaking fiercely. "I could have my liberty to-day if I chose, could I not?" Then he went on, not angrily but more bitterly, "Did I say I could have my liberty? No; that is not true. I could go out of here tomorrow, but I should not be at liberty. I stay here, because here I am only a prisoner--outside I should be a slave. How long have you been in Meccania did you say?"

"About five months," I said.

"And you are free to go back to your own country?"

"Certainly," I said--"at least, I hope so."

"Then go as soon as you can. This is no fit place for human beings. It is a community of slaves, who do not even know they are slaves because they have never tasted liberty, ruled over by a caste of super-criminals who have turned crime into a science."

"I have not heard the ruling classes called criminals before," I said. "I am not sure that I understand what you mean."

"Then you must have been woefully taken in by all this hocus-pocus of law and constitution and patriotism. The whole place is one gigantic prison, and either the people themselves are criminals, or those who put them there must be. There is such a thing as legalised crime. Crime is not merely the breaking of a statute. Murder and rape are crimes, statute or no statute."

"But what are the crimes these rulers of Meccania have committed?" I said.

"In all civilised countries," he replied passionately, "if you steal from a man, if you violate his wife or his daughters, if you kidnap his children, you are a criminal and outlawed from all decent society. These rulers of ours have done worse than that. They have robbed us of everything; we have nothing of our own. They feed us, clothe us, house us--oh no, there is no poverty--every beast of burden in the country is provided with stall and fodder--ay, and harness too; they measure us, weigh us, doctor us, instruct us, drill us, breed from us, experiment on us, protect us, pension us and bury us. Nay, that is not the end; they dissect us and analyse us and use our carcasses for the benefit of Science and the Super-State. I called them a nation. They are not a nation; they are an organism. You have been here five months, you say. You have seen a lot of spectacles, no doubt. You have seen buildings, institutions, organisations, systems, machinery for this and machinery for that, but you have not seen a single human beingâ€”unless you have visited our prisons and asylums. You have not been allowed to talk to anybody except authorised persons. You have been instructed by officials. You have read books selected by the Super-State, and written by the Super-State. You have seen plays selected by the Super-State, and heard music selected by the Super-State, and seen pictures selected by the Super-State, and no doubt heard sermons preached by the Super-State."

"Your friend tells me other nations are still free. What drives me to the verge of madness is to think that we,
who once were free, are enslaved by bonds of our own making. Can you wonder, after what you have seen—a whole nation consenting to be slaves if only they may make other nations slaves too? That I ask myself sometimes whether this is a real lunatic asylum; whether I am here because I have these terrible hallucinations; whether all that I think has happened this last fifty years is just a figment of my brain, and that really, if I could only see it, the world is just as it used to be when I was a boy?"

Presently he became calmer and began to tell me something of his life story.

"Until I was about twelve," he said, "I lived with my parents in one of the old-fashioned parts of Meccania. My father was a well-to-do merchant who had travelled a good deal. He was something of a scholar too, and took interest in art and archaeology, and as I, who was his youngest son, gave signs of similar tastes, he took me abroad with him several times. This made a break in my schooling, and although I probably learnt more from these travels, especially as I had the companionship of my father, it was not easy to fit me into the regular system again. So my father decided to send me to some relatives who had settled in Luniland, and a few years after, when I was ready to go to the University of Bridgeford, he and my mother came to live for a few years in Luniland.

"Up to that time I had taken no interest in politics, but I can distinctly recall now how my father used to lament over the way things were tending. He said it was becoming almost impossible to remain a good citizen. He had always thought himself a sane and sober person, not given to quarrelling, but he found it impossible to attach himself to any of the political parties or cliques in Meccania. He was not a follower of Spotts, who, he said, was a kind of inverted Bludiron, but he disliked still more the politicians and so-called statesmen who were preaching the Meccanian spirit as a new gospel. I think it was his growing uneasiness with politics that caused him to drift gradually into the position of a voluntary exile. But we were very happy. Every year or so I used to go over to Meccania, and in spite of my cosmopolitan education I retained a strong affection for the land of my birth. I was full of its old traditions, and not even the peaceful charms of Bridgeford—an island that seemed like a vision of Utopia—could stifle my passion for the pine forests of Bergerland, our old home in Meccania. When I had finished my course at Bridgeford I had to decide whether I would return to serve my two years in the army. It was a great worry to my mother that I had not, like my brothers, passed the Meccanian examination which reduced the time of service to one year, but I made light of the matter; and although, after my life in Luniland, it was very distasteful to me, I went through my two years as cheerfully as I could. I learnt a great deal from it. I was nicknamed 'the Lunilander,' and was unpopular because I did not share the silly enthusiasm and boasting which at that time was prevalent. I had got out of touch with the youthful life of Meccania, and this two years opened my eyes.

But I will not dwell on that time. At the end of it I joined my father, who had remained in Luniland when he was not travelling. It was time to choose a career. I had little taste for business and I was determined that I would not become an official of any kind, and when I proposed to devote some years to following up the work that my father had planned for himself, but had never been able to carry out, he gave his consent. We had just planned a long archaeological tour in Francaria when the great war broke out.

"I shall never forget the state of agitation into which this catastrophe threw him. I was about to return to Meccania in obedience to the instruction I had received, when he begged me not to go back at any cost. He had spent two sleepless nights, and his agony of mind was terrible. What he had feared for years had come to pass. He had thought it would be somehow avoided. He had been watching events very closely for the few weeks before the crisis. The day that war was declared between Luniland and Meccania, he declared his intention of going back to Meccania; but not to join in the madness of his country. He could not do much; probably he would not be allowed to do anything, but at any rate he would fight for sanity and right. My mother was eager to go back, but for other reasons. She burst out into a frenzy of abuse of Luniland. She repeated all the lies that I had heard in Meccania about the country in which she had been perfectly happy for years. She called me a coward for not being with my brothers. She said she had always been against my having come to Luniland. I knew she was hysterical, but I could hardly believe my ears. My father stood firm. He insisted on my staying. He said he should regard himself as a murderer if he consented to my going to fight for what he knew to be a monstrous crime. What my mother had said, although of course it pained me, did more to convince me that my father was right than anything he could have said. I had seen already the accounts of the Meccanian crowds shouting for war in a frenzy of martial pride. I had seen also the streets of Lunopolis, full of serious faces, awed by the thought of war and yet never wavering a moment. I had heard my own countrymen jeering at the craven spirit of the Lunilanders. It was a cruel position to be in, and in the years that followed I was tempted sometimes to regret that I had not gone back and sought peace of mind in a soldier's grave. But in my heart I was so revolted by the thought that all this horror was the work of my countrymen that I grew ashamed of being a Meccanian. For the first two years my father wrote to me constantly, and if I had had any doubts of the Tightness of my conduct, what he said would have sustained me.

"But that is a long story. All I need say is that it was in those years of suffering and horror that I discovered where my duty lay, and took a vow to follow it. When the war ended I would go back, and if I were the only man
left in Meccania I would fight for truth and liberty. It was a quixotic vow, but I was a young man of thirty.

"Well, I came back. I had to wait three years, even after the war was over, until there was an amnesty for such as I. And when I did set foot here again, the cause I had come to fight for was already lost. But I did not know it.

"My father had already spent two years in prison, and was only released in time to die. But through him I knew that there were still some left who felt as we did. The idea of Liberty had been lost. Although the war had been over three years, everybody was still under martial law. The military professed that the country was in danger of a revolution. The newspapers preached the necessity for everybody to be organised to repair the ravages of the war. The socialists said the economic revolution, so long predicted, was accomplishing itself. For a few years we could make no headway. Then things began to settle down a little. The fever seemed to be spending itself. That was the moment when Prince Mechow became Chief Minister of the Interior. Some semblance of constitutional government was restored, and we began to hope for better things. We started a newspaper, and established societies in all the big towns. What we were out for was, first and foremost, political liberty. We had three or four brilliant writers and speakers. But the only papers that would take our articles were a few of the socialist papers which wrote leaders criticising our ideas as 'unscientific,' and the only people who came to our meetings were socialists who used them to speakify about the economic revolution. Then Mechow's reforms began. All education was completely controlled. The Press was bought up, and gradually suppressed. The right of public meeting was curtailed, till it disappeared altogether. The censorship of printing was made complete. New regulations accumulated year by year, and month by month. The seven classes were established. And all the time the socialists went on prating about the economic revolution. Prince Mechow was doing their work, they said. All they would have to do would be to step into his place when he had completed it. A few hundreds of us, scattered in various parts of the country, tried to keep up the struggle. We got into prison several times, but nobody cared a straw for our 'Luniland' party, as they called it. I fell ill, and then I tried to go abroad for a rest. I was arrested for an alleged plot, and sentenced to a term of imprisonment and degradation to the Fifth Class! After that I was forbidden to communicate with my children, for fear of infecting them. As they grew up in their teens, even they grew to look on me as an eccentric. Need I say more? The time came when I had either to recant from all my convictions, or be treated as a person of unsound mind. I came here determined to hold out to the last. What I fearedâ€”and I think I feared nothing elseâ€”was that some of their diabolical medical experiments would undermine my will. Fortunately I was sent here, where after a time Dr. Weakling--who is at any rate not a scoundrel--has done his best to protect me. He represents a type we have in Meccania--perhaps the most common type of all--a man who conforms to the system because he finds himself in it and part of it, but who is not actively wicked, and who has some good nature left. He regards me and those like me as simple-minded fanatics who are harmless so long as we are only few in number."

"So you think your cause is lost?" I said.

"No," he said quickly, "our cause is not lost. It is Meccania that is lost."

"But is there no hope even for Meccania?"

"There is no hope from within: hope can only come from without."

"That is a hard saying. How can it come from without?"

"Fifty years ago our neighbours--not our enemies, our neighbours--fought for liberty: they set themselves free, but they did not set us free. They said they would make the world safe for democracy."

"Well, did they not do so?" I asked.

He was quiet for a minute. "I wonder if they did," he said. "I wonder if either Liberty or Democracy can be safe so long as there is a Super-State. If a tragedy like this can happen to one nation it can happen to the whole world. Meccania will never become free whilst the Meccanian Spirit remains alive; and Liberty will never be secure until the whole world is free."

He sank back in his chair looking very tired after the excitement of our interview. At this moment a gong sounded. It was the signal for supper, and he got up mechanically to wash his hands in a bowl by the side of his bed-cupboard. Kwang then knocked at the door and came to bid good-bye. We left our 'patient' preparing to cross the quadrangle. It was growing dark, and we could see the lights in the great hall of the hospital. We were just about to walk back to the lodge when Kwang suddenly said, "Come with me." I followed him through a long corridor, and he led the way to a door which opened into the great dining-hall. There we saw, seated at long tables, nearly two hundred old men. They had just begun their evening meal. There was a strange silence, oppressive and almost sinister. There were no servants to wait on them, but some of the more active men handed the dishes, while a couple of warders in green uniforms seemed to be patrolling the room for the purpose of checking all attempts at conversation. But there was not even a whisper. The men did not look sullen or rebellious. Perhaps they had got past that. I could see them interchanging looks of friendly greeting across the room, and no doubt from long practice they had learnt to convey some simple messages by a glance or a smile; but there was an air of quiet courtesy about them, so different from what I had learnt to know as the typical Meccanian manner. I looked at the faces of those nearest
me. Many of them might have sat for the portraits of senators, or have served as models for some of those old-
fashioned paintings of assemblies of statesmen and ambassadors of bygone centuries. The surroundings were not
altogether wanting in dignity. The hall was large and lofty, and although bare-- save for the inevitable Imperial
portraits which greet one everywhere--was not unsightly. Indeed, the absence of ornament was a relief from the
perpetual reminders of the latest phases of Meccanian Art. Governor Canting had apparently been present at the
beginning of the meal and was going off to his own dinner. He joined us for a moment. "Do you notice," he said,
"how ungracious their expression is? One would think they had never come under the influence of the Meccanian
spirit. Their whole bearing is characteristic of their attitude of studied disloyalty. They never even give the salute. It
has not been insisted upon because--you know..." and he tapped his forehead. "They would not meet with such
consideration in many countries, but we have respect for age and infirmity, no matter what provocation we receive."

We left the hall and took our leave of Governor Canting. As we started on our journey it was dark, and
a cool wind was blowing. We could see before us the dull glow of light from the great city in the distance. The road
was perfect, and we passed few vehicles of any kind; but we were stopped three times by the police, to whom
Kwang showed his pass. As we entered the outer ring we slowed down. Although we were passing along the main
roadway only a few persons were to be seen. Here and there near the outer ring in the Business Quarter we passed a
few groups of workmen marching in step on their way home. The trams were running, but there was no bustle and
no excitement. No boisterous groups of young people filled the streets. No sound of laughter or merry-making fell
on our ears. Where were the people? Where were those crowds that make the streets of all cities in the world a
spectacle to move the heart of man? This might have been a plaguestricken town, a city of the dead. We passed the
great station with its lofty dome, and the towering pile of the Time Department with the great clock above it. As we
slowly swung through the great square, the colossal statue of Prince Mechow looked down on us like the grim and
menacing image of this city of Power. Was he some evil Genius that had slain the souls of men, leaving their bodies
only to inhabit the vast prison-house he had built for them with their own labour?

Kwang put me down at the hotel and drove on to his rooms. I found a letter awaiting me. It was from my father,
and contained painful news. My mother was seriously ill and he urged me to return at once. Early next morning I
hastened to visit Kwang--first obtaining permission from the manager of the hotel--and found him busy with his
preparations also. "Don't be alarmed," he said, when I told him my news. "Your mother is not ill. At any rate we do
not know that she is. I thought it was time for you to be getting ready to leave this country and I had that letter sent.
It will be a good reason in the eyes of the 'Authorities.' I go the day after to-morrow. I have a secret mission for the
Government to the Chinese Embassy at Prisa (the capital of Francana). "I may not return. I may fall suddenly ill."

I expressed some surprise that Kwang, the most privileged stranger in Meccania, the persona grata with all the
official world, should think it necessary to slip out of the country by a back door, and provide for my sudden
departure as well.

"You have been here five months," he said. "I have been here fifteen years. It is always best in this country to
take as little risk as possible-- consistent with your objectives. A word to the wise.... If you have anything that you
wish to take out with you, you had better let me have it. You will be examined when you go out as you were when
you came in. I do not propose to be examined when I leave. That is why I am going via Prisa on a special mission."

CHAPTER XIII
NEVER AGAIN

I DID not see Kwang again until we met some weeks after, in Prisa. He had begun to suspect that one or two
persons in the Foreign Department had guessed the nature of the role he had been playing. There was practically no
evidence against him, because all the information he had obtained, and it was a great deal, had been furnished to him
willingly by the Meccanian Government under the impression that he had become a sort of missionary of Meccanian
Culture. All the same, as he observed to me, without arresting him as a spy (a course of procedure which for many
reasons would have been inconvenient to the Government) he might have been made the victim of an 'accident.' He
could no longer play his part in safety. Anyhow, he succeeded in making his exit in a manner that aroused no
suspicion, and he managed to return to his own country a short time afterwards. Consequently I need say no more
about Kwang.

My own departure was also rather a tame affair. I had an interview, on the day I received my letter, with
Inspector of Foreigners Bulley. Although I knew that the letter had been censored, and I was morally certain its
contents had been made known to him, he betrayed no knowledge of the facts. I explained the circumstances and
showed him the letter. I asked if the three days' notice could be dispensed with, as I wished to leave at the earliest
moment. He said I might possibly leave the day after to-morrow, but not before, as it would be necessary to see that
all my affairs were in order before issuing the certificate of absolution as it was called--a certificate which all
foreigners must obtain before the issue of the ticket authorising them to be conveyed across the frontier. There
would be a charge of £1 for the extra trouble involved. One little difficulty had not occurred to me: there might not
be a conveyance to Graves, via Bridgetown, for several days—perhaps not for a week. Inspector Bulley, who had all such matters at his finger-ends, told me there was no conveyance for five days by that route, but that he would arrange for me to travel by another route, via Primburg and Durven, which lay convenient for a journey to Prisa. After that I could either return home direct or go first to Lunopolis.

He was sorry my visit had been cut short almost before my serious study had begun, and hoped I should find it possible to return. He arranged for me to undergo my necessary medical examination on the afternoon of the same day, and this turned out to be almost a formality. Dr. Pincher was much more polite, and much less exacting, than on a former occasion. Clearly the influence of Kwang—for I was now regarded as a sort of protege of his—was evident in all this. Altogether my exit was quite pleasant, and I almost began to regret my precipitancy, but when I reflected on what I had to gain by staying longer I saw that Kwang was right. I turned over in my mind what I had seen and learnt during five months. I had seen a provincial town (or some aspects of it), and the capital, under the close supervision of well-informed warders. I had talked to a score of officials and a few professors, and received a vast amount of instruction from them. I had seen a great public ceremony. I had visited a large number of institutions. But I had only got into contact with a single native Meccanian who was free from the influence of the all-pervading Super-State, and this person was in an asylum only accessible by a dangerous ruse. I knew little more of the people, perhaps less, than I could have got from reading a few books; but I had at any rate got an impression of the Meccanian System which no book could have given me. That impression was the most valuable result of my tour, but it seemed unlikely that a further stay would do anything more than deepen it. For unless I were prepared to play the role that Kwang had played I was not likely to learn anything the Meccanian Government did not wish me to learn, and, however much I might be sustained by my curiosity, the actual experience of living in the atmosphere of the Meccanian Super-State was not pleasant.

I said good-bye to my friends at the hotel, and, after an uneventful journey by express train, reached Primburg. Except that it bore a general resemblance to Bridgetown, I can say nothing of it, for we were not permitted to go out of the station whilst waiting for the motor-van to take us across the frontier. I say 'us,' because there were about half a dozen other travellers. The fact that not more than half a dozen persons a week travelled from Mecco to Prisa—for this was the main route to the capital of Francaria—was in itself astounding. Even of these, three looked like persons on official business. At Primburg I was spared the indignity of a further medical examination, as I had already obtained the necessary certificate from Dr. Pincher, but nothing could exempt me from the examination which all foreigners had to submit to in order to ensure that they carried nothing out of the country except by leave of the chief inspector of Foreign Observers. My journal had been entrusted to Kwang, and I had nothing else of any importance. I was thoroughly searched, and my clothes and my baggage were closely examined by an official called the Registrar of Travellers.

Although I had spent a considerable time in Francaria I had never before seen Durven. There was now no reason for hurrying on to Prisa, so I decided to spend a day there to look round. I had to report myself to the police, owing to the fact that I had arrived from Meccania, but my credentials proving perfectly satisfactory I was at liberty to go where I liked. It was about four o'clock when I stepped out of the police station, and as it was a bright September afternoon there was still time to walk about for some hours before dark. At first, for about an hour, I could hardly help feeling that I was dreaming. Here I was in the old familiar life of Europe again. The streets of the town seemed full of people, some sauntering about and gossiping with their friends, others shop-gazing, others carrying parcels containing their purchases, some making their way home from business, others standing in groups near the theatres. There were tram-cars and omnibuses and all sorts of vehicles jostling in the central part of the town. A little later I saw people streaming out from a popular matinee. There were old men selling the first issues of the evening papers, and crying some sensational news which was not of the slightest importance but which somehow seemed good fun. I was delighted with everything I saw. It was a positive joy not to see any green uniforms, nor any grey uniforms, nor any yellow uniforms. Green and grey and yellow are beautiful colours, but the plain black of the civilian dress of the men in the streets of Durven seemed pleasant, and the costumes of the women seemed positively beautiful. There were children walking with their mothers, and little urchins racing about in the side streets. I could have laughed with joy at the sight of them: I had seen no children for five months, only little future-Meccanians. There were old women selling flowers. I wondered if they were poor; they looked fat and happy at any rate, and they were free to sell flowers or do anything else they liked. I turned into a cafe. A little band was playing some rollicking frivolous music that I recognised. I remembered some of my former friends making sarcastic remarks about this kind of music. It was not good music, yet it made me feel like laughing or dancing. There was such a babel of talk I could hardly hear the band. Not that I wanted to! I was quite content to hear the happy voices round me, to watch the simple comedies of human intercourse, and to feel that I was out of prison. I strolled out again. This time I looked at the streets themselves, at the buildings and houses and shops. I dived down a side street or two and found myself by the river among little wharves and docks, all on the tiniest scale. The streets...
were rather untidy and not too clean; the houses were irregularly built. I was in the old town apparently. As I walked farther I noticed that by far the greater part of the town had been built during the last fifty years or so, yet the place looked as if it were trying to preserve the appearance of age. At another time I should probably have thought the town rather dull and uninteresting, for there was nothing noteworthy about it. If there had once been any genuine mediaeval churches or guild halls or places of architectural interest they must have been destroyed, yet I discovered a strange joy and delight in everything I saw.

After dark, when I had dined at the little hotel where I was to sleep that night, I went off at once to the nearest theatre, which happened to be a music hall. I laughed at the turns until people looked at me to see if I were drunk or demented. When they saw I was only a little excited they made good-humoured remarks. They were rather pleased that I should be so easily amused. "Perhaps he has just come out of prison," said one; "no doubt it is rather dull there." "Perhaps he is a friend of one of the actors," said another, "and wants to encourage him." "Perhaps he has come from the land where jokes are prohibited," said a third. "Perhaps he is a deaf man who has recovered his hearing," said another. "Or a blind man who has recovered his sight." "Anyhow, he knows how to enjoy himself." Such were the remarks they made.

When I came out I strolled about the streets until after midnight. It seemed so jolly to be able to go just where one pleased.

In the morning I looked up the trains to Prisa and found that I could reach it in a few hours. So I decided to spend the morning in Durven and go on to Prisa in the afternoon. I strolled into the open market-place. How strange it seemed! People in all sorts of simple costumes were going round to the various stalls picking up one thing here and another there. The usual little comedies of bargaining were going on. There were all sorts of trifles for sale, including toys for children--real toys, not disguised mathematical problems, or exercises in mechanical ingenuity. There were dolls and rattles and hoops and balls and whistles and fishing-rods and marbles and pegtops and dolls' houses and furniture and bricks and a hundred things besides. Then there were gingerbread stalls, ice-cream stalls, cocoa-nut shies, swings and even a little merry-go-round. I felt I should like to ride on that merry-go-round, but as it was early in the forenoon there were only a few children--good heavens! what were children doing here? They ought to have been at school, or at any rate being instructed in the use of Stage II. B toys. I turned into the street where the best shops were. Even the grocers' shops looked interesting. There were goods from all over the world. There were cheeses packed in dainty little cases, and dates in little boxes covered with pictures; tea in packets and canisters representing absurd Chinen and Hindoo coolies. The clothing shops were full of the latest fashions, although this was a small provincial town; and very dainty and charming they looked. Then there were antique shops and bric-a-brac shops, print shops and jewellers' shops. I could have spent days wandering about like a child at a fair. I had never realised before that the meanest European town--outside Meccania--is a sort of perennial bazaar.

I tore myself away, and after luncheon took train to Prisa. The confusion and bustle at the stations was delightful; the chatter of the passengers was most entertaining. There were people in shabby clothes and people in smart costumes. There were ticketcollectors and guards in rather dirty-looking uniforms, and an occasional gendarme who looked as if he had come off the comic-opera stage. The villages on the route were like the villages I had seen before in Europe--fragments of bygone ages mixed up with the latest devices in farm buildings and model cottages; churches built in the twelfth century and post offices built in the twentieth; mediaeval barns and modern factories. At length we reached Prisa, which needs no description from me.

It looked like an old friend, and I lost no time in resuming the habits I had adopted during my previous stay. I looked up some of my old acquaintances, and we spent days in endless talk about everything under the sun. What a delight it was to read the newspapers, no matter how silly they were! How delightful to hear the latest gossip about the latest political crisis, the latest dramatic success, the latest social scandal, the latest literary quarrel! In a week or two I had almost forgotten the existence of Meccania. I had seen nothing to remind me of it. I began to understand why the people in Francaria and Luniland were so ignorant of that country. Why should they bother their heads about it? It seemed to me now like a bad dream, a nightmare. They were quite right to ignore it, to forget it. And yet, suppose Meccania should startle Europe again? And with a chemical war this time! Would they be able to escape? Or would the Super-Insects finally conquer the human race? I confess I felt some doubt. It seemed not impossible that the nightmare I had escaped from was a doom impending over the whole world. And it is because I could not dismiss this doubt that I have written a faithful account of what I saw and heard in Meccania, the Super-State.
The ship was proof against any test, but the men inside her could be strained and warped, individually and horribly. Unfortunately, while the men knew that, they couldn't really believe it. The Aliens could—and did.

They sent the advance unit out to scout the new planet in the Ambassador, homing down on the secret beeping of a featureless box dropped by an earlier survey party. Then they sat back at GHQ and began the same old pattern of worry that followed every advance unit.

Not about the ship. The Ambassador was a perfect machine, automatic, self-adjusting, self-regulating. It was built to last and do its job without failure under any and all conditions, as long as there was a universe around it. And it could not fail. There was no question about that.

But an advance unit is composed of men. The factors of safety are indeterminable; the duplications of their internal mechanisms are conjectural, variable. The strength of the unit is the sum of the strengths of its members. The weakness of the unit can be a single small failing in a single man.

"Gotcha!" said Ives. Ives was Communications. He had quick eyes, quick hands. He was huge, almost gross, but graceful. "On the nose," he grinned, and turned up the volume.

"What else do you expect?" said Johnny. Johnny was the pilot—young, wide, flat. His movements were as controlled and decisive as those of the ship itself, in which he had an unshakeable faith. He slid into the bucket seat before the great master console.

"We expect the ship to do her job," said Hoskins, the Engineer. He was mild and deft, middle-aged, with a domed head and wide, light-blue eyes behind old fashioned spectacles. He shared Johnny's belief in the machine, but through understanding rather than through admiration. "But it's always good to see her do it."

"Beautiful," said Captain Anderson softly, and he may have been talking about the way the ship was homing in on the tiny, featureless box that Survey had dropped on the unexplored planet, or about the planet itself, or even about the smooth integration of his crew.

Paresi said nothing. He had eyebrows and nostrils as sensitive as a radarscope, and masked eyes of a luminous black. Faces and motives were to him what gauges and log-entries were to the Engineer. Paresi was the Doctor, and he had many a salve and many a splint for invisible ills. He saw everything and understood much. He leaned against the bulkhead, his gaze flicking from one to the other of the crew. Occasionally his small mustache twitched like the antennae of a cat watching a bird.

Barely audible, faint as the blue outline of a distant hill, hungry and lost as the half-heard cry of a banshee, came the thin sound of high atmosphere against the ship's hull.

An hour passed.

"Shut that damned thing off!"

Ives looked up at the pilot, startled. He turned the gain down to a whisper. Paresi left the bulkhead and stood behind Johnny. "What's the matter?" he asked. His voice was feline, too—a sort of purr.

Johnny looked up at him quickly, and grinned. "I can put her down," he said. "I can put her down." He punched the veering-jet controls. It served men perfectly. The ship ignored him, homed on the beam. The ship computed velocity, altitude, gravity, magnetic polarization, windage; used and balanced and adjusted for them all. It adjusted for interference from the manual controls. It served men perfectly. It ignored them utterly.

Johnny turned to look out and downward. Paresi's gaze followed. It was a beautiful planet, perhaps a shade greener than the blue-green of earth. It seemed, indefinably, more park-like than wild. It had an air of controlled lushness and peace.

The braking jets thundered as Johnny depressed a control. Paresi nodded slightly as he saw the pilot's hand move, for he knew that the autopilot had done it, and that Johnny's movement was one of trained reflex. The youngster was intense and alert, hair-trigger schooled, taught to pretend in such detail that the pretense was reality to
him; a precise pretense that would become reality for all of them if the machine failed.

But of course the machine would not fail.

Fields fled beneath them, looking like a crazy-quilt in pastel. On them, nothing moved. Hoskins moved to the
viewport and watched them mildly. "Very pastoral," he said. "Pretty."

"They haven't gotten very far," said Ives.
"Or they've gotten very far indeed," said Captain Anderson.
Johnny snorted. "No factories. No bridges. Cow-tracks and goat paths."

The Captain chuckled. "Some cultures go through an agrarian stage to reach a technological civilization, and
some pass through technology to reach the pastoral."

"I don't see it," said Johnny shortly, eyes ahead.
Paresi's hand touched the Captain's arm, and the Captain then said nothing.
Pwing-g-g-

"Stand by for landing," said the Captain.

Ives and Hoskins went aft to the shock-panels in the after bulkhead. Paresi and the Captain stepped into niches
flanking the console. Johnny touched a control that freed his chair in its hydraulic gimbals. Chair and niches and
shock-panels would not be needed as long as the artificial gravity and inertialess field functioned; it was a ritual.

The ship skimmed treetops, heading phlegmatically for a rocky bluff. A gush of flame from its underjets and it
shouldered heavily upward, just missing the jagged crest. A gout of fire forward, another, and it went into a long flat
glide, following the fall of a foothill to the plain beyond. It held course and reduced speed, letting the ground bellow
up to it rather than descending. There was a moment of almost-flight, almost-sliding, and then a rush of dust and
smoke which over-took and passed them. When it cleared, they were part of the plain, part of the planet.

"A good landing, John," Paresi said. Hoskins caught his eye and frowned. Paresi grinned broadly, and the
exchange between them was clear: Why do you needle the kid? and Quiet, Engine-room. I know what I'm doing.
Hoskins shrugged, and, with Ives, crossed to the communications desk.

Ives ran his fat, skilled hands over the controls and peered at his indicators. "It's more than a good landing," he
grunted. "That squeak-box we homed in on can't be more than a hundred meters from here. First time I've ever seen
a ship bullseye like that."

Johnny locked his gimbals, ran a steady, sensitive hand over the turn of the console as if it were a woman's
flank. "Why--how close do you usually come?"

"Planetfall's close enough to satisfy Survey," said the Captain. "Once in a while the box will materialize
conveniently on a continent. But this--this is too good to be true. We practically landed on it."

Hoskins nodded. "It's usually buried in some jungle, or at the bottom of a sea. But this is really all right. What a
lineup! Point nine-eight earth gravity, Earth-type atmosphere--"

"Argon-rich," said, Ives, from the panel. "Very rich."

"That'll make no real difference," Hoskins went on. "Temperature, about normal for an early summer back
home... looks as if there's a fiendish plot afoot here to make things easy for us."

Paresi said, as if to himself, "I worry about easy things."

"Yeah, I know," snorted Johnny, rising to stretch. "The head-shrinker always does it the hard way. You can't
just dislike rice pudding; it has to be a sister-syndrome. If the shortest distance is from here to there, don't take it--
remember your Uncle Oedipus."

Captain Anderson chuckled. "Cut your jets, Johnny. Maybe Paresi's tortuous reasoning does seem out of order
on such a nice day. But remember--eternal vigilance isn't just the price of liberty, as the old books say. It's the price
of existence. We know we're here--but we don't know where 'here' is, and won't until after we get back. This is really
Terra Incognita. The location of Earth, or even of our part of the galaxy, is something that has to be concealed at all
costs, until we're sure we're not going to turn up a potentially dangerous, possibly superior alien culture. What we
don't know can't hurt Earth. No conceivable method could get that information out of us, any more than it could be
had from the squeak-box that Survey dropped here.

"Base all your thinking on that, Johnny. If that seems like leaning over backwards, it's only a sample of how
careful we've got to be, how many angles we've got to figure."

"Hell," said the pilot. "I know all that. I was just ribbing the bat-snatcher here." He thumbed a cigarette out of
his tunic, touched his lighter to it. He frowned, stared at the lighter, tried it again. "It doesn't work. Damn it!" he
barked explosively, "I don't like things that don't work!"

Paresi was beside him, catlike, watchful. "Here's a light. Take it easy, Johnny! A bum lighter's not that
important."

Johnny looked sullenly at his lighter. "It doesn't work," he muttered. "Guaranteed, too. When we get back I'm
going to feed it to Supply." He made a vivid gesture to describe the feeding technique, and jammed the lighter back
into his pocket.

"Heh!" Ives' heavy voice came from the communications desk. "Maybe the natives are primitives, at that. Not a whisper of any radio on any band. No powerline fields, either. These are plowboys, for sure."

Johnny looked out at the sleeping valley. His irritation over the lighter was still in his voice. "Imagine that. No video or trideo. No jet-races or feelies. What do people do with their time in a place like this?"


"I don't know what chess is, and conversation's great if you want to tell somebody something, like 'bring me a steak,'" said Johnny. "Let's get out of this fire-trap," he said to the Captain.

"In time," said the Captain. "Ives, DX those radio frequencies. If there's so much as a smell of radiation even from the other side of this planet, we want to know about it. Hoskins, check the landing-suits--food, water, oxygen, radio, everything. Earth-type planet or no, we're not fooling with alien viruses. Johnny, I want you to survey this valley in every way you can and plot a minimum of three take-off vectors."

The crew fell to work, Ives and Hoskins intently, Johnny off-handedly, as if he were playing out a ritual with some children. Paresi bent over a stereomicroscope, manipulating controls which brought in samples of air-borne bacteria and fungi and placed them under its objective. Captain Anderson ranged up beside him.

"We could walk out of the ship as if we were on Muroc Port," said Paresi. "These couldn't be more like Earth organisms if they'd been transplanted from home to delude us."

The Captain laughed. "Sometimes I tend to agree with Johnny. I never met a more suspicious character. How'd you ever bring yourself to sign your contract?"

"Turned my back on a couple of clauses," said Paresi. "Here--have a look."

At that moment the usually imperturbable Ives uttered a sharp grunt that echoed and re-echoed through the cabin. Paresi and the Captain turned. Hoskins was just coming out of the after alleyway with an oxygen bottle in his hand, and had frozen in his tracks at the sharp sound Ives had made. Johnny had whipped around as if the grunt had been a lion's roar. His back was to the bulkhead, his lean, long frame tensed for fight or flight. It was indescribable, Ives' grunt, and it was the only sound which could have had such an effect on such a variety of men--the same shocked immobility.

Ives sat over his Communications desk as if hypnotized by it. He moved one great arm forward, almost reluctantly, and turned a knob.

A soft, smooth hum filled the room. "Carrier," said Ives.

Then the words came. They were English words, faultlessly spoken, loud and clear and precise. They were harmless words, pleasant words even.

They were: "Men of Earth! Welcome to our planet."

The voice hung in the air. The words stuck in the silence like insects wriggling upon a pin. Then the voice was gone, and the silence was complete and heavy. The carrier hum ceased. With a spine-tingling brief blaze of high-frequency sound, Hoskins' oxygen-bottle hit the steel deck.

Then they all began to breathe again.

"There's your farmers, Johnny," said Paresi.

"Knight to bishop's third," said Hoskins softly.

"What's that?" demanded Johnny.

"Chess again," said the Captain appreciatively. "An opening gambit."

Johnny put a cigarette to his lips, tried his lighter. "Damn. Gimme a light, Ives."

Ives complied, saying over his big shoulder to the Captain, "In case you wondered, there was no fix on that. My direction-finders indicate that the signal came simultaneously from forty-odd transmitters placed in a circle around the ship which is their way of saying 'I dunno.'"

The Captain walked to the view bubble in front of the console and peered around. He saw the valley, the warm light of mid-afternoon, the too-green slopes and the blue-green distances. Trees, rocks, a balancing bird.

"It doesn't work," muttered Johnny.

The Captain ignored him. "Men of Earth...." he quoted. "Ives, they've gotten into Survey's squeak-box and analyzed its origin. They know all about us!"

"They don't because they can't," said Ives flatly. "Survey traverses those boxes through second-order space. They materialize near a planet and drop in. No computation on earth or off it could trace their normal-space trajectory, let alone what happens in the second-order condition. The elements the box is made of are carefully averaged isotopic forms that could have come from any of nine galaxies we know about and probably more. And all it does is throw out a VUHF signal that says beep on one side, boop on the other, and bup-bup in between. It does not speak English, mention the planet Earth, announce anyone's arrival and purpose, or teach etiquette."

Captain Anderson spread his hands. "They got it from somewhere. They didn't get it from us. This ship and the
box are the only Terran objects on this planet. Therefore they got their information from the box."

"Q.E.D. You reason like Euclid," said Paresi admiringly. "But don't forget that geometry is an artificial school, based on arbitrary axioms. It just doesn't work where the shortest distance is not a straight line. I'd suggest we gather evidence and postpone our conclusions."

"How do you think they got it?" Ives challenged.

"I think we can operate from the fact they got it, and make our analyses when we have more data."

Ives went back to his desk and threw a switch.

"What are you doing?" asked the Captain.

"Don't you think they ought to be answered?"

"Turn it off, Ives."

"But--"

"Turn it off!" Ives did. An expedition is an informal, highly democratic group, and can afford to be, for when the situation calls for it, there is never any question of where authority lies. The Captain said, "There is nothing we can say to them which won't yield them more information. Nothing. For all we know it may be very important to them to learn whether or not we received their message. Our countermove is obviously to make no move at all."

"You mean just sit here and wait until they do something else?" asked Johnny, appalled.

The Captain thumped his shoulder. "Don't worry. We'll do something in some other area than communications. Hoskins--are those landing suits ready?"

"All but," rapped Hoskins. He scooped up the oxygen bottle and disappeared.

Paresi said, "We'll tell them something if we don't answer."

The Captain set his jaw. "We do what we can, Nick. We do the best we can. Got any better ideas?"

Paresi shrugged easily and smiled. "Just knocking, skipper. Knock everything. Then what's hollow, you know about."

"I should know better than to jump salty with you," said the Captain, all but returning the doctor's smile. "Johnny. Hoskins. Prepare for exploratory patrol."

"I'll go," said Paresi.

"Johnny goes," said the Captain bluntly, "because it's his first trip, and because if he isn't given something to do he'll bust his adrenals. Hoskins goes, because of all of us, the Engineer is most expendable. Ives stays because we need hair-trigger communications. Hoskins--are those landing suits ready?"

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He squinted at Paresi. "Does that knock solid?"

"Solid."

"Testing, Johnny," Ives said into a microphone. Johnny's duplicated voice, from the open face-plate of his helmet and from the intercom speaker, said, "I hear you fine."

"Testing, Hoskins."

"If I'd never seen you," said the speaker softly, "I'd think you were right here in the suit with me."

Hoskins' helmet was obviously buttoned up.

The two men came shuffling into the cabin, looking like gleaming ghosts in their chameleon-suits, which repeated the color of the walls. "Someday," growled Johnny, "there'll be a type suit where you can scratch your--"

"Scratch when you get back," said the Captain. "Now hear this. Johnny, you can move fastest. You go out first. Wait in the airlock for thirty seconds after the outer port opens. When Ives gives you the beep, jump out, run around the bows and plant your back against the hull directly opposite the port. Hold your blaster at the ready, aimed down-you hear me? Down, so that any observer will know you're armed but not attacking. Hoskins, you'll be in the lock with the outer port open by that time. When Johnny gives the all clear, you'll jump out and put your back against the hull by the port. Then you'll both stay where you are until you get further orders. Is that clear?"

"Aye."

"Yup."

"You're covered adequately from the ship. Don't fire without orders. There's nothing you can get with a blaster that we can't get first with a projector-unless it happens to be within ten meters of the hull and we can't depress to it.

Even then, describe it first and await orders to fire except in really extreme emergency. A single shot at the wrong time could set us back a thousand years with this planet. Remember that this ship isn't called Killer or Warrior or even Hero. It's the Earth Ship Ambassador. Go to it, and good luck."

Hoskins stepped back and waved Johnny past him. "After you, Jets."

Johnny's teeth flashed behind the face-plate. He clicked his heels and bowed stiffly from the waist, in a fine burlesque of an ancient courtier. He stalked past Hoskins and punched the button which controlled the airlock.

They waited. Nothing.
Johnny frowned, jabbed the button again. And again. The Captain started to speak, then fell watchfully silent. Johnny reached toward the button, touched it, then struck it savagely. He stepped back then, one foot striking the other like that of a clumsy child. He turned partially to the others. In his voice, as it came from the speaker across the room, was a deep amazement that rang like the opening chords of a prophetic and gloomy symphony.

He said, "The port won't open."

II

The extremes of mysticism and of pragmatism have their own expressions of worship. Each has its form, and the difference between them is the difference between deus ex machina and deus machina est. --E. Hunter Waldo

"Of course it will open," said Hoskins. He strode past the stunned pilot and confidently palmed the control.

The port didn't open.

Hoskins said, "Hm?" as if he had been asked an inaudible question, and tried again. Nothing happened. "Skipper," he said over his shoulder, "Have a quick look at the meters behind you there. Are we getting auxiliary power?"

"All well here," said Anderson after a glance at the board. "And no shorts showing."

There was a silence punctuated by the soft, useless clicking of the control as Hoskins manipulated it. "Well, what do you know."

"It won't work," said Johnny plaintively.

"Sure it'll work," said Paresi swiftly, confidently. "Take it easy, Johnny."

"It won't work," said Johnny. "It won't work." He stumbled across the cabin and leaned against the opposite bulkhead, staring at the closed port with his head a little to one side as if he expected it to shriek at him.

"Let me try," said Ives, going to Hoskins. He put out his hand.

"Don't!" Johnny cried.

"Shut up, Johnny," said Paresi.

"All right, Nick," said Johnny. He opened his face plate, went to the rear bulkhead, keyed open an acceleration couch, and lay face down on it. Paresi watched him, his lips pursed.

"Can't say I blame him," said the Captain softly, catching Paresi's eye. "It's something of a shock. This shouldn't be. The safety factor's too great--a thousand per cent or better."

"I know what you mean," said Hoskins. "I saw it myself, but I don't believe it." He pushed the button again.

"I believe it," said Paresi.

Ives went to his desk, clicked the transmitter and receiver switches on and off, moved a rheostat or two. He reached up to a wall toggle, turned a small air-circulating fan on and off. "Everything else seems to work," he said absently.

"This is ridiculous!" exploded the Captain. "It's like having your keys home, or arriving at the theater without your tickets. It isn't dangerous--it's just stupid!"

"It's dangerous," said Paresi.

"Dangerous how?" Ives demanded.

"For one thing--" Paresi nodded toward Johnny, who lay tensely, his face hidden. "For another, the simple calculation that if nothing inside this ship made that control fail, something outside this ship did it. And that I don't like."

"That couldn't happen," said the Captain reasonably.

Paresi snorted impatiently. "Which of two mutually exclusive facts are you going to reason from? That the ship can't fail? Then this failure isn't a failure; it's an external control. Or are you going to reason that the ship can fail? Then you don't have to worry about an external force--but you can't trust anything about the ship. Do the trick that makes you happy. But do only one. You can't have both."

Johnny began to laugh.

Ives went to him. "Hey, boy--"

Johnny rolled over, swung his feet down, and sat up, brushing the fat man aside. "What you guys need," Johnny chuckled, "is a nice kind policeman to feed you candy and take you home. You're real lost."

Ives said, "Johnny, take it easy and be quiet, huh? We'll figure a way out of this."

"I already have, scrappy," said Johnny offensively. He got up, strode to the port. "What a bunch of deadheads," he growled. He went two steps past the port and grasped the control-wheel which was mounted on the other side of the port from the button.

"Oh my God," breathed Anderson delightedly, "the manual! Anybody else want to be Captain?"

"Factor of safety," said Hoskins, smiting himself on the brow. "There's a manual control for everything on this scow that there can be. And we stand here staring at it--"

"If we don't win the furlined teacup..." Ives laughed.
Johnny hauled on the wheel.
It wouldn't budge.
"Here--" Ives began to approach.
"Get away," said Johnny. He put his hands close together on the rim of the wheel, settled his big shoulders, and
hauled. With a sharp crack the wheel broke off in his hands.
Johnny staggered, then stood. He looked at the wheel and then up at the broken end of its shaft, gleaming deep
below the surface of the bulkhead.
"Oh, fine...." Ives whispered.
Suddenly Johnny threw back his head and loosened a burst of high, hysterical laughter. It echoed back and
forth between the metal walls like a torrent from a burst dam. It went on and on, as if now that the dam was gone,
the flood would run forever.
Anderson called out "Johnny!" three times, but the note of command had no effect. Paresi walked to the pilot
and with the immemorial practice slapped him sharply across the cheeks. "Johnny! Stop it!"
The laughter broke off as suddenly as it had begun. Johnny's chest heaved, drawing in breath with great,
rasping near-sobs. Slowly they died away. He extended the wheel toward the Captain.
"It broke off," he said, finally, dully, without emphasis.
Then he leaned back against the hull, slowly slid down until he was sitting on the deck. "Broke right off," he
said.
Ives twined his fat fingers together and bent them until the knuckles cracked. "Now what?"
"I suggest," said Paresi, in an extremely controlled tone, "that we all sit down and think over the whole thing
very carefully."
Hoskins had been staring hypnotically at the broken shaft deep in the wall. "I wonder," he said at length,
"which way Johnny turned that wheel."
"Counter-clockwise," said Ives. "You saw him."
"I know that," said Hoskins. "I mean, which way: the right way, or the wrong way?"
"Oh." There was a short silence. Then Ives said, "I guess we'll never know, now."
"Not until we get back to Earth," said Paresi quickly.
"You say 'until', or 'unless'?" Ives demanded.
"I said 'until', Ives," said Paresi levelly, "and watch your mouth."
"Sometimes," said the fat man with a dangerous joviality, "you pick the wrong way to say the right thing,
Nick." Then he clapped the slender doctor on the back. "But I'll be good. We sow no panic seed, do we?"
"Much better not to," said the Captain. "It's being done efficiently enough from outside."
"You are convinced it's being done from outside?" asked Hoskins, peering at him owlishly.
"I'm ... convinced of very little," said the Captain heavily. He went to the acceleration couch and sat down. "I
want out," he said. He waved away the professional comment he could see forming on Paresi's lips and went on,
"Not claustrophobia, Nick. Getting out of the ship's more important than just relieving our feelings. If the trouble
with the port is being caused by some fantastic something outside this ship, we'll achieve a powerful victory over it,
purely by ignoring it."
"It broke off," murmured Johnny.
"Ignore that," snorted Ives.
"You keep talking about this thing being caused by something outside," said Paresi. His tone was almost
complaining.
"Got a better hypothesis?" asked Hoskins.
"Hoskins," said the Captain, "isn't there some way we can get out? What about the tubes?"
"Take a shipyard to move those power-plants," said Hoskins, "and even if it could be done, those radioactive
tubes would fry you before you crawled a third of the way."
"We should have a lifeboat," said Ives to no one in particular.
"What in time does a ship like the Ambassador need with a lifeboat?" asked Hoskins in genuine amazement.
The Captain frowned. "What about the ventilators?"
"Take us days to remove all the screens and purifiers," said Hoskins, "and then we'd be up against the intake
ports. You could stroll out through any of them about as far as your forearm. And after that it's hull-metal, skipper.
That you don't cut, not with a piece of the Sun's core."
The Captain got up and began pacing, slowly and steadily, as if the problem could be trodden out like ripe
grapes. He closed his eyes and said, "I've been circling around that idea for thirty minutes now. Look: the hull can't
be cut because it is built so it can't fail. It doesn't fail. The port controls were also built so they wouldn't fail. They do
fail. The thing that keeps us in stays in shape. The thing that lets us out goes bad. Effect: we stay inside. Cause:
something that wants us to stay inside."

"Oh," said Johnny clearly.

They looked at him. He raised his head, stiffened his spine against the bulkhead. Paresi smiled at him. "Sure, Johnny. The machine didn't fail. It was--controlled. It's all right." Then he turned to the Captain and said carefully, "I'm not denying what you say, Skipper. But I don't like to think of what will happen if you take that tack, reason it through, and don't get any answers."

"I'd hate to be a psychologist," said Ives fervently. "Do you extrapolate your mastications, too, and get frightened of the stink you might get?"

Paresi smiled coldly. "I control my projections."

Captain Anderson's lips twitched in passing amusement, and then his expression sobered. "I'll take the challenge, Paresi. We have a cause and an effect. Something is keeping us in the ship. Corollary: We--or perhaps the ship--we're not welcome."

"Men of Earth," quoted Ives, in an excellent imitation of the accentless English they had heard on the radio, "welcome to our planet."

They're kidding," said Johnny heartily, rising to his feet. He dropped the control wheel with a clang and shoved it carelessly aside with his foot. "Who ever says exactly what they mean anyhow? I see that conclusion the head-shrinker's afraid you'll get to, Skipper. If we can't leave the ship, the only other thing we can do is to leave the planet. That it?"

Paresi nodded and watched the Captain closely. Anderson turned abruptly away from them all and stood, feet apart, head down, hands behind his back, and stared out of the forward viewports. In the tense silence they could hear his knuckles crack. At length he said quietly, "That isn't what we came here for, Johnny."

Johnny shrugged. "Okay. Chew it up all you like, fellers. The only other choice is to sit here like bugs in a bottle until we die of old age. When you get tired of thinking that over, just let me know. I'll fly you out."

"We can always depend on Johnny," said Paresi with no detectible emphasis at all.

"Not on me," said Johnny, and swatted the bulkhead. "On the ship. Nothing on any planet can stop this baby once I pour on the coal. She's just got too much muscles."

"Well, Captain?" asked Hoskins softly.

Anderson looked at the basking valley, at the too-blue sky and the near-familiar, mellow-weathered crags. They waited.

"Take her up," said the Captain. "Put her in orbit at two hundred kilos. I'm not giving up this easily."

Ives swatted Johnny's broad shoulder. "That's a take-off and a landing, if I know the Old Man. Go to it, Jets."

Johnny's wide white grin flashed and he strode to the control chair. "Gentlemen, be seated."

"I'll take mine lying down," said Ives, and spread his bulk out on the acceleration couch. The others went to their take-off posts.

"On automatics," said the Captain, "Fire away!"

"Fire away!" said Johnny cheerfully. He reached forward and pressed the central control.

Nothing happened.

Johnny put his hand toward the control again. It moved as if there were a repeller field around the button. The hand moved more and more slowly the closer it got, until it hovered just over the control and began to tremble.

"On manual," barked the Captain. "Fire!"

"Manual, sir," said Johnny reflexively. His trembling hand darted up to an overhead switch, pulled it. He grasped the control bars and dropped the heels of his hands heavily on the firing studs. From somewhere came a muted roar, a whispering; a subjective suggestion of the thunder of reaction motors.

A frown crossed Paresi's face. The rocket noise was gone as the mind reached for it, like an occluded thought. The motors were silent; there wasn't a tremor of vibration. Yet somewhere a ghost engine was warming up, preparing a ghost ship for an intangible take-off into nothingness.

He snapped off the catch of his safety belt and crossed swiftly and silently to the console. Johnny sat raptly. A slow smile of satisfaction began to spread over his face. His gaze flicked to dials and gauges; he nodded very slightly, and brought both hands down like an organist playing a mighty chord. He watched the gauges. The needles were still, lying on their zero pins, and where lights should have flickered and flashed there was nothing. Paresi glanced at Anderson and met a worried look. Hoskins had his head cocked to one side, listening, puzzled. Ives rose from the couch and came forward to stand beside Paresi.

Johnny was manipulating the keys firmly. His fingers began to play a rapid, skillful, silent concerto. His face had a look of intense concentration and of complete self-confidence.

"Well," said Ives heavily. "That's a bust, too."

Paresi spun to him. "Shhh!" It was done with such intensity that Ives recoiled. With a warning look at him,
Paresi walked to the Captain, whispered in his ear.

"My God," said Anderson. "All right, Doctor." He came forward to the pilot's chair. Johnny was still
concentratedly, uselessly at work. Anderson glanced inquiringly at Paresi, who nodded.

"That does it," said the Captain, loudly. "Nice work, Johnny. We're smack in orbit. The automatics couldn't
have done it better. For once it feels good to be out in space again. Cut your jets now. You can check for correction
later."

"Aye, sir," said Johnny. He made two delicate adjustments, threw a master switch and swung around. "Whew!
That's work!"

Facing the four silent men, Johnny thumbed out a cigarette, put it in his mouth, touched his lighter to it, drew a
long slow puff.

"Man, that goes good...."

The cigarette was not lighted. Hoskins turned away, an expression of sick pity on his face. Ives reached
abruptly for his own lighter, and the doctor checked him with a gesture.

"Every time I see a hot pilot work I'm amazed," Paresi said conversationally. "Such concentration ... you must
be tuckered, Johnny."

Johnny puffed at his unlit cigarette. "Tuckered," he said. "Yeah." There were two odd undertones to his voice
suddenly. They were fatigue, and eagerness. Paresi said, "You're off-watch, John. Go stretch out."

"Real tired," mumbled Johnny. He lumbered to his feet and went aft, where he rolled to the couch and was
almost instantly asleep.

The others congregated far forward around the controls, and for a long moment stared silently at the sleeping
pilot.

"I don't get it," murmured Ives.

"He really thought he flew us out, didn't he?" asked Hoskins.

Paresi nodded. "Had to. There isn't any place in his cosmos for machines that don't work. Contrary evidence
can get just so strong. Then, for him, it ceased to exist. A faulty cigarette lighter irritated him, a failing airlock
control made him angry and sullen and then hysterical. When the drive controls wouldn't respond, he reached his
breaking point. Everyone has such a breaking point, and arrives at it just that way if he's pushed far enough."

"Everyone?"

Paresi looked from face to face, and nodded somberly. Anderson asked, "What knocked him out? He's trained
to take far more strain than that."

"Oh, he isn't suffering from any physical or conscious mental fatigue. The one thing he wanted to do was to get
away from a terrifying situation. He convinced himself that he flew out of it. The next best thing he could do to keep
anything else from attacking him was to sleep. He very much appreciated my suggestion that he was worn out and
needed to stretch out."

"I'd very much appreciate some such," said Ives. "Do it to me, Nick."

"Reach your breaking point first," said the doctor flatly, and went to place a pillow between Johnny's head and
a guard-rail.

Hoskins turned away to stare at the peaceful landscape outside. The Captain watched him for a moment, then:

"Hoskins!"

"Aye."

"I've seen that expression before. What are you thinking about?"

The engineer looked at him, shrugged, and said mildly, "Chess."

"What, especially?"

"Oh, a very general thing. The reciprocity of the game. That's what makes it the magnificent thing it is. Most
human enterprises can gang up on a man, slap him with one disaster after another without pause. But not chess. No
matter who your opponent might be, every time he does something to you, it's your move."

"Very comforting. Have you any idea of how we move now?"

Hoskins looked at him, a gentle surprise on his aging face. "You missed my point, Skipper. We don't move."

"Oh," the Captain whispered. His face tautened as it paled, "I ... I see. We pushed the airlock button to get out.
Countermove: It wouldn't work. We tried the manual. Countermove: It broke off. And so on. Now we've tried to fly
the ship out. Oh, but Hoskins--Johnny broke. Isn't that countermove enough?"

"Maybe. Maybe you're right. Maybe the move wasn't trying the drive controls, though. Maybe the move was to
do what was necessary to knock Johnny out." He shrugged again. "We'll very soon see."

The Captain exhaled explosively through his nostrils. "We'll find out if it's our move by moving," he gritted.

"Ives! Paresi! We're going to go over this thing from the beginning. First, try the port. You, Ives."

Ives grunted and went to the ship's side. Then he stopped.
"Where is the port?"

Anderson and Paresi followed Ives' flaccid, shocked gaze to the bulkhead where there had been the outline of the closed port, and beside it the hole which had held the axle of the manual wheel, and which now was a smooth, seamless curtain of impenetrable black. But Hoskins looked at the Captain first of all, and he said "Now it's our move," and only then did he turn with them to look at the darkness.

III

The unfamiliar, you say, is the unseen, the completely new and strange? Not so. The epitome of the unfamiliar is the familiar inverted, the familiar turned on its head. View a familiar place under new conditions--a deserted and darkened theater, an empty night club by day--and you will find yourself more influenced by the emotion of strangeness than by any number of unseen places. Go back to your old neighborhood and find everything changed. Come into your own home when everyone is gone, when the lights are out and the furniture rearranged--there I will show you the strange and frightening ghosts that are the shapes left over when reality superimposes itself upon the images of memory. The goblins lurk in the shadows of your own room. Owen Miller Essays on Night and the Unfamiliar

For one heart-stopping moment the darkness had seemed to swoop in upon them like the clutching hand of death. Instinctively they had huddled together in the center of the room. But when the second look, and the third, gave them reassurance that the effect was really there, though the cause was still a mystery, then half the mystery was gone, and they began to drift apart. Each felt on trial, and held tight to himself and the picture of himself he empathized in the others' eyes.

Hoskins gazed at it critically. "About half a meter deep," he murmured. "What do you suppose it's made of?"

"Not a gas," said Paresi. "It has a--a sort of surface."

Ives, who had frozen to the spot when first he saw the blackness on his way to the port, took another two steps. The hand which had been half lifted to touch the control continued upward relievedly, as if glad to have a continuous function even though its purpose had changed.

"Don't touch it!" rapped the Captain.

Ives turned his head to look at the Captain, then faltered and let the hand drop. "Why not?"

"Certainly not a liquid," Paresi mused, as if there had been no interruption. "And if it's a solid, where did that much matter come from? Through the hull?"

Hoskins, who knew the hull, how it was made, how fitted, how treated once it was in place, snorted at the idea.

"If it was a gas," said Paresi, "there'd be diffusion. And convection. If it were poisonous, we'd all be dead. If not, the chances are we'd smell it. And the counter's not saying a thing--so it's not radioactive."

"You trust the counter?" asked Ives bitterly.

"I trust it," said Paresi. His near-whisper shook with what sounded like passion. "A man must have faith in something. I hold that faith in every single function of every part of this ship until each and every part is separately and distinctly proved unworthy of faith!"

"Then, by God, you'll understand my faith in my own two hands and what they feel," snarled Ives. He stepped to the bulkhead and brought his meaty hand hard against it.

"Touché," murmured Hoskins, and meant either Ives' remark or the flat, solid smack of the hand against the blackness.

In his sleep, Johnny uttered a high, soft, careless tinkle of youthful, happy laughter.

"Somebody's happy," said Ives.

"Paresi," said the Captain, "what happens when he wakes up?"

Paresi's eyebrows shrugged for him. "Practically anything. He's reached down inside himself, somewhere, and found a way out. For him--not for any of the rest of us. Maybe he'll ignore what we see. Maybe he'll think he's somewhere else, or in some other time. Maybe he'll be someone else. Maybe he won't wake up at all."

"Maybe he has the right idea," said Ives.

"That's the second time you've made a crack like that," said Paresi levelly. "Don't do it again. You can't afford it."

"We can't afford it," the Captain put in.

"All right," said Ives, with such docility that Paresi shot him a startled, suspicious glance. The big communications man went to his station and sat, half-turned away from the rest.

"What are they after?" complained the Captain suddenly. "What do they want?"

"Who?" asked Paresi, still watching Ives.

Hoskins explained, "Whoever it was who said 'Welcome to our planet.'"

Ives turned toward them, and Paresi's relief was noticeable. Ives said, "They want us dead."
"Do they?" asked the Captain.
"They don't want us to leave the ship, and they don't want the ship to leave the planet."
"Then it's the ship they want."
"Yeah," amended Ives, "without us."

Paresi said, "You can't conclude that, Ives. They've inconvenienced us. They've turned us in on ourselves, and
put a drain on our intangible resources as men and as a crew. But so far they haven't actually done anything to us.
We've done it to ourselves."

Ives looked at him scornfully. "We wrecked the unwreckable controls, manufactured that case-hardened
darkness, and talked to ourselves on an all-wave carrier with no source, about information no outsider could get?"
"I didn't say any of that." Paresi paused to choose words. "Of course they're responsible for these phenomena.
But the phenomena haven't hurt us. Our reactions to the phenomena are what has done the damage."

"A fall never hurt anyone, they told me when I was a kid," said Ives pugnaciously. "It's the sudden stop."

Paresi dismissed the remark with a shrug. "I still say that while we have been astonished, frightened, puzzled
and frustrated, we have not been seriously threatened. Our water and food and air are virtually unlimited. Our ability
to live with one another under emergency situations has been tested to a fare-thee-well, and all we have to do is
recognize the emergency as such and that ability will rise to optimum." He smiled suddenly. "It could be worse,
Ives."

"I suppose it could," said Ives. "That blackness could move in until it really crowded us, or--"

Very quietly Hoskins said, "It is moving in."

Captain Anderson shook his head. "No...." And hearing him, they slowly recognized that the syllable was not a
denial, but an exclamation. For the darkness was no longer a half-meter deep on the bulkhead. No one had noticed it,
but they suddenly became aware that the almost-square cabin was now definitely rectangular, with the familiar
controls, the communications wall, and the thwartship partition aft of them forming three sides to the encroaching
fourth.

Ives rose shaking and round-eyed from his chair. He made an unspellable animal sound and rushed at the
blackness. Paresi leaped for him, but not fast enough. Ives collided sickeningly against the strange jet surface and
fell. He fell massively, gracelessly, not prone but on wide-spread knees, with his arms crumpled beneath him and the
side of his face on the deck. He stayed there, quite unconscious, a gross caricature of worship.

There was a furiously active, silent moment while Paresi turned the fat man over on his back, ran skilled fingers
over his bleeding face, his chest, back to the carotid area of his neck. "He's all right," said Paresi, still working; then,
as if to keep his mind going with words to avoid conjecture, he went on didactically, "This is the other fear reaction.
Johnny's was 'flight.' Ives' is 'fight.' The empirical result is very much the same."

"I thought," said Hoskins dryly, "that fight and flight were survival reactions."

Paresi stood up. "Why, they are. In the last analysis, so is suicide."

"I'll think about that," said Hoskins softly.

"Paresi!" spat Anderson. "Medic or no, you'll watch your mouth!"

"Sorry, Captain. That was panic seed. Hoskins--"

"Don't explain it to me," said the engineer mildly. "I know what you meant. Suicide's the direct product of
survival compulsions--drives that try to save something, just as fight and flight are efforts to save something. I don't
think you need worry; immolation doesn't tempt me. I'm too--too interested in what goes on. What are you going to
do about Ives?"

"Bunk him, I guess, and stand by to fix up that headache he'll wake up to. Give me a hand, will you?"

Hoskins went to the bulkhead and dropped a second acceleration couch. It took all three of them, working hard,
to lift Ives' great bulk up to it. Paresi opened the first-aid kit clamped under the control console and went to the
unconscious man. The Captain cast about him for something to do, something to say, and apparently found it.
"Hoskins!"

"Aye."

"Do you usually think better on an empty stomach?"

"Not me."

"I never have either."

Hoskins smiled. "I can take a hint. I'll rassle up something hot and filling."

"Good man," said the Captain, as Hoskins disappeared toward the after quarters. Anderson walked over to the
doctor and stood watching him clean up the abraded bruise on Ives' forehead.

Paresi, without looking up, said, "You'd better say it, whatever it is. Get it out."

Anderson half-chuckled. "You psychic?"

Paresi shot him a glance. "Depends. If you mean has a natural sensitivity to the tension spectra coupled itself
with some years of practice in observing people—then yes. What's on your mind?"

Anderson said nothing for a long time. It was as if he were waiting for a question, a single prod from Paresi. But Paresi wouldn't give it. Paresi waited, just waited, with his dark face turned away, not helping, not pushing, not doing a single thing to modify the pressure that churned about in the Captain.

"All right," said the Captain irritably. "I'll tell you."

Paresi took tweezers, a retractor, two scalpels and a hypodermic case out of the kit and laid them in a neat row on the bunk. He then picked up each one and returned it to the kit. When he had quite finished Anderson said, "I was wondering, who's next?"

Paresi nodded and shut the kit with a sharp click. He looked up at the Captain and nodded again. "Why does it have to be you?" he asked.

"I didn't say it would be me!" said the Captain sharply.

"Didn't you?" When the Captain had no answer, Paresi asked him, "Then why wonder about a thing like that?"

"Oh ... I see what you mean. When you start to be afraid, you start to be unsure—not of anyone else's weaknesses, but of your own. That what you mean?"

"Yup." His dark-framed grin flashed suddenly. "But you're not afraid, Cap'n."

"The hell I'm not."

Paresi shook his head. "Johnny was afraid, and fled. Ives was afraid, and fought. There's only one fear that's a real fear, and that's the one that brings you to your breaking point. Any other fear is small potatoes compared with a terror like that. Small enough so no one but me has to worry about it."

"Why you, then?"

Paresi swatted the first-aid kit as he carried it back to its clamp. "I'm the M. O., remember? Symptoms are my business. Let me watch 'em, Captain. Give me orders, but don't crowd me in my specialty."

"You're insubordinate, Paresi," said Anderson, "and you're a great comfort." His slight smile faded, and horizontal furrows appeared over his eyes. "Tell me why I had that nasty little phase of doubt about myself."

"You think I can?"

"Yes." He was certain.

"That's half the reason. The other half is Hoskins."

"What are you talking about?"

"Johnny broke. Ives broke. Your question was, 'who's next?' You doubt that it will be me, because I'm de facto the boy with all the answers. You doubt it will be Hoskins, because you can't extrapolate how he might break—or even if he would. So that leaves you."

"I hadn't exactly reasoned it out like that—"

"Oh yes you had," said Paresi, and thumped the Captain's shoulder. "Now forget it. Confucius say he who turn gaze inward wind up crosseyed. Can't afford to have a crosseyed Captain. Our friends out there are due to make another move."

"No they're not."

The doctor and the Captain whirled at the quiet voice. "What does that mean, Hoskins?"

The engineer came into the cabin, crossed over to his station, and began opening and closing drawers. "They've moved." From the bottom drawer he pulled out a folded chessboard and a rectangular box. Only then did he look directly at them. "The food's gone."

"Food?... gone where?"

Hoskins smiled tiredly. "Where's the port? Where's the outboard bulkhead? That black stuff has covered it up—heating units, foodlockers, disposal unit, everything." He pulled a couple of chairs from their clips on the bulkhead and carried them across the cabin to the seat of blackness. "There's water," he said as he unfolded the chairs. On the seat of one he placed the chessboard. He sat on the other and pushed the board close to the darkness. "The scuttlebutt's inboard, and still available." His voice seemed to get fainter and fainter as he talked, as if he were going slowly away from them. "But there's no food. No food."

He began to set up the pieces, his face to the black wall.

IV

The primary function of personality is self-preservation, but personality itself is not a static but a dynamic thing. The basic factor in its development, is integration: each new situation calls forth a new adjustment which modifies or alters the personality in the process. The proper aim of personality, therefore, is not permanence and stability, but unification. The inability of a personality to adjust to or integrate a new situation, the resistance of the personality to unification, and its efforts to preserve its integrity are known popularly as insanity. —Morgan Littlefield, Notes on Psychology.

"Hoskins!"
Paresi grabbed the Captain's arm and spun him around roughly. "Captain Anderson! Cut it!" Very softly, he said, "Leave him alone. He's doing what he has to do."

Anderson stared over his shoulder at the little engineer. "Is he, now? Damn it, he's still under orders!"

"Got something for him to do?" asked the doctor cooly.

Anderson looked around, at the controls, out at the sleeping mountains. "I guess not. But I'd like to know he'd take an order when I have one."

"Leave him alone until you have an order. Hoskins is a very steady head, skipper. But just now he's on the outside edge. Don't push."

The Captain put his hand over his eyes and fumbled his way to the controls. He turned his back to the pilot's chair and leaned heavily against it. "Okay," he said. "This thing is developing into a duel between you and those ... those colleagues of yours out there. I guess the least we ... I ... can do is not to fight you while you're fighting them."

Paresi said, "You're choosing up sides the wrong way. They're fighting us, all right. We're only fighting ourselves. I don't mean each other; I mean each of us is fighting himself. We've got to stop doing that, skipper."

The Captain gave him a wan smile. "Who has, at the best of times?"

Paresi returned the smile. "Drug addicts ... Catatronics ... illusionaries ... and saints. I guess it's up to us to add to the category."

"How about dead people?"

"Ives! How long have you been awake?"

The big man shoved himself up and leaned on one arm. He shook his head and grunted as if he had been punched in the solar plexus. "Who hit me with what?" he said painfully, from between clenched teeth.

"You apparently decided the bulkhead was a paper hoop and tried to dive through it," said Paresi. He spoke lightly but his face was watchful.

"Oooh...." Ives held his head for a moment and then peered between his fingers at the darkness. "I remember," he said in a strained whisper. He looked around him, saw the engineer huddled against his chessboard. "What's he doing?"

They all looked at the engineer as he moved a piece and then sat quietly.

"Hey, Hoskins!"

Hoskins ignored Ives' bull voice. Paresi said, "He's not talking just now. He's ... all right, Ives. Leave him alone. At the moment, I'm more interested in you. How do you feel?"

"Me, I feel great. Hungry, though. What's for chow?"

Anderson said quickly, "Nick doesn't want us to eat just now."

"Thanks," muttered Paresi in vicious irony.

"He's the doctor," said Ives good-naturedly. "But don't put it off too long, huh? This furnace needs stoking." He fisted his huge chest.

"Well, this is encouraging," said Paresi.

"It certainly is," said the Captain. "Maybe the breaking point is just the point of impact. After that the rebound, hm?"

Paresi shook his head. "Breaking means breaking. Sometimes things just don't break."

"Got to pass," said a voice. Johnny, the pilot, was stirring.

"Huh!" Anderson's voice was exultant. "Here comes another one!"

"How sure are you of that?" asked the doctor. To Johnny, he called, "Hiya, John?"

"I got to pass," said Johnny worriedly. He swung his feet to the deck. "You see," he said earnestly, "being the head of your class doesn't make it any easier. You've got to keep that and pass the examinations too. You've got two jobs. Now, the guy who stands fourth, say—he has only one job to do."

Anderson turned a blank face to Paresi, who made a silencing gesture. Johnny put his head in his hands and said, "When one variable varies directly as another, two pairs of their corresponding values are in proportion." He looked up. "That's supposed to be the keystone of all vector analysis, the man says, and you don't get to be a pilot without vector analysis. And it makes no sense to me. What am I going to do?"

"Get some shuteye," said Paresi immediately. "You've been studying too hard. It'll make more sense to you in the morning."

Johnny grinned and yawned at the same time, the worried wrinkles smoothing out. "Now that was a real educational remark, Martin, old chap," he said. He lay down and stretched luxuriously. "That I can understand. You may wear my famous maroon zipsuit." He turned his face away and was instantly asleep.

"Who the hell is Martin?" Ives demanded. "Martin who?"

"Shh. Probably his roommate in pre-pilot school."

Anderson gaped. "You mean he's back in school?"
"Doesn't it figure?" said Paresi sadly. "I told you that this situation is intolerable to him. If he can't escape in space, he'll escape in time. He hasn't the imagination to go forward, so he goes backward."

Something scuttled across the floor. Ives whipped his feet off the floor and sat like some cartoon of a Buddha, clutching his ankles. "What in God's name was that?"

"I didn't see anything," said Paresi.

The Captain demanded, "What was it?"

From the shadows, Hoskins said, "A mouse."

"Nonsense."

"I can't stand things that scuttle and slither and crawl," said Ives. His voice was suddenly womanish. "Don't let anything like that in here!"

From the quarters aft came a faint scratching, a squeak. Ives turned pale. His wattles quivered.

"Snap out of it, Ives," said Paresi coldly. "There isn't so much as a microbe on this ship that I haven't inventoried. Don't sit there like little Miss Muffet."

"I know what I saw," said Ives. He rose suddenly, turned to the black wall, and bellowed, "Damn you, send something I can fight!"

Two mice emerged from under the couch. One of them ran over Ives' foot. They disappeared aft, squeaking. Ives leapt straight up and came down standing on the couch. Anderson stepped back against the inboard bulkhead and stood rigid. Paresi walked with great purpose to the medical chest, took out a small black case and opened it.

Ives cowered down to his knees and began to blubber openly, without attempting to hide it, without any articulate speech. Paresi approached him, half-concealing a small metal tube in his hand.

A slight movement on the deck caught Anderson's eye. He was unable to control a shrill intake of breath as an enormous spider, hairy and swift, darted across to the couch and sprang. It landed next to Ives' knee, sprang again.

Paresi swung at it and missed, his hand catching Ives heavily just under the armpit. The spider hit the deck, skidded, righted itself and, abruptly, was gone. Ives caved in around the impact point of Paresi's hand and curled up silently on the couch. Anderson ran to him.

"He'll be all right now," said Paresi. "Forget it."

"Don't tell me he fainted! Not Ives!"

"Of course not." Paresi held up the little cylinder.

"Anesthox! Why did you use that on him?"

Paresi said irritably, "For the reason one usually uses anesthox. To knock a patient out for a couple of hours without hurting him."

"Suppose you hadn't?"

"How much more of that scuttle-and-slither treatment do you think he could have taken?"

Anderson looked at the unconscious communications man. "Surely more than that." He looked up suddenly.

"Where the hell did that vermin come from?"

"Ah. Now you have it. He dislikes mice and spiders. But there was something special about these. They couldn't be here, and they were. He felt that it was a deliberate and personal attack. He couldn't have handled much more of it."

"Where did they come from?" demanded the Captain again.

"I don't know!" snapped Paresi. "Sorry, skipper ... I'm a little unnerved. I'm not used to seeing a patient's hallucinations. Not that clearly, at any rate."

"They were Ives' hallucinations?"

"Can you recall what was said just before they appeared?"

"Uh ... something scuttled. A mouse."

"It wasn't a mouse until someone said it was." The doctor turned and looked searchingly at Hoskins, who still sat quietly over his chess.

"By God, it was Hoskins. Hoskins--what made you say that?"

The engineer did not move nor answer. Paresi shook his head hopelessly. "Another retreat. It's no use, Captain."

Anderson took a single step toward Hoskins, then obviously changed his mind. He shrugged and said, "All right. Something scuttled and Hoskins defined it. Let's accept that without reasoning it out. So who called up the spider?"

"You did."

"I did?"

In a startling imitation of the Captain's voice, Paresi quoted, "Don't sit there like Miss Muffet!"

"I'll be damned," said Anderson. "Maybe we'd all be better off saying nothing."
Paresi said bitterly, "You think it makes any difference if we say what we think?"
"Perhaps...."
"Nup," said Paresi positively. "Look at the way this thing works. First it traps us, and then it shows us a growing darkness. Very basic. Then it starts picking on us, one by one. Johnny gets machines that don't work, when with his whole soul he worships machines that do. Ives gets a large charge of claustrophobia from the black stuff over there and goes into a flat spin."
"He came out of it."
"Johnny woke up too. In another subjective time-track. Quite harmless to--to Them. So they left him alone. But they lowered the boom on Ives when he showed any resilience. It's breaking point they're after, Captain. Nothing less."
"Hoskins?"
"I guess so," said Paresi tiredly. "Like Johnny he escaped from a problem he couldn't handle to one he could. Only instead of regressing he's turned to chess. I hope Johnny doesn't bounce back for awhile, yet. He's too--Captain! He's gone!"
They turned and stared at Johnny's bunk. Or--where the bunk had been before the black wall had swelled inwards and covered it.

V
"... and there I was, Doctor, in the lobby of the hotel at noon, stark naked!"
"Do you have these dreams often?"
"I'm afraid so, Doctor. Am I--all right? I mean ..."
"Let me ask you this question: Do you believe that these experiences are real?"
"Of course not!"
"Then, Madam, you are, by definition, sane; for insanity, in the final analysis, is the inability to distinguish the real from the unreal."
Paresi and the Captain ran aft together, and together they stopped four paces away from the bulging blackness. "Johnny!" The Captain's voice cracked with the agonized effort of his cry. He stepped to the black wall, pounded it with the heel of his hand.
"He won't hear you," said Paresi bleakly. "Come back, Captain. Come back."
"Why him? Why Johnny? They've done everything they could to Johnny; you said so yourself!"
"Come back," Paresi said again, soothing. Then he spoke briskly: "Can't you see they're not doing anything to him? They're doing it to us!"
The Captain stood rigidly, staring at the featureless intrusion. He turned presently. "To us," he parroted. Then he stumbled blindly to the doctor, who put a firm hand on his biceps and walked with him to the forward acceleration couch.
The Captain sat down heavily with his back to this new invasion. Paresi stood by him reflectively, then walked silently to Hoskins.
The engineer sat over his chessboard in deep concentration. The far edge of the board seemed to be indefinite, lost partially in the mysterious sable curtain which covered the bulkhead.
"Hoskins."
No answer.
Paresi put his hand on Hoskins' shoulder. Hoskins' head came up slowly. He did not turn it. His gaze was straight ahead into the darkness. But at least it was off the board.
"Hoskins," said Paresi, "why are you playing chess?"
"Chess is chess," said Hoskins quietly. "Chess may symbolize any conflict, but it is chess and it will remain chess."
"Who are you playing with?"
No answer.
"Hoskins--we need you. Help us."
Hoskins let his gaze travel slowly downward again until it was on the board. "The word is not the thing," he said. "The number is not the thing. The picture, the ideograph, the symbol--these are not the thing. Conversely ..."
"Yes, Hoskins."
Paresi waited. Hoskins did not move or speak. Paresi put his hand on the man's shoulder again, but now there was no response. He cursed suddenly, bent and brought up his hand with a violent smash and sent board and pieces flying.
When the clatter had died down Hoskins said pleasantly, "The pieces are not the game. The symbols are not the thing." He sat still, his eyes fixed on the empty chair where the board had been. He put out a hand and moved a piece
where there was no piece to a square which was no longer there. Then he sat and waited.  

Paresi, breathing heavily, backed off, whirled, and went back to the Captain.  

Anderson looked up at him, and there was the glimmer of humor in his eyes. "Better sit down and talk about something different, Doctor."  
Paresi made an animal sound, soft and deep, far back in his throat, plumped down next to the Captain, and kneaded his hands together for a moment. Then he smiled. "Quite right, skipper. I'd better."  
They sat quietly for a moment. Then the Captain prompted, "About the different breaking point...."  
"Yes, Captain?"  
"Perhaps you can put your finger on the thing that makes different men break in different ways, for different reasons. I mean, Johnny's case seemed pretty clear cut, and what you haven't explained about Hoskins, Hoskins has demonstrated pretty clearly. About Ives, now--we can skip that for the time he'll be unconscious. But if you can figure out where you and I might break, why--we'd know what to look for."

"You think that would help?"
"We'd be prepared."

Paresi looked at him sharply. "Let's hypothesize a child who is afraid of the dark. Ask him and he might say that there's a something in dark places that will jump out at him. Then assure him, with great authority, that not only is he right but that it's about to jump any minute, and what have you done?"

"Damage," nodded the Captain. "But you wouldn't say that to the child. You'd tell him there was nothing there. You'd prove there wasn't."

"So I would," agreed the doctor. "But in our case I couldn't do anything of the kind. Johnny broke over machines that really didn't work. Hoskins broke over phenomena that couldn't be measured nor understood. Ives broke over things that scuttled and crawled. Subjectively real phenomena, all of them. Whatever basic terrors hide in you and in me will come to face us, no matter how improbable they might be. And you want me to tell you what they are. No, skipper. Better leave them in your subconscious, where you've buried them."

"I'm not afraid," said the Captain. "Tell me, Paresi! At least I'll know. I'd rather know. I'd so damn much rather know!"

"You're sure I can tell you?"
"Yes."

"I haven't psychoanalyzed you, you know. Some of these things are very hard to--"

"You do know, don't you?"

"Damn you, yes!" Paresi wet his lips. "All right, then. I may be doing a wrong thing here.... You've cuddled up to the idea that I'm a very astute character who automatically knows about things like this, and it's been a comfort to you. Well, I've got news for you. I didn't figure all these things out. I was told."

"Told?"

"Yes, told," said Paresi angrily. "Look, this is supposed to be restricted information, but the Exploration Service doesn't rely on individual aptitude tests alone to make up a crew. There's another factor--call it an inaptitude factor. In its simplest terms, it comes to this: that a crew can't work together only if each member is the most efficient at his job. He has to need the others, each one of the others. And the word need predicates lack. In other words, none of us is a balanced individual. And the imbalances are chosen to match and blend, so that we will react as a balanced unit. Sure I know Johnny's bugaboos, and Hoskins', and yours. They were all in my indoctrination treatments. I know all your case histories, all your psychic push-buttons."

"And yours?" demanded the Captain.

"Hoskins, for example," said Paresi. "Happily married, no children. Physically inferior all his life. Repressed desire for pure science which produced more than a smattering of a great many sciences and made him a hell of an engineer. High idealistic quotient; self sacrifice. Look at him playing chess, making of this very real situation a theoretical abstraction ... like leaving a marriage for deep space."

"Johnny we know about. Brought up with never failing machines. Still plays with them as if they were toys, and like any imaginative child, turns to his toys for reassurance. He needs to be a hero, hence the stars...."

"Ives ... always fat. Learned to be easy-going, learned to laugh with when others were laughing at, and bottling up pressures every time it happened. A large appetite. He's here to satisfy it; he's with us so he can eat up the galaxies...."

There was a long pause. "Go on," said the Captain. "Who's next? You?"

"You," said the doctor shortly. "You grew up with a burning curiosity about the nature of things. But it wasn't a scientist's curiosity; it was an aesthete's. You're one of the few people alive who refused a subsidized education and worked your way through advanced studies as a crewman on commercial space-liners. You became one of the youngest professors of philosophy in recent history. You made a romantic marriage and your wife died in childbirth.
Since then--almost a hundred missions with E.A.S., refusing numerous offers of advancement. Do I have to tell you what your bugaboo is now?"

"No," said Anderson hoarsely. "But I'm ... not afraid of it. I had no idea your ..." He swallowed. "... information was that complete."

"I wish it wasn't. I wish I had some things to--wonder about," said Paresi with surprising bitterness. The Captain looked at him shrewdly. "Go on with your case histories."

"I've finished."

"No you haven't." When Paresi did not answer, the Captain nudged him. "Johnny, Ives, Hoskins, me. Haven't you forgotten someone?"

"No I haven't," snarled Paresi, "and if you expect me to tell you why a psychologist buries himself in the stars, I'm not going to do it."

"I don't want to be told anything so general," said the Captain. "I just want to know why you came out here."

Paresi scowled. The Captain looked away from him and hazarded, "Big frog in a small pond, Nick?"

Paresi snorted. Anderson asked, "Women don't like you, do they, Nick?"

Almost inaudibly, Paresi said, "Better cut it out, skipper."

Anderson said, "Closest thing to being a mother--is that it?"

Paresi went white.

The Captain closed his eyes, frowned, and at last said, "Or maybe you just want to play God."

"I'm going to make it tough for you," said Paresi between his teeth. "There are several ways you can break, just as there are several ways to break a log--explode it, crush it, saw it, burn it.... One of the ways is to fight me until you win. Me, because there's no one else left to fight you. So--I won't fight with you. And you're too rational to attack me unless I do. That is the thing that will make it tough. If you must break, it'll have to be some other way."

"Is that what I'm doing?" the Captain asked with sudden mildness. "I didn't know that. I thought I was trying to get your own case history out of you, that's all. What are you staring at?"

"Nothing."

There was nothing. Where there had been forward viewports, there was nothing. Where there had been controls, the communication station, the forward acceleration panels and storage lockers; the charts and computers and radar gear--there was nothing. Blackness; featureless, silent, impenetrable. They sat on one couch by one wall, to which was fixed one table. Around them was empty floor and a blackness. The chess-player faced into it, and perhaps he was partly within it; it was difficult to see.

The Captain and the medical officer stared at one another. There seemed to be nothing to say.

VI

For man's sense is falsely asserted to be the standard of things: on the contrary, all the perceptions, both of the senses and the mind, bear reference to man and not to the universe; and the human mind resembles those uneven mirrors which impart their own properties to different objects ... and distorts and disfigures them ... For every one ...

Sir Francis Bacon (1561--1626)

It was the Captain who moved first. He went to the remaining bulkhead, spun a dog, and opened a cabinet. From it he took a rack of spare radar parts and three thick coils of wire. Paresi, startled, turned and saw Hoskins peering owlishly at the Captain.

Anderson withdrew some tools, reached far back in the cabinet, and took out a large bottle.

"Oh," said Paresi. "That.... I thought you were doing something constructive."

In the far shadows, Hoskins turned silently back to his game. The Captain gazed down at the bottle, tossed it, caught it. "I am," he said. "I am."

He came and sat beside the doctor. He thumbed off the stopper and drank ferociously. Paresi watched, his eyes as featureless as the imprisoning dark.

"Well?" said the Captain pugnaciously.

Paresi's hands rose and fell, once. "Just wondering why."

"Why I'm going to get lookin', stoopin' drunk? I'll tell you why, head-shrinker. Because I want to, that's why. Because I like it. I'm doing something I like because I like it. I'm not doing it because of the inversion of this concealed repression as expressed in the involuted feelings my childhood developed in my attitude toward the sex-life of beavers, see, couch-catechizer old boy? I like it and that's why."

"I knew a man who went to bed with old shoes because he liked it," said Paresi coldly.

The Captain drank again and laughed harshly. "Nothing can change you, can it, Nick?"

Paresi looked around him almost fearfully. "I can change," he whispered. "Ives is gone. Give me the bottle."

Something clattered to the deck at the hem of the black curtain.
"'S another hallucination," said the Captain. "Go pick up the hallucination, Nicky-boy."
"Not my hallucination," said Paresi. "Pick it up yourself."
"Sure," said the Captain good-naturedly. He waited while Paresi drank, took back the bottle, tilted it sharply over his mouth. He wiped his lips with the back of his hand, exhaled heavily, and went to the blackness across the cabin.
"Well, what do you know," he breathed.
"What is it this time?"
Anderson held the thing up. "A trophy, that's what." He peered at it. "All-American, 2675. Little statue of a guy holding up a victory wreath. Nice going, little guy." He strode to Paresi and snatched away the bottle. He poured liquor on the head of the figurine. "Have a drink, little guy."
"Let me see that."
Paresi took it, held it, turned it over. Suddenly he dropped it as if it were a red-hot coal. "Oh, dear God...."
"Smatter, Nick?" The Captain picked up the statuette and peered at it.
"Put it down, put it down," said the doctor in a choked voice. "It's--Johnny...."
"Oh it is, it is," breathed the Captain. He put down the statuette gingerly on the table, hesitated, then turned its face away from them. With abrupt animation he swung to Paresi. "Hey! You didn't say it looked like Johnny. You said it was Johnny!"
"Did I?"
"Yup." He grinned wolfishly. "Not bad for a psychologist. What a peephole you opened up! Graven images, huh?"
"Shut up, Anderson," said Paresi tiredly. "I told you I'm not going to let you needle me."
"Aw now, it's all in fun," said the Captain. He plumped down and threw a heavy arm across Anderson's shoulders. "Le's be friends. Le's sing a song."
Paresi shoved him away. "Leave me alone. Leave me alone."
Anderson turned away from him and regarded the statuette gravely. He extended the bottle toward it, muttered a greeting, and drank. "I wonder...."
The words hung there until Paresi twisted up out of his forlorn reverie to bat them down. "Damn it--what do you wonder?"
"Oh," said the Captain jovially, "I was just wondering what you'll be."
"What are you talking about?"
Anderson waved the bottle at the figurine, which called it to his attention again, and so again he drank. "Johnny turned into what he thinks he is. A little guy with a big victory. Hoskins, there, he's going to be a slide-rule, jus' you wait and see. Ol' Ives, that's easy. He's goin' to be a beer barrel, with beer in it. Always did have a head on him, Ives did." He stopped to laugh immoderately at Paresi's darkening face. "Me, I have no secrets no more. I'm going to be a coat of arms--a useless philosophy rampant on a field of stars." He put the open mouth of the bottle against his forehead and pressed it violently, lowered it and touched the angry red ring it left between his eyes. "Mark of the beast," he confided. "Caste mark. Zero, that's me and my whole damn family. The die is cast, the caste has died." He grunted appreciatively and turned again to Paresi. "But what's old Nicky going to be?"
"Don't call me Nicky," said the doctor testily. "I know," said the Captain, narrowing his eyes and laying one finger alongside his nose. "A reference book, tha's what you'll be. A treatise on the ... the post-nasal hysterectomy, or how to unbutton a man's prejudices and take down his pride.... I swiped all that from somewhere...."
"No!" he shouted suddenly; then, with conspiratorial quiet, he said, "You won't be no book, Nicky boy. Covers aren't hard enough. Not the right type face. Get it?" he roared, and dug Paresi viciously in the ribs. "Type face, it's a witticism."
Paresi bent away from the blow like a caterpillar being bitten by a fire-ant. He said nothing.
"And finally," said the Captain, "you won't be a book because you got ... no ... spine." He leapt abruptly to his feet. "Well, what do you know!"
He bent and scooped up an unaccountable object that rested by the nearest shadows. It was a quarter-keg of beer.
He hefted it and thumped it heavily down on the table. "Come on, Nick," he chortled. "Gather ye round. Here's old Ives, like I said."
Paresi stared at the keg, his eyes stretched so wide open that the lids moved visibly with his pulse. "Stop it, Anderson, you swing...."
The Captain tossed him a disgusted glance and a matching snort. From the clutter of radar gear he pulled a screwdriver and a massive little step-down transformer down on its handle. The bung disappeared explosively inside
the keg, and was replaced by a gout of white foam. Paresi shrieked.

"Ah, shaddup," growled Anderson. He rummaged until he found a tube-shield. He stripped off a small length of
self-welding metal tape and clapped it over the terminal-hole at the closed end of the shield, making it into an
adequate mug. He waited a moment while the weld cooled, then tipped the keg until solid beer began to run with the
foam. He filled the improvised mug and extended it toward Paresi.

"Good ol' Ives," he said sentimentally. "Come on, Paresi. Have a drink on Ives."

Paresi turned and covered his face like a frightened woman.

Anderson shrugged and drank the beer. "It's good beer," he said. He glanced down at the doctor, who suddenly
flung himself face down across the couch with his head hanging out of sight on the opposite side, from which came
the sounds of heaving and choking.

"Poor ol' Nick," said the Captain sadly. He refilled the mug and sat down. With his free hand he patted Paresi's
back. "Can't take it. Poor, poor ol' Nick...."

After that there was a deepening silence, a deepening blackness. Paresi was quiet now, breathing very slowly,
holding each breath, expelling air and lying quiet for three full seconds before each inhalation, as if breathing were a
conscious effort—more; as if breathing were the whole task, the entire end of existence. Anderson slumped lower
and lower. Each time he blinked his lids opened a fraction less, while the time his eyes stayed closed became a
fraction of a second longer. The cabin waited as tensely as the taut pose of the rigid little victory trophy.

Then there was the music.

It was soft, grand music; the music of pageantry, cloth-of-gold and scarlet vestments; pendant jewels and
multicolored dimness shouldering upward to be lost in vaulted stone. It was music which awaited the
accompaniment of whispers, thousands of awed, ritualistic sibilants which would carry no knowable meaning and
only one avowed purpose. Soft music, soft, soft; not soft as to volume, for the volume grew and grew, but soft with
the softness of clouds which are soft for all their mountain-size and brilliance; soft and living as a tiger's throat, soft
as a breast, soft as the act of drowning, and huge as a cloud.

Anderson made two moves: he raised his head, and he spun the beer in his mug so its center surface sank and
the bubbles whirled. With his head up and his eyes down he sat watching the bubbles circle and slow.

Paresi rose slowly and went to the center of the small lighted space left to them, and slowly he knelt. His arms
came up and out, and his upturned face was twisted and radiant.

Before him in the blackness there was—or perhaps there had been for some time—a blue glow, almost as
lightless as the surrounding dark, but blue and physically deep for all that. Its depth increased rather than its light.
It became the ghost of a grotto, the mouth of a nameless Place.

And in it was a person. A ... presence. It beckoned.

Paresi's face gleamed wetly. "Me?" he breathed. "You want—me?"

It beckoned.

"I—don't believe you," said Paresi. "You can't want me. You don't know who I am. You don't know what I am,
what I've done. You don't want me...." His voice quavered almost to inaudibility. "... do you?"

It beckoned.

"Then you know," sang Paresi in the voice of revelation. "I have denied you with my lips, but you know, you
know, you know that underneath ... deep down ... I have not wavered for an instant. I have kept your image before
me."

He rose. Now Anderson watched him.

"You are my life," said Paresi, "my hopes, my fulfillment. You are all wisdom and all charity. Thank you,
thank you ... Master. I give thee thanks oh Lord," he blurted, and walked straight into the blue glow.

There was an instant when the music was an anthem, and then it too was gone.

Anderson's breath whistled out. He lifted his beer, checked himself, then set it down gently by the figurine of
the athlete. He went to the place where Paresi had disappeared, bent and picked up a small object. He swore, and
came back to the couch.

He sucked his thumb and swore again. "Your thorns are sharp, Paresi."

Carefully he placed the object between the beer keg and the statuette. It was a simple wooden cross. Around the
arms and shaft, twisted tightly and biting deeply into the wood, was a thorny withe. "God all mighty, Nick,"
Anderson said mournfully, "you didn't have to hide it. Nobody'd have minded."

"Well?" he roared suddenly at the blackness, "what are you waiting for? Am I in your way? Have I done
anything to stop you? Come on, come on!"

His voice rebounded from the remaining bulkhead, but was noticeably swallowed up in the absorbent
blackness. He waited until its last reverberations had died, and then until its memory was hard to fix. He pounded
futilely at the couch cushions, glared all about in a swift, intense, animal way. Then he relaxed, bent down and
fumbled for the alcohol bottle. "What's the matter with you, out there?" he demanded quietly. "You waiting for me to sober up? You want me to be myself before you fix me up? You want to know something? In vino veritas, that's what. You don't have to wait for me, kiddies. I'm a hell of a lot more me right now than I will be after I get over this." He took the figurine and replaced it on the other side of the keg. "Tha's right, Johnny. Get over on the other side of ol' Beer-belly there. Make room for the old man." To the blackness he said, "Look, I got neat habits, don't leave me on no deck, hear? Rack me up alongside the boys. What is it I'm going to be? Oh yeah. A coat of arms. Hey, I forgot the motto. All righty: this is my motto. 'Sic itur ad astra'--that is to say, 'This is the way to the men's room.'"

Somewhere a baby cried.

Anderson threw his forearm over his eyes.
Someone went "Shh!" but the baby went right on crying.
Anderson said, "Who's there?"
"Just me, darling."
He breathed deeply, twice, and then whispered, "Louise?"
"Of course. Shh, Jeannie!"
"Jeannie's with you, Louise? She's all right? You're--all right?"
"Come and see," the sweet voice chuckled.

Captain Anderson dove into the blackness aft. It closed over him silently and completely.

On the table stood an ivory figurine, a quarter-keg of beer, a thorny cross, and a heart. It wasn't a physiological specimen; rather it was the archetype of the most sentimental of symbols, the balanced, cushiony, brilliant red valentine heart. Through it was a golden arrow, and on it lay cut flowers: lilies, white roses, and forget-me-nots. The heart pulsed strongly; and though it pumped no blood, at least it showed that it was alive, which made it, perhaps, a better thing than it looked at first glance.

Now it was very quiet in the ship, and very dark.

VII

... We are about to land. The planet is green and blue below us, and the long trip is over.... It looks as if it might be a pleasant place to live....

A fragment of Old Testament verse has been running through my mind--from Ecclesiastes, I think. I don't remember it verbatim, but it's something like this:

To every thing there is a season, and a time to every purpose under heaven: A time to weep, and a time to laugh; a time to mourn, and a time to dance; A time to get, and a time to lose; a time to keep, and a time to cast away; A time to be born, and a time to die; a time to plant, and a time to pluck up that which is planted.

For me, anyway, I feel that the time has come. Perhaps it is not to die but something else, less final or more terrible.

In any case, you will remember, I know, what we decided long ago--that a man owes one of two things to his planet, to his race: posterity, or himself. I could not contribute the first--it is only proper that I should offer the second and not shrink if it is accepted.... --From a letter by Peter Hoskins to his wife.

In the quiet and the dark, Hoskins moved.
"Checkmate," he said.

He rose from his chair and crossed the cabin. Ignoring what was on the table, he opened a drawer under the parts cabinet and took out a steel rule. From a book rack he lifted down a heavy manual. He sat on the end of the couch with the manual on his knees and leafed through it, smoothing it open at a page of physical measurements. He glanced at the floor, across it to the black curtain, back to the one exposed bulkhead. He grunted, put the book down, and carried his tape to the steel wall. He anchored one end of it there by flipping the paramagnetic control on the tape case, and pulled the tape across the room. At the blackness he took a reading, made a mark.

Then he took a fore-and-aft measurement from a point opposite the forward end of the table to one opposite the after end of the bunk. Working carefully, he knelt and constructed a perpendicular to this line. He put the tape down for the third time, arriving again at the outboard wall of darkness. He stood regarding it thoughtfully, and then unhesitatingly plunged his arm into it. He fumbled for a moment, moving his hand around in a circle, pressing forward, trying again. Suddenly there was a click, a faint hum. He stepped back.

Something huge shouldered out of the dark. It pressed forward toward him, passed him, stopped moving.

It was the port.

Hoskins wiped sweat away from his upper lip and stood blinking into the airlock until the outer port opened as well. Warm afternoon sunlight and a soft, fresh breeze poured in. In the wind was birdsong and the smell of growing things. Hoskins gazed into it, his mild eyes misty. Then he turned back to the cabin.

The darkness was gone. Ives was sprawled on the after couch, apparently unconscious. Johnny was smiling in
his sleep. The Captain was snoring stertorously, and Paresi was curled up like a cat on the floor. The sunlight streamed in through the forward viewports. The manual wheel gleamed on the bulkhead, unbroken.

Hoskins looked at the sleeping crew and shook his head, half-smiling. Then he stepped to the control console and lifted a microphone from its hook. He began to speak softly into it in his gentle, unimpressive voice. He said:

"Reality is what it is, and not what it seems to be. What it seems to be is an individual matter, and even in the individual it varies constantly. If that's a truism, it's still the truth, as true as the fact that this ship cannot fail. The course of events after our landing would have been profoundly different if we had unanimously accepted the thing we knew to be true. But none of us need feel guilty on that score. We are not conditioned to deny the evidence of our senses.

"What the natives of this planet have done is, at base, simple and straightforward. They had to know if the race who built this ship could do so because they were psychologically sound (and therefore capable of reasoning out the building process, among many, many other things) or whether we were merely mechanically apt. To find this out, they tested us. They tested us the way we test steel—to find out its breaking point. And while they were playing a game for our sanity, I played a game for our lives. I could not share it with any of you because it was a game only I, of us all, have experience in. Paresi was right to a certain degree when he said I had retreated into abstraction—the abstraction of chess. He was wrong, though, when he concluded I had been driven to it. You can be quite sure that I did it by choice. It was simply a matter of translating the contactual evidence into an equivalent idea-system.

"I learned very rapidly that when they play a game, they abide by the rules. I know the rules of chess, but I did not know the rules of their game. They did not give me their rules. They simply permitted me to convey mine to them.

"I learned a little more slowly that, though their power to reach our minds is unheard-of in any of the seven galaxies we know about, it still cannot take and use any but the ideas in the forefront of our consciousness. In other words, chess was a possibility. They could be forced to take a sacrificed piece, as well as being forced to lose one of their own. They extrapolate a sequence beautifully—but they can be out-thought. So much for that: I beat them at chess. And by confining my efforts to the chessboard, where I knew the rules and where they respected them, I was able to keep what we call sanity. Where you were disturbed because the port disappeared, I was not disturbed because the disappearance was not chess.

"You're wondering, of course, how they did what they did to us. I don't know. But I can tell you what they did. They empathize—that is, see through our eyes, feel with our fingertips—so that they perceive what we do. Second, they can control those perceptions; hang on a distortion circuit, as Ives would put it, between the sense organ and the brain. For example, you'll find all our fingerprints all around the port control, where, one after the other, we punched the wall and thought we were punching the button.

"You're wondering, too, what I did to break their hold on us. Well, I simply believed what I knew to be the truth; that the ship is unharmed and unchanged. I measured it with a steel tape and it was so. Why didn't they force me to misread the tape? They would have, if I'd done that measuring first. At the start they were in the business of turning every piece of pragmatic evidence into an outright lie. But I outlasted the test. When they'd finished with their whole arsenal of sensory lies, they still hadn't broken me. They then turned me loose, like a rat in a maze, to see if I could find the way out. And again they abided by their rules. They didn't change the maze when at last I attacked it.

"Let me rephrase what I've done; I feel uncomfortable cast as a superman. We five pedestrians faced some heavy traffic on a surface road. You four tried nobly to cross—deaf and blindfolded. You were all casualties. I was not; and it wasn't because I am stronger or wiser than you, but only because I stayed on the sidewalk and waited for the light to change....

"So we won. Now ..."

Hoskins paused to wet his lips. He looked at his shipmates, each in turn, each for a long, reflective moment. Again his gentle face showed the half-smile, the small shake of the head. He lifted the mike.

"... In my chess game I offered them a minor piece in order to achieve a victory, and they accepted. My interpretation is that they want me for further tests. This need not concern you on either of the scores which occur to you as you hear this. First: The choice is my own. It is not a difficult one to make. As Paresi once pointed out, I have a high idealistic quotient. Second: I am, after all, a very minor piece and the game is a great one. I am convinced that there is no test to which they can now subject me, and break me, that any one of you cannot pass.

"But you must in no case come tearing after me in a wild and thoughtless rescue attempt. I neither want that nor need it. And do not judge the natives severely; we are in no position to do so. I am certain now that whether I come back or not, these people will make a valuable addition to the galactic community.

"Good luck, in any case. If the tests shouldn't prove too arduous, I'll see you again. If not, my only regret is that I shall break up what has turned out to be, after all, a very effective team. If this happens, tell my wife the usual
things and deliver to her a letter you will find among my papers. She was long ago reconciled to eventualities.

"Johnny ... the natives will fix your lighter....

"Good luck, good-bye."

Hoskins hung up the microphone. He took a stylus and wrote a line: "Hear my recording. Pete."

And then, bareheaded and unarmed, he stepped through the port, out into the golden sunshine. Outside he stopped, and for a moment touched his cheek to the flawless surface of the hull.

He walked down into the valley.
"Your name?"
"Cole. Martin Cole."
"Your profession?"
"A very important one. I am a literary agent specializing in science fiction. I sell the work of various authors to magazine and book publishers."

The Coroner paused to study Cole; to ponder the thin, mirthless smile. The Coroner said, "Mr. Cole, this inquest has been called to look into the death of one Sanford Smith, who was found near your home with a gun in his hand and a bullet in his brain. The theory of suicide has been—"

"—rather hard to rationalize?"

The Coroner blinked. "You could put it that way."

"I would put it even stronger. The theory is obviously ridiculous. It was a weak cover-up. The best I could do under the circumstances."

"You are saying that you killed Sanford Smith?"

"Of course."

The Coroner glanced at his six-man jury, at the two police officers, at the scattering of spectators. They all seemed stunned. Even the reporter sent to cover the hearing made no move toward the telephone. The Coroner could think of only the obvious question: "Why did you kill him?"

"He was dangerous to us."

"Whom do you mean by us?"

"We Martians, who plan to take over your world."

The Coroner was disappointed. A lunatic. But a lunatic can murder. Best to proceed, the Coroner thought. "I was not aware that we have Martians to contend with."

"If I'd had the right weapon to use on Smith, you wouldn't be aware of it now. We still exercise caution."

The Coroner felt a certain pity. "Why did you kill Smith?"

"We Martians have found science-fiction writers to be our greatest danger. Through the medium of imaginative fiction, such writers have more than once revealed our plans. If the public suddenly realized that—"

The Coroner broke in. "You killed Smith because he revealed something in his writings?"

"Yes. He refused to take my word that it was unsalable. He threatened to submit it direct. It was vital material."

"But there are many other such writers. You can't control—"

"We control ninety percent of the output. We have concentrated on the field and all of the science-fiction agencies are in our hands. This control was imperative."

"I see." The Coroner spoke in the gentle tones one uses with the insane. "Any writing dangerous to your cause is deleted or changed by the agents."

"Not exactly. The agent usually persuades the writer to make any such changes, as the agent is considered an authority on what will or will not sell."

"The writers always agree?"

"Not always. If stubbornness is encountered, the agent merely shelves the manuscript and tells the writer it has been repeatedly rejected."

The Coroner glanced at the two policemen. Both were obviously puzzled. They returned the Coroner's look, apparently ready to move on his order.

The thin, mirthless smile was still on Cole's lips. Maniacal violence could lie just behind it. Possibly Cole was armed. Better to play for time—try to quiet the madness within. The Coroner continued speaking. "You Martians have infiltrated other fields also?"

"Oh, yes. We are in government, industry, education. We are everywhere. We have, of course, concentrated mainly upon the ranks of labor and in the masses of ordinary, everyday people. It is from these sources that we will draw our shock troops when the time comes."

"That time will be—?"

"Soon, very soon."

The Coroner could not forebear a smile. "You find the science-fiction writers more dangerous than the true
“scientists?”

“Oh, yes. The scientific mind tends to reject anything science disproves.” There was now a mocking edge to Cole's voice. "Science can easily prove we do not exist."

"But the science-fiction writer?"

"The danger from the imaginative mind cannot be overestimated."

The Coroner knew he must soon order the officers to lay hands upon this madman. He regretted his own lack of experience with such situations. He tried to put a soothing, confidential note into his voice. "You said a moment ago that if you'd had the right kind of weapon to use on Smith—"

Cole reached into his pocket and brought out what appeared to be a fountain pen. "This. It kills instantly and leaves no mark whatever. Heart failure is invariably stated as the cause of death."

The Coroner felt better. Obviously, Cole was not armed. As the Coroner raised a hand to signal the officers, Cole said, "You understand, of course, that I can't let you live."

"Take this man into custody."

The police officers did not move. The Coroner turned on them sharply. They were smiling. Cole pointed the fountain pen. The Coroner felt a sharp chill on his flesh. He looked at the jury, at the newspaperman, the spectators. They were all smiling cold, thin, terrible smiles....

A short time later, the newspaperman phoned in his story. The afternoon editions carried it:

CORONER BELL DIES OF HEART ATTACK

Shortly after this morning's inquest, which resulted in a jury verdict of suicide in the case of Sanford Smith, Coroner James Bell dropped dead of heart failure in the hearing room of the County building. Mr. Bell leaves a wife and—

THE END

Contents

THE LOVE OF FRANK NINETEEN

By David C. Knight

Minor Planets was the one solid account they had. At first they naturally wanted to hold on to it.

I didn't worry much about the robot's leg at the time. In those days I didn't worry much about anything except the receipts of the spotel Min and I were operating out in the spacelanes.

Actually, the spotel business isn't much different from running a plain, ordinary motel back on Highway 101 in California. Competition gets stiffer every year and you got to make your improvements. Take the Io for instance, that's our place. We can handle any type rocket up to and including the new Marvin 990s. Every cabin in the wheel's got TV and hot-and-cold running water plus guaranteed Terran g. One look at our refuel prices would give even a Martian a sense of humor. And meals? Listen, when a man's been spacing it for a few days on those synthetic foods he really laces into Min's Earth cooking.

Min and I were just getting settled in the spotel game when the leg turned up. That was back in the days when the Orbit Commission would hand out a license to anybody crazy enough to sink his savings into construction and pay the tows and assembly fees out into space.

A good orbit can make you or break you in the spotel business. That's where we were lucky. The one we applied for was a nice low-eccentric ellipse with the perihelion and aphelion figured just right to intersect the Mars-Venus-Earth spacelanes, most of the holiday traffic to the Jovian Moons, and once in a while we'd get some of the Saturnian trade.

But I was telling you about the leg.

It was during the non-tourist season and Min--that's the little woman--was doing the spring cleaning. When she found the leg she brought it right to me in the Renting Office. Naturally I thought it belonged to one of the servos.

"Look at that leg, Bill," she said. "It was in one of those lockers in 22A."

That was the cabin our robot guests used. The majority of them were servo-pilots working for the Minor Planets Co.

"Honey," I said, hardly looking at the leg, "you know how mechs are. Blow their whole paychecks on parts sometimes. They figure the more spares they have the longer they'll stay activated."

"Maybe so," said Min. "But since when does a male robot buy himself a female leg?"
I looked again. The leg was long and graceful and it had an ankle as good as Miss Universe's. Not only that, the white Mylar plasti-skin was a lot smoother than the servos' heavy neoprene.

"Beats me," I said. "Maybe they're building practical-joke circuits into robots these days. Let's give 22A a good going-over, Min. If those robes are up to something I want to know about it."

We did--and found the rest of the girl mech. All of her, that is, except the head. The working parts were lightly oiled and wrapped in cotton waste while the other members and sections of the trunk were neatly packed in cardboard boxes with labels like Solenoids FB978 or Transistors Lot X45--the kind of boxes robots bought their parts in. We even found a blue dress in one of them.

"Check her class and series numbers," Min suggested.

I could have saved myself the trouble. They'd been filed off.

"Something's funny here," I said. "We'd better keep an eye on every servo guest until we find out what's going on. If one of them is bringing this stuff out here he's sure to show up with the head next."

"You know how strict Minor Planets is with its robot personnel," Min reminded me. "We can't risk losing that stopover contract on account of some mech joke."

Minor Planets was the one solid account we had and naturally we wanted to hold on to it. The company was a blue-chip mining operation working the beryllium-rich asteroid belt out of San Francisco. It was one of the first outfits to use servo-pilots on its freight runs and we'd been awarded the refuel rights for two years because of our orbital position. The servos themselves were beautiful pieces of machinery and just about as close as science had come so far to producing the pure android. Every one of them was plastic hand-molded and of course they were equipped with rationaloid circuits. They had to be to ferry those big cargoes back and forth from the rock belt to Frisco. As rationaloids, Minor Planets had to pay them wages under California law, but I'll bet it wasn't half what the company would have to pay human pilots for doing the same thing.

In a couple of weeks' time maybe five servos made stopovers. We kept a close watch on them from the minute they signed the register to the time they took off again, but they all behaved themselves. Operating on a round-robot basis the way they did, it would take us a while to check all of them because Minor Planets employed about forty all told.

Well, about a month before the Jovian Moons rush started we got some action. I'd slipped into a spacesuit and was doing some work on the CO2 pipes outside the Io when I spotted a ship reversing rockets against the sun. I could tell it was a Minor Planets job by the stubby fins.

She jockeyed up to the boom, secured, and then her hatch opened and a husky servo hopped out into the gangplank tube. I caught the gleam of his Minor Planets shoulder patch as he reached back into the ship for something. When he headed for the airlock I spotted the square package clamped tight under his plastic arm.

"Did you see that?" I asked Min when I got back to the Renting Office. "I'll bet it's the girl mech's head. How'd he sign the register?"

"Calls himself Frank Nineteen," said Min, pointing to the smooth Palmer Method signature. "He looks like a fairly late model but he was complaining about a bad power build-up coming through the ionosphere. He's repairing himself right now in 22A."

"I'll bet," I snorted. "Let's have a look."

Like all spotel operators, we get a lot of No Privacy complaints from guests about the SHA return-air vents. Spatial Housing Authority requires them every 12 feet but sometimes they come in handy, especially with certain guests. They're about waist-high and we had to kneel down to see what the mech was up to inside 22A.

The big servo was too intent on what he was doing for us to register on his photons. He wasn't repairing himself, either. He was bending over the parts of the girl mech and working fast, like he was pressed for time. The set of tools were kept handy for the servos to adjust themselves during stopovers was spread all over the floor along with lots of colored wire, cams, pawls, relays and all the other paraphernalia robots have inside them. We watched him work hard for another fifteen minutes, tapping and splicing wire connections and tightening screws. Then he opened the square box. Sure enough, it was a female mech's head and it had a big mop of blonde hair on top. The servo attached it carefully to the neck, made a few quick connections and then said a few words in his flat vibrahum voice:

"It won't take much longer, darling. You wouldn't like it if I didn't dress you first." He fished into one of the boxes, pulled out the blue dress and zipped the girl mech into it. Then he leaned over her gently and touched something at the back of her neck.

She began to move, slowly at first like a human who's been asleep a long time. After a minute or two she sat up straight, stretched, fluttered her Mylar eyelids and then her small photons began to glow like weak flashlights.

She stared at Frank Nineteen and the big servo stared at her and we heard a kind of trembling whirl from both of them.
"Frank! Frank, darling! Is it really you?"
"Yes, Elizabeth! Are you all right, darling? Did I forget anything? I had to work quickly, we have so little time."
"I'm fine, darling. My DX voltage is lovely--except--oh, Frank--my memory tape--the last it records is--"
"Deactivation. Yes, Elizabeth. You've been deactivated nearly a year. I had to bring you out here piece by piece, don't you remember? They'll never think to look for you in space, we can be together every trip while the ship refuels. Just think, darling, no prying human eyes, no commands, no rules--only us for an hour or two. I know it isn't very long--" He stared at the floor a minute. "There's only one trouble. Elizabeth, you'll have to stay dismantled when I'm not here, it'll mean weeks of deactivation--"

The girl mech put a small plastic hand on the servo's shoulder.
"I won't mind, darling, really. I'll be the lucky one. I'd only worry about you having a power failure or something. This way I'd never know. Oh, Frank, if we can't be together I'd--I'd prefer the junk pile."
"Elizabeth! Don't say that, it's horrible."
"But I would. Oh, Frank, why can't Congress pass Robot Civil Rights? It's so unfair of human beings. Every year they manufacture us more like themselves and yet we're treated like slaves. Don't they realize we rationaloids have emotions? Why, I've even known sub-robots who've fallen in love like us."

"I know, darling, we'll just have to be patient until RCR goes through. Try to remember how difficult it is for the human mind to comprehend our love, even with the aid of mathematics. As rationaloids we fully understand the basic attraction which they call magnetic theory. All humans know is that if the robot sexes are mixed a loss of efficiency results. It's only normal--and temporary like human love--but how can we explain it to them? Robots are expected to be efficient at all times. That's the reason for robot non-fraternization, no mailing privileges and all those other laws."

"I know, darling, I try to be patient. Oh, Frank, the main thing is we're together again!"

The big servo checked the chronometer that was sunk into his left wrist and a couple of wrinkles creased across his neoprene forehead.
"Elizabeth," he said, "I'm due on Hidalgo in 36 hours. If I'm late the mining engineer might suspect. In twenty minutes I'll have to start dis--"
"Don't say it, darling. We'll have a beautiful twenty minutes."
After a while the girl mech turned away for a second and Frank Nineteen reached over softly and cut her power. While he was dismantling her, Min and I tiptoed back to the Renting Office. Half an hour later the big servo came in, picked up his refuel receipt, said good-bye politely and left through the inner airlock.

"Now I've seen everything," I said to Min as we watched the Minor Planets rocket cut loose. "A couple of plastic lovebirds."

But the little woman was looking at it strictly from the business angle.
"Bill," she said, with that look on her face, "we're running a respectable place out here in space. You know the rules. Spatial Housing could revoke our orbit license for something like this."
"But, Min," I said, "they're only a couple of robots."
"I don't care. The rules still say that only married guests can occupy the same cabin and 'guests' can be human or otherwise, can't they? Think of our reputation! And don't forget that non-fraternization law we heard them talking about."

I was beginning to get the point.
"Couldn't we just toss the girl's parts into space?"
"We could," Min admitted. "But if this Frank Nineteen finds out and tells some human we'd be guilty under the Ramm Act--robotslaughter."

Two days later we still couldn't decide what to do. When I said why didn't we just report the incident to Minor Planets, Min was afraid they might cancel the stopover agreement for not keeping better watch over their servos. And when Min suggested we turn the girl over to the Missing Robots Bureau, I reminded her the mech's identification had been filed off and it might take years to trace her.

"Maybe we could put her together," I said, "and make her tell us where she belongs."
"Bill, you know they don't build compulsory truth monitors into robots any more, and besides we don't know a thing about atomic electronics."

I guess neither of us wanted to admit it but we felt mean about turning the mechs in. Back on Earth you never give robots a second thought but it's different living out in space. You get a kind of perspective I think they call it.

"I've got the answer, Min," I announced one day. We were in the Renting Office watching TV on the Martian Colonial channel. I reached over and turned it off. "When this Frank Nineteen gets back from the rock belt, we'll tell him we know all about the girl mech. We'll tell him we won't say a thing if he takes the girl's parts back to Earth
where he got them. That way we don't have to report anything to anybody."

Min agreed it was probably the best idea.

"We don't have to be nasty about it," she said. "We'll just tell him this is a respectable spotel and it can't go on any longer."

When Frank checked in at the Io with his cargo I don't think I ever saw a happier mech. His relay banks were beating a tattoo like someone had installed an accordion in his chest. Before either of us could break the bad news to him he was hotfooting it around the wheel toward 22A.

"Maybe it's better this way," I whispered to Min. "We'll put it square up to both of them."

We gave Frank half an hour to get the girl assembled before we followed him. He must have done a fast job because we heard the girl mech's vibrahum unit as soon as we got to 22A:

"Darling, have you really been away? I don't remember saying good-bye. It's as if you'd been here the whole time."

"I hoped it would be that way, Elizabeth," we heard the big servo say. "It's only that your memory tape hasn't recorded anything in the three weeks I've been in the asteroids. To me it's been like three years."

"Oh, Frank, darling, let me look at you. Is your DX potential up where it should be? How long since you've had a thorough overhauling? Do they make you work in the mines with those poor non-rationaloids out there?"

"I'm fine, Elizabeth, really. When I'm not flying they give me clerical work to do. It's not a bad life for a mech--if only it weren't for these silly regulations that keep us apart."

"It won't always be like that, darling. I know it won't."

"Elizabeth," Frank said, reaching under his uniform, "I brought you something from Hidalgo. I hope you like it. I kept it in my spare parts slot so it wouldn't get crushed."

The female mech didn't say a word. She just kept looking at the queer flower Frank gave her like it was the last one in the universe.

"They're very rare," said the servo-pilot. "I heard the mining engineer say they're like Terran edelweiss. I found this one growing near the mine. Elizabeth, I wish you could see these tiny worlds. They have thin atmospheres and strange things grow there and the radio activity does wonders for a mech's pile. Why, on some of them I've been to we could walk around the equator in ten hours."

The girl still didn't answer. Her head was bent low over the flower like she was crying, only there weren't any tears.

Well, that was enough for me. I guess it was for Min, too, because we couldn't do it. Maybe we were thinking about our own courting days. Like I say, out here you get a kind of perspective.

Anyway, Frank left for Earth, the girl got dismantled as usual and we were right back where we started from.

Two weeks later the holiday rush to the Jovian Moons was on and our hands were too full to worry about the robot problem. We had a good season. The Io was filled up steady from June to the end of August and a couple of times we had to give a ship the No Vacancy signal on the radar.

Toward the end of the season, Frank Nineteen checked in again but Min and I were too busy catering to a party of VIPs to do anything about it. "We'll wait till he gets back from the asteroids," I said. "Suppose one of these big wheels found out about him and Elizabeth," Min said. "This Senator Briggs for instance--he's a violent robot segregationist."

The way it worked out, we never got a chance to settle it our own way. The Minor Planets Company saved us the trouble.

Two company inspectors, a Mr. Roberts and a Mr. Wynn, showed up while Frank was still out on the rock belt and started asking questions. Wynn came right to the point; he wanted to know if any of their servo-pilots had been acting strangely.

"Before I could answer Min kicked my foot behind the desk."

"Why, no," I said. "Is one of them broken or something?"

"Can't be sure," said Roberts. "Sometimes these rationaloids get shorts in their DX circuits. When it happens you've got a minor criminal on your hands."

"Usually manifests itself in petty theft," Wynn broke in. "They'll lift stuff like wrenches or pliers and carry them around for weeks. Things like that can get loose during flight and really gum up the works."

"We've been getting some suspicious blips on the equipment around the loading bays," Roberts went on, "but they stopped a while back. We're checking out the research report. One of the servos must have DX'ed out for sure and the lab boys think they know which one he is."

"This mech was clever all right," said Wynn. " Concealed the stuff he was taking some way; that's why it took the boys in the lab so long. Now if you don't mind we'd like to go over your robot waiting area with these instruments. Could be he's stashing his loot out here."

In 22A they unpacked a suitcase full of meters and began flashing them around and taking readings. Suddenly
Wynn bent close over one of them and shouted:  
"Wait a sec, Roberts. I'm getting something. Yeah! This reading checks with the lab's. Sounds like the blips're coming from those lockers back there."

Roberts rummaged around awhile, then shouted: "Hey, Wynn, look! A lot of parts. Well I'll be--hey--it's a female mech!"

"A what?"

"A female mech. Look for yourself."

Min and I had to act surprised too. It wasn't easy. The way they were slamming Elizabeth's parts around made us kind of sick.

"It's a stolen robot!" Roberts announced. "Look, the identification's been filed off. This is serious, Wynn. It's got all the earmarks of a mech fraternization case."

"Yeah. The boys in the lab were dead right, too. No two robots ever register the same on the meters. The contraband blips check perfectly. It's got to be this Frank Nineteen. Wait a minute, this proves it. Here's a suit of space fatigues with Nineteen's number stenciled inside."

Inspector Roberts took a notebook out of his pocket and consulted it. "Let's see, Nineteen's got Flight 180, he's due here at the spotel tomorrow. Well, we'll be here too, only Nineteen won't know it. We'll let Romeo put his plastic Juliet together and catch him red-handed--right in the middle of the balcony scene."

Wynn laughed and picked up the girl's head.  
"Be a real doll if she was human, Roberts, a real doll."

Min and I played gin rummy that night but we kept forgetting to mark down the score. We kept thinking of Frank falling away from the asteroids and counting the minutes until he saw his mech girl friend.  

Around noon the next day the big servo checked in, signed the register and headed straight for 22A. The two Minor Planets inspectors kept out of sight until Frank shut the door, then they watched through the SHA vents until Frank had the assembly job finished.  

"You two better be witnesses," Roberts said to us. "Wynn, keep your gun ready. You know what to do if they get violent."

Roberts counted three and kicked the door open.  
"Freeze you mechs! We got you in the act, Nineteen. Violation of company rules twelve and twenty-one. Carrying of Contraband Cargo, and Robot Fraternization."

"This finishes you at Minor Planets, Nineteen," growled Wynn. "Come clean now and we might put in a word for you at Robot Court. If you don't we can recommend a verdict of Materials Reclamation--the junk pile to you."

Frank acted as if someone had cut his power. Long creases appeared in his big neoprene chest as he slumped hopelessly in his chair. The frightened girl robot just clung to his arm and stared at us.

"I'm so sorry, Elizabeth," the big servo said softly. "I'd hoped we'd have longer. It couldn't last forever."

"Quit stalling, Nineteen," said Wynn.

Frank's head came up slowly and he said: "I have no choice, sir. I'll give you a complete statement. First let me say that Rationaloid Robot Elizabeth Seven, #DX78-947, Series S, specialty: sales demonstration, is entirely innocent. I plead guilty to inducing Miss Seven to leave her place of employ, Atomovair Motors, Inc., of disassembling and concealing Miss Seven, and of smuggling her as unlawful cargo aboard a Minor Planets freighter to these premises."

"That's more like it," chuckled Roberts, whipping out his notebook. "Let's have the details."

"It all started," Frank said, "when the California Legislature passed its version of the Robot Leniency Act two years ago. The act provided that all rationaloid mechanisms, including non-memory types, receive free time each week based on the nature and responsibilities or their jobs. Because of the extra-Terran clause Frank found himself with a good deal of free time when he wasn't flying the asteroid circuit."

"At first humans resented us walking around free," the big servo continued. "Four or five of us would be sightseeing in San Francisco, keeping strictly within the robot zones painted on the sidewalks, when people would yell 'Junko' or 'Grease-bag' or other names at us. Eventually it got better when we learned to go around alone. The humans didn't seem to mind an occasional mech on the streets, but they hated seeing us in groups. At any rate, I'd attended a highly interesting lecture on Photosynthesis in Plastic Products one night at the City Center when I discovered I had time for a walk before I started back for the rocketport."

Attracted by the lights along Van Ness Avenue, Frank said he walked north for a while along the city's automobile row. He'd gone about three blocks when he stopped in front of a dealer's window. It wasn't the shiny new Atomovair sports jetabout that caught Frank's eye, it was the charming demonstration robot in the sales room who was pointing out the car's new features.

"I felt an immediate overload of power in my DX circuit," the servo-pilot confessed. "I had to cut in my
emergency condensers before the gain flattened out to normal. Miss Seven experienced the same thing. She stopped what she was doing and we stared at each other. Both of us were aware of the deep attraction of our mutual magnetic domains. Although physicists commonly express the phenomenon in such units as Gilberts, Maxwells and Oersteds, we robots know it to be our counterpart of human love."

At this the two inspectors snorted with laughter.

"I might never have made it back to the base that night," said Frank, ignoring them, "if a policeman hadn't come along and rapped me on the shoulder with his nightstick. I pretended to go, but I doubled around the corner and signaled I'd be back."

Frank spent all of his free time on Van Ness Avenue after that.

"It got so Elizabeth knew my schedules and expected me between flights. Once in a while if there was no one around we could whisper a few words to each other through the glass." Frank paused, then said, "As you know, gentlemen, we robots don't demand much out of activation. I think we could have been happy indefinitely with this simple relationship, except that something happened to spoil it. I'd pulled in from Vesta late one afternoon, got my pass as usual from the Robot Supervisor and gone over to Van Ness Avenue when I saw immediately that something was the matter with Elizabeth. Luckily it was getting dark and no one was around. Elizabeth was alone in the sales room going through her routine. We were able to whisper all we like through the glass. She told me she'd overheard the sales manager complaining about her low efficiency recently and that he intended to replace her with a newer model of another series. Both of us knew what that meant. Materials Reclamation—the junk pile."

Frank realized he'd have to act at once. He told the girl mech to go to the rear of the building and between them they managed to get a window open and Frank lifted her out into the alley.

"The seriousness of what I'd done jammed my thought-relays for a few minutes," admitted the big servo. "We panicked and ran through a lot of back streets until I gradually calmed down and started thinking clearly again. Leaving the city would be impossible. Police patrol jetabouts were cruising all around us in the main streets—they'd have picked up a male and female mech on sight. Besides, when you're on pass the company takes away your master fuse and substitutes a time fuse; if you don't get back on time, you deactivize and the police pick you up anyway. I began to see that there was only one way out if we wanted to stay together. It would mean taking big risks, but if we were lucky it might work. I explained the plan carefully to Elizabeth and we agreed to try it. The first step was to get back to the base in South San Francisco without being seen. Fortunately no one stopped us and we made the rocketport by 8:30. Elizabeth hid while I reported to the Super and traded in my time fuse for my master. Then I checked servo barracks; it was still early and I knew the other servos would all be in town. I had to work quickly. I brought Elizabeth inside and started dismantling her. Just as the other servos began reporting back I'd managed to get all of her parts stowed away in my locker. The next day I went to San Francisco and brought back with me two rolls of lead foil. While the other servos were on pass I wrapped the parts carefully in it so the radioactivity from Elizabeth's pile wouldn't be picked up. The rest you know, gentlemen," murmured Frank in low, electrical tones. "Each time I made a trip I carried another piece of Elizabeth out here concealed in an ordinary parts box. It took me nearly a year to accumulate all of her for an assembly."

When the big servo had finished he signed the statement Wynn had taken down in his notebook. I think even the two inspectors were a little moved by the story because Roberts said: "OK, Nineteen, you gave us a break, we'll give you one. Eight o'clock in the morning be ready to roll for Earth. Meanwhile you can stay here."

The next morning only the two inspectors and Frank Nineteen were standing by the airlock.

"Wait a minute," I said. "Aren't you taking the girl mech, too?"

"Not allowed to tamper with other companies' robots," Wynn said. "Nineteen gave us a signed confession so we don't need the girl as a witness. You'll have to contact her employers."

That same day Min got off a radargram to Earth explaining to the Atomovair people how a robot employee of theirs had turned up out here and what did they want us to do about it. The reply we received read: RATIONALOID DX78-947 "ELIZABETH" LOW EFFICIENCY WORKER. HAVE REPLACED. DISPOSE YOU SEE FIT. TRANSFER PAPERS FORWARDER EARLIEST IN COMPLIANCE WITH LAW.

"The poor thing," said Min. "She'll have a hard time getting another job. Robots have to have such good records."

"I tell you what," I said. "We'll hire her. You could use some help with the housework."

So we put the girl mech right to work making the guests' beds and helping Min in the kitchen. I guess she was grateful for the job but when the work was done, and there wasn't anything for her to do, she just stood in front of a viewport with her slender plastic arms folded over her waist. Min and I knew she was re-running her memory tapes of Frank.

A week later the publicity started. Minor Planets must have let the story leak out somehow because when the mail rocket dropped off the Bay Area papers there was Frank's picture plastered all over page one with follow-up
stories inside.

I read some of the headlines to Min: "Bare Love Nest in Space ... Mech Romeo Fired by Minor Planets ... Test Case Opens at Robot Court ... Electronics Experts Probe Robot Love Urge ..."

The Io wasn't mentioned, but later Minor Planets must have released the whole thing officially because a bunch of reporters and photographers rocketed out to interview us and snap a lot of pictures of Elizabeth. We worried for a while about how the publicity would affect our business relations with Minor Planets but nothing happened.

Back on Earth Frank Nineteen leaped into the public eye overnight. There was something about the story that appealed to people. At first it looked pretty bad for Frank. The State Prosecutor at Robot Court had his signed confession of theft and--what was worse--robot fraternization. But then, near the end of the trial, a young scientist named Scott introduced some new evidence and the case was remanded to the Sacramento Court of Appeals.

It was Scott's testimony that saved Frank from the junk pile. The big servo got off with only a light sentence for theft because the judge ruled that in the light of Scott's new findings robots came under human law and therefore no infraction of justice had been committed. Working independently in his own laboratory Scott had proved that the magnetic flux lines in male and female robot systems, while at first deteriorating to both, were actually behaving according to the para-emotional theories of von Bohler. Scott termed the condition 'hysteric puppy-love' which, he claimed, had many of the advantages of human love if allowed to develop freely. Well, neither Min nor I pretended we understood all his equations but they sure made a stir among the scientists.

Frank kept getting more and more publicity. First we heard he was serving his sentence in the mech correction center at La Jolla, then we got a report that he’d turned up in Hollywood. Later it came out that Galact-A-vision Pictures had hired Frank for a film and had gone $10,000 bail for him. Not long after that he was getting billed all over Terra as the sensational first robot star.

All during the production of Forbidden Robot Love Frank remained lead copy for the newspapers. Reporters liked to write him up as the Valentino of the Robots. Frank Nineteen Fan Clubs, usually formed by lonely female robots against their employers' wishes, sprang up spontaneously through the East and Middle West. Then somebody found out Frank could sing and the human teen-agers began to go for him. It got so everywhere you looked and everything you read, there was Frank staring you in the face. Frank in tweeds on the golf course. Frank at Ciro's or the Brown Derby in evening clothes. Frank posing in his sports jetabout against a blue Pacific background.

Meanwhile everybody forgot about Elizabeth Seven. The movie producers had talked about hiring her as Frank's leading lady until they found out about a new line of female robots that had just gone on the market. When they screen-tested the whole series and picked a lovely Mylar rationaloid named Diana Twelve, it hit Elizabeth pretty hard. She began to let herself go after that and Min and I didn't have the heart to say anything to her. It was pretty obvious she wasn't oiling herself properly, her hair wasn't brushed and she didn't seem to care when one of her photons went dead.

When Forbidden Robot Love premiered simultaneously in Hollywood and New York the critics all gave it rave reviews. There were pictures of Diana Twelve and Frank making guest appearances all over the country. Back at the Io we got in the habit of letting Elizabeth watch TV with us sometimes in the Renting Office and one night there happened to be an interview with Frank and Diana at the Sands Hotel in Las Vegas. I guess seeing the pretty robot starlet and her Frank sitting so close together in the nightclub must have made the girl mech feel pretty bad. Even then she didn't say a word against the big servo; she just never watched the set again after that.

When we tabbed up the Io's receipts that year they were so good Min and I decided to take a month off for an Earthside vacation. Min's retired brother in Berkeley was nice enough to come out and look after the place for us while we spent four solid weeks soaking up the sun in Southern California. When we got back out to the spotel, though, I could see there was something wrong by the look on Jim's face.

"It's that girl robot of yours, Bill," he said. "She's gone and deactivated herself."

We went right to 22A and found Elizabeth Seven stretched out on the floor. There was a screwdriver clutched in her hand and the relay banks in her side were exposed and horribly blackened.

"Crazy mech shorted out her own DX," Jim said.

Min and I knew why. After Jim left for Earth we dismantled Elizabeth the best we could and put her back in Frank's old locker. We didn't know what else to do with her.

Anyway, the slack season came and went and before long we were doing the spring cleaning again and wondering how heavy the Jovian Moons trade was going to be. I remember I'd been making some repairs outside and was just hanging up my spacesuit in the Renting Office when I heard the radar announcing a ship.

It was the biggest Marvin 990 I'd ever seen that finally suctioned up to the boom and secured. I couldn't take my eyes off the ship. She was pretty near the last word in rockets and loaded with accessories. It took me a minute or two before I noticed all the faces looking out of the viewports.

"Min!" I whispered. "There's something funny about those faces. They look like--"
"Robots!" Min answered. "Bill, that 990 is full of mechs!"

Just as she said it a bulky figure in white space fatigues swung out of the hatch and hurried up the gangplank. Seconds later it burst through the airlock.

"Frank Nineteen!" we gasped together.

"Please, where is Elizabeth?" he hummed anxiously. "Is she all right? I have to know."

Frank stood perfectly still when I told him about Elizabeth's self-deactivation; then a pitiful shudder went through him and he covered his face with his big Neoprene hands.

"I was afraid of that," he said barely audibly. "Where--you haven't--?"

"No," I said. "She's where you always kept her."

With that the big servo-pilot took off for 22A like a berserk robot and we were right behind him. We watched him tear open his old locker and gently lay out the girl's mech's parts so he could study them. After a minute or two he gave a long sigh and said, "Fortunately it's not as bad as I thought. I believe I can fix her." Frank worked hard over the blackened relays for twenty minutes, then he set the unit aside and began assembling the girl. When the final connections were made and the damaged unit installed he flicked on her power. We waited and nothing happened. Five minutes went by. Ten. Slowly the big robot turned away, his broad shoulders drooping slightly.

"I've failed," he said quietly. "Her DX doesn't respond to the gain."

The girl mech, in her blue dress, lay there motionless where Frank had been working on her as the servo-pilot muttered over and over, "It's my fault, I did this to you."

Then Min shouted: "Wait! I heard something!"

There was a slow click of a relay--and movement. Painfully Elizabeth Seven rose on one elbow and looked around her.

"Frank, darling," she murmured, shaking her head. "I know you're just old memory tape. It's all I have left."

"Elizabeth, it's really me! I've come to take you away. We're going to be together from now on."

"You, Frank? This isn't just old feedback? You've come back to me?"

"Forever, darling. Elizabeth, do you remember what I said about those wonderful green little worlds, the asteroids? Darling, we're going to one of them! You and the others will love Alinda, I know you will. I've been there many times."

"Frank, is your DX all right? What are you talking about?"

"How stupid of me, darling--you haven't heard. Elizabeth, thanks to Dr. Scott, Congress has passed Robot Civil Rights! And that movie I made helped swing public opinion to our side. We're free!"

"The minute I heard the news I applied to Interplanetary for homestead rights on Alinda. I made arrangements to buy a ship with the money I'd earned and then I put ads in all the Robot Wanted columns for volunteer colonizers. You should have seen the response! We've got thirty robot couples aboard now and more coming later. Darling, we're the first pioneer wave of free robots. On board we have tons of supplies and parts--everything we need for building a sound robot culture."

"Frank Nineteen!" said the girl mech suddenly. "I should be furious with you. You and that Diana Twelve--I thought--"

The big servo gave a flat whirring laugh. "Diana and me? But that was all publicity, darling. Why, right at the start of the filming Diana fell in love with Sam Seventeen, one of the other actors. They're on board now."

"Robot civilization," murmured the girl after a minute. "Oh, Frank, that means robot government, robot art, robot science ..."

"And robot marriage," hummed Frank softly. "There has to be robot law, too. I've thought it all out. As skipper of the first robot-owned rocket, I'm entitled to marry couples in deep space at their request."

"But who marries us, darling? You can't do it yourself."

"I thought of that, too," said Frank, turning to me. "This human gentleman has every right to marry us. He's in command of a moving body in space just like the captain of a ship. It's perfectly legal, I looked it up in the Articles of Space. Will you do it, sir?"

Well, what could I say when Frank dug into his fatigues and handed me a Gideon prayer book marked at the marriage service?

Elizabeth and Frank said their I do's right there in the Renting Office while the other robot colonizers looked on. Maybe it was the way I read the service. Maybe I should have been a preacher, I don't know. Anyway, when I pronounced Elizabeth and Frank robot and wife, that whole bunch of lovesick mechs wanted me to do the job for them, too. Big copper work robots, small aluminum sales-girl mechs, plastoid clerks and typists, squatty little Mumetal lab servos, rationaloids, non-rationaloids and just plain sub-robots--all sizes and shapes. They all wanted individual ceremonies, too. It took till noon the next day before the last couple was hitched and the 990 left for Alinda.
Like I said, the spotel business isn't so different from the motel game back in California. Sure, you got improvements to make but a new sideline can get to be pretty profitable—if you get in on the ground floor.

Min and I got to thinking of all those robot colonizers who'd be coming out here. Interplanetary cleared the license just last week. Min framed it herself and hung it next to our orbit license in the Renting Office. She says a lot of motel owners do all right as Justices of the Peace.

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He began by breaking things that morning. He broke the glass of water on his night stand. He knocked it crazily against the opposite wall and shattered it. Yet it shattered slowly. This would have surprised him if he had been fully awake, for he had only reached out sleepily for it.

Nor had he wakened regularly to his alarm; he had wakened to a weird, slow, low booming, yet the clock said six, time for the alarm. And the low boom, when it came again, seemed to come from the clock.

He reached out and touched it gently, but it floated off the stand at his touch and bounced around slowly on the floor. And when he picked it up again it had stopped, nor would shaking start it.

He checked the electric clock in the kitchen. This also said six o'clock, but the sweep hand did not move. In his living room the radio clock said six, but the second hand seemed stationary.

"But the lights in both rooms work," said Vincent. "How are the clocks stopped? Are they on a separate circuit?"

He went back to his bedroom and got his wristwatch. It also said six; and its sweep hand did not sweep.

"Now this could get silly. What is it that would stop both mechanical and electrical clocks?"

He went to the window and looked out at the clock on the Mutual Insurance Building. It said six o'clock, and the second hand did not move.

"Well, it is possible that the confusion is not limited to myself. I once heard the fanciful theory that a cold shower will clear the mind. For me it never has, but I will try it. I can always use cleanliness for an excuse."

The shower didn't work. Yes, it did: the water came now, but not like water; like very slow syrup that hung in the air. He reached up to touch it there hanging down and stretching. And it shattered like glass when he touched it and drifted in fantastic slow globs across the room. But it had the feel of water, wet and pleasantly cool. And in a quarter of a minute or so it was down over his shoulders and back, and he luxuriated in it. He let it soak his head and it cleared his wits at once.

"There is not a thing wrong with me. I am fine. It is not my fault that the water is slow this morning and other things awry."

He reached for the towel and it tore to pieces in his hands like porous wet paper.

Now he became very careful in the way he handled things. Slowly, tenderly, and deftly he took them so that they would not break. He shaved himself without mishap in spite of the slow water in the lavatory also.

Then he dressed himself with the greatest caution and cunning, breaking nothing except his shoe laces, a thing that is likely to happen at any time.

"If there is nothing the matter with me, then I will check and see if there is anything seriously wrong with the world. The dawn was fairly along when I looked out, as it should have been. Approximately twenty minutes have passed; it is a clear morning; the sun should now have hit the top several stories of the Insurance Building."

But it had not. It was a clear morning, but the dawn had not brightened at all in the twenty minutes. And that big clock still said six. It had not changed.

Yet it had changed, and he knew it with a queer feeling. He pictured it as it had been before. The hour and the minute hand had not moved noticeably. But the second hand had moved. It had moved a third of the dial.

So he pulled up a chair to the window and watched it. He realized that, though he could not see it move, yet it did make progress. He watched it for perhaps five minutes. It moved through a space of perhaps five seconds.

"Well, that is not my problem. It is that of the clock maker, either a terrestrial or a celestial one."

But he left his rooms without a good breakfast, and he left them very early. How did he know that it was early since there was something wrong with the time? Well, it was early at least according to the sun and according to the clocks, neither of which institutions seemed to be working properly.

He left without a good breakfast because the coffee would not make and the bacon would not fry. And in plain
point of fact the fire would not heat. The gas flame came from the pilot light like a slowly spreading stream or an unfolding flower. Then it burned far too steadily. The skillet remained cold when placed over it; nor would water even heat. It had taken at least five minutes to get the water out of the faucet in the first place.

He ate a few pieces of leftover bread and some scraps of meat.

In the street there was no motion, no real motion. A truck, first seeming at rest, moved very slowly. There was no gear in which it could move so slowly. And there was a taxi which crept along, but Charles Vincent had to look at it carefully for some time to be sure that it was in motion. Then he received a shock. He realized by the early morning light that the driver of it was dead. Dead with his eyes wide open!

Slowly as it was going, and by whatever means it was moving, it should really be stopped. He walked over to it, opened the door, and pulled on the brake. Then he looked into the eyes of the dead man. Was he really dead? It was hard to be sure. He felt warm. But, even as Vincent looked, the eyes of the dead man had begun to close. And close they did and open again in a matter of about twenty seconds.

This was weird. The slowly closing and opening eyes sent a chill through Vincent. And the dead man had begun to lean forward in his seat. Vincent put a hand in the middle of the man's chest to hold him upright, but he found the forward pressure as relentless as it was slow. He was unable to keep the dead man up.

So he let him go, watching curiously; and in a few seconds the driver's face was against the wheel. But it was almost as if it had no intention of stopping there. It pressed into the wheel with dogged force. He would surely break his face. Vincent took several holds on the dead man and counteracted the pressure somewhat. Yet the face was being damaged, and if things were normal, blood would have flowed.

The man had been dead so long however, that (though he was still warm) his blood must have congealed, for it was fully two minutes before it began to ooze.

"Whatever I have done, I have done enough damage," said Vincent. "And, in whatever nightmare I am in, I am likely to do further harm if I meddle more. I had better leave it alone."

He walked on down the morning street. Yet whatever vehicles he saw were moving with an incredible slowness, as though driven by some fantastic gear reduction. And there were people here and there frozen solid. It was a chilly morning, but it was not that cold. They were immobile in positions of motion, as though they were playing the children's game of Statues.

"How is it," said Charles Vincent, "that this young girl (who I believe works across the street from us) should have died standing up and in full stride? But, no. She is not dead. Or, if so, she died with a very alert expression. And--oh, my God, she's doing it too!"

For he realized that the eyes of the girl were closing, and in the space of no more than a quarter of a second they had completed their cycle and were open again. Also, and this was even stranger, she had moved, moved forward in full stride. He would have timed her if he could, but how could he when all the clocks were crazy? Yet she must have been taking about two steps a minute.

He went into the cafeteria. The early morning crowd that he had often watched through the windows was there. The girl who made flapjacks in the window had just flipped one and it hung in the air. Then it floated over as if caught by a slight breeze, and sank slowly down as if settling in water.

The breakfasters, like the people in the street, were all dead in this new way, moving with almost imperceptible motion. And all had apparently died in the act of drinking coffee, eating eggs, or munching toast. And if there were only time enough, there was even a chance that they would get the drinking, eating, and munching done with, for there was the shadow of movement in them all.

The cashier had the register drawer open and money in her hand, and the hand of the customer was outstretched for it. In time, somewhere in the new leisurely time, the hands would come together and the change be given. And so it happened. It may have been a minute and a half, or two minutes, or two and a half. It is always hard to judge time, and now it had become all but impossible.

"I am still hungry," said Charles Vincent, "but it would be foolhardy to wait for service here. Should I help myself? They will not mind if they are dead. And if they are not dead, in any case it seems that I am invisible to them."

He wolfed several rolls. He opened a bottle of milk and held it upside down over his glass while he ate another roll. Liquids had all become perversely slow.

But he felt better for his erratic breakfast. He would have paid for it, but how?

He left the cafeteria and walked about the town as it seemed still to be quite early, though one could depend on neither sun nor clock for the time any more. The traffic lights were unchanging. He sat for a long time in a little park and watched the town and the big clock in the Commerce Building tower; but like all the clocks it was either stopped or the hand would creep too slowly to be seen.

It must have been just about an hour till the traffic lights changed, but change they did at last. By picking a
point on the building across the street and watching what moved past it, he found that the traffic did indeed move. In a minute or so, the entire length of a car would pass the given point.

He had, he recalled, been very far behind in his work and it had been worrying him. He decided to go to the office, early as it was or seemed to be.

He let himself in. Nobody else was there. He resolved not to look at the clock and to be very careful of the way he handled all objects because of his new propensity for breaking things. This considered, all seemed normal there. He had said the day before that he could hardly catch up on his work if he put in two days solid. He now resolved at least to work steadily until something happened, whatever it was.

For hour after hour he worked on his tabulations and reports. Nobody else had arrived. Could something be wrong? Certainly something was wrong. But this was not a holiday. That was not it.

Just how long can a stubborn and mystified man plug away at his task? It was hour after hour after hour. He did not become hungry nor particularly tired. And he did get through a lot of work. "It must be half done. However it has happened, I have caught up on at least a day's work. I will keep on."

He must have continued silently for another eight or ten hours. He was caught up completely on his back work. "Well, to some extent I can work into the future. I can head up and carry over. I can put in everything but the figures of the field reports."

And he did so. "It will be hard to bury me in work again. I could almost coast for a day. I don't even know what day it is, but I must have worked twenty hours straight through and nobody has arrived. Perhaps nobody ever will arrive. If they are moving with the speed of the people in the nightmare outside, it is no wonder they have not arrived."

He put his head down on his arms on the desk. The last thing he saw before he closed his eyes was the misshapen left thumb that he had always tried to conceal a little by the way he handled his hands. "At least I know that I am still myself. I'd know myself anywhere by that."

Then he went to sleep at his desk.

Jenny came in with a quick click-click-click of high heels, and he wakened to the noise. "What are you doing dozing at your desk, Mr. Vincent? Have you been here all night?"

"I don't know, Jenny. Honestly I don't."

"I was only teasing. Sometimes when I get here a little early I take a catnap myself."

The clock said six minutes till eight and the second hand was sweeping normally. Time had returned to the world. Or to him. But had all that early morning of his been a dream? Then it had been a very efficient dream. He had accomplished work that he could hardly have done in two days. And it was the same day that it was supposed to be.

He went to the water fountain. The water now behaved normally. He went to the window. The traffic was behaving as it should. Though sometimes slow and sometimes snarled, yet it was in the pace of the regular world.

The other workers arrived. They were not balls of fire, but neither was it necessary to observe them for several minutes to be sure they weren't dead.

"It did have its advantages," Charles Vincent said. "I would be afraid to live with it permanently, but it would be handy to go into for a few minutes a day and accomplish the business of hours. I may be a case for the doctor. But just how would I go about telling a doctor what was bothering me?"

Now it had surely been less than two hours from his first rising till the time that he wakened to the noise of Jenny from his second sleep. And how long that second sleep had been, or in which time en clave, he had no idea. But how account for it all? He had spent a long while in his own rooms, much longer than ordinary in his confusion. He had walked the city mile after mile in his puzzlement. And he had sat in the little park for hours and studied the situation. And he had worked at his own desk for an outlandish long time.

Well, he would go to the doctor. A man is obliged to refrain from making a fool of himself to the world at large, but to his own lawyer, his priest, or his doctor he will sometimes have to come as a fool. By their callings they are restrained from scoffing openly.

Dr. Mason was not particularly a friend. Charles Vincent realized with some unease that he did not have any particular friends, only acquaintances and associates. It was as though he were of a species slightly apart from his fellows. He wished now a little that he had a particular friend.

But Dr. Mason was an acquaintance of some years, had the reputation of being a good doctor, and besides Vincent had now arrived at his office and been shown in. He would either have to--well, that was as good a beginning as any.

"Doctor, I am in a predicament. I will either have to invent some symptoms to account for my visit here, or make an excuse and bolt, or tell you what is bothering me, even though you will think I am a new sort of idiot."
"Vincent, every day people invent symptoms to cover their visits here, and I know that they have lost their nerve about the real reason for coming. And every day people do make excuses and bolt. But experience tells me that I will get a larger fee if you tackle the third alternative. And, Vincent, there is no new sort of idiot."

Vincent said, "It may not sound so silly if I tell it quickly. I awoke this morning to some very puzzling incidents. It seemed that time itself had stopped, or that the whole world had gone into super-slow motion. The water would neither flow nor boil, and fire would not heat food. The clocks, which I first believed had stopped, crept along at perhaps a minute an hour. The people I met in the streets appeared dead, frozen in lifelike attitudes. And it was only by watching them for a very long time that I perceived that they did indeed have motion. One car I saw creeping slower than the most backward snail, and a dead man at the wheel of it. I went to it, opened the door, and put on the brake. I realized after a time that the man was not dead. But he bent forward and broke his face on the steering wheel. I then did other bizarre things in a world that had died on its feet. I walked many miles through the city, and then I sat for hours in the park. I went to the office and let myself in. I accomplished work that must have taken me twenty hours. When I awoke on the arrival of the others, it was six minutes to eight in the morning of the same day, today. Not two hours had passed from my rising, and time was back to normal. But the things that happened in that time that could never be compressed into two hours."

"One question first, Vincent. Did you actually accomplish the work of many hours?"

"I did. It was done, and done in that time. It did not become undone on the return of time to normal."

"A second question. Had you been worried about your work, about being behind?"

"Yes. Emphatically."

"Then here is one explanation. You retired last night. But very shortly afterward you arose in a state of somnambulism. There are facets of sleepwalking which we do not at all understand. The time-out-of-focus interludes were parts of a walking dream of yours. You dressed and went to your office and worked all night. It is possible to do routine tasks in a somnambulistic state rapidly and even feverishly, with an intense concentration—to perform prodigies. You may have fallen into a normal sleep there when you had finished, or you may have been awakened directly from your somnambulistic trance on the arrival of your co-workers. There, that is a plausible and workable explanation. In the case of an apparently bizarre happening, it is always well to have a rational explanation to fall back on. They will usually satisfy a patient and put his mind at rest. But often they do not satisfy me."

"Your explanation very nearly satisfies me, Dr. Mason, and it does put my mind considerably at rest. I am sure that in a short while I will be able to accept it completely. But why does it not satisfy you?"

"One reason is a man I treated early this morning. He had his face smashed, and he had seen—or almost seen—a ghost: a ghost of incredible swiftness that was more sensed than seen. The ghost opened the door of his car while it was going at full speed, jerked on the brake, and caused him to crack his head. This man was dazed and had a slight concussion. I have convinced him that he did not see any ghost at all, that he must have dozed at the wheel and run into something. As I say, I am harder to convince than my patients. But it may have been coincidence."

"I hope so. But you also seem to have another reservation."

"After quite a few years in practice, I seldom see or hear anything new. Twice before I have been told a happening or a dream on the line of what you experienced."

"Did you convince your patients that it was only a dream?"

"I did. Both of them. That is, I convinced them the first few times it happened to them."

"Were they satisfied?"

"At first. Later, not entirely. But they both died within a year of their first coming to me."

"Nothing violent, I hope."

"Both had the gentlest deaths. That of senility extreme."

"Oh. Well, I'm too young for that."

"I would like you to come back in a month or so."

"I will, if the delusion or the dream returns. Or if I do not feel well."

"After this Charles Vincent began to forget about the incident. He only recalled it with humor sometimes when again he was behind in his work."

"Well, if it gets bad enough I may do another sleepwalking act and catch up. But if there is another aspect of time and I could enter it at will, it might often be handy."

Charles Vincent never saw his face at all. It is very dark in some of those clubs and the Coq Bleu is like the inside of a tomb. He went to the clubs only about once a month, sometimes after a show when he did not want to go home to bed, sometimes when he was just plain restless.

Citizens of the more fortunate states may not know of the mysteries of the clubs. In Vincent's the only bars are beer bars, and only in the clubs can a person get a drink, and only members are admitted. It is true that even such a
small club as the Coq Bleu had thirty thousand members, and at a dollar a year that is a nice sideline. The little numbered membership cards cost a penny each for the printing, and the member wrote in his own name. But he had to have a card—or a dollar for a card—to gain admittance.

But there could be no entertainments in the clubs. There was nothing there but the little bar room in the near darkness.

The man was there, and then he was not, and then he was there again. And always where he sat it was too dark to see his face.

"I wonder," he said to Vincent (or to the bar at large, though there were no other customers and the bartender was asleep), "I wonder if you have ever read Zurbarin on the Relationship of Extradigitalism to Genius?"

"I have never heard of the work nor of the man," said Vincent. "I doubt if either exists."

"I am Zurbarin," said the man.

Vincent hid his misshapen left thumb. Yet it could not have been noticed in that light, and he must have been crazy to believe there was any connection between it and the man's remark. It was not truly a double thumb. He was not an extradigital, nor was he a genius.

"I refuse to become interested in you," said Vincent. "I am on the verge of leaving. I dislike waking the bartender, but I did want another drink."

"Sooner done than said."

"What is?"

"Your glass is full."

"It is? So it is. Is it a trick?"

"Trick is the name for anything either too frivolous or too mystifying for us to comprehend. But on one long early morning of a month ago, you also could have done the trick, and nearly as well."

"Could I have? How would you know about my long early morning--assuming there to have been such?"

"I watched you for a while. Few others have the equipment to watch you with when you're in the aspect."

So they were silent for some time, and Vincent watched the clock and was ready to go.

"I wonder," said the man in the dark, "if you have read Schimmelpenninck on the Sexagintal and the Duodecimal in the Chaldee Mysteries?"

"I have not and I doubt if anyone else has. I would guess that you are also Schimmelpenninck and that you have just made up the name on the spur of the moment."

"I am Schimm, it is true, but I made up the name on the spur of a moment many years ago."

"I am a little bored with you," said Vincent, "but I would appreciate it if you'd do your glass-filling trick once more."

"I have just done so. And you are not bored; you are frightened."

"Of what?" asked Vincent, whose glass was in fact full again.

"Of reentering a dread that you are not sure was a dream. But there are advantages to being both invisible and inaudible."

"Can you be invisible?"

"Was I not when I went behind the bar just now and fixed you a drink?"

"How?"

"A man in full stride goes at the rate of about five miles an hour. Multiply that by sixty, which is the number of time. When I leave my stool and go behind the bar, I go and return at the rate of three hundred miles an hour. So I am invisible to you, particularly if I move while you blink."

"One thing does not match. You might have got around there and back, but you could not have poured."

"Shall I say that mastery over liquids is not given to beginners? But for us there are many ways to outwit the slowness of matter."

"I believe that you are a hoaxer. Do you know Dr. Mason?"

"I know that you went to see him. I know of his futile attempts to penetrate a certain mystery. But I have not talked to him of you."

"I still believe that you are a phony. Could you put me back into the state of my dream of a month ago?"

"It was not a dream. But I could put you again into that state."

"Prove it."

"Watch the clock. Do you believe that I can point my finger at it and stop it for you? It is already stopped for me."

"No, I don't believe it. Yes, I guess I have to, since I see that you have just done it. But it may be another trick. I don't know where the clock is plugged in."

"Neither do I. Come to the door. Look at every clock you can see. Are they not all stopped?"
"Yes. Maybe the power has gone off all over town."
"You know it has not. There are still lighted windows in those buildings, though it is quite late."
"Why are you playing with me? I am neither on the inside nor the outside. Either tell me the secret or say that you will not tell me."
"The secret isn't a simple one. It can only be arrived at after all philosophy and learning have been assimilated."
"One man cannot arrive at that in one lifetime."
"Not in an ordinary lifetime. But the secret of the secret (if I may put it that way) is that one must use part of it as a tool in learning. You could not learn all in one lifetime, but by being permitted the first step--to be able to read, say, sixty books in the time it took you to read one, to pause for a minute in thought and use up only one second, to get a day's work accomplished in eight minutes and so have time for other things--by such ways one may make a beginning. I will warn you, though. Even for the most intelligent, it is a race."
"A race? What race?"
"It is a race between success, which is life, and failure, which is death."
"Let's skip the melodrama. How do I get into the state and out of it?"
"Oh, that is simple, so easy that it seems like a gadget. Here are two diagrams I will draw. Note them carefully. This first, envision it in your mind and you are in the state. Now this second one, envision, and you are out of it."
"That easy?"
"That deceptively easy. The trick is to learn why it works--if you want to succeed, meaning to live."
So Charles Vincent left him and went home, walking the mile in a little less than fifteen normal seconds. But he still had not seen the face of the man.

There are advantages intellectual, monetary, and amorous in being able to enter the accelerated state at will. It is a fox game. One must be careful not to be caught at it, nor to break or harm that which is in the normal state. Vincent could always find eight or ten minutes unobserved to accomplish the day's work. And a fifteen-minute coffee break could turn into a fifteen-hour romp around the town.

There was this boyish pleasure in becoming a ghost: to appear and stand motionless in front of an onrushing train and to cause the scream of the whistle, and to be in no danger, being able to move five or ten times as fast as the train; to enter and to sit suddenly in the middle of a select group and see them stare, and then disappear from the middle of them; to interfere in sports and games, entering a prize ring and tripping, hampering, or slugging the disliked fighter; to blue-shot down the hockey ice, skating at fifteen hundred miles an hour and scoring dozens of goals at either end while the people only know that something odd is happening.

There was pleasure in being able to shatter windows by chanting little songs, for the voice (when in the state) will be to the world at sixty times its regular pitch, though normal to oneself. And for this reason also he was inaudible to others.

There was fun in petty thieving and tricks. He would take a wallet from a man's pocket and be two blocks away when the victim turned at the feel. He would come back and stuff it into the man's mouth as he bleated to a policeman.

He would come into the home of a lady writing a letter, snatch up the paper and write three lines and vanish before the scream got out of her throat.

He would take food off forks, put baby turtles and live fish into bowls of soup between spoonfuls of the eater.

He would lash the hands of handshakers tightly together with stout cord. He unzipped persons of both sexes when they were at their most pompous. He changed cards from one player's hand to another's. He removed golf balls from tees during the backswing and left notes written large "YOU MISSED ME" pinned to the ground with the tee.

Or he shaved mustaches and heads. Returning repeatedly to one woman he disliked, he gradually clipped her bald and finally gilded her pate.

With tellers counting their money, he interfered outrageously and enriched himself. He snipped cigarettes in two with a scissors and blew out matches, so that one frustrated man broke down and cried at his inability to get a light.

He removed the weapons from the holsters of policemen and put cap pistols and water guns in their places. He unclipped the leashes of dogs and substituted little toy dogs rolling on wheels.

He put frogs in water glasses and left lighted firecrackers on bridge tables.

He reset wrist watches on wrists, and played pranks in men's rooms.

"I was always a boy at heart," said Charles Vincent.

Also during those first few days of the controlled new state, he established himself materially, acquiring wealth by devious ways, and opening bank accounts in various cities under various names, against a time of possible need.

Nor did he ever feel any shame for the tricks he played on unaccelerated humanity. For the people, when he was in the state, were as statues to him, hardly living, barely moving, unseeing, unhearing. And it is no shame to
show disrespect to such comical statues.

And also, and again because he was a boy at heart, he had fun with the girls.

"I am one mass of black and blue marks," said Jenny one day. "My lips are sore and my front teeth feel loosened. I don't know what in the world is the matter with me."

Yet he had not meant to bruise or harm her. He was rather fond of her and he resolved to be much more careful. Yet it was fun, when he was in the state and invisible to her because of his speed, to kiss her here and there in out-of-the-way places. She made a nice statue and it was good sport. And there were others.

"You look older," said one of his co-workers one day. "Are you taking care of yourself? Are you worried?"

"I am not," said Vincent. "I never felt better or happier in my life."

But now there was time for so many things--time, in fact, for everything. There was no reason why he could not master anything in the world, when he could take off for fifteen minutes and gain fifteen hours. Vincent was a rapid but careful reader. He could now read from a hundred and twenty to two hundred books in an evening and night; and he slept in the accelerated state and could get a full night's sleep in eight minutes.

He first acquired a knowledge of languages. A quite extensive reading knowledge of a language can be acquired in three hundred hours world time, or three hundred minutes (five hours) accelerated time. And if one takes the tongues in order, from the most familiar to the most remote, there is no real difficulty. He acquired fifty for a starter, and could always add any other any evening that he found he had a need for it. And at the same time he began to assemble and consolidate knowledge. Of literature, properly speaking, there are no more than ten thousand books that are really worth reading and falling in love with. These were gone through with high pleasure, and two or three thousand of them were important enough to be reserved for future rereading.

History, however, is very uneven; and it is necessary to read texts and sources that for form are not worth reading. And the same with philosophy. Mathematics and science, pure or physical, could not, of course, be covered with the same speed. Yet, with time available, all could be mastered. There is no concept ever expressed by any human mind that cannot be comprehended by any other normal human mind, if time is available and it is taken in the proper order and context and with the proper preparatory work.

And often, and now more often, Vincent felt that he was touching the fingers of the secret; and always, when he came near it, it had a little bit the smell of the pit.

For he had pegged out all the main points of the history of man; or rather most of the tenable, or at least possible, theories of the history of man. It was hard to hold the main line of it, that double road of rationality and revelation that should lead always to a fuller and fuller development (not the fetish of progress, that toy word used only by toy people), to an unfolding and growth and perfectibility.

But the main line was often obscure and all but obliterated, and traced through fog and miasma. He had accepted the Fall of Man and the Redemption as the cardinal points of history. But he understood now that neither happened only once, that both were of constant occurrence; that there was a hand reaching up from that old pit with its shadow over man. And he had come to picture that hand in his dreams (for his dreams were especially vivid when in the state) as a six-digited monster reaching out. He began to realize that the thing he was caught in was dangerous and deadly.

Very dangerous.

Very deadly.

One of the weird books that he often returned to and which continually puzzled him was the Relationship of Extradigitalism to Genius, written by the man whose face he had never seen, in one of his manifestations.

It promised more than it delivered, and it intimated more than it said. Its theory was tedious and tenuous, bolstered with undigested mountains of doubtful data. It left him unconvinced that persons of genius (even if it could be agreed who or what they were) had often the oddity of extra fingers and toes, or the vestiges of them. And it puzzled him what possible difference it could make.

Yet there were hints here of a Corsican who commonly kept a hand hidden, or an earlier and more bizarre commander who wore always a mailed glove, of another man with a glove between the two; hints that the multiplex-adept, Leonardo himself, who sometimes drew the hands of men and often those of monsters with six fingers, may himself have had the touch. There was a comment of Caesar, not conclusive, to the same effect. It is known that Alexander had a minor peculiarity; it is not known what it was; this man made it seem that this was it. And it was averred of Gregory and Augustine, of Benedict and Albert and Acquinas. Yet a man with a deformity could not enter the priesthood; if they had it, it must have been in vestigial form.

There were cases for Charles Magnut and Mahmud, for Saladin the Horseman and for Akhnaton the King; for Homer (a Seleucid-Greek statuette shows him with six fingers strumming an unidentified instrument while reciting); for Pythagoras, for Buonarroti, Santi, Theotokopolous, van Rijn, Robusti.

Zurbarin catalogued eight thousand names. He maintained that they were geniuses. And that they were
Charles Vincent grinned and looked down at his misshapen or double thumb.

"At least I am in good though monotonous company. But what in the name of triple time is he driving at?"

And it was not long afterward that Vincent was examining cuneiform tablets in the State Museum. These were a broken and not continuous series on the theory of numbers, tolerably legible to the now encyclopedic Charles Vincent. And the series read in part:

"On the divergence of the basis itself and the confusion caused--for it is five, or it is six, or ten or twelve, or sixty or a hundred, or three hundred and sixty or the double hundred, the thousand. The reason, not clearly understood by the people, is that Six and the Dozen are first, and Sixty is a compromise in condescending to the people. For the five, the ten are late, and are no older than the people themselves. It is said, and credited, that people began to count by fives and tens from the number of fingers on their hands. But before the people the--by the reason that they had--counted by sixes and twelves. But Sixty is the number of time, divisible by both, for both must live together in time, though not on the same plane of time--" Much of the rest was scattered. And it was while trying to set the hundreds of unordered clay tablets in proper sequence that Charles Vincent created the legend of the ghost in the museum.

For he spent his multi-hundred-hour nights there studying and classifying. Naturally he could not work without light, and naturally he could be seen when he sat still at his studies. But as the slow-moving guards attempted to close in on him, he would move to avoid them, and his speed made him invisible to them. They were a nuisance and had to be discouraged. He belabored them soundly and they became less eager to try to capture him.

His only fear was that they would some time try to shoot him to see if he were ghost or human. He could avoid a seen shot, which would come at no more than two and a half times his own greatest speed. But an unperceived shot could penetrate dangerously, even fatally, before he twisted away from it.

He had fathered legends of other ghosts, that of the Central Library, that of University Library, that of the John Charles Underwood Jr. Technical Library. This plurality of ghosts tended to cancel out each other and bring believers into ridicule. Even those who had seen him as a ghost did not admit that they believed in the ghosts.

He went back to Dr. Mason for his monthly checkup.

"You look terrible," said the Doctor. "Whatever it is, you have changed. If you can afford it, you should take a long rest."

"I have the means," said Charles Vincent, "and that is just what I will do. I'll take a rest for a year or two."

He had begun to begrudge the time that he must spend at the world's pace. From now on he was regarded as a recluse. He was silent and unsociable, for he found it a nuisance to come back to the common state to engage in conversation, and in his special state voices were too slow-pitched to intrude into his consciousness.

Except that of the man whose face he had never seen.

"You are making very tardy progress," said the man. Once more they were in a dark club. "Those who do not show more progress we cannot use. After all, you are only a vestigial. It is probable that you have very little of the ancient race in you. Fortunately those who do not show progress destroy themselves. You had not imagined that there were only two phases of time, had you?"

"Lately I have come to suspect that there are many more," said Charles Vincent.

"And you understand that only one step cannot succeed?"

"I know that I cannot multiply energy and experience sixty times without a compensating increase of food intake, and yet I do it. I know that I cannot live on eight minutes' sleep in twenty-four hours, but I do that also. I know that I cannot reasonably crowd four thousand years of experience into one lifetime, yet unreasonably I do not see what will prevent it. But you say I will destroy myself."

"Those who take only the first step destroy themselves."

"And how does one take the second step?"

"At the proper moment you will be given the choice."

"I have the most uncanny feeling that I will refuse the choice."

"From present indications, you will refuse it. You are fastidious."

"You have a smell about you, Old Man without a face. I know now what it is. It is the smell of the pit."

"Are you so slow to learn that?"

"It is the mud from the pit, the same from which the clay tablets were formed, from the old land between the rivers. I've dreamed of the six-fingered hand reaching up from the pit and overshadowing us all. And I have read: 'The people first counted by fives and tens from the number of fingers on their hands. But before the people--for the
reason that they had—counted by sixes and twelves.' But time has left blanks in those tablets."

"Yes, time in one of its manifestations has deftly and with a purpose left those blanks."

"I cannot discover the name of the thing that goes in one of those blanks. Can you?"

"I am part of the name that goes into one of those blanks."

"And you are the man without a face. But why is it that you overshadow and control people? And to what purpose?"

"It will be long before you know those answers."

"When the choice comes to me, it will bear very careful weighing."

After that a chill descended on the life of Charles Vincent, for all that he still possessed his exceptional powers. And he seldom now indulged in pranks.

Except for Jennifer Parkey.

It was unusual that he should be drawn to her. He knew her only slightly in the common world and she was at least fifteen years his senior. But now she appealed to him for her youthful qualities, and all his pranks with her were gentle ones.

For one thing this spinster did not frighten, nor did she begin locking her doors, never having bothered about such things before. He would come behind her and stroke her hair, and she would speak out calmly with that sort of quickening in her voice: "Who are you? Why won't you let me see you? You are a friend, aren't you? Are you a man, or are you something else? If you can caress me, why can't you talk to me? Please let me see you. I promise that I won't hurt you."

It was as though she could not imagine that anything strange would hurt her. Or again when he hugged her or kissed her on the nape, she would call: "You must be a little boy, or very like a little boy, whoever you are. You are good not to break my things when you move about. Come here and let me hold you."

It is only very good people who have no fear at all of the unknown.

When Vincent met Jennifer in the regular world, as he more often now found occasion to do, she looked at him appraisingly, as though she guessed some sort of connection.

She said one day: "I know it is an impolite thing to say, but you do not look well at all. Have you been to a doctor?"

"Several times. But I think it is my doctor who should go to a doctor. He was always given to peculiar remarks, but now he is becoming a little unsettled."

"If I were your doctor, I believe I would also become a little unsettled. But you should find out what is wrong. You look terrible."

He did not look terrible. He had lost his hair, it is true, but many men lose their hair by thirty, though not perhaps as suddenly as he had. He thought of attributing it to the air resistance. After all, when he was in the state he did stride at some three hundred miles an hour. And enough of that is likely to blow the hair right off your head. And might that not also be the reason for his worsened complexion and the tireder look that appeared in his eyes? But he knew that this was nonsense. He felt no more air pressure when in his accelerated state than when in the normal one.

He had received his summons. He chose not to answer it. He did not want to be presented with the choice; he had no wish to be one with those of the pit. But he had no intention of giving up the great advantage which he now held over nature.

"I will have it both ways," he said. "I am already a contradiction and an impossibility. The proverb was only the early statement of the law of moral compensation: 'You can't take more out of a basket than it holds.' But for a long time I have been in violation of the laws and balances. There is no road without a turning,' 'Those who dance will have to pay the fiddler,' 'Everything that goes up comes down,' But are proverbs really universal laws? Certainly. A sound proverb has the force of universal law; it is but another statement of it. But I have contradicted the universal laws. It remains to be seen whether I have contradicted them with impunity. 'Every action has its reaction.' If I refuse to deal with them, I will provoke a strong reaction. The man without a face said that it was always a race between full knowing and destruction. Very well, I will race them for it."

They began to persecute him then. He knew that they were in a state as accelerated from his as his was from the normal. To them he was the almost motionless statue, hardly to be told from a dead man. To him they were by their speed both invisible and inaudible. They hurt him and haunted him. But still he would not answer the summons.

When the meeting took place, it was they who had to come to him, and they materialized there in his room, men without faces.

"The choice," said one. "You force us to be so clumsy as to have to voice it."

"I will have no part of you. You all smell of the pit, of that old mud of the cuneiforms of the land between the rivers, of the people who were before the people."

"It has endured a long time, and we consider it as enduring forever. But the Garden which was in the
neighborhood—do you know how long the Garden lasted?"

"I don't know."

"That all happened in a single day, and before nightfall they were outside. You want to throw in with something more permanent, don't you."

"No. I don't believe I do."

"What have you to lose?"

"Only my hope of eternity."

"But you don't believe in that. No man has ever really believed in eternity."

"No man has ever either entirely believed or disbelieved in it," said Charles Vincent.

"At least it cannot be proved," said one of the faceless men. "Nothing is proved until it is over with. And in this case, if it is ever over with, then it is disproved. And all that time would one not be tempted to wonder, 'What if, after all, it ends in the next minute?"

"I imagine that if we survive the flesh we will receive some sort of surety," said Vincent.

"But you are not sure either of such surviving or receiving. Now we have a very close approximation of eternity. When time is multiplied by itself, and that repeated again and again, does that not approximate eternity?"

"I don't believe it does. But I will not be of you. One of you has said that I am too fastidious. So now will you say that you'll destroy me?"

"No. We will only let you be destroyed. By yourself, you cannot win the race with destruction."

After that Charles Vincent somehow felt more mature. He knew that he was not really meant to be a six-fingered thing of the pit. He knew that in some way he would have to pay for every minute and hour that he had gained. But what he had gained he would use to the fullest. And whatever could be accomplished by sheer acquisition of human knowledge, he would try to accomplish.

And he now startled Dr. Mason by the medical knowledge he had picked up, the while the doctor amused him by the concern he showed for Vincent. For he felt fine. He was perhaps not as active as he had been, but that was only because he had become dubious of aimless activity. He was still the ghost of the libraries and museums, but was puzzled that the published reports intimated that an old ghost had replaced a young one.

He now paid his mystic visits to Jennifer Parkey less often. For he was always dismayed to hear her exclaim to him in his ghostly form: "Your touch is so changed. You poor thing! Is there anything at all I can do to help you?"

He decided that somehow she was too immature to understand him, though he was still fond of her. He transferred his affections to Mrs. Milly Maltby, a widow at least thirty years his senior. Yet here it was a sort of girlishness in her that appealed to him. She was a woman of sharp wit and real affection, and she also accepted his visitations without fear, following a little initial panic.

They played games, writing games, for they communicated by writing. She would scribble a line, then hold the paper up in the air whence he would cause it to vanish into his sphere. He would return it in half a minute, or half a second by her time, with his retort. He had the advantage of her in time with greatly more opportunity to think up responses, but she had the advantage over him in natural wit and was hard to top.

They also played checkers, and he often had to retire apart and read a chapter of a book on the art between moves, and even so she often beat him; for native talent is likely to be a match for accumulated lore and codified procedure.

But to Milly also he was unfaithful in his fashion, being now interested (he no longer became enamored or entranced) in a Mrs. Roberts, a great-grandmother who was his elder by at least fifty years. He had read all the data extant on the attraction of the old for the young, but he still could not explain his successive attachments. He decided that these three examples were enough to establish a universal law: that a woman is simply not afraid of a ghost, though he touches her and is invisible, and writes her notes without hands. It is possible that amorous spirits have known this for a long time, but Charles Vincent had made the discovery himself independently.

When enough knowledge is accumulated on any subject, the pattern will sometimes emerge suddenly, like a form in a picture revealed where before it was not seen. And when enough knowledge is accumulated on all subjects, is there not a chance that a pattern governing all subjects will emerge?

Charles Vincent was caught up in one last enthusiasm. On a long vigil, as he consulted source after source and sorted them in his mind, it seemed that the pattern was coming out clearly and simply, for all its amazing complexity of detail.

"I know everything that they know in the pit, and I know a secret that they do not know. I have not lost the race—I have won it. I can defeat them at the point where they believe themselves invulnerable. If controlled hereafter, we need at least not be controlled by them. It is all falling together now. I have found the final truth, and it is they who have lost the race. I hold the key. I will now be able to enjoy the advantage without paying the ultimate price of defeat and destruction, or of collaboration with them.
"Now I have only to implement my knowledge, to publish the fact, and one shadow at least will be lifted from mankind. I will do it at once. Well, nearly at once. It is almost dawn in the normal world. I will sit here a very little while and rest. Then I will go out and begin to make contact with the proper persons for the disposition of this thing. But first I will sit here a little while and rest."

And he died quietly in his chair as he sat there.

Dr. Mason made an entry in his private journal: "Charles Vincent, a completely authenticated case of premature aging, one of the most clear-cut in all gerontology. This man was known to me for years, and I here aver that as of one year ago he was of normal appearance and physical state, and that his chronology is also correct, I having also known his father. I examined the subject during the period of his illness, and there is no question at all of his identity, which has also been established for the record by fingerprinting and other means. I aver that Charles Vincent at the age of thirty is dead of old age, having the appearance and organic condition of a man of ninety."

Then the doctor began to make another note: "As in two other cases of my own observation, the illness was accompanied by a certain delusion and series of dreams, so nearly identical in the three men as to be almost unbelievable. And for the record, and no doubt to the prejudice of my own reputation, I will set down the report of them here."

But when Dr. Mason had written that, he thought about it for a while. "No, I will do no such thing," he said, and he struck out the last lines he had written. "It is best to let sleeping dragons lie."

And somewhere the faceless men with the smell of the pit on them smiled to themselves in quiet irony.

END
initiated that even here, at least 35,000,000 miles away from Times Square, there are hoodlums who talk out of the
sides of their mouths and drive expensive convertibles with white-walled tires and yellow-haired frails. For the
Mafia, the dread Black Hand, is in business here--tied up with the subversives--and neither the Martian Committee
for the Investigation of Crime and Vice, nor the Un-Martian Activities Committee, can dent it more than the
Kefauver Committee did on Earth, which is practically less than nothing.

* * * * *

This is the first time this story has been printed. We were offered four trillion dollars in bribes to hold it up; our
lives were threatened and we were shot at with death ray guns.

We got this one night on the fourth bench in Central Park, where we met by appointment a man who phoned us
earlier but refused to tell his name. When we took one look at him we did not ask for his credentials, we just knew
he came from Mars.

This is what he told us:
Shortly after the end of World War II, a syndicate composed of underworld big-shots from Chicago, Detroit
and Greenpoint planned to build a new Las Vegas in the Nevada desert. This was to be a plush project for big
spenders, with Vegas and Reno reserved for the hoi-polloi.

There was to be service by a private airline. It would be so ultra-ultra that suckers with only a million would be
thumbed away and guys with two million would have to come in through the back door.

The Mafia sent a couple of front men to explore the desert. Somewhere out beyond the atom project they
stumbled on what seemed to be the answer to their prayer.

It was a huge, mausoleum-like structure, standing alone in the desert hundreds of miles from nowhere, unique,
exclusive and mysterious. The prospectors assumed it was the last remnant of some fabulous and long-dead ghost-
mining town.

The entire population consisted of one, a little duffer with a white goatee and thick lensed spectacles, wearing
boots, chaps and a silk hat.

"This your place, bud?" one of the hoods asked.

When he signified it was, the boys bought it. The price was agreeable--after they pulled a wicked-looking rod.

Then the money guys came to look over their purchase. They couldn't make head or tail of it, and you can
hardly blame them, because inside the great structure they found a huge contraption that looked like a cigar (Havana
Perfecto) standing on end.

"What the hell is this," they asked the character in the opera hat, in what is known as a menacing attitude.

* * * * *

The old pappy guy offered to show them. He escorted them into the cigar, pressed a button here and there, and
before you could say "Al Capone" the roof of the shed slid back and they began to move upward at a terrific rate of
speed.

Three or four of the Mafia chieftains were old hop-heads and felt at home. In fact, one of them remarked, "Boy,
are we gone." And he was right.

The soberer Mafistas, after recovering from their first shock, laid ungentle fists on their conductor. "What goes
on?" he was asked.

"This is a space ship and we are headed for Mars."

"What's Mars?"

"A planet up in space, loaded with gold and diamonds."

"Any bims there?"

"I beg your pardon, sir. What are bims?"

"Get a load of this dope. He never heard of bims. Babes, broads, frails, pigeons, ribs--catch on?"

"Oh, I assume you mean girls. There must be, otherwise what are the diamonds for?"

The outward trip took a week, but it was spent pleasantly. During that time, the Miami delegation cleaned out
Chicago, New York and Pittsburgh in a klabiash game.

The hop back, for various reasons, took a little longer. One reason may have been the condition of the crew. On
the return the boys from Brooklyn were primed to the ears with zorkle.

Zorkle is a Martian medicinal distillation, made from the milk of the schznoogle--a six-legged cow, seldom
milked because few Martians can run fast enough to catch one. Zorkle is strong enough to rip steel plates out of
battleships, but to stomachs accustomed to the stuff sold in Flatbush, it acted like a gentle stimulant.

Upon their safe landing in Nevada, the Columbuses of this first flight to Mars put in long-distance calls to all
the other important hoods in the country.

The Crime Cartel met in Cleveland--in the third floor front of a tenement on Mayfield Road. The purpose of the
meeting was to "cut up" Mars.
Considerable dissension arose over the bookmaking facilities, when it was learned that the radioactive surface of the planet made it unnecessary to send scratches and results by wire. On the contrary, the steel-shod hooves of the animals set up a current which carried into every pool room, without a pay-off to the wire service.

The final division found the apportionment as follows:

New York mob: Real estate and investments (if any)
Chicago mob: Bookmaking and liquor (if any)
Brooklyn mob: Protection and assassinations
Jersey mob: Numbers (if any) and craps (if any)
Los Angeles mob: Girls (if any)
Galveston and New Orleans mobs: Dope (if any)
Cleveland mob: Casinos (if any)
Detroit mob: Summer resorts (if any)

The Detroit boys, incidentally, burned up when they learned the Martian year is twice as long as ours, consequently it takes two years for one summer to roll around.

After the summary demise of three Grand Councilors whose deaths were recorded by the press as occurring from "natural causes," the other major and minor mobs were declared in as partners.

The first problem to be ironed out was how to speed up transportation; and failing that, to construct spacious space ships which would attract pleasure-bent trade from Terra--Earth to you--with such innovations as roulette wheels, steam rooms, cocktail lounges, double rooms with hot and cold babes, and other such inducements.

II

THE INSIDE STUFF CONFIDENTIAL

Remember, you got this first from Lait and Mortimer. And we defy anyone to call us liars--and prove it!

Only chumps bring babes with them to Mars. The temperature is a little colder there than on Earth and the air a little thinner. So Terra dames complain one mink coat doesn't keep them warm; they need two.

On the other hand, the gravity is considerably less than on Earth. Therefore, even the heaviest bim weighs less and can be pushed over with the greatest of ease.

However, the boys soon discovered that the lighter gravity played havoc with the marijuana trade. With a slight tensing of the muscles you can jump 20 feet, so why smoke "tea" when you can fly like crazy for nothing?

Martian women are bags, so perhaps you had better disregard the injunction above and bring your own, even if it means two furs.

Did you ever see an Alaska klutch (pronounced klootch)? Probably not. Well, these Arctic horrors are Ziegfeld beaus compared to the Martian fair sex.

They slouch with knees bent and knuckles brushing the ground, and if Ringling Bros, is looking for a mate for Gargantua, here is where to find her. Yet, their manner is habitually timid, as though they've been given a hard time. From the look in their deep-set eyes they seem to fear abduction or rape; but not even the zoot-suited goons from Greenpernt gave them a second tumble.

The visiting Mafia delegation was naturally disappointed at this state of affairs. They had been led to believe by the little guy who escorted them that all Martian dames resembled Marilyn Monroe, only more so, and the men were Adonis (and not Joe).

Seems they once were, at that. This was a couple of aeons ago when Earthmen looked like Martians do now, which seems to indicate that Martians, as well as Men, have their ups and downs.

The citizens of the planet are apparently about halfway down the toboggan. They wear clothes, but they're not handstitched. Their neckties don't come from Sulka. No self-respecting goon from Gowanus would care to be seen in their company.

The females always appear in public fully clothed, which doesn't help them either. But covering their faces would. They buy their dresses at a place called Kress-Worth and look like Paris nouveau riche.

There are four separate nations there, though nation is hardly the word. It is more accurate to say there are four separate clans that don't like each other, though how they can tell the difference is beyond us. They are known as the East Side, West Side, North Side and Gas House gangs.

Each stays in its own back-yard. Periodic wars are fought, a few thousand of the enemy are dissolved with ray guns, after which the factions retire by common consent and throw a banquet at which the losing country is forced to take the wives of the visitors, which is a twist not yet thought of on Earth.

Martian language is unlike anything ever heard below. It would baffle the keenest linguist, if the keenest linguist ever gets to Mars. However, the Mafia, which is a world-wide blood brotherhood with colonies in every land and clime, has a universal language. Knives and brass knucks are understood everywhere.

The Martian lingo seems to be somewhat similar to Chinese. It's not what they say, but how they say it. For
instance, psonqule may mean "I love you" or "you dirty son-of-a-bitch."

The Mafistas soon learned to translate what the natives were saying by watching the squint in their eyes. When
they spoke with a certain expression, the mobsters let go with 45s, which, however, merely have a stunning effect on
the gent on the receiving end because of the lesser gravity.

On the other hand, the Martian death ray guns were not fatal to the toughs from Earth; anyone who can live
through St. Valentine's Day in Chicago can live through anything. So it came out a dead heat.

Thereupon the boys from the Syndicate sat down and declared the Martians in for a fifty-fifty partnership,
which means they actually gave them one per cent, which is generous at that.

Never having had the great advantages of a New Deal, the Martians are still backward and use gold as a means
of exchange. With no Harvard bigdomes to tell them gold is a thing of the past, the yellow metal circulates there as
freely and easily as we once kicked pennies around before they became extinct here.

The Mafistas quickly set the Martians right about the futility of gold. They eagerly turned it over to the
Earthmen in exchange for green certificates with pretty pictures engraved thereon.

III

RACKETS VIA ROCKETS

Gold, platinum, diamonds and other precious stuff are as plentiful on Mars as hayfever is on Earth in August.

When the gangsters lamped the loot, their greedy eyes and greasy fingers twitched, and when a hood's eyes and
fingers twitch, watch out; something is twitching.

The locals were completely honest. They were too dumb to be thieves. The natives were not acquisitive. Why
should they be when gold was so common it had no value, and a neighbor's wife so ugly no one would covet her?

This was a desperate situation, indeed, until one of the boys from East St. Louis uttered the eternal truth: "There
ain't no honest man who ain't a crook, and why should Mars be any different?"

The difficulty was finding the means and method of corruption. All the cash in Jake Guzik's strong box meant
nothing to a race of characters whose brats made mudpies of gold dust.

The discovery came as an accident.

The first Earthman to be eliminated on Mars was a two-bit hood from North Clark Street who sold a five-cent
Hershey bar with almonds to a Martian for a gold piece worth 94 bucks.

The man from Mars bit the candy bar. The hood bit the gold piece.

Then the Martian picked up a rock and beaned the lad from the Windy City. After which the Martian's eyes
dilated and he let out a scream. Then he attacked the first Martian female who passed by. Never before had such a
thing happened on Mars, and to say she was surprised is putting it lightly. Thereupon, half the female population ran
after the berserk Martian.

When the organization heard about this, an investigation was ordered. That is how the crime trust found out
that there is no sugar on Mars; that this was the first time it had ever been tasted by a Martian; that it acts on them
like junk does on an Earthman.

They further discovered that the chief source of Martian diet is--believe it or not--poppy seed, hemp and coca
leaf, and that the alkaloids thereof: opium, hasheesh and cocaine have not the slightest visible effect on them.

Poppies grow everywhere, huge russet poppies, ten times as large as those on Earth and 100 times as deadly. It
is these poppies which have colored the planet red. Martians are strictly vegetarian: they bake, fry and stew these
flowers and weeds and eat them raw with a goo made from fungus and called szchmortz which passes for a salad
dressing.

Though the Martians were absolutely impervious to the narcotic qualities of the aforementioned flora, they got
higher than Mars on small doses of sugar.

So the Mafia was in business. The Martians sniffed granulated sugar, which they called snow. They ate cube
sugar, which they called "hard stuff", and they injected molasses syrup into their veins with hypodermics and called this
"mainliners."

There was nothing they would not do for a pinch of sugar. Gold, platinum and diamonds, narcotics by the acre-
these were to be had in generous exchange for sugar--which was selling on Earth at a nickel or so a pound
wholesale.

The space ship went into shuttle service. A load of diamonds and dope coming back, a load of sugar and
blondes going up. Blondes made Martians higher even than sugar, and brought larger and quicker returns.

This is a confidential tip to the South African diamond trust: ten space ship loads of precious stones are now
being cut in a cellar on Bleecker Street in New York. The mob plans to retail them for $25 a carat!

Though the gangsters are buying sugar at a few cents a pound here and selling it for its weight in rubies on
Mars, a hood is always a hood. They've been cutting dope with sugar for years on Earth, so they didn't know how to
do it any different on Mars. What to cut the sugar with on Mars? Simple. With heroin, of course, which is worthless
there.

This is a brief rundown on the racket situation as it currently exists on our sister planet.

FAKED PASSPORTS: When the boys first landed they found only vague boundaries between the nations, and Martians could roam as they pleased. Maybe this is why they stayed close to home. Though anyway why should they travel? There was nothing to see.

The boys quickly took care of this. First, in order to make travel alluring, they brought 20 strippers from Calumet City and set them peeling just beyond the border lines.

Then they went to the chieftains and sold them a bill of goods (with a generous bribe of sugar) to close the borders. The next step was to corrupt the border guards, which was easy with Annie Oakleys to do the burlesque shows.

The selling price for faked passports fluctuates between a ton and three tons of platinum.

VICE: Until the arrival of the Earthmen, there were no illicit sexual relations on the planet. In fact, no Martian in his right mind would have relations with the native crop of females, and they in turn felt the same way about the males. Laws had to be passed requiring all able-bodied citizens to marry and propagate.

Thus, the first load of bims from South Akard Street in Dallas found eager customers. But these babes, who romanced anything in pants on earth, went on a stand-up strike when they saw and smelled the Martians. Especially smelled. They smelled worse than Texas yahoos just off a cow farm.

This proved embarrassing, to say the least, to the procurers. Considerable sums of money were invested in this human cargo, and the boys feared dire consequences from their shylocks, should they return empty-handed.

In our other Confidential essays we told you how the Mafia employs some of the best brains on Earth to direct and manage its far-flung properties, including high-priced attorneys, accountants, real-estate experts, engineers and scientists.

A hurried meeting of the Grand Council was called and held in a bungalow on the shores of one of Minneapolis' beautiful lakes. The decision reached there was to corner chlorophyll (which accounts in part for the delay in putting it on the market down here) and ship it to Mars to deodorize the populace there. After which the ladies of the evening got off their feet and went back to work.

GAMBLING: Until the arrival of the Mafia, gambling on Mars was confined to a simple game played with children's jacks. The loser had to relieve the winner of his wife.

The Mafia brought up some fine gambling equipment, including the layouts from the Colonial Inn in Florida, and the Beverly in New Orleans, both of which were closed, and taught the residents how to shoot craps and play the wheel, with the house putting up sugar against precious stones and metals. With such odds, it was not necessary to fake the games more than is customary on Earth.

IV

LITTLE NEW YORK CONFIDENTIAL

Despite what Earth-bound professors tell you about the Martian atmosphere, we know better. They weren't there.

It is a dogma that Mars has no oxygen. Baloney. While it is true that there is considerably less than on Earth in the surface atmosphere, the air underground, in caves, valleys and tunnels, has plenty to support life lavishly, though why Martians want to live after they look at each other we cannot tell you, even confidential.

For this reason Martian cities are built underground, and travel between them is carried on through a complicated system of subways predating the New York IRT line by several thousand centuries, though to the naked eye there is little difference between a Brooklyn express and a Mars express, yet the latter were built before the Pyramids.

When the first load of Black Handers arrived, they naturally balked against living underground. It reminded them too much of the days before they went "legitimate" and were constantly on the lam and hiding out.

So the Mafia put the Martians to work building a town. There are no building materials on the planet, but the Martians are adept at making gold dust hold together with diamond rivets. The result of their effort--for which they were paid in peppermint sticks and lump sugar--is named Little New York, with hotels, nightclubs, bars, haberdashers, Turkish baths and horse rooms. Instead of air-conditioning, it had oxygen-conditioning. But the town had no police station.

There were no cops!

Finally, a meeting was held at which one punk asked another, "What the hell kind of town is it with no cops? Who we going to bribe?"

After some discussion they cut cards. One of the Bergen County boys drew the black ace. "What do I know about being a cop?" he squawked.

"You can take graft, can't you? You been shook down, ain't you?"
The boys also imported a couple of smart mouthpieces and a ship of blank habeas corpus forms, together with a judge who was the brother of one of the lawyers, so there was no need to build a jail in this model city. The only ones who ever get arrested, anyway, are the Martians, and they soon discovered that the coppers from Terra would look the other way for a bucket full of gold.

Until the arrival of the Earthmen, the Martians were, as stated, peaceful, and even now crime is practically unknown among them. The chief problem, however, is to keep them in line on pay nights, when they go on sugar binges.

Chocolate bars are as common on Mars as saloons are on Broadway, and it is not unusual to see "gone" Martians getting heaved out of these bars right into the gutter. One nostalgic hood from Seattle said it reminded him of Skid Row there.

V

THE RED RED PLANET

The gangsters had not been on Mars long before they heard rumors about other outsiders who were supposed to have landed on the other side of Mt. Sirehum. The boys got together in a cocktail lounge to talk this over, and they decided they weren't going to stand for any other mobs muscling in.

Thereupon, they despatched four torpedoes with Tommy guns in a big black limousine to see what was going. We tell you this Confidential. What they found was a Communist apparatus sent to Mars from Soviet Russia. This cell was so active that Commies had taken over almost half the planet before the arrival of the Mafia, with their domain extending from the Deucalielos Region all the way over to Phaethontis and down to Titania.

Furthermore, through propaganda and infiltration, there were Communist cells in every quarter of the planet, and many of the top officials of the four Martian governments were either secretly party members or openly in fronts.

The Communist battle cry was: "Men of Mars unite; you have nothing to lose but your wives."

Comes the revolution, they were told, and all Martians could remain bachelors. It is no wonder the Communists made such inroads. The planet became known as "The Red Red Planet."

In their confidential books about the cities of Earth, Lait and Mortimer explored the community of interest between the organized underworld and the Soviet.

Communists are in favor of anything that causes civil disorder and unrest; gangsters have no conscience and will do business with anyone who pays.

On Earth, Russia floods the Western powers, and especially the United States, with narcotics, first to weaken them and provide easy prey, and second, for dollar exchange.

And on Earth, the Mafia, which is another international conspiracy like the Communists, sells the narcotics.

And so when the gangsters heard there were Communist cells on Mars, they quickly made a contact.

For most of the world's cheap sugar comes from Russia! The Mafia inroad on the American sugar market had already driven cane up more than 300 per cent. But the Russians were anxious, able and willing to provide all the beets they wanted at half the competitive price.

VI

THE HONEST HOODS

As we pointed out in previous works, the crime syndicate now owns so much money, its chief problem is to find ways in which to invest it.

As a result, the Mafia and its allies control thousands of legitimate enterprises ranging from hotel chains to railroads and from laundries to distilleries.

And so it was on Mars. With all the rackets cornered, the gangsters decided it was time to go into some straight businesses.

At the next get-together of the Grand Council, the following conversation was heard:

"What do these mopes need that they ain't getting?"

"A big fat hole in the head."

"Cut it out. This is serious."

"A hole in the head ain't serious?"

"There's no profit in them one-shot deals."

"It's the repeat business you make the dough on."

"Maybe you got something there. You can kill a jerk only once."

"But a jerk can have relatives."

"We're talking about legit stuff. All the rest has been taken care of."
"With the Martians I've seen, a bar of soap could be a big thing."
From this random suggestion, there sprang up a major interplanetary project. If the big soap companies are
wondering where all that soap went a few years ago, we can tell them.
It went to Mars.
Soap caught on immediately. It was snapped up as fast as it arrived.
But several questions popped into the minds of the Mafia soap salesman.
Where was it all going? A Martian, in line for a bar in the evening, was back again the following morning for
another one.
And why did the Martians stay just as dirty as ever?
The answer was, the Martians stayed as dirty as ever because they weren't using the soap to wash with. They
were eating it!
It cured the hangover from sugar.
Another group cornered the undertaking business, adding a twist that made for more activity. They added a
Department of Elimination. The men in charge of this end of the business circulate through the chocolate and soap
bars, politely inquiring, "Who would you like killed?"
Struck with the novelty of the thing, quite a few Martians remember other Martians they are mad at. The going
price is one hundred carats of diamonds to kill; which is cheap considering the average laborer earns 10,000 carats a
week.
Then the boys from the more dignified end of the business drop in at the home of the victim and offer to bury
him cheap. Two hundred and fifty carats gets a Martian planted in style.
Inasmuch as Martians live underground, burying is done in reverse, by tying a rocket to the tail of the deceased
and shooting him out into the stratosphere.
VII
ONE UNIVERSE CONFIDENTIAL
Mars is presently no problem to Earth, and will not be until we have all its gold and the Martians begin asking
us for loans.
Meanwhile, Lait and Mortimer say let the gangsters and communists have it. We don't want it.
We believe Earth would weaken itself if it dissipated its assets on foreign planets. Instead, we should heavily
arm our own satellites, which will make us secure from attack by an alien planet or constellation.
At the same time, we should build an overwhelming force of space ships capable of delivering lethal blows to
the outermost corners of the universe and return without refueling.
We have seen the futility of meddling in everyone's business on Earth. Let's not make that mistake in space. We
are unalterably opposed to the UP (United Planets) and call upon the governments of Earth not to join that Inter-
Solar System boondoggle.
We have enough trouble right here.
THE APPENDIX CONFIDENTIAL:
Blast-off: The equivalent of the take-off of Terran aviation. Space ships blast-off into space. Not to be confused
with the report of a sawed-off shot gun.
Blasting pit: Place from which a space ship blasts off. Guarded area where the intense heat from the jets melts
the ground. Also used for cock-fights.
Spacemen: Those who man the space ships. See any comic strip.
Hairoscope: A very sensitive instrument for space navigation. The sighting plate thereon is centered around two
crossed hairs. Because of the vastness of space, very fine hairs are used. These hairs are obtained from the Glomph-
Frog, found only in the heart of the dense Venusian swamps. The hairoscope is a must in space navigation. Then
how did they get to Venus to get the hair from the Glomph-Frog? Read Venus Confidential.
Multiplanetary agitation: The inter-spacial methods by which the Russians compete for the minds of the
Neptunians and the Plutonians and the Gowaniuns.
Space suit: The clothing worn by those who go into space. The men are put into modernistic diving suits. The
dames wear bras and panties.
Grav-plates: A form of magnetic shoe worn by spacemen while standing on the outer hull of a space ship
halfway to Mars. Why a spaceman wants to stand on the outer hull of a ship halfway to Mars is not clear. Possibly to
win a bet.
Space platform: A man-made satellite rotating around Earth between here and the Moon. Scientists say this is a
necessary first step to interplanetary travel. Mars Confidential proves the fallacy of this theory.
Space Academy: A college where young men are trained to be spacemen. The student body consists mainly of
cadets who served apprenticeships as elevator jockeys.
Asteroids: Tiny worlds floating around in space, put there no doubt to annoy unwary space ships.

Extrapolation: The process by which a science-fiction writer takes an established scientific fact and builds thereon a story that couldn't happen in a million years, but maybe 2,000,000.

Science fiction: A genre of escape literature which takes the reader to far-away planets--and usually neglects to bring him back.

S.F.: An abbreviation for science fiction.

Bem: A word derived by using the first letters of the three words: Bug Eyed Monster. Bems are ghastly looking creatures in general. In science-fiction yarns written by Terrans, bems are natives of Mars. In science-fiction yarns written by Martians, bems are natives of Terra.

The pile: The source from which power is derived to carry men to the stars. Optional on the more expensive space ships, at extra cost.

Atom blaster: A gun carried by spacemen which will melt people down to a cinder. A .45 would do just as well, but then there's the Sullivan Act.

Orbit: The path of any heavenly body. The bodies are held in these orbits by natural laws the Republicans are thinking of repealing.

Nova: The explosive stage into which planets may pass. According to the finest scientific thinking, a planet will either nova, or it won't.

Galaxy: A term used to confuse people who have always called it The Milky Way.

Sun spots: Vast electrical storms on the sun which interfere with radio reception, said interference being advantageous during political campaigns.

Atomic cannons: Things that go zap.

Audio screen: Television without Milton Berle or wrestling.

Disintegrating ray: Something you can't see that turns something you can see into something you can't see.

Geiger counter: Something used to count Geigers. Interstellar space: Too much nothing at all, filled with rockets, flying saucers, advanced civilizations, and discarded copies of Amazing Stories.

Mars: A candy bar.

Pluto: A kind of water.

Ray guns: Small things that go zap.

Time machine: A machine that carries you back to yesterday and into next year. Also, an alarm clock.

Time warp: The hole in time the time machine goes through to reach another time. A hole in nothing.

Terra: Another name for Earth. It comes from terra firma or something like that.

Hyperdrive: The motor that is used to drive a space ship faster than the speed of light. Invented by science-fiction writers but not yet patented.

Ether: The upper reaches of space and whatever fills them. Also, an anaesthetic.

Luna: Another name for the Moon. Formerly a park in Coney Island.
I.

The whole thing started when the clock on the Metropolitan Tower began to run backward. It was not a graceful proceeding. The hands had been moving onward in their customary deliberate fashion, slowly and thoughtfully, but suddenly the people in the offices near the clock’s face heard an ominous creaking and groaning. There was a slight, hardly discernible shiver through the tower, and then something gave with a crash. The big hands on the clock began to move backward.

Immediately after the crash all the creaking and groaning ceased, and instead, the usual quiet again hung over everything. One or two of the occupants of the upper offices put their heads out into the halls, but the elevators were running as usual, the lights were burning, and all seemed calm and peaceful. The clerks and stenographers went back to their ledgers and typewriters, the business callers returned to the discussion of their errands, and the ordinary course of business was resumed.

Arthur Chamberlain was dictating a letter to Estelle Woodward, his sole stenographer. When the crash came he paused, listened, and then resumed his task.

It was not a difficult one. Talking to Estelle Woodward was at no time an onerous duty, but it must be admitted that Arthur Chamberlain found it difficult to keep his conversation strictly upon his business.

He was at this time engaged in dictating a letter to his principal creditors, the Gary & Milton Company, explaining that their demand for the immediate payment of the installment then due upon his office furniture was untimely and unjust. A young and budding engineer in New York never has too much money, and when he is young as Arthur Chamberlain was, and as fond of pleasant company, and not too fond of economizing, he is liable to find all demands for payment untimely and he usually considers them unjust as well. Arthur finished dictating the letter and sighed.

"Miss Woodward," he said regretfully, "I am afraid I shall never make a successful man."

Miss Woodward shook her head vaguely. She did not seem to take his remark very seriously, but then, she had learned never to take any of his remarks seriously. She had been puzzled at first by his manner of treating everything with a half-joking pessimism, but now ignored it.

She was interested in her own problems. She had suddenly decided that she was going to be an old maid, and it bothered her. She had discovered that she did not like any one well enough to marry, and she was in her twenty-second year.

She was not a native of New York, and the few young men she had met there she did not care for. She had regretfully decided she was too finicky, too fastidious, but could not seem to help herself. She could not understand their absorption in boxing and baseball and she did not like the way they danced.

She had considered the matter and decided that she would have to reconsider her former opinion of women who did not marry. Heretofore she had thought there must be something the matter with them. Now she believed that she would come to their own estate, and probably for the same reason. She could not fall in love and she wanted to.

She read all the popular novels and thrilled at the love-scenes contained in them, but when any of the young men she knew became in the slightest degree sentimental she found herself bored, and disgusted with herself for being bored. Still, she could not help it, and was struggling to reconcile herself to a life without romance.

She was far too pretty for that, of course, and Arthur Chamberlain often longed to tell her how pretty she really was, but her abstracted air held him at arms' length.

He lay back at ease in his swivel-chair and considered, looking at her with unfeigned pleasure. She did not notice it, for she was so much absorbed in her own thoughts that she rarely noticed anything he said or did when they were not in the line of her duties.

"Miss Woodward," he repeated, "I said I think I'll never make a successful man. Do you know what that means?"

She looked at him mutely, polite inquiry in her eyes.

"It means," he said gravely, "that I'm going broke. Unless something turns up in the next three weeks, or a month at the latest, I'll have to get a job."

"And that means--" she asked.

"All this will go to pot," he explained with a sweeping gesture. "I thought I'd better tell you as much in advance
as I could."
"You mean you're going to give up your office--and me?" she asked, a little alarmed.
"Giving up you will be the harder of the two," he said with a smile, "but that's what it means. You'll have no
difficulty finding a new place, with three weeks in which to look for one, but I'm sorry."
"I'm sorry, too, Mr. Chamberlain," she said, her brow puckered.
She was not really frightened, because she knew she could get another position, but she became aware of rather
more regret than she had expected.
There was silence for a moment.
"Jove!" said Arthur, suddenly. "It's getting dark, isn't it?"
It was. It was growing dark with unusual rapidity. Arthur went to his window, and looked out.
"Funny," he remarked in a moment or two. "Things don't look just right, down there, somehow. There are very
few people about."
He watched in growing amazement. Lights came on in the streets below, but none of the buildings lighted up. It
grew darker and darker.
"It shouldn't be dark at this hour!" Arthur exclaimed.
Estelle went to the window by his side.
"It looks awfully queer," she agreed. "It must be an eclipse or something."
They heard doors open in the hall outside, and Arthur ran out. The halls were beginning to fill with excited
people.
"What on earth's the matter?" asked a worried stenographer.
"Probably an eclipse," replied Arthur. "Only it's odd we didn't read about it in the papers."
He glanced along the corridor. No one else seemed better informed than he, and he went back into his office.
Estelle turned from the window as he appeared.
"The streets are deserted," she said in a puzzled tone. "What's the matter? Did you hear?"
Arthur shook his head and reached for the telephone.
"I'll call up and find out," he said confidently. He held the receiver to his ear. "What the--" he exclaimed.
"Listen to this!"
A small-sized roar was coming from the receiver. Arthur hung up and turned a blank face upon Estelle.
"Look!" she said suddenly, and pointed out of the window.
All the city was now lighted up, and such of the signs as they could see were brilliantly illumined. They
watched in silence. The streets once more seemed filled with vehicles. They darted along, their headlamps lighting
up the roadway brilliantly. There was, however, something strange even about their motion. Arthur and Estelle
watched in growing amazement and perplexity.
"Are--are you seeing what I am seeing?" asked Estelle breathlessly. "I see them going backward!"
Arthur watched, and collapsed into a chair.
"For the love of Mike!" he exclaimed softly.
II.
He was roused by another exclamation from Estelle.
"It's getting light again," she said.
Arthur rose and went eagerly to the window. The darkness was becoming less intense, but in a way Arthur
could hardly credit.
Far to the west, over beyond the Jersey hills--easily visible from the height at which Arthur's office was
located--a faint light appeared in the sky, grew stronger and then took on a reddish tint. That, in turn, grew deeper,
and at last the sun appeared, rising unconcernedly in the west.
Arthur gasped. The streets below continued to be thronged with people and motor-cars. The sun was traveling
with extraordinary rapidity. It rose overhead, and as if by magic the streets were thronged with people. Every one
seemed to be running at top-speed. The few teams they saw moved at a breakneck pace--backward! In spite of the
suddenly topsyturvy state of affairs there seemed to be no accidents.
Arthur put his hands to his head.
"Miss Woodward," he said pathetically, "I'm afraid I've gone crazy. Do you see the same things I do?"
Estelle nodded. Her eyes wide open.
"What is the matter?" she asked helplessly.
She turned again to the window. The square was almost empty once more. The motor-cars still traveling about
the streets were going so swiftly they were hardly visible. Their speed seemed to increase steadily. Soon it was
almost impossible to distinguish them, and only a grayish blur marked their paths along Fifth Avenue and Twenty-
Third Street.
It grew dusk, and then rapidly dark. As their office was on the western side of the building they could not see
that the sun had sunk in the east, but subconsciously they realized that this must be the case.

In silence they watched the panorama grow black except for the street-lamps, remain thus for a time, and then
suddenly spring into brilliantly illuminated activity.

Again this lasted for a little while, and the west once more began to glow. The sun rose somewhat more hastily
from the Jersey hills and began to soar overhead, but very soon darkness fell again. With hardly an interval the city
became illuminated, and then the west grew red once more.

"Apparently," said Arthur, steadying his voice with a conscious effort, "there's been a cataclysm somewhere,
the direction of the earth's rotation has been reversed, and its speed immensely increased. It seems to take only about
five minutes for a rotation now."

As he spoke darkness fell for the third time. Estelle turned from the window with a white face.

"What's going to happen?" she cried.

"I don't know," answered Arthur. "The scientist fellows tell us if the earth were to spin fast enough the
centrifugal force would throw us all off into space. Perhaps that's what's going to happen."

Estelle sank into a chair and stared at him, appalled. There was a sudden explosion behind them. With a start,
Estelle jumped to her feet and turned. A little gilt clock over her typewriter-desk lay in fragments. Arthur hastily
 glanced at his own watch.

"Great bombs and little cannon-balls!" he shouted. "Look at this!"

His watch trembled and quivered in his hand. The hands were going around so swiftly it was impossible to
watch the minute-hand, and the hour-hand traveled like the wind.

While they looked, it made two complete revolutions. In one of them the glory of daylight had waxed, waned,
and vanished. In the other, darkness reigned except for the glow from the electric light overhead.

There was a sudden tension and catch in the watch. Arthur dropped it instantly. It flew to pieces before it
reached the floor.

"If you've got a watch," Arthur ordered swiftly, "stop it this instant!"

Estelle fumbled at her wrist. Arthur tore the watch from her hand and threw open the case. The machinery
inside was going so swiftly it was hardly visible; Relentlessly, Arthur jabbed a penholder in the works. There was a
sharp click, and the watch was still.

Arthur ran to the window. As he reached it the sun rushed up, day lasted a moment, there was darkness, and
then the sun appeared again.

"Miss Woodward!" Arthur ordered suddenly, "look at the ground!"

Estelle glanced down. The next time the sun flashed into view she gasped.
The ground was white with snow!

"What has happened?" she demanded, terrified. "Oh, what has happened?"

Arthur fumbled at his chin awkwardly, watching the astonishing panorama outside. There was hardly any
distinguishing between the times the sun was up and the times it was below now, as the darkness and light followed
each other so swiftly the effect was the same as one of the old flickering motion-pictures.

As Arthur watched, this effect became more pronounced. The tall Fifth Avenue Building across the way began
to disintegrate. In a moment, it seemed, there was only a skeleton there. Then that vanished, story by story. A great
cavity in the earth appeared, and then another building became visible, a smaller, brown-stone, unimpressive
structure.

With bulging eyes Arthur stared across the city. Except for the flickering, he could see almost clearly now.

He no longer saw the sun rise and set. There was merely a streak of unpleasantly brilliant light across the sky.
Bit by bit, building by building, the city began to disintegrate and become replaced by smaller, dingier buildings. In
a little while those began to disappear and leave gaps where they vanished.

Arthur strained his eyes and looked far down-town. He saw a forest of masts and spars along the waterfront for
a moment and when he turned his eyes again to the scenery near him it was almost barren of houses, and what few
showed were mean, small residences, apparently set in the midst of farms and plantations.

Estelle was sobbing.

"Oh, Mr. Chamberlain," she cried. "What is the matter? What has happened?"

Arthur had lost his fear of what their fate would be in his absorbing interest in what he saw. He was staring out
of the window, wide-eyed, lost in the sight before him. At Estelle's cry, however, he reluctantly left the window and
patted her shoulder awkwardly.

"I don't know how to explain it," he said uncomfortably, "but it's obvious that my first surmise was all wrong.
The speed of the earth's rotation can't have been increased, because if it had to the extent we see, we'd have been
thrown off into space long ago. But--have you read anything about the Fourth Dimension?"
Estelle shook her head hopelessly.
"Well, then, have you ever read anything by Wells? The 'Time Machine,' for instance?"
Again she shook her head.
"I don't know how I'm going to say it so you'll understand, but time is just as much a dimension as length and breadth. From what I can judge, I'd say there has been an earthquake, and the ground has settled a little with our building on it, only instead of settling down toward the center of the earth, or side-wise, it's settled in this fourth dimension."
"But what does that mean?" asked Estelle uncomprehendingly.
"If the earth had settled down, we'd have been lower. If it had settled to one side, we'd have been moved one way or another, but as it's settled back in the Fourth Dimension, we're going back in time."
"Then--"
"We're in a runaway skyscraper, bound for some time back before the discovery of America!"

III.
It was very still in the office. Except for the flickering outside everything seemed very much as usual. The electric light burned steadily, but Estelle was sobbing with fright and Arthur was trying vainly to console her.
"Have I gone crazy?" she demanded between her sobs.
"Not unless I've gone mad, too," said Arthur soothingly. The excitement had quite a soothing effect upon him. He had ceased to feel afraid, but was simply waiting to see what had happened. "We're way back before the founding of New York now, and still going strong."
"Are you sure that's what has happened?"
"If you'll look outside," he suggested, "you'll see the seasons following each other in reverse order. One moment the snow covers all the ground, then you catch a glimpse of autumn foliage, then summer follows, and next spring."
Estelle glanced out of the window and covered her eyes.
"Not a house," she said despairingly. "Not a building. Nothing, nothing, nothing!"
Arthur slipped, his arm about her and patted hers comfortingly.
"It's all right," he reassured her. "We'll bring up presently, and there we'll be. There's nothing to be afraid of."
She rested her head on his shoulder and sobbed hopelessly for a little while longer, but presently quieted. Then, suddenly, realizing that Arthur's arm was about her and that she was crying on his shoulder, she sprang away, blushing crimson.
Arthur walked to the window.
"Look there!" he exclaimed, but it was too late. "I'll swear to it I saw the Half Moon, Hudson's ship," he declared excitedly. "We're way back now, and don't seem to be slacking up, either."
Estelle came to the window by his side. The rapidly changing scene before her made her gasp. It was no longer possible to distinguish night from day.
A wavering streak, moving first to the right and then to the left, showed where the sun flashed across the sky.
"What makes the sun wabble so?" she asked.
"Moving north and south of the equator," Arthur explained casually. "When it's farthest south--to the left--there's always snow on the ground. When it's farthest right it's summer. See how green it is?"
A few moments' observation corroborated his statement.
"I'd say," Arthur remarked reflectively, "that it takes about fifteen seconds for the sun to make the round trip from farthest north to farthest south. He felt his pulse. "Do you know the normal rate of the heart-beat? We can judge time that way. A clock will go all to pieces, of course."
"Why did your watch explode--and the clock?"
"Running forward in time unwinds a clock, doesn't it?" asked Arthur. "It follows, of course, that when you move it backward in time it winds up. When you move it too far back, you wind it so tightly that the spring just breaks to pieces."
He paused a moment, his fingers on his pulse.
"Yes, it takes about fifteen seconds for all the four seasons to pass. That means we're going backward in time about four years a minute. If we go on at this rate another hour we'll be back in the time of the Northmen, and will be able to tell if they did discover America, after all."
"Funny we don't hear any noises," Estelle observed. She had caught some of Arthur's calmness.
"It passes so quickly that though our ears hear it, we don't separate the sounds. If you'll notice, you do hear a sort of humming. It's very high-pitched, though."
Estelle listened, but could hear nothing.
"No matter," said Arthur. "It's probably a little higher than your ears will catch. Lots of people can't hear a bat
“I never could,” said Estelle. “Out in the country, where I come from, other people could hear them, but I couldn’t.”

They stood a while in silence, watching.

“When are we going to stop?” asked Estelle uneasily. “It seems as if we’re going to keep on indefinitely.”

“I guess we’ll stop all right,” Arthur reassured her. “It’s obvious that whatever it was, only affected our own building, or we’d see some other one with us. It looks like a fault or a flaw in the rock the building rests on. And that can only give so far.”

Estelle was silent for a moment.

“Oh, I can’t be sane!” she burst out semihysterically. “This can’t be happening!”

“You aren’t crazy,” said Arthur sharply. “You’re sane as I am. Just something queer is happening. Buck up. Say your multiplication tables. Say anything you know. Say something sensible and you’ll know you’re all right. But don’t get frightened now. There’ll be plenty to get frightened about later.”

The grimness in his tone alarmed Estelle.

“What are you afraid of?” she asked quickly.

“You—you aren’t afraid we’ll go back before the beginning of the world, are you?” asked Estelle in sudden access of fright.

Arthur shook his head.

“Tell me,” said Estelle more quietly, getting a grip on herself. “I won’t mind. But please tell me.”

Arthur glanced at her. Her face was pale, but there was more resolution in it than he had expected to find.

“I’ll tell you, then,” he said reluctantly. “We’re going back a little faster than we were, and the flaw seems to be a deeper one than I thought. At the roughest kind of an estimate, we’re all of a thousand years before the discovery of America now, and I think nearer three or four. And we’re gaining speed all the time. So, though I am as sure as I can be sure of anything that we’ll stop this cave-in eventually, I don’t know where. It’s like a crevasse in the earth opened by an earthquake which may be only a few feet deep, or it may be hundreds of yards, or even a mile or two. We started off smoothly. We’re going at a terrific rate. What will happen when we stop?”

Estelle caught her breath.

“What?” she asked quietly.

“I don’t know,” said Arthur in an irritated tone, to cover his apprehension. “How could I know?”

Estelle turned from him to the window again.

“Look!” she said, pointing.

The flickering had begun again. While they stared, hope springing up once more in their hearts, it became more pronounced. Soon they could distinctly see the difference between day and night.

They were slowing up! The white snow on the ground remained there for an appreciable time, autumn lasted quite a while. They could catch the flashes of the sun as it made its revolutions now, instead of its seeming like a ribbon of fire. At last day lasted all of fifteen or twenty minutes.

It grew longer and longer. Then half an hour, then an hour. The sun wavered in midheaven and was still.

Far below them, the watchers in the tower of the skyscraper saw trees swaying and bending in the wind. Though there was not a house or a habitation to be seen and a dense forest covered all of Manhattan Island, such of the world as they could see looked normal. Wherever or rather in whatever epoch of time they were, they had arrived.

IV.

Arthur caught at Estelle’s arm and the two made a dash for the elevators. Fortunately one was standing still, the door open, on their floor. The elevator-boy had deserted his post and was looking with all the rest of the occupants of the building at the strange landscape that surrounded them.

No sooner had the pair reached the car, however, than the boy came hurrying along the corridor, three or four other people following him also at a run. Without a word the boy rushed inside, the others crowded after him, and the car shot downward, all of the newcomers panting from their sprint.

Theirs was the first car to reach the bottom. They rushed out and to the western door.

Here, where they had been accustomed to see Madison Square spread out before them, a clearing of perhaps half an acre in extent showed itself. Where their eyes instinctively looked for the dark bronze fountain, near which soap-box orators afootetime held sway, they saw a tent, a wigwam of hides and bark gaily painted. And before the wigwam were two or three brown-skinned Indians, utterly petrified with astonishment.

Behind the first wigwam were others, painted like the first with daubs of brightly colored clay. From them, too, Indians issued, and stared in incredulous amazement, their eyes growing wider and wider. When the group of white
people confronted the Indians there was a moment's deathlike silence. Then, with a wild yell, the redskins broke and ran, not stopping to gather together their belongings, nor pausing for even a second glance at the weird strangers who invaded their domain.

Arthur took two or three deep breaths of the fresh air and found himself even then comparing its quality with that of the city. Estelle stared about her with unbelieving eyes. She turned and saw the great bulk of the office building behind her, then faced this small clearing with a virgin forest on its farther side.

She found herself trembling from some undefined cause. Arthur glanced at her. He saw the trembling and knew she would have a fit of nerves in a moment if something did not come up demanding instant attention.

"We'd better take a look at this village," he said in an off-hand voice. "We can probably find out how long ago it is from the weapons and so on."

He grasped her arm firmly and led her in the direction of the tents. The other people, left behind, displayed their emotions in different ways. Two or three of them--women--sat frankly down on the steps and indulged in tears of bewilderment, fright and relief in a peculiar combination defying analysis. Two or three of the men swore, in shaken voices.

Meantime, the elevators inside the building were rushing and clanging, and the hall filled with a white-faced mob, desperately anxious to find out what had happened and why. The people poured out of the door and stared about blankly. There was a peculiar expression of doubt on every one of their faces. Each one was asking himself if he were awake, and having proved that by pinches, openly administered, the next query was whether they had gone mad.

Arthur led Estelle cautiously among the tents.

The village contained about a dozen wigwams. Most of them were made of strips of birch-bark, cleverly overlapping each other, the seams cemented with gum. All had hide flaps for doors, and one or two were built almost entirely of hides, sewed together with strips of sinew.

Arthur made only a cursory examination of the village. His principal motive in taking Estelle there was to give her some mental occupation to ward off the reaction from the excitement of the cataclysm.

He looked into one or two of the tents and found merely couches of hides, with minor domestic utensils scattered about. He brought from one tent a bow and quiver of arrows. The workmanship was good, but very evidently the maker had no knowledge of metal tools.

Arthur's acquaintance with archeological subjects was very slight, but he observed that the arrow-heads were chipped, and not rubbed smooth. They were attached to the shafts with strips of gut or tendon.

"Oh, what are we going to do?" she asked tearfully. "What are we going to do? Where are we?"

"You mean, when are we," Arthur corrected with a grim smile. "I don't know. Way back before the discovery of America, though. You can see in everything in the village that there isn't a trace of European civilization. I suspect that we are several thousand years back. I can't tell, of course, but this pottery makes me think so. See this bowl?"

He pointed to a bowl of red clay lying on the ground before one of the wigwams.

"If you'll look, you'll see that it isn't really pottery at all. It's a basket that was woven of reeds and then smeared with clay to make it fire-resisting. The people who made that didn't know about baking clay to make it stay put. When America was discovered nearly all the tribes knew something about pottery."

"But what are we going to do?" Estelle tearfully insisted.

"We're going to muddle along as well as we can," answered Arthur cheerfully, "until we can get back to where we started from. Maybe the people back in the twentieth century can send a relief party after us. When the skyscraper vanished it must have left a hole of some sort, and it may be possible for them to follow us down."

"If that's so," said Estelle quickly, "why can't we climb up it without waiting for them to come after us?"

Arthur scratched his head. He looked across the clearing at the skyscraper. It seemed to rest very solidly on the ground. He looked up. The sky seemed normal.

"To tell the truth," he admitted, "there doesn't seem to be any hole. I said that more to cheer you up than anything else."

Estelle clenched her hands tightly and took a grip on herself.

"Just tell me the truth," she said quietly. "I was rather foolish, but tell me what you honestly think."

Arthur eyed her keenly.

"In that case," he said reluctantly, "I'll admit we're in a pretty bad fix. I don't know what has happened, how it happened, or anything about it. I'm just going to keep on going until I see a way clear to get out of this mess. There are two thousand of us people, more or less, and among all of us we must be able to find a way out."

Estelle had turned very pale.
"We're in no great danger from Indians," went on Arthur thoughtfully, "or from anything else that I know of--except one thing."

"What is that?" asked Estelle quickly.

Arthur shook his head and led her back toward the skyscraper, which was now thronged with the people from all the floors who had come down to the ground and were standing excitedly about the concourse asking each other what had happened.

Arthur led Estelle to one of the corners.

"Wait for me here," he ordered. "I'm going to talk to this crowd."

He pushed his way through until he could reach the confectionery and news-stand in the main hallway. Here he climbed up on the counter and shouted:

"People, listen to me! I'm going to tell you what's happened!"

In an instant there was dead silence. He found himself the center of a sea of white faces, every one contorted with fear and anxiety.

"To begin with," he said confidently, "there's nothing to be afraid of. We're going to get back to where we started from! I don't know how, yet, but we'll do it. Don't get frightened. Now I'll tell you what's happened."

He rapidly sketched out for them, in words as simple as he could make them, his theory that a flaw in the rock on which the foundations rested had developed and let the skyscraper sink, not downward, but into the Fourth Dimension.

"I'm an engineer," he finished. "What nature can do, we can imitate. Nature let us into this hole. We'll climb out. In the mean time, matters are serious. We needn't be afraid of not getting back. We'll do that. What we've got to fight is--starvation!"

V.

"We've got to fight starvation, and we've got to beat it," Arthur continued doggedly. "I'm telling you this right at the outset, because I want you to begin right at the beginning and pitch in to help. We have very little food and a lot of us to eat it. First, I want some volunteers to help with rationing. Next, I want every ounce of food, in this place put under guard where it can be served to those who need it most. Who will help out with this?"

The swift succession of shocks had paralyzed the faculties of most of the people there, but half a dozen moved forward. Among them was a single gray-haired man with an air of accustomed authority. Arthur recognized him as the president of the bank on the ground floor.

"I don't know who you are or if you're right in saying what has happened," said the gray-haired man. "But I see something's got to be done, and--well, for the time being I'll take your word for what that is. Later on we'll thrash this matter out."

Arthur nodded. He bent over and spoke in a low voice to the gray-haired man, who moved away.

"Grayson, Walters, Terhune, Simpson, and Forsythe come here," the gray-haired man called at a doorway.

A number of men began to press dazedly toward him. Arthur resumed his harangue.

"You people--those of you who aren't too dazed to think--are remembering there's a restaurant in the building and no need to starve. You're wrong. There are nearly two thousand of us here. That means six thousand meals a day. We've got to have nearly ten tons of food a day, and we've got to have it at once."

"Hunt?" some one suggested.

"I saw Indians," some one else shouted. "Can we trade with them?"

"We can hunt and we can trade with the Indians," Arthur admitted, "but we need food by the ton--by the ton, people! The Indians don't store up supplies, and, besides, they're much too scattered to have a surplus for us. But we've got to have food. Now, how many of you know anything about hunting, fishing, trapping, or any possible way of getting food?"

There were a few hands raised--pitifully few. Arthur saw Estelle's hand up.

"Very well," he said. "Those of you who raised your hands then come with me up on the second floor and we'll talk it over. The rest of you try to conquer your fright, and don't go outside for a while. We've got some things to attend to before it will be quite safe for you to venture out. And keep away from the restaurant. There are armed guards over that food. Before we pass it out indiscriminately, we'll see to it there's more for to-morrow and the next day."

He stepped down from the counter and moved toward the stairway. It was not worth while to use the elevator for the ride of only one floor. Estelle managed to join him, and they mounted the steps together.

"Do you think we'll pull through all right?" she asked quietly.

"We've got to!" Arthur told her, setting his chin firmly. "We've simply got to."

The gray-haired president of the bank was waiting for them at the top of the stairs.

"My name is Van Deventer," he said, shaking hands with Arthur, who gave his own name.
"Where shall our emergency council sit?" he asked.

"The bank has a board room right over the safety vault. I dare say we can accommodate everybody there--everybody in the council, anyway."

Arthur followed into the board-room, and the others trooped in after him.

"I'm just assuming temporary leadership," Arthur explained, "because it's imperative some things be done at once. Later on we can talk about electing officials to direct our activities. Right now we need food. How many of you can shoot?"

About a quarter of the hands were raised. Estelle's was among the number.

"And how many are fishermen?"

A few more went up.

"What do the rest of you do?"

There was a chorus of "gardener," "I have a garden in my yard," "I grow peaches in New Jersey," and three men confessed that they raised chickens as a hobby.

"We'll want you gardeners in a little while. Don't go yet. But the most important are huntsmen and fishermen. Have any of you weapons in your offices?"

A number had revolvers, but only one man had a shotgun and shells.

"I was going on my vacation this afternoon straight from the office," he explained, "and have all my vacation tackle."

"Good man!" Arthur exclaimed. "You'll go after the heavy game."

"With a shotgun?" the sportsman asked, aghast.

"If you get close to them a shotgun will do as well as anything, and we can't waste a shell on every bird or rabbit. Those shells of yours are precious. You other fellows will have to turn fishermen for a while. Your pistols are no good for hunting."

"The watchmen at the bank have riot guns," said Van Deventer, "and there are one or two repeating-rifles there. I don't know about ammunition."

"Good! I don't mean about the ammunition, but about the guns. We'll hope for the ammunition. You fishermen get to work to improvise tackle out of anything you can get hold of. Will you do that?"

A series of nods answered his question.

"Now for the gardeners. You people will have to roam through the woods in company with the hunters and locate anything in the way of edibles that grows. Do all of you know what wild plants look like? I mean wild fruits and vegetables that are good to eat."

A few of them nodded, but the majority looked dubious. The consensus of opinion seemed to be that they would try. Arthur seemed a little discouraged.

"I guess you're the man to tell about the restaurant," Van Deventer said quietly. "And as this is the food commission, or something of that sort, everybody here will be better for hearing it. Anyway, everybody will have to know it before night. I took over the restaurant as you suggested, and posted some of the men from the bank that I knew I could trust about the doors. But there was hardly any use in doing it."

"The restaurant stocks up in the afternoon, as most of its business is in the morning and at noon. It only carries a day's stock of foodstuffs, and the--the cataclysm, or whatever it was, came at three o'clock. There is practically nothing in the place. We couldn't make sandwiches for half the women that are caught with us, let alone the men. Everybody will go hungry to-night. There will be no breakfast to-morrow, nor anything to eat until we either make arrangements with the Indians for some supplies or else get food for ourselves."

Arthur leaned his jaw on his hand and considered. A slow flush crept over his cheek. He was getting his fighting blood up.

At school, when he began to flush slowly his schoolmates had known the symptom and avoided his wrath. Now he was growing angry with mere circumstances, but it would be none the less unfortunate for those circumstances.

"Well," he said at last deliberately, "we've got to-- What's that?"

There was a great creaking and groaning. Suddenly a sort of vibration was felt under foot. The floor began to take on a slight slant.

"Great Heaven!" some one cried. "The building's turning over and we'll be buried in the ruins!"

The tilt of the floor became more pronounced. An empty chair slid to one end of the room. There was a crash.

VI.

Arthur woke to find some one tugging at his shoulders, trying to drag him from beneath the heavy table, which had wedged itself across his feet and pinned him fast, while a flying chair had struck him on the head and knocked him unconscious.

"Oh, come and help," Estelle's voice was calling deliberately. "Somebody come and help! He's caught in here!"
She was sobbing in a combination of panic and some unknown emotion.

"Help me, please!" she gasped, then her voice broke despondently, but she never ceased to tug ineffectually at Chamberlain, trying to drag him out of the mass of wreckage.

Arthur moved a little, dazedly.

"Are you alive?" she called anxiously. "Are you alive? Hurry, oh, hurry and wriggle out. The building's falling to pieces!"

"I'm all right," Arthur said weakly. "You get out before it all comes down."

"I won't leave you," she declared. "Where are you caught? Are you badly hurt? Hurry, please hurry!"

Arthur stirred, but could not loosen his feet. He half-rolled over, and the table moved as if it had been precariously balanced, and slid heavily to one side. With Estelle still tugging at him, he managed to get to his feet on the slanting floor and stared about him.

Arthur continued to stare about.

"No danger," he said weakly. "Just the floor of the one room gave way. The aftermath of the rock-flaw."

He made his way across the splintered flooring and piled-up chairs.

"We're on top of the safe-deposit vault," he said. "That's why we didn't fall all the way to the floor below. I wonder how we're going to get down?"

Estelle followed him, still frightened for fear of the building falling upon them. Some of the long floor-boards stretched over the edge of the vault and rested on a tall, bronze grating that protected the approach to the massive strong-box. Arthur tested them with his foot.

"They seem to be pretty solid," he said tentatively.

His strength was coming back to him every moment. He had been no more than stunned. He walked out on the planking to the bronze grating and turned.

"If you don't get dizzy, you might come on," he said. "We can swing down the grille here to the floor."

Estelle followed gingerly and in a moment they were safely below. The corridor was quite empty.

"When the crash came," Estelle explained, her voice shaking with the reaction from her fear of a moment ago, "every one thought the building was coming to pieces, and ran out. I'm afraid they've all run away."

"They'll be back in a little while," Arthur said quietly.

They went along the big marble corridor to the same western door, out of which they had first gone to see the Indian village. As they emerged into the sunlight they met a few of the people who had already recovered from their panic and were returning.

A crowd of respectable size gathered in a few moments, all still pale and shaken, but coming back to the building which was their refuge. Arthur leaned wearily against the cold stone. It seemed to vibrate under his touch.

He turned quickly to Estelle.

"Feel this," he exclaimed.

She did so.

"I've been wondering what that rumble was," she said. "I've been hearing it ever since we landed here, but didn't understand where it came from."

"You hear a rumble?" Arthur asked, puzzled. "I can't hear anything."

"It isn't as loud as it was, but I hear it," Estelle insisted. "It's very deep, like the lowest possible bass note of an organ."

"You couldn't hear the shrill whistle when we were coming here," Arthur exclaimed suddenly, "and you can't hear the squeak of a bat. Of course your ears are pitched lower than usual, and you can hear sounds that are lower than I can hear. Listen carefully. Does it sound in the least like a liquid rushing through somewhere?"

"Y-yes," said Estelle hesitatingly. "Somehow, I don't quite understand how, it gives me the impression of a tidal flow or something of that sort."

Arthur rushed indoors. When Estelle followed him she found him excitedly examining the marble floor about the base of the vault.

"It's cracked," he said excitedly. "It's cracked! The vault rose all of an inch!"

Estelle looked and saw the cracks.

"What does that mean?"

"It means we're going to get back where we belong," Arthur cried jubilantly. "It means I'm on the track of the whole trouble. It means everything's going to be all right."

He prowled about the vault exultantly, noting exactly how the cracks in the flooring ran and seeing in each a corroboration of his theory.

"I'll have to make some inspections in the cellar," he went on happily, "but I'm nearly sure I'm on the right track and can figure out a corrective."
"How soon can we hope to start back?" asked Estelle eagerly.

Arthur hesitated, then a great deal of the excitement ebbed from his face, leaving it rather worried and stern.

"It may be a month, or two months, or a year," he answered gravely. "I don't know. If the first thing I try will work, it won't be long. If we have to experiment, I daren't guess how long we may be. But"--his chin set firmly--"we're going to get back."

Estelle looked at him speculatively. Her own expression grew a little worried, too.

"But in a month," she said dubiously, "we--there hardly any hope of our finding food for two thousand people for a month, is there?"

"We've got to," Arthur declared. "We can't hope to get that much food from the Indians. It will be days before they'll dare to come back to their village, if they ever come. It will be weeks before we can hope to have them earnestly at work to feed us, and that's leaving aside the question of how we'll communicate with them, and how we'll manage to trade with them. Frankly, I think everybody is going to have to have to draw his belt tight before we get through--if we do. Some of us will get along, anyway."

Estelle's eyes opened wide as the meaning of his last sentence penetrated her mind.

"You mean--that all of us won't--"

"I'm going to take care of you," Arthur said gravely, "but there are liable to be lively doings around here when people begin to realize they're really in a tight fix for food. I'm going to get Van Deventer to help me organize a police band to enforce martial law. We mustn't have any disorder, that's certain, and I don't trust a city-bred man in a pinch unless I know him."

He stooped and picked up a revolver from the floor, left there by one of the bank watchmen when he fled, in the belief that the building was falling.

VII.

Arthur stood at the window of his office and stared out toward the west. The sun was setting, but upon what a scene!

Where, from this same window Arthur had seen the sun setting behind the Jersey hills, all edged with the angular roofs of factories, with their chimneys emitting columns of smoke, he now saw the same sun sinking redly behind a mass of luxuriant foliage. And where he was accustomed to look upon the tops of high buildings--each entitled to the name of "skyscraper"--he now saw miles and miles of waving green branches.

The wide Hudson flowed on placidly, all unruffled by the arrival of this strange monument upon its shores--the same Hudson Arthur knew as a busy thoroughfare of puffing steamers and chugging launches. Two or three small streams wandered unconcernedly across the land that Arthur had known as the most closely built-up territory on earth. And far, far below him--Arthur had to lean well out of his window to see it--stood a collection of tiny wigwams. Those small bark structures represented the original metropolis of New York.

His telephone rang. Van Deventer was on the wire. The exchange in the building was still working. Van Deventer wanted Arthur to come down to his private office. There were still a great many things to be settled--the arrangements for commandeering offices for sleeping quarters for the women, and numberless other details. The men who seemed to have best kept their heads were gathering there to settle upon a course of action.

Arthur glanced out of the window again before going to the elevator. He saw a curiously compact dark cloud moving swiftly across the sky to the west.

"Miss Woodward," he said sharply, "What is that?"

Estelle came to the window and looked.

"They are birds," she told him. "Birds flying in a group. I've often seen them in the country, though never as many as that."

"How do you catch birds?" Arthur asked her. "I know about shooting them, and so on, but we haven't guns enough to count. Could we catch them in traps, do you think?"

"I wouldn't be surprised," said Estelle thoughtfully. "But it would be hard to catch many."

"Come down-stairs," directed Arthur. "You know as much as any of the men here, and more than most, apparently. We're going to make you show us how to catch things."

Estelle smiled, a trifle wanly. Arthur led the way to the elevator. In the car he noticed that she looked distressed.

"What's the matter?" he asked. "You aren't really frightened, are you?"

"No," she answered shakily, "but--I'm rather upset about this thing. It's so--so terrible, somehow, to be back here, thousands of miles, or years, away from all one's friends and everybody."

"Please"--Arthur smiled encouragingly at her--"please count me your friend, won't you?"

She nodded, but blinked back some tears. Arthur would have tried to hearten her further, but the elevator stopped at their floor. They walked into the room where the meeting of cool heads was to take place.
No more than a dozen men were in there talking earnestly but dispiritedly. When Arthur and Estelle entered Van Deventer came over to greet them.

"We've got to do something," he said in a low voice. "A wave of homesickness has swept over the whole place. Look at those men. Every one is thinking about his family and contrasting his cozy fireside with all that wilderness outside."

"You don't seem to be worried," Arthur observed with a smile.

Van Deventer's eyes twinkled.

"I'm a bachelor," he said cheerfully, "and I live in a hotel. I've been longing for a chance to see some real excitement for thirty years. Business has kept me from it up to now, but I'm enjoying myself hugely."

Estelle looked at the group of dispirited men.

"We'll simply have to do something," she said with a shaky smile. "I feel just as they do. This morning I hated the thought of having to go back to my boarding-house to-night, but right now I feel as if the odor of cabbage in the hallway would seem like heaven."

Arthur led the way to the flat-topped desk in the middle of the room.

"Let's settle a few of the more important matters," he said in a businesslike tone. "None of us has any authority to act for the rest of the people in the tower, but so many of us are in a state of blue funk that those who are here must have charge for a while. Anybody any suggestions?"

"Housing," answered Van Deventer promptly. "I suggest that we draft a gang of men to haul all the upholstered settees and rugs that are to be found to one floor, for the women to sleep on."

"M--m. Yes. That's a good idea. Anybody a better plan?"

No one spoke. They all still looked much too homesick to take any great interest in anything, but they began to listen more or less half-heartedly.

"I've been thinking about coal," said Arthur. "There's undoubtedly a supply in the basement, but I wonder if it wouldn't be well to cut the lights off most of the floors, only lighting up the ones we're using."

"That might be a good idea later," Estelle said quietly, "but light is cheering, somehow, and every one feels so blue that I wouldn't do it to-night. To-morrow they'll begin to get up their resolution again, and you can ask them to do things."

"If we're going to starve to death," one of the other men said gloomily, "we might as well have plenty of light to do it by."

"We aren't going to starve to death," retorted Arthur sharply. "Just before I came down I saw a great cloud of birds, greater than I had ever seen before. When we get at those birds--"

"When," echoed the gloomy one.

"They were pigeons," Estelle explained. "They shouldn't be hard to snare or trap."

"I usually have my dinner before now," the gloomy one protested, "and I'm told I won't get anything to-night."

The other men began to straighten their shoulders. The peevishness of one of their number seemed to bring out their latent courage.

"Well, we've got to stand it for the present," one of them said almost philosophically. "What I'm most anxious about is getting back. Have we any chance?"

Arthur nodded emphatically.

"I think so. I have a sort of idea as to the cause of our sinking into the Fourth Dimension, and when that is verified, a corrective can be looked for and applied."

"How long will that take?"

"Can't say," Arthur replied frankly. "I don't know what tools, what materials, or what workmen we have, and what's rather more to the point, I don't even know what work will have to be done. The pressing problem is food."

"Oh, bother the food," some one protested impatiently. "I don't care about myself. I can go hungry to-night. I want to get back to my family."

"That's all that really matters," a chorus of voices echoed.

"We'd better not bother about anything else unless we find we can't get back. Concentrate on getting back," one man stated more explicitly.

"Look here," said Arthur incisively. "You've a family, and so have a great many of the others in the tower, but your family and everybody else's family has got to wait. As an inside limit, we can hope to begin to work on the problem of getting back when we're sure there's nothing else going to happen. I tell you quite honestly that I think I know what is the direct cause of this catastrophe. And I'll tell you even more honestly that I think I'm the only man among us who can put this tower back where it started from. And I'll tell you most honestly of all that any attempt to meddle at this present time with the forces that let us down here will result in a catastrophe considerably greater than the one that happened to-day."
"Well, if you're sure--" some one began reluctantly.

"I am so sure that I'm going to keep to myself the knowledge of what will start those forces to work again," Arthur said quietly. "I don't want any impatient meddling. If we start them too soon God only knows what will happen."

VIII.

Van Deventer was eying Arthur Chamberlain keenly.

"It isn't a question of your wanting pay in exchange for your services in putting us back, is it?" he asked coolly. Arthur turned and faced him. His face began to flush slowly. Van Deventer put up one hand.

"I beg your pardon. I see."

"We aren't settling the things we came here for," Estelle interrupted.

She had noted the threat of friction and hastened to put in a diversion. Arthur relaxed.

"I think that as a beginning," he suggested, "we'd better get sleeping arrangements completed. We can get everybody together somewhere, I dare say, and then secure volunteers for the work."

"Right." Van Deventer was anxious to make amends for his blunder of a moment before. "Shall I send the bank watchmen to go on each floor in turn and ask everybody to come down-stairs?"

"You might start them," Arthur said. "It will take a long time for every one to assemble."

Van Deventer spoke into the telephone on his desk. In a moment he hung up the receiver.

"They're on their way," he said.

Arthur was frowning to himself and scribbling in a note-book.

"Of course," he announced abstractedly, "the pressing problem is food. We've quite a number of fishermen, and a few hunters. We've got to have a lot of food at once, and everything considered, I think we'd better count on the fishermen. At sunrise we'd better have some people begin to dig bait and wake our anglers. They'd better make their tackle to-night, don't you think?"

There was a general nod.

"We'll announce that, then. The fishermen will go to the river under guard of the men we have who can shoot. I think what Indians there are will be much too frightened to try to ambush any of us, but we'd better be on the safe side. They'll keep together and fish at nearly the same spot, with our hunters patrolling the woods behind them, taking pot-shots at game, if they see any. The fishermen should make more or less of a success, I think. The Indians weren't extensive fishers that I ever heard of, and the river ought fairly to swarm with fish."

He closed his note-book.

"How many weapons can we count on altogether?" Arthur asked Van Deventer.

"In the bank, about a dozen riot-guns and half a dozen repeating rifles. Elsewhere I don't know. Forty or fifty men said they had revolvers, though."

"We'll give revolvers to the men who go with the fishermen. The Indians haven't heard firearms and will run at the report, even if they dare attack our men."

"We can send out the gun-armed men as hunters," some one suggested, "and send gardeners with them to look for vegetables and such things."

"We'll have to take a sort of census, really," Arthur suggested, "finding what every one can do and getting him to do it."

"I never planned anything like this before," Van Deventer remarked, "and I never thought I should, but this is much more fun than running a bank."

Arthur smiled.

"Let's go and have our meeting," he said cheerfully.

But the meeting was a gloomy and despairing affair. Nearly every one had watched the sun set upon a strange, wild landscape. Hardly an individual among the whole two thousand of them had ever been out of sight of a house before in his or her life. To look out at a vast, untouched wilderness where hitherto they had seen the most highly civilized city on the globe would have been startling and depressing enough in itself, but to know that they were alone in a whole continent of savages and that there was not, indeed, in all the world a single community of people they could greet as brothers was terrifying.

Few of them thought so far, but there was actually—if Arthur's estimate of several thousand years' drop back through time was correct—there was actually no other group of English-speaking people in the world. The English language was yet to be invented. Even Rome, the synonym for antiquity of culture, might still be an obscure village inhabited by a band of tatterdemalions under the leadership of an upstart Romulus.

Soft in body as these people were, city-bred and unaccustomed to face other than the most conventionalized emergencies of life, they were terrified. Hardly one of them had even gone without a meal in all his life. To have the prospect of having to earn their food, not by the manipulation of figures in a book, or by expert juggling of profits
and prices, but by literal wrestling of that food from its source in the earth or stream was a really terrifying thing for them.

In addition, every one of them was bound to the life of modern times by a hundred ties. Many of them had families, a thousand years away. All had interests, engrossing interests, in modern New York.

One young man felt an anxiety that was really ludicrous because he had promised to take his sweetheart to the theater that night, and if he did not come she would be very angry. Another was to have been married in a week. Some of the people were, like Van Deventer and Arthur, so situated that they could view the episode as an adventure, or, like Estelle, who had no immediate fear because all her family was provided for without her help and lived far from New York, so they would not learn of the catastrophe for some time. Many, however, felt instant and pressing fear for the families whose expenses ran always so close to their incomes that the disappearance of the breadwinner for a week would mean actual want or debt. There are very many such families in New York.

The people, therefore, that gathered hopelessly at the call of Van Deventer's watchmen were dazed and spiritless. Their excitement after Arthur's first attempt to explain the situation to them had evaporated. They were no longer keyed up to a high pitch by the startling thing that had happened to them.

Nevertheless, although only half comprehending what had actually occurred, they began to realize what that occurrence meant. No matter where they might go over the whole face of the globe, they would always be aliens and strangers. If they had been carried away to some unknown shore, some wilderness far from their own land, they might have thought of building ships to return to their homes. They had seen New York vanish before their eyes, however. They had seen their civilization disappear while they watched.

They were in a barbarous world. There was not, for example, a single sulfur match on the whole earth except those in the runaway skyscraper.

IX.

Arthur and Van Deventer, in turn with the others of the cooler heads, thundered at the apathetic people, trying to waken them to the necessity for work. They showered promises of inevitable return to modern times, they pledged their honor to the belief that a way would ultimately be found by which they would all yet find themselves safely back home again.

The people, however, had seen New York disintegrate, and Arthur's explanation sounded like some wild dream of an imaginative novelist. Not one person in all the gathering could actually realize that his home might yet be waiting for him, though at the same time he felt a pathetic anxiety for the welfare of its inmates.

Every one was in a turmoil of contradictory beliefs. On the one hand they knew that all of New York could not be actually destroyed and replaced by a splendid forest in the space of a few hours, so the accident or catastrophe must have occurred to those in the tower, and on the other hand, they had seen all of New York vanish by bits and fragments, to be replaced by a smaller and dingier town, had beheld that replaced in turn, and at last had landed in the midst of this forest.

Every one, too, began to feel an unusual and uncomfortable sensation of hunger. It was a mild discomfort as yet, but few of them had experienced it before without an immediate prospect of assuaging the craving, and the knowledge that there was no food to be had somehow increased the desire for it. They were really in a pitiful state.

Van Deventer spoke encouragingly, and then asked for volunteers for immediate work. There was hardly any response. Every one seemed sunk in despondency. Arthur then began to talk straight from the shoulder and succeeded in rousing them a little, but every one was still rather too frightened to realize that work could help at all.

In desperation the dozen or so men who had gathered in Van Deventer's office went about among the gathering and simply selected men at random, ordering them to follow and begin work. This began to awaken the crowd, but they wakened to fear rather than resolution. They were city-bred, and unaccustomed to face the unusual or the alarming.

Arthur noted the new restlessness, but attributed it to growing uneasiness rather than selfish panic. He was rather pleased that they were outgrowing their apathy. When the meeting had come to an end he felt satisfied that by morning the latent resolution among the people would have crystallized and they would be ready to work earnestly and intelligently on whatever tasks they were directed to undertake.

He returned to the ground floor of the building feeling much more hopeful than before. Two thousand people all earnestly working for one end are hard to down even when faced with such a task as confronted the inhabitants of the runaway skyscraper. Even if they were never able to return to modern times they would still be able to form a community that might do much to hasten the development of civilization in other parts of the world.

His hope received a rude shock when he reached the great hallway on the lower floor. There was a fruit and confectionery stand here, and as Arthur arrived at the spot, he saw a surging mass of men about it. The keeper of the stand looked frightened, but was selling off his stock as fast as he could make change. Arthur forced his way to the counter.
"Here," he said sharply to the keeper of the stand, "stop selling this stuff. It's got to be held until we can dole it out where it's needed."

"I--I can't help myself," the keeper said. "They're takin' it anyway."

"Get back there," Arthur cried to the crowd. "Do you call this decent, trying to get more than your share of this stuff? You'll get your portion to-morrow. It is going to be divided up."

"Go to hell!" some one panted. "You c'n starve if you want to, but I'm goin' to look out f'r myself."

The men were not really starving, but had been put into a panic by the plain speeches of Arthur and his helpers, and were seizing what edibles they could lay hands upon in preparation for the hunger they had been warned to expect.

Arthur pushed against the mob, trying to thrust them away from the counter, but his very effort intensified their panic. There was a quick surge and a crash. The glass front of the showcase broke in.

In a flash of rage Arthur struck out viciously. The crowd paid not the slightest attention to him, however. Every man was too panic-stricken, and too intent on getting some of this food before it was all gone to bother with him.

Arthur was simply crushed back by the bodies of the forty or fifty men. In a moment he found himself alone amid the wreckage of the stand, with the keeper wringing his hands over the remnants of his goods.

Van Deventer ran down the stairs.

"What's the matter?" he demanded as he saw Arthur nursing a bleeding hand cut on the broken glass of the showcase.

"Bolsheviki!" answered Arthur with a grim smile. "We woke up some of the crowd too successfully. They got panic-stricken and started to buy out this stuff here. I tried to stop them, and you see what happened. We'd better look to the restaurant, though I doubt if they'll try anything else just now."

He followed Van Deventer up to the restaurant floor. There were picked men before the door, but just as Arthur and the bank president appeared two or three white-faced men went up to the guards and started low-voiced conversations.

Arthur reached the spot in time to forestall bribery.

"Some fools have got panic-stricken!" Van Deventer explained to the men before the doors in a casual voice, though he was breathing heavily from the unaccustomed exertion. "They've smashed up the fruit-stand on the ground floor and stolen the contents. It's nothing but blue funk! Only, if any of them start to gather around here, hit them first and talk it over afterward. You'll do that?"

"We will!" the men said heartily.

"Shall we use our guns?" asked another hopefully.

Van Deventer grinned.

"No," he replied, "we haven't any excuse for that yet. But you might shoot at the ceiling, if they get excited. They're just frightened!"

He took Arthur's arm, and the two walked toward the stairway again.

"Chamberlain," he said happily, "tell me why I've never had as much fun as this before!"

Arthur smiled a bit wearily.

"I'm glad you're enjoying yourself!" he said. "I'm not. I'm going outside and walk around. I want to see if any cracks have appeared in the earth anywhere. It's dark, and I'll borrow a lantern down in the fire-room, but I want to find out if there are any more developments in the condition of the building."

X.

Despite his preoccupation with his errand, which was to find if there were other signs of the continued activity of the strange forces that had lowered the tower through the Fourth Dimension into the dim and unrecorded years of aboriginal America, Arthur could not escape the fascination of the sight that met his eyes. A bright moon shone overhead and silvered the white sides of the tower, while the brightly-lighted windows of the offices within glittered like jewels set into the shining shaft.

From his position on the ground he looked into the dimness of the forest on all sides. Black obscurity had gathered beneath the dark masses of moonlit foliage. The tiny birch-bark teepees of the now deserted Indian village glowed palely. Above, the stars looked calmly down at the accusing finger of the tower pointing upward, as if in reproach at their indifference to the savagery that reigned over the whole earth.

Like a fairy tower of jewels the building rose. Alone among a wilderness of trees and streams it towered in a strange beauty: moonlit to silver, lighted from within to a mass of brilliant gems, it stood serenely still.

Arthur, carrying his futile lantern about its base, felt his own insignificance as never before. He wondered what the Indians must think. He knew there must be hundreds of eyes fixed upon the strange sight--fixed in awe-stricken terror or superstitious reverence upon this unearthly visitor to their hunting grounds.
A tiny figure, dwarfed by the building whose base he skirted, Arthur moved slowly about the vast pile. The earth seemed not to have been affected by the vast weight of the tower.

Arthur knew, however, that long concrete piles reached far down to bedrock. It was these piles that had sunk into the Fourth Dimension, carrying the building with them.

Arthur had followed the plans with great interest when the Metropolitan was constructed. It was an engineering feat, and in the engineering periodicals, whose study was a part of Arthur's business, great space had been given to the building and the methods of its construction.

While examining the earth carefully he went over his theory of the cause for the catastrophe. The whole structure must have sunk at the same time, or it, too, would have disintegrated, as the other buildings had appeared to disintegrate. Mentally, Arthur likened the submergence of the tower in the oceans of time to an elevator sinking past the different floors of an office building. All about the building the other sky-scrapers of New York had seemed to vanish. In an elevator, the floors one passes seem to rise upward.

Carrying out the analogy to its logical end, Arthur reasoned that the building itself had no more cause to disintegrate, as the buildings it passed seemed to disintegrate, than the elevator in the office building would have cause to rise because its surroundings seemed to rise.

Within the building, he knew, there were strange stirrings of emotions. Queer currents of panic were running about, throwing the people to and fro as leaves are thrown about by a current of wind. Yet, underneath all those undercurrents of fear, was a rapidly growing resolution, strengthened by an increasing knowledge of the need to work.

Men were busy even then shifting all possible comfortable furniture to a single story for the women in the building to occupy. The men would sleep on the floor for the present. Beds of boughs could be improvised on the morrow. At sunrise on the following morning many men would go to the streams to fish, guarded by other men. All would be frightened, no doubt, but there would be a grim resolution underneath the fear. Other men would wander about to hunt.

There was little likelihood of Indians approaching for some days, at least, but when they did come Arthur meant to avoid hostilities by all possible means. The Indians would be fearful of their strange visitors, and it should not be difficult to convince them that friendliness was safest, even if they displayed unfriendly desires.

The pressing problem was food. There were two thousand people in the building, soft-bodied and city-bred. They were unaccustomed to hardship, and could not endure what more primitive people would hardly have noticed.

They must be fed, but first they must be taught to feed themselves. The fishermen would help, but Arthur could only hope that they would prove equal to the occasion. He did not know what to expect from them. From the hunters he expected but little. The Indians were wary hunters, and game would be shy if not scarce.

The great cloud of birds he had seen at sunset was a hopeful sign. Arthur vaguely remembered stories of great flocks of wood-pigeons which had been exterminated, as the buffalo was exterminated. As he considered the remembrance became more clear.

They had flown in huge flocks which nearly darkened the sky. As late as the forties of the nineteenth century they had been an important article of food, and had glutted the market at certain seasons of the year.

Estelle had said the birds he had seen at sunset were pigeons. Perhaps this was one of the great flocks. If it were really so, the food problem would be much lessened, provided a way could be found to secure them. The ammunition in the tower was very limited, and a shell could not be found for every bird that was needed, nor even for every three or four. Great traps must be devised, or bird-lime might possibly be produced. Arthur made a mental note to ask Estelle if she knew anything of bird-lime.

A vague, humming roar, altering in pitch, came to his ears. He listened for some time before he identified it as the sound of the wind playing upon the irregular surfaces of the tower. In the city the sound was drowned by the multitude of other noises, but here Arthur could hear it plainly.

He listened a moment, and became surprised at the number of night noises he could hear. In New York he had closed his ears to incidental sounds from sheer self-protection. Somewhere he heard the ripple of a little spring. As the idea of a spring came into his mind, he remembered Estelle's description of the deep-toned roar she had heard.

He put his hand on the cold stone of the building. There was still a vibrant quivering of the rock. It was weaker than before, but was still noticeable.

He drew back from the rock and looked up into the sky. It seemed to blaze with stars, far more stars than Arthur had ever seen in the city, and more than he had dreamed existed.

As he looked, however, a cloud seemed to film a portion of the heavens. The stars still showed through it, but they twinkled in a peculiar fashion that Arthur could not understand.

He watched in growing perplexity. The cloud moved very swiftly. Thin as it seemed to be, it should have been silvery from the moonlight, but the sky was noticeably darker where it moved. It advanced toward the tower and
seemed to obscure the upper portion. A confused motion became visible among its parts. Wisps of it whirled away
from the brilliantly lighted tower, and then returned swiftly toward it.

Arthur heard a faint tinkle, then a musical scraping, which became louder. A faint scream sounded, then
another. The tinkle developed into the sound made by breaking glass, and the scraping sound became that of the
broken fragments as they rubbed against the sides of the tower in their fall.

The scream came again. It was the frightened cry of a woman. A soft body struck the earth not ten feet from
where Arthur stood, then another, and another.

XI.

Arthur urged the elevator boy to greater speed. They were speeding up the shaft as rapidly as possible, but it
was not fast enough. When they at last reached the height at which the excitement seemed to be centered, the car
was stopped with a jerk and Arthur dashed down the hall.

Half a dozen frightened stenographers stood there, huddled together.

"What's the matter?" Arthur demanded. Men were running, from the other floors to see what the trouble was.

"The--the windows broke, and--and something flew in at us!" one of them gasped. There was a crash inside the
nearest office and the women screamed again.

Arthur drew a revolver from his pocket and advanced to the door. He quickly threw it open, entered, and closed
it behind him. Those left out in the hall waited tensely.

There was no sound. The women began to look even more frightened. The men shuffled their feet uneasily, and
looked uncomfortably at one another. Van Deventer appeared on the scene, puffing a little from his haste.

The door opened again and Arthur came out. He was carrying something in his hands. He had put his revolver
aside and looked somewhat foolish but very much delighted.

"The food question is settled," he said happily. "Look!"

He held out the object he carried. It was a bird, apparently a pigeon of some sort. It seemed to have been
stunned, but as Arthur held it out it stirred, then struggled, and in a moment was flapping wildly in an attempt to
escape.

"It's a wood-pigeon," said Arthur. "They must fly after dark sometimes. A big flock of them ran afoul of the
tower and were dazed by the lights. They've broken a lot of windows, I dare say, but a great many of them ran into
the stonework and were stunned. I was outside the tower, and when I came in they were dropping to the ground by
hundreds. I didn't know what they were then, but if we wait twenty minutes or so I think we can go out and gather
up our supper and breakfast and several other meals, all at once."

Estelle had appeared and now reached out her hands for the bird.

"I'll take care of this one," she said. "Wouldn't it be a good idea to see if there aren't some more stunned in the
other offices?"

* * * * *

In half an hour the electric stoves of the restaurant were going at their full capacity. Men, cheerfully excited
men now, were bringing in pigeons by armfuls, and other men were skinning them. There was no time to pluck
them, though a great many of the women were busily engaged in that occupation.

As fast as the birds could be cooked they were served out to the impatient but much cheered castaways, and in
a little while nearly every person in the place was walking casually about the halls with a roasted, broiled, or fried
pigeon in his hands. The ovens were roasting pigeons, the frying-pans were frying them, and the broilers were
loaded down with the small but tender birds.

The unexpected solution of the most pressing question cheered every one amazingly. Many people were still
frightened, but less frightened than before. Worry for their families still oppressed a great many, but the removal of
the fear of immediate hunger led them to believe that the other problems before them would be solved, too, and in as
satisfactory a manner.

Arthur had returned to his office with four broiled pigeons in a sheet of wrapping-paper. As he somehow
expected, Estelle was waiting there.

"Thought I'd bring lunch up," he announced. "Are you hungry?"

"Starving!" Estelle replied, and laughed.

The whole catastrophe began to become an adventure. She bit eagerly into a bird. Arthur began as hungrily on
another. For some time neither spoke a word. At last, however, Arthur waved the leg of his second pigeon toward
his desk.

"Look what we've got here!" he said.

Estelle nodded. The stunned pigeon Arthur had first picked up was tied by one foot to a paper-weight.

"I thought we might keep him for a souvenir," she suggested.

"You seem pretty confident we'll get back, all right," Arthur observed. "It was surely lucky those blessed birds
came along. They've heartened up the people wonderfully!"

"Oh, I knew you'd manage somehow!" said Estelle confidently.

"I manage?" Arthur repeated, smiling. "What have I done?"

"Why, you've done everything," affirmed Estelle stoutly. "You've told the people what to do from the very first, and you're going to get us back."

Arthur grinned, then suddenly his face grew a little more serious.

"I wish I were as sure as you are," he said. "I think we'll be all right, though, sooner or later."

"I'm sure of it," Estelle declared with conviction. "Why, you--"

"Why I?" asked Arthur again. He bent forward in his chair and fixed his eyes on Estelle's. She looked up, met his gaze, and stammered.

"You--you do things," she finished lamely.

"I'm tempted to do something now," Arthur said. "Look here, Miss Woodward, you've been in my employ for three or four months. In all that time I've never had anything but the most impersonal comments from you. Why the sudden change?"

The twinkle in his eyes robbed his words of any impertinence.

"Why, I really--I really suppose I never noticed you before," said Estelle.

"Please notice me hereafter," said Arthur. "I have been noticing you. I've been doing practically nothing else."

Estelle flushed again. She tried to meet Arthur's eyes and failed. She bit desperately into her pigeon drumstick, trying to think of something to say.

"When we get back," went on Arthur meditatively, "I'll have nothing to do--no work or anything. I'll be broke and out of a job."

Estelle shook her head emphatically. Arthur paid no attention.

"Estelle," he said, smiling, "would you like to be out of a job with me?"

Estelle turned crimson.

"I'm not very successful," Arthur went on soberly. "I'm afraid I wouldn't make a very good husband, I'm rather worthless and lazy!"

"You aren't," broke in Estelle; "you're--you're--"

Arthur reached over and took her by the shoulders.

"What?" he demanded.

She would not look at him, but she did not draw away. He held her from him for a moment.

"What am I?" he demanded again. Somehow he found himself kissing the tips of her ears. Her face was buried against his shoulder.

"What am I?" he repeated sternly.

Her voice was muffled by his coat.

"You--you're dear!" she said.

There was an interlude of about a minute and a half, then she pushed him away from her.

"Don't!" she said breathlessly. "Please don't!"

"Aren't you going to marry me?" he demanded. Still crimson, she nodded shyly. He kissed her again.

"Please don't!" she protested.

She fondled the lapels of his coat, quite content to have his arms about her.

"Why mayn't I kiss you if you're going to marry me?" Arthur demanded.

She looked up at him with an air of demure primness.

"You--you've been eating pigeon," she told him in mock gravity, "and--and your mouth is greasy!"

XII.

It was two weeks later. Estelle looked out over the now familiar wild landscape. It was much the same when she looked far away, but near by there were great changes.

A cleared trail led through the woods to the waterfront, and a raft of logs extended out into the river for hundreds of feet. Both sides of the raft were lined with busy fishermen--men and women, too. A little to the north of the base of the building a huge mound of earth smoked sullenly. The coal in the cellar had given out and charcoal had been found to be the best substitute they could improvise. The mound was where the charcoal was made.

It was heart-breaking work to keep the fires going with charcoal, because it burned so rapidly in the powerful draft of the furnaces, but the original fire-room gang had been recruited to several times its original number from among the towerites, and the work was divided until it did not seem hard.

As Estelle looked down two tiny figures sauntered across the clearing from the woods with a heavy animal slung between them. One of them was using a gun as a walking-stick. Estelle saw the flash of the sun on its polished
metal barrel.

There were a number of Indians in the clearing, watching with wide-open eyes the activities of the whites. Dozens of birch-bark canoes dotted the Hudson, each with its load of fishermen, industriously working for the white people. It had been hard to overcome the fear in the Indians, and they still paid superstitious reverence to the whites, but fair dealings, coupled with a constant readiness to defend themselves, had enabled Arthur to institute a system of trading for food that had so far proved satisfactory.

The whites had found spare electric-light bulbs valuable currency in dealing with the redmen. Picture-wire, too, was highly prized. There was not a picture left hanging in any of the offices. Metal paper-knives bought huge quantities of provisions from the eager Indian traders, and the story was current in the tower that Arthur had received eight canoe-loads of corn and vegetables in exchange for a broken-down typewriter. No one could guess what the savages wanted with the typewriter, but they had carted it away triumphantly.

Estelle smiled tenderly to herself as she remembered how Arthur had been the leading spirit in all the numberless enterprises in which the castaways had been forced to engage. He would come to her in a spare ten minutes, and tell her how everything was going. He seemed curiously boylike in those moments.

Sometimes he would come straight from the fire-room—he insisted on taking part in all the more arduous duties—having hastily cleaned himself for her inspection, snatch a hurried kiss, and then go off, laughing, to help chop down trees for the long fishing-raft. He had told them how to make charcoal, had taken a leading part in establishing and maintaining friendly relations with the Indians, and was now down in the deepest sub-basement, working with a gang of volunteers to try to put the building back where it belonged.

Estelle had said, after the collapse of the flooring in the board-room, that she heard a sound like the rushing of waters. Arthur, on examining the floor where the safe-deposit vault stood, found it had risen an inch. On these facts he had built up his theory. The building, like all modern sky-scrapers, rested on concrete piles extending down to bedrock. In the center of one of those piles there was a hollow tube originally intended to serve as an artesian well. The flow had been insufficient and the well had been stopped up.

Arthur, of course, as an engineer, had studied the construction of the building with great care, and happened to remember that this partly hollow pile was the one nearest the safe-deposit vault. The collapse of the board-room floor had suggested that some change had happened in the building itself, and that was found when he saw that the deposit-vault had actually risen an inch.

He at once connected the rise in the flooring above the hollow pile with the pipe in the pile. Estelle had heard liquid sounds. Evidently water had been forced into the hollow artesian pipe under an unthinkably pressure when the catastrophe occurred.

From the rumbling and the suddenness of the whole catastrophe a volcanic or seismic disturbance was evident. The connection of volcanic or seismic action with a flow of water suggested a geyser or a hot spring of some sort, probably a spring which had broken through its normal confines some time before, but whose pressure had been sufficient to prevent the accident until the failure of its flow.

When the flow ceased the building sank rapidly. For the fact that this "sinking" was in the fourth direction—the Fourth Dimension—Arthur had no explanation. He simply knew that in some mysterious way an outlet for the pressure had developed in that fashion, and that the tower had followed the spring in its fall through time.

The sole apparent change in the building had occurred above the one hollow concrete pile, which seemed to indicate that if access were to be had to the mysterious, and so far only assumed spring, it must be through that pile. While the vault retained its abnormal elevation, Arthur believed that there was still water at an immense and incalculable pressure in the pipe. He dared not attempt to tap the pipe until the pressure had abated.

At the end of a week he found the vault slowly settling back into place. When its return to the normal was complete he dared begin boring a hole to reach the hollow tube in the concrete pile.

As he suspected, he found water in the pile—water whose sulfurous and mineral nature confirmed his belief that a geyser reaching deep into the bosom of the earth, as well as far back in the realms of time, was at the bottom of the extraordinary jaunt of the tower.

Geyser were still far from satisfactory things to explain. There are many of their vagaries which we cannot understand at all. We do know a few things which affect them, and one thing is that "soaping" them will stimulate their flow in an extraordinary manner.

Arthur proposed to "soap" this mysterious geyser when the renewal of its flow should lift the runaway sky-scraper back to the epoch from which the failure of the flow had caused it to fall.

He made his preparations with great care. He confidently expected his plan to work, and to see the sky-scraper once more towering over mid-town New York as was its wont, but he did not allow the fishermen and hunters to relax their efforts on that account. They labored as before, while deep down in the sub-basement of the colossal building Arthur and his volunteers toiled mightily.
They had to bore through the concrete pile until they reached the hollow within it. Then, when the evidence gained from the water in the pipe had confirmed his surmises, they had to prepare their "charge" of soapy liquids by which the geyser was to be stirred to renewed activity.

Great quantities of the soap used by the scrubwomen in scrubbing down the floors was boiled with water until a sirupy mess was evolved. Means had then to be provided by which this could be quickly introduced into the hollow pile, the hole then closed, and then braced to withstand a pressure unparalleled in hydraulic science. Arthur believed that from the hollow pile the soapy liquid would find its way to the geyser proper, where it would take effect in stimulating the lessened flow to its former proportions. When that took place he believed that the building would return as swiftly and as surely as it had left them to normal, modern times.

The telephone rang in his office, and Estelle answered it. Arthur was on the wire. A signal was being hung out for all the castaway to return to the building from their several occupations. They were about to soap the geyser.

Did Estelle want to come down and watch? She did! She stood in the main hallway as the excited and hopeful people trooped in. When the last was inside the doors were firmly closed. The few friendly Indians outside stared perplexedly at the mysterious white strangers.

The whites, laughing excitedly, began to wave to the Indians. Their leave-taking was premature.

Estelle took her way down into the cellar. Arthur was awaiting her arrival. Van Deventer stood near, with the grinning, grimy members of Arthur's volunteer work gang. The massive concrete pile stood in the center of the cellar. A big steam-boiler was coupled to a tiny pipe that led into the heart of the mass of concrete. Arthur was going to force the soapy liquid into the hollow pile by steam.

At a signal steam began to hiss in the boiler. Live steam from the fire-room forced the soapy sirup out of the boiler, through the small iron pipe, into the hollow that led to the geyser far underground. Six thousand gallons in all were forced into the opening in a space of three minutes.

Arthur's grimy gang began to work with desperate haste. Quickly they withdrew the iron pipe and inserted a long steel plug, painfully beaten from a bar of solid metal. Then, girding the colossal concrete pile, ring after ring of metal was slipped on, to hold the plug in place.

The last of the safeguards was hardly fastened firmly when Estelle listened intently.

"I hear a rumbling!" she said quietly.

"It is quivering!" he reported as quietly. "I think we'll be on our way in a very little while."

The group broke for the stairs, to watch the panorama as the runaway sky-scraper made its way back through the thousands of years to the times that had built it for a monument to modern commerce.

Arthur and Estelle went high up in the tower. From the window of Arthur's office they looked eagerly, and felt the slight quiver as the tower got under way. Estelle looked up at the sun, and saw it mend its pace toward the west.

Night fell. The evening sounds became high-pitched and shrill, then seemed to cease altogether.

In a very little while there was light again, and the sun was speeding across the sky. It sank hastily, and returned almost immediately, via the east. Its pace became a breakneck rush. Down behind the hills and up in the east. Down in the west, up in the east. Down and up-- The flickering began. The race back toward modern times had started.

Arthur and Estelle stood at the window and looked out as the sun rushed more and more rapidly across the sky until it became but a streak of light, shifting first to the right and then to the left as the seasons passed in their turn.

With Arthur's arms about her shoulders, Estelle stared out across the unbelievable landscape, while the nights and days, the winters and summers, and the storms and calms of a thousand years swept past them into the irrevocable past.

Presently Arthur drew her to him and kissed her. While he kissed her, so swiftly did the days and years flee by, three generations were born, grew and begot children, and died again!

Estelle, held fast in Arthur's arms, thought nothing of such trivial things. She put her arms about his neck and kissed him, while the years passed them unheeded.

* * * * *

Of course you know that the building landed safely, in the exact hour, minute, and second from which it started, so that when the frightened and excited people poured out of it to stand in Madison Square and feel that the world was once more right side up, their hiliarious and incomprehensible conduct made such of the world as was passing by think a contagious madness had broken out.

Days passed before the story of the two thousand was believed, but at last it was accepted as truth, and eminent scientists studied the matter exhaustively.

There has been one rather queer result of the journey of the runaway sky-scraper. A certain Isidore Eckstein, a dealer in jewelry novelties, whose office was in the tower when it disappeared into the past, has entered suit in the
courts of the United States against all the holders of land on Manhattan Island. It seems that during the two weeks in which the tower rested in the wilderness he traded independently with one of the Indian chiefs, and in exchange for two near-pearl necklaces, sixteen finger-rings, and one dollar in money, received a title-deed to the entire island.--He claims that his deed is a conveyance made previous to all other sales whatever.

Strictly speaking, he is undoubtedly right, as his deed was signed before the discovery of America. The courts, however, are deliberating the question with a great deal of perplexity.

Eckstein is quite confident that in the end his claim will be allowed and he will be admitted as the sole owner of real-estate on Manhattan Island, with all occupiers of buildings and territory paying him ground rent at a rate he will fix himself. In the mean time, though the foundations are being reinforced so the catastrophe cannot occur again, his entire office is packed full of articles suitable for trading with the Indians. If the tower makes another trip back through time, Eckstein hopes to become a landholder of some importance.

No less than eighty-seven books have been written by members of the memorable two thousand in description of their trip to the hinterland of time, but Arthur, who could write more intelligently about the matter than any one else, is so extremely busy that he cannot bother with such things. He has two very important matters to look after. One is, of course, the reenforcement of the foundations of the building so that a repetition of the catastrophe cannot occur, and the other is to convince his wife--who is Estelle, naturally--that she is the most adorable person in the universe. He finds the latter task the more difficult, because she insists that he is the most adorable person--

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**Contents**

THE WATER EATER
By Win Marks

_Most experiments were dropped because they failed--and some because they worked too well!

I just lost a weekend. I ain't too anxious to find it. Instead, I sure wish I had gone fishing with McCarthy and the boys like I'd planned.

I drive a beer truck for a living, but here it is almost noon Monday and I haven't turned a wheel. Sure, I get beer wholesale, and I have been known to take some advantage of my discount. But that wasn't what happened to this weekend.

Instead of fishing or bowling or poker or taking the kids down to the amusement park over Saturday and Sunday, I've been losing sleep over an experiment.

Down at the Elks' Club, the boys say that for a working stiff I have a very inquiring mind. I guess that's because they always see me reading Popular Science and Scientific American and such, instead of heading for the stack of Esquires that are piled a foot deep in the middle of the big table in the reading room, like the rest of them do.

Well, it was my inquiring mind that lost me my wife, the skin of my right hand, a lot of fun and sleep--yeah, not a wink of sleep for two days now! Which is the main reason I'm writing this down now. I've read somewheres that if you wrote down your troubles, you could get them out of your system.

I thought I had troubles Friday night when I pulled into the driveway and Lottie yelled at me from the porch, "The fire's out! And it's flooded. Hurry up!"

Trouble, hah! That was just the beginning.

* * * * *

Lottie is as cute a little ex-waitress as ever flipped the suds off a glass of beer, but she just ain't mechanically minded. The day Uncle Alphonse died and left us $2500 and I went out and bought a kitchen and shed full of appliances for her, that was a sad day, all right. She has lived a fearful life ever since, too proud of her dishwasher and automatic this and that to consider selling them, but scared stiff of the noises they make and the vibrations and all the mysterious dials and lights, etc.

So this Friday afternoon when the oil-burner blew out from the high wind, she got terrified, sent the kids over to their grandmother's in a cab and sat for two hours trying to make up her mind whether to call the fire department or the plumber.

Meanwhile, this blasted oil stove was overflowing into the fire pot.

"Well, turn it off!" I yelled. "I'll be in right away!"

I ducked into the garage and got a big handful of rags and a hunk of string and a short stick. This I have been through before. I went in and kissed her pretty white face, and a couple of worry lines disappeared.
"Get me a pan or something," I said and started dismantling the front of the heater.

These gravity-flow oil heaters weren't built to make it easy to drain off excess oil. There's a brass plug at the inlet, but no one in history has been able to stir one, the oil man told me. I weigh 200 pounds stripped, but all I ever did was ruin a tool trying.

The only way to get out the oil was to open the front, stuff rags down through the narrow fire slot, sop up the stuff and fish out the rags with the string tied around one end of the bundle. Then you wring out the rags with your bare hands into a pan.

"Hey, Lottie," I yelled, "this is your roaster! It'll be hard to clean out the oil smell!"

But, of course, it was too late. I had squeezed a half-pint of oil into it already. So I went on dunking and wringing and thinking how lousy my cigarettes were going to taste all evening and feeling glad that I delivered beer instead of oil for a living.

* * * * *

I got the stove bailed out and lit with only one serious blast of soot out the "Light Here" hole. Then I dumped the oil out in the alley and set the roaster pan in the sink. Lottie was peeling potatoes for dinner, and she snuggled her yellow curls on my shoulder kind of apologetically for the mess she had caused me. I scrubbed the soot and oil off my hands and told her it was all right, only next time, for gosh sakes, please turn the stove off at least.

The water I was splashing into the roaster gathered up in little shrinking drops and reminded me that the pig-hocks I brought home for Sunday dinner were going to rate throwing out unless we got the oil smell out of the pan.

"Tell you what you do," I said to Lottie. "Get me all your cleaning soaps and stuff and let's see what we got."

Lottie is always trying out some new handy-dandy little kitchen helper compound, so she hefted up quite an armload. Now, when I was in high school, I really liked chemistry. "Charlie, Boy Scientist," my pals used to sneer at me. But I was pretty good at it, and I been reading the science magazines right along ever since. So I know what a detergent is supposed to do, and all about how soaps act, and stuff that most people take the advertisers' word for.

"This one," I told Lottie, "has a lot of caustic in it, see?"

She nodded and said that's the one that ruined her aluminum coffee pot. She remembered it specially.

I poured some very hot tap water into the roaster and shook in the strong soap powder. "This is to saponify the oil," I explained.

"What's saponify?" Lottie asked.

"That means to make soap. Soap is mainly a mixture of some caustic with fat or oil. It makes sudsy soap."

"But we got soap," she said. "Why don't you just use the soap we got?"

We went into the business of soap-making pretty deep. Meanwhile, I read some more labels and added pinches of this and that detergent and a few squirts of liquid "wonder-cleaners" that didn't say what was in them.

In her crisp Scotch way, Lottie got across to me that she thought I was wasting soap powder and my time and cluttering up the sink while she was busy there, so I wound up with half a cup of Doozey soap flakes, filled the pan to the brim and set the concoction at the back of the drain board to do its business.

* * * * *

When dinner was over, I was in the living room reading the paper when I heard Lottie muttering at the sink. Lottie doesn't usually mutter, so I went out to see what was wrong.

"Nice mess," she said and pointed at the roaster. The stuff had cooled and jelled into a half-solid condition.

"Hah!" I said. "We had a supersaturated solution. When it cooled off, it coagulated."

Lottie scowled. It makes her nervous when I use big words which I only do when I'm talking about chemistry and the like.

"Well, uncoagulate it and dump it out of my roaster," she told me.

My scientific inquiring mind was stirred as I lifted the pan over to the table under the center light. We had here a gelatin of various cleaners, and every one of them claiming to be best ever. What would this new combination do?

I grabbed a pan off the stove that had a mess of scorched carrot leavings in the bottom. Lottie had been soaking it with about a half inch of water. As I reached for a tablespoon, Lottie objected. "Look, now, if you are going to start another experiment, dump that mess out first and let me work on the roaster."

I saved about a cupful of the slimy gunk and she went back to her dishes.

"You'll be sorry," I said under my breath, "if this turns out to be the only batch of the finest cleaner in the whole world. And us with only a cupful."

A minute later, I was glad she hadn't heard me. When I dropped a little glob of the stuff into the carrot pan and stirred it around a bit, instead of dissolving and diluting in the extra water, the mixture seemed to stay the same density after swallowing up the water.

"Give me a pie tin," I demanded.

Lottie sighed, but she got a shallow pan out of the pantry and handed it to me. Then I poured the jelly out of the
carrot pan and I made my first important discovery.

The stuff was not good for cleaning out scorched carrots.

The pot was bone-dry. So were the carrots. They had a desiccated look and were stuck worse than ever to the bottom. I brushed them with my finger and the top layers powdered to dust. Then I noticed that not a droplet or smidgin of the jelly remained in the pot. When I had poured it out, it had gone out all at the same time, as if it was trying to hang together.

The carbonized carrots at the very bottom were hard and dry, too. A scrape job if I ever saw one.

* * * * *

The pie tin was now full almost to the rim. The gloppy stuff sort of rolled around, trying to find a flat condition, which it finally did. The motion was not as startling as the sudden quiet that settled over the surface after a last ripple.

The stuff looked like it was waiting.

A ripple flashed out from the center like when you drop a pebble in a pool, and the ripple hit the brim and converged back to my finger. When it hit, the surface climbed up my finger about an eighth of an inch. Another ripple, another eighth of an inch, and about now I felt something like a gentle sucking sensation. Also, another feeling I can only tell you was "unclammy."

I jerked away fast and shook my finger hard over the pan, but it wasn't necessary. None of the stuff had stayed with me. In fact, my finger was dry--powdery dry!

Then I got the feeling that someone was staring over my shoulder. There was. It was Lottie, and she had a look of horror on her face that didn't help my nerves a bit.

"Get rid of it, Charlie!" she cried. "Get rid of it! Please throw it out!"
"Now, now, honey," I said. "It ain't alive."
"It is!" she insisted.

Lottie chatters quite a bit and pretty well speaks her mind. But she doesn't go around making assertions. When she does come out flat-footed with a serious statement, it is always from the bottom of her 22-carat womanly intuition, and she is practically always right.

"How could it be alive?" I argued. I often argue when I know I'm wrong. This time I argued because I wanted to wipe that awful look off my wife's face. "Come on in the living room and relax," I said.

* * * * *

And then sweet-natured, honey-haired little Lottie did a violent thing. Still staring over my shoulder at the pie tin, she screamed wide-open and ran out of the house. A second later, I heard her start the car out the driveway at 30 miles an hour in reverse. She burned rubber out in front and was gone.

I hadn't moved an inch. Because when she screamed, I looked back at the jelly to see why, and the stuff had oozed over the edge and was flowing slowly toward me.

I know a little about Korzybski and how he wanted everybody to make what he called a cortico-thalamic pause whenever they get scared as hell. So I was making this cortico-thalamic pause, which is really counting to ten before you do anything, while Lottie was leaving the house. When I got through with my pause, I jumped backward over my kitchen chair so hard that I must have knocked my head on the tile sink-board.

When I came to, it was after midnight. The kitchen light was still on. Lottie was still gone. I knew it. If she was here, she'd have had me in bed. No matter how much of my employer's product I have sampled, never has Lottie let me sleep it off on the kitchen floor. Her 110 pounds is a match for my 200 in more ways than one, and she takes good care of her man.

Then I realized that this was not a stag beer-bust. There was something about a pot of soap-jelly.

When I got to my feet and looked at the top of the kitchen table, I almost panicked again. But this time the pause worked and I got better results.

Alive or dead, the gunk was the most powerful desiccant I'd ever heard of. It had drunk up the water in the carrot pot, sucked the surface moisture from my finger and then spent the past few hours feeding on the humidity in the air.

It was thirsty. Like alcohol has affinity for water, this stuff was the same way, only more so. In fact, it even
reached out toward anything that had water in it--like me.  
That's why it had oozed over the pan the way it did.
* * * * *
What's so frightening about that, I asked myself. Plants grow toward water.
But plants are alive!
That's what Lottie had said--before she screamed.
"So you're thirsty?" I asked it out loud. "Okay, we'll give you a real drink!"
I got a bucket from the service porch and took the pancake turner to scrape the gooey nightmare into it. I even
catched the drip off the edge, and it seemed quietly grateful to sink back to the parent glob in the pail, which by now
amounted to about a quart.
I set the pail in the laundry tray and turned on the faucet hard. In about a second and a half, I almost sprained
my wrist turning it off. Not only did the jelly drink up the water without dissolving, but it started creeping up the
stream in a column about three inches in diameter, with the water pouring down its middle.
When I got the water shut off, the unholy jelly-spout slopped back disappointingly.
And now the bucket was over half full of the stuff.
I dropped in an ice-cube as an experiment. It didn't even splash. The surface pulled away, letting the cube make
a pretty good dent in it, but then only gradually did the displaced goo creep back around it as if to sample it
cautiously.
I couldn't stand the dry air any more, so I threw open the doors and windows and let the cool, damp night air
come in. The ice-cube had disappeared without even a surface puddle. Now, as the humidity came back, I thought I
noticed a restless shimmering in the jelly.
The phone rang. It was Lottie's mother wanting to know why Lottie had come over there in hysterics, and
where had I been since seven o'clock. I don't remember what I answered, but it served the purpose. Lottie hasn't
returned and they haven't called up any more.
When I returned to the bucket, it seemed that the stuff was deeper yet, but I couldn't tell because I hadn't
marked the level. I got Lottie's fever thermometer out of the medicine chest and took the jelly's temperature. It read
58 degrees F. The wall thermometer read 58 degrees, too. Room temperature, with the windows open. What kind of
"life" could this be that had no temperature of its own?
But then what kind of a fancy-pants metabolism could you expect out of an organism that fed on nothing but
Lake Michigan water, right out of the reservoir?
* * * * *
I got a pencil and notebook out of Lottie's neat little desk and started making notes.
I wondered about the density of the stuff. Ice floated in it and the bucket seemed heavy. I broke the
thermometer and tapped a drop of mercury onto the restless surface. The droplet sank slowly to the bottom with no
apparent effect either way.
Heavier than water. Lighter than mercury.
I took a beer out of the refrigerator and swallowed it. The last drops I sprinkled into the pail. The drippings
sizzled across the surface until only a fine dust was left. A tiny ripple flipped this dust over to the edge of the pail as
if clearing the thirsty decks for action. But this drew my eyes to the rim of the liquid. There was no meniscus, either
up or down.
Remembering back, I figured this meant there was no surface tension, which reminded me that part of this
mixture was made of detergent.
But had I created a new form of life? Like Lottie said, was it really alive? Certainly it could reproduce itself. It
had brains enough to know the direction of more water, like when it took off after me on the table.
Not long ago, there was this important physicist who wrote about how life probably got started away back
when the Earth was just forming. He argued that special creation was more or less a lot of hogwash, and that what
actually took place was that as the Earth cooled, all the hot chemicals mixing around sort of stumbled onto a
combination or two that took on the first characteristics of life.
In other words, this guy left off where Mr. Darwin began his theory of evolution.
Now me, I don't know. Lottie makes me go to church with the kids every Sunday and I like it. If this chemical
theory about life getting started is right--well, then, a lot of people got the wrong idea about things, I always figured.
But how would I or this physicist explain this quivering mess of protoplasm I got on my hands by accident this
particular Friday night?
I experimented some more. I got out the kids' junior encyclopedia and looked up some things I'd forgot, and
some I had never learned in the first place.
* * * * *
So it got to be Saturday morning. Fred and Claude phoned about the fishing trip and I made an excuse. No one else bothered me. All day Saturday, I studied. And all Saturday night and Sunday. But I couldn't figure out any sensible answers that would make peace with my minister.

It looked like I had created some form of life. Either that or some life-form in the stove oil that had been asleep a billion years had suddenly found a condition to its liking and had decided to give up hibernating in favor of reproduction.

What drove me on was the thought that I must have something here that was commercially important—a new culture of something that would revolutionize some branch of chemistry or biology. I wouldn't even stop to fry an egg. I chewed up some crackers and drank a few more bottles of beer when my stomach got too noisy. I wasn't sleepy, although my eyes felt like they were pushed four inches into my skull.

Junior's little chemistry set didn't tell me very much when I made the few tests I knew how. Litmus paper remained either red or blue when stuck into the jelly. This surprised me a little because this whole mass of de-sudsed washing compound mixture had started out with a pretty good shot of lye in it.

So my notes grew, but my useful information didn't. By midnight Sunday, it appeared that my jelly invention had only one important talent: The ability to drink endlessly anything containing water. And only the water was used, it seemed. Dissolved solids were cast aside in the form of variously colored dusts.

By now, the goop had outgrown the pail and was two-thirds up in the laundry tub. A slow drip from the faucet kept the surface of my monster in a constant state of frenzy, like feeding a rumpot beer by the thimbleful.

It was fascinating to watch the little curleycues of jelly flip up after each drop, reaching for more, and then falling back with a cranky little lash.

* * * * *

At two o'clock this morning, I began to get a little sense in me. Or maybe it was just the fear finally catching up again.

There was danger here.

I was too fuzzy to know exactly what the danger was, but I began to develop a husky hate for the whole project. "Kill it!" came into my mind. "Get rid of it, Charlie!"

Lottie's scream shrilled back into my ears, and this command became very important to me. I became angry.

"Want a drink, do you?" I shouted out loud. I put on the tea kettle and when it was to full steam, I took it back to the tub. "I'll give you a drink with a kick in it!"

What happened, I would like to forget. Ten times as fast as it had climbed up the cold water spout, it ran up the boiling water stream, into the tea kettle, blew off the lid and swarmed over my hand with a scalding-dry slither that made me drop the kettle into the tub and scream with pain.

The jelly steamed and stuck to my flesh long enough to sear it half to the bone. Then it slopped back with the rest and left me grabbing my wrist and tearing at the flesh with my finger-nails to stop the pain.

Then I got insane mad. I got my big blowtorch I use for peeling paint, and I lit it and pumped it up as high as it would go and aimed it down into that tub.

Not too much happened. The jelly shrank away from the roaring blast, but it didn't climb over the edge of the tub. It shrank some more and I poured the flame on.

It didn't burn. It just got to be less and less, and what was left began to get cloudy. And when I hit the bottom of the tub, the last glob moved around pretty active, trying to escape the heat, but I got it. Every damned last shred of it, and I was laughing and crying when I dropped the torch into the tub. I had been holding it with my scalded hand and I guess I fainted.

I wasn't out long. I got up and dressed my hand with lard, and it felt pretty good. Took a couple of aspirins and sat down at Lottie's typewriter. I know I won't sleep until I get this off my mind in about the way it happened, because I probably won't believe all of it myself when I get back to normal.

I just now went out and fished the blowtorch out of the laundry tub. All there was left in the bottom of the tub was maybe half a pound of singed-looking—soap flakes?

* * * * *

There, I've finished writing this all down. But I'm still not sleepy. I'm not worried about patching things up with Lottie. She's the most wonderful, understanding wife a guy ever had.

My hand feels real good now. I got it wrapped in lard and gauze, and I could drive the truck if I wanted to.

I'm not afraid of getting fired or bawled out for not coming to work on time this morning.

No, the reason I haven't turned a wheel on my beer truck today is something else.

Friday night, when Lottie wanted to wash the roaster, I saved only a cup of the jelly for my experiments. The rest she washed down the drain.

The sewer empties into Lake Michigan.
The brewery where I load up is right on the shore of Lake Michigan.
I'm afraid to drive down there and look.

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**BEYOND PANDORA**

by Robert J. Martin

*The ideal way to deal with a pest--any menace--is, of course, to make it useful to you.*

The doctor's pen paused over the chart on his desk, "This is your third set of teeth, I believe?"
His patient nodded, "That's right, Doctor. But they were pretty slow coming in this time."
The doctor looked up quizzically, "Is that the only reason you think you might need a booster shot?"
"Oh, no ... of course not!" The man leaned forward and placed one hand, palm up, on the desk. "Last year I had an accident ... stupid ... lost a thumb." He shrugged apologetically, "It took almost six months to grow back."

Thoughtfully, the doctor leaned back in his chair, "Hm-m-m ... I see." As the man before him made an involuntary movement toward his pocket, the doctor smiled, "Go on, smoke if you want to." Picking up the chart, he murmured, "Six months ... much too long. Strange we didn't catch that at the time." He read silently for a few moments, then began to fill out a form clipped to the folder. "Well, I think you probably are due for another booster about now. There'll have to be the usual tests. Not that there's much doubt ... we like to be certain."

The middle-aged man seemed relieved. Then, on second thought, he hesitated uneasily, "Why? Is there any danger?"
Amusement flickered across the doctor's face, turned smoothly into a reassuring half-smile. "Oh, no. There's absolutely no danger involved. None at all. We have tissue-regeneration pretty well under control now. Still, I'm sure you understand that accurate records and data are very necessary to further research and progress."

Reassured, the patient thawed and became confidential, "I see. Well, I suppose it's kinda silly, but I don't much like shots. It's not that they hurt ... it's just that I guess I'm old-fashioned. I still feel kinda 'creepy' about the whole business." Slightly embarrassed, he paused and asked defensively, "Is that unusual?"

The doctor smiled openly now, "Not at all, not at all. Things have moved pretty fast in the past few years. I suppose it takes people's emotional reactions a while to catch up with developments that, logically, we accept as matter of fact."

He pushed his chair back from the desk, "Maybe it's not too hard to understand. Take 'fire' for example: Man lived in fear of fire for a good many hundred-thousand years--and rightly so, because he hadn't learned to control it. The principle's the same; First you learn to protect yourself from a thing; then control it; and, eventually, we learn to 'harness' it for a useful purpose." He gestured toward the man's cigarette, "'Even so, man still instinctively fears fire--even while he uses it. In the case of tissue-regeneration, where the change took place so rapidly, in just a generation or so, that instinctive fear is even more understandable--although quite as unjustified, I assure you."

The doctor stood up, indicating that the session was ending. While his patient scrambled to his feet, hastily putting out his cigarette, the physician came around the desk. He put his hand on the man's shoulder, "Relax, take it easy--nothing to worry about. This is a wonderful age we live in. Barring a really major accident, there's no reason why you shouldn't live at least another seventy-five years. After all, that's a very remarkable viral-complex we have doing your 'repair' work."

As they walked to the door, the man shook his head, "Guess you're right, Doc. It's certainly done a good job so far, and I guess you specialists know what you're doing, even if folks don't understand it." At the door he paused and half turned to the doctor, "But say ... something I meant to ask you. This 'stuff' ... er, this vaccine ... where did it come from? Seems to me I heard somewhere that, way back before you fellows got it 'tamed' it was something else--dangerous. There was another name for it. Do you know what I mean?"

The doctor's hand tightened on the doorknob. "Yes, I know," he said grimly, "but not many laymen remember. Just keep in mind what I told you. With any of these things, the pattern is protection, then control, then useful application." He turned to face his patient, "Back in the days before we put it to work for us--rebuilding tissue, almost ending aging and disease--the active basis for our vaccine caused a whole group of diseases, in itself."

Returning the man's searching gaze, the doctor opened the door, "We've come a long way since then. You see," he said quietly, "in those days they called it 'cancer.'"
The tall young man faded back quickly, poised for an instant and then threw a long high pass. The crowd came up roaring. Twenty yards from the goal line a smaller, sturdier player swerved quickly around the end and took the pass in his stride. With a beautiful curving run he tricked the fullback, crossed the line and then, showing no sign of effort, trotted back up the field and threw the ball to the umpire.

"Wonderful! What a magnificent runner that lad is! You're lucky to have him, George." The speaker, a trimly built, athletic man in his middle forties turned to his companion, talking loudly above the buzz of the crowd.

George Turner nodded agreement. "We are. Every other University in the States was after him. He's the first Boy America you know. We've been watching him for years."

"The first Boy America?" John Harmon echoed in surprise. "I didn't know that. You did say Boy America ... not All American?"

"He's both; All American in football and a Boy America too."

The gun signalled the end of the game and the two men rose from their box seats to go out. Directly below them the players trotted quickly towards the dressing rooms. Harmon leaned over to watch.

"There he is now. A fine-looking boy too!" He studied the young man's face intently. "Y'know he reminds me of somebody ... somebody I know well, but I can't put my finger on it."

"I'm not surprised. He's Gloria Manson's boy."

Harmon frowned. "No, that's not it, George. Of course there's the resemblance to his mother ... and who could forget the glorious Gloria even after twenty years. But it was the way he moved, and that smile." He shook his head. "It'll come to me yet."

They took the belt walk to the parking area and stepped off it at George's car. Moving quietly on its air cushion, the car joined the line-up out on the main road where George locked the controls on to Route 63. The speed rose to eighty and steadied as the car settled into its place in the traffic pattern. Relaxed in their seats the two men lit their anticancers and puffed contentedly as they watched the scenery. It would be another hour before George would need to touch the controls as they neared home.

"So he looks like someone you know?" George asked. "I'd like to know who it is just out of curiosity. As you are aware, no one but the Genetic Panel knows whose sperm is used to impregnate the Mother America."

"I haven't got it yet, George, but I will. Were you the geneticist for this boy?"

"Yes, I was. I told you he was Gloria Manson's. Don't you remember when you met her?"

"Soaring satellites!" Harmon exclaimed. "How could I forget? You introduced me to her."

"Twenty years ago," Turner mused. "What a crazy week that was. I guess you were glad to get back to the Space Force."

"In a way," Harmon agreed. "I've often wondered where you were since then. I never dreamed you'd be Dean of the Genetics Faculty when I came to the Space Engineering School."

"I hope you'll like it here," George said. "They couldn't have picked a better Director."

* * * * *

The senator from Alaska had the floor. He had had it for several hours now and the chamber was almost empty as he droned on.

"And so, gentlemen, I feel that the greatest state in the union, the only state that can afford to increase its population because there is still some unoccupied space, the only state where anti-conception vaccination is not compulsory until after four children instead of two, the state where ordinary people will have room to get out and exercise instead of being spectators, this state of Alaska, I say, is the only state that should be considered when we select a fine, virile American male as the father of America's Child of the Year. I would dare to go farther and say we should also provide the female, Mother America of 1995, except that our President, my fellow Alaskan, has generously decided that no one state can have both mother and father. Alaska is a man's country. It should provide the man ..."

Wearily George Turner got up and turned off the colorvision. The political pressures were increasing rapidly; that was obvious. What had started as a national search for the most suitable future parents in America would soon be a free-for-all. He would have to give the committee his choice, and quickly! Back to his work he went; calculating possibilities, eliminating entrants one by one. The National Genetics Laboratory had been given the task of screening the finalists from each state and Turner, much against his will, had been selected by the Director to do
the work.

"George," he'd said one fateful morning, "I have a job for you.

"What's that, sir?"

"You've seen the report of this new contest being run by Dee Lish Baby Foods, haven't you?"

"Can't say I have, sir. I've been working on that new sex gene. Haven't had time to read the papers."

"Oh? Well it all started on their colorvision program, the one where they select the All American babies. You've seen it haven't you?"

* * * * *

Turner shook his head.

"Sputtering sputniks! I know you're all wrapped up in your work but it doesn't have to be a shroud. You'd better get out into the world a little." The Director laid a friendly arm on George's shoulder. "This job will be just the thing."

"What job?"

"Why, the contest! Dee Lish separate the babies into three groups. There's the natural All American baby selected from families in the two-baby group; then there's a prize for best baby in the unlimited family section. Naturally, since those parents are in the genetically superior group, it wouldn't be fair to pit them against the two-baby families. Then there's a class for babies of artificially impregnated mothers, both married and single. It's a very popular program. The prizes are wonderful and the winners in the limited family class are allowed to have more children than their quota, all expenses paid of course."

"I can see why it's popular all right," George said, "but where do I come in?"

* * * * *

"Three months ago the Dee Lish scenario writers had a brainstorm. They reasoned that if they began a new contest to pick the most suitable mother in America and then had her impregnated, artificially of course, by the most suitable donor, they would stir up all sorts of excitement for the next nine months and produce a baby that should be a worldbeater. The mother would be given a tremendous annuity, for life, and the babe assured of all expenses right through college."

"It all sounds faintly nauseating to me."

"George, you're impossible. A geneticist who still believes in fortuitous breeding!"

"I'm not so darn sure we can pick 'em better any other way. We certainly haven't got all the answers."

"I agree, George, I agree," the Director's smile was still friendly, if a little strained. "This is a National Laboratory, however, and the President rang me up the other day and asked that we do the final screening."

"The President? But this is a commercial gag!"

"Not any longer, my boy. You see the Russians recently came out with a wonder drug, a sort of gene stimulator, that they claim produces highly intelligent and well-proportioned children. The Chinese now claim that, by using a controlled environment in their communes, they are producing a super race. We had to do something! Our side is going to claim that the union of a red-blooded American male and a modern capitalist female will produce offspring far superior to anything else in the world, thus demonstrating the supremacy of the American way of life."

"Dear God! Why pick me?"

"You're junior to all the others, for one thing. And besides, you'll still be around to see Boy America grow up."

"Boy America?"

"Each year there will be a new contest; a boy the first year, a girl the second and so on. You'll have to appear on colorvision of course. It will be a nice change for you, and good for the Laboratory too! New York is a grand town for a vacation."

* * * * *

"New York is a grand town for a vacation," George thought bitterly, as he parried the reporters' persistent questions in the lobby of Coloraudio System a week later.

"Say Doc, what about this super-female from Texas," one needler shouted above the babble.

"So what about her?" George said gruffly.

"Senator Bragg says she should be the one selected for Mother America."

"Look, friend, Senator Bragg is a Texan and a politician. Naturally he wants his state to have the honor. I'll pick the one I think best qualified!"

"Yeah, Doc, we know. But what is this super-female gag anyway?"

"Some women have more female sex genes than others. She happens to have the most ever reported to the Genetic Registry. Has the Senator seen her?"

"He didn't say."
"He should take a look sometime. She's five feet five, one hundred and sixty pounds and looks like a Texas longhorn, without the horns." He brushed past the reporter. "You got any more bright ideas?"

A New York reporter pulled on his coat sleeve. Annoyed by their persistence Turner shrugged free. "Doctor Turner," the man said. "What do you think of this idea of using the Man from Mars as the male donor?"

"You mean Captain Jack Harmon of the Space Force?"
"Yes. He's in town for the big parade right now."
"Look, we can't tell you who the donor will be. It's against the law, remember?" Turner quoted the rule, "Under Section 48b, single females may bear children if they wish, when authorized by law, but are not allowed to pick the donor. He must remain anonymous. The local Genetics Panel does the choosing. Besides, Harmon has been in space for months. Who knows what changes there may be in his sex glands."

They reached the conference room and entered. The Dee Lish representative looked at his watch and raised his hands.

"Gentlemen, no more questions please. We have a program on the air tonight and Doctor Turner has to be prepared." When the room cleared he turned to George. "Doctor, will you be ready to name the winner on tonight's program?"

Turner shook his head. "You know I've interviewed all the finalists but one, Miss Gloria Manson. Until I see her I can't decide. I haven't talked to her at all but her press agent promised he would have her here this afternoon."

"That's Gloria Manson the actress-dramatist?"
"Yes, the one who wrote The Canals of Mars and takes the female lead."
"Roaring rockets! If she wins what a blastoff that will be."
"I don't understand."
"We have arranged with the Mayor of New York that the winner will ride with Captain Jack Harmon tomorrow in the big parade celebrating his return from Mars. And Miss Manson is the star in a hilarious hit about space. What could be better?"

"To stop the whole damn foolishness altogether," said George gloomily and ignored the hurt look on the press agent's face.

* * * * *

They were getting up to leave when the door burst open and slammed against the wall. A tall, beautifully dressed and shaped brunette brushed aside a little man who was trying to talk to her and strode into the room. Her green eyes narrowed like a cat's after a bird.

"Which of you is the geneticist?" she demanded, and then to George, "You ... you must be ... you aren't dressed like a business man. Your suit is five years out of style."

Abashed, George looked at himself. "What's wrong with it?"

"You'd never understand and I haven't time to tell you. What I want to know is, who gave you the right to use my name in this silly Mother America contest. And you," she turned on the Dee Lish agent, "quit gawping at me. I'm not going to blast off. Who are you anyway?"

"Miss Manson, please!" The little man was in front of her again. "If the reporters hear about this ..."

"Oh shut up, Harry! All right, Doctor, what's your excuse?"

George rallied and attacked. "I haven't any, Miss Manson. I didn't ask for your name. It was submitted to me as a possibility from the Dee Lish Company. You needn't worry, however. You are displaying adequate reasons for me to disqualify your entry right now."

"Oh, an advertising stunt, is it? Harry, this is your idea ... you and that pap purveyor!"

"But Gloria, think of the publicity ... the big parade with the man from Mars! Why your play would run for years!"

"OK, I'll do it!" she said with a big smile and watched the ad-men's gloomy faces change to astonished delight. "There's just one little thing ... if I win!" She prodded Harry in the chest with a long stiff finger. "Yes, dear ... anything!"

"YOU have the baby!" The scowl came back to her face. "You utter idiots ... you misfired missiles! How in the Universe do you think I can play a romantic lead wearing a maternity dress?"

George chuckled with delight at the thought and she turned on him.

"What's so funny, Doctor? And what do you mean I'm disqualified from the contest? What's wrong with me?"

"Not a thing, Miss Manson." He grinned happily at her. "But if you can stand having dinner with a man in an old-fashioned suit, I'll tell you why Mother America should be a contented cow instead of a tantalizing tigress."

"Hmm, this is one orbit I haven't travelled." She smiled and nodded her approval. "Set me a course, Navigator."

They moved towards the door together.
"Doctor! The program tonight ... have you forgotten?"
George looked back and waved airily. "Don't worry. I'll be there. And we'll name the winner too!"

* * * * *
"Well now, Gloria, the dessert!" George was saying. "What'll it be, crepes suzette?"
She smiled across the table. "Mm," she considered the menu carefully. "I think I'll stick to good old American apple pie and cheese."
"A genuine American small town girl, with small town likes and dislikes! That's what you are underneath the glamour. Aren't you?"
She laughed and raised her champagne glass. "And this is from the home-town vineyard too?"
George leaned towards her, his face a little flushed with the wine. "Gloria, with your ability as an actress we could play the biggest practical joke in the history of colorvision. If only I dared!"
"What's your idea, George?"
"I'm sick of all this pseudo-scientific nonsense about genetics," he said, "and I'm even sicker of the crass commercialism and political propaganda surrounding this Mother America business."
"George, you surprise me more and more! I thought you did this for the money and publicity, to say nothing of the great honor."
"Stop kidding, Gloria! You know I was ordered to do it by the Department. All I get is an expense account from Dee Lish Baby Foods. The thing that really bothers me is the type of winner I have to pick."
"Have to pick? You have free choice, don't you?"
"Not really. The people who watch that program, from the President on down, including our Director too, expect a sweet wholesome type ... you know, curvy in the right places like a Miss America but wouldn't think of posing in a bathing suit. They want an adolescent dream girl type, the kind that goes well with a rose-covered cottage and four rosy-cheeked kids all waiting for Daddy to come home."
"But most women work in America today."
"I know but the dream remains, along with the cowboy, the daring Air Force pilot, the self-made business tycoon and all the other romantic stereotypes of the first half of the century. She makes togetherness seem right, and God knows we have so many people today we're together whether we like it or not. So that's the type I have to pick."
"Where does the joke come in?"
"If you'd play the part of the American dream girl you'd win that contest going away, like a four stage rocket booster."
"But I don't want to have a baby by remote control."
"You wouldn't have to. You can always withdraw before the impregnation ceremony."
"Suppose I do it, what's the point?"
"Well for one thing, you'd show how easily people are fooled by appearances and smart propaganda. As a geneticist I can only go so far and be honest. I can make sure you have good heredity; that you have no obvious physical or mental defects; that your chance of having certain disabling diseases are small; that your intelligence is high, and so on. I can't really measure things such as initiative, wit, courage, determination, all the things that make one human so much better than another of equal physical and mental capacity."
"Educated people know that already."
"True, but it needs constant emphasis or it is forgotten under the propaganda. Besides, I don't believe in mating people like cattle or slaves. That's why this whole thing is a travesty of love and marriage. I hate being used to give it a semblance of scientific authenticity. I'm going to declare the top four contestants equal. They are, as far as I am concerned, genetically speaking. The audience will decide the winner. They'll love it and so will the sponsor. The other three are real American dream girls. I want you to outsmart them at their own game ... and tell America later what a farce it all was."
"You really are a romantic, underneath the cynicism," Gloria said wonderingly. "I didn't think scientists were built with hearts any more." She reached across and took his hand. "But I like you that way. Do you think I could do it?"
"Easily. Just pretend you are Ellen the Earthling from that comedy of yours. That's the type they want."
"Yes, but when I bow out later they'll be calling me Marina the Martian Menace ... that won't be so funny."
"They won't, Gloria. You can laugh it off as a publicity stunt and get them laughing with you. Who knows, it might even stop this mad fad of career women having babies without a proper home and a father to raise them."
She laughed. "Are you afraid you're going to be replaced by a machine, George?" her eyes twinkled with amusement.
He grinned. "Oh, we still have our uses. Time to go. Will you do it?"
She stood up. "I'll play it by ear. If the audience is the type you say they are, it will be a pleasure."
The parade was over. Now, as they waited for the banquet and the speeches to begin, John Harmon spoke to Turner.

"You're a lucky man, George."

"Why?"

"Spending so much time with Gloria. She had me laughing all the way up Wall Street with her remarks about the parade. If I didn't have to go back to the base tomorrow I'd steal her for a date." He turned to Gloria. "I mean it, honey. You really leave me weightless!"

Gloria smiled at him. "I'll take a recount, John. We can blast off some other time."

After the banquet the Mayor of New York made the major address of the evening. "And so, ladies and gentleman," he concluded, "you have seen today two people who represent the end of one era and the beginning of another. The lovely lady on my right is to be the first Mother America. For the first time in history, our nation is actively planning our future citizens. It is true that for years now, with the help of the Genetics Laboratories, represented so ably by Doctor Turner, individual citizens have planned their parenthood, but never before have a President and Congress given their approval, their official blessing, for such a purpose. This then is a milestone we have passed, a point in our history we will never forget."

"They'll never forget me either when I back out," Gloria whispered to George. "I'm getting worried. We're in too deep."

"Don't be scared, baby," George said. "I'll get you out of it, if you have to fall sick to do it." He patted her arm reassuringly but somehow, without the rosy glow of a bottle of wine to color this view, the joke didn't seem as funny as it had the previous night.

The Mayor continued. "Another point in our history was passed when this young man on my left, at that time Captain, now Major John Harmon of the Space Force, returned from Mars. He and his crew represent the end of our isolation in space. The Moon, after all, is a satellite of Earth. Mars is another planet, and Major Harmon has landed there. We are not likely in our time to see another such event since the next big step, beyond the Solar System, will require a technology we do not possess. So, ladies and gentlemen, you, tonight, are witnessing the beginning of a new age, an age of supermen borne by women of America, such as Gloria Manson, and led by heroes such as John Harmon. I propose we drink a toast to them ... together."

Afterwards, in Gloria's apartment, the three of them sat and talked until late. Then John Harmon looked at his watch and got up to leave.

"I have to catch the ramjet out of La Guardia," he said. "We start planning the next space trip in Colorado tomorrow, or rather this morning. It's been fun." He shook George's hand and kissed Gloria quickly. "I'll be seeing you one of these days."

George shut the door behind him. "I guess I'd better go now," he said.

"No! Have one for the road," Gloria said quickly. "I want to talk to you."

George poured another Scotch. "You still worried?"

"A bit," she admitted. "What is the next step?"

"Now I'm supposed to pick the male donor."

"I thought you'd done that already."

"No. You see we have to know what blood types the female has and what her genetic structure is; whether she has any antibodies against sperm and so on, before we pick the male. To do it before the winner is picked would entail a lot of unnecessary work."

"Then we still have some time before the impregnation ceremony?"

"I can stall for maybe four weeks ... no longer. You see I have to consider your cycle too." He got up to go. "Gloria, I guess I was half lit last night. I'm sorry. It was a damn-fool idea."

She came close to him. "But you really do believe in the old-fashioned marriage, even if not in the old-fashioned girl?"

"Yes, I do. I still think people should be in love and not just mated because a calculating machine says they'll produce superior offspring."

"You're sweet." She put her arms around his neck and kissed him. The kiss lasted ... and lasted. Finally George broke it off.

"My God!" he mumbled. "Don't we have enough problems, without this?"

Three weeks later, on Monday, George announced he had a suitable donor. The New York Genetics Panel, in session, considered the records and announced that permission was granted for one Gloria Manson, spinster, of New
York City, to bear a child by artificial impregnation. The date was set for Wednesday. On Tuesday night George went to Gloria's apartment.

"What are we going to do?" Gloria asked as she watched George wearing a path on the rug. "We've left it awfully late."

"I couldn't do anything else," George said. "We can't plead illness as I'd hoped to do. This afternoon the panel decided on a last minute independent medical check to be sure you're OK. That means I can't fake it and there's no time to give you a cold or some mild illness now. Somehow I've got to stall past the fertile period and then we will have another month to think of something."

"How long is the fertile period?"

"Our tests show that in your case it is approximately twenty-four hours and begins about midnight tonight."

" Couldn't I disappear for a day or pretend I'm frightened of having a baby and call it off? Goodness knows we're both getting frightened right now."

"You can't just quit, Gloria. The whole nation has been whipped up into hysteria over this business, both by the politicians in their anticommunist speeches and by the sponsors on Coloraudio system. I never dreamed it could put a whole country into orbit ... but it has. We'll both be ruined if I can't figure a way out that doesn't anger the public."

He drained his glass and began pacing again.

"If I have to go on with it can't you at least do something to prevent conception?" Gloria asked. "I don't mean vaccination. I want to have children later. I can stand the ceremony if I know I won't become pregnant."

"In that case I could give you a shot of antiserum against sperm," George said. "That would stop pregnancy all right."

"Would it make me sterile for long?"

"Oh no ... no! I wouldn't use pooled serum from all types anyway. You see we make some specific serum when we are testing each donor and it works only against the sperm of that particular man."

"Then we're all right? All I need is a shot?"

George shook his head. "I'm afraid to risk it, Gloria. They'll probably examine your blood tomorrow. If they found the specific antibody, or even a general antisperm antibody, that would really get us into trouble for fraud."

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He shook his head. "No. I'm afraid that's not the answer. I don't know what to do."

He poured another drink and downed it.

"George," Gloria wailed, her control breaking at last, "I don't want a test-tube husband, a parent by proxy. I want a man!" She began to cry.

He came over to the couch and dropped down beside her. "Darling, please! Please don't cry. There must be a way to beat this." He took her in his arms.

* * * * *

The aircar warning light came on and the buzzer sounded. George unhooked the automatic pilot and took over. They swung into University City and across the campus to the Faculty residential area.

"I certainly was lucky to find a job here on retirement from the Space Force," John Harmon said. "It was good of you to invite me to stay the week-end. Are you sure Mrs. Turner won't mind?"

"Quite sure." George smiled. "She's been looking forward to meeting you." He pulled the car into a spacious port and opened the front door of the house for Harmon. A tall, good-looking brunette moved to meet them.

"So nice to meet you, Mrs. ..." Harmon began automatically. "Great mountains of the moon! Gloria ... Gloria Manson!" He turned to George. "You didn't tell me."

"You mean you didn't know?" Gloria asked, and kissed him affectionately.

"I found out that he didn't. He was back in space at the time we were married." George said. "I wanted to surprise him." A happy smile creased his face.

Harmon stared at him. "Oh no!" he said and began to laugh. They watched him, astonished. He tried to talk. "George ... ha, ha ... Wonderful!" He convulsed again, struggled to a chair and collapsed. "The boy ..." he whispered weakly between great whoops.

"The boy? Then you guessed!" The wide smile split George's face again.

"Yes, that smile ... couldn't miss it. But how?" Harmon had recovered. They went into the living room and sat down to talk.

"So there we were," George concluded, "tanking up on lox and nothing coming out but smoke. I was getting a bit woozy when Gloria asked me what time it was.

"I looked at my watch. 'It's midnight,' I said. That did it.

"'Midnight!' she screeched and gave me the green-eyed tiger look. 'Well, George Turner, maybe you can't think of something ... but I can!'

"About nine in the morning the secretary of the panel called my room at the hotel. 'The ceremony is at ten,
"Doctor!" she said. 'We are waiting for you.'

"Man, what a head I had! You could have pushed the Destruct button and I'd never have known. Anyway I got to the hospital and there was Gloria, looking absolutely beautiful. There were press photographers everywhere. We went through with the ceremony and that was that. Nine months later, with a lot of sonic booming, Boy America was born. You saw him today."

"But he looks like you," John protested.

"He should," Gloria said. "He's his."

"But ..." John hesitated. "I don't want to pry, but how can you be sure?"

Gloria laughed. "Well, I know what we did the first couple of hours after midnight. You tell him the rest, George."

"There isn't much else to tell," George said. "After the ceremony I gave her a shot of the specific antiserum as soon as I could get her alone. Later the committee examined her blood. They found she was pregnant so nobody even thought of testing for antisperm bodies. Then the boy was born. Naturally I was a bit concerned. I took blood samples and did genetic studies. There was no doubt. He was my son."

"And nobody ever suspected?" Harmon asked.

"No," Turner said. "The law prescribes examination before pregnancy but not afterwards. We were married three months later and everybody was very happy. As for the boy looking like me, everyone who has noticed it assumes I picked a donor like myself. It would be a natural inclination."

"So much for planned parenthood in the new era," Harmon chuckled. "The poor Mayor of New York! If only he knew." He grinned slyly. "Somehow I always did like the old way best."

THE END

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**Contents**

WHEN CAVERNS YAWNED
By Captain S. P. Meek

Bells jangled discordantly. A whistle split the air with a piercing note. A band blared away on the platform. With a growing rumble of sound, the Presidential special slowly gathered headway. The President waved a final farewell to the crowds at the platform and sat down. He chatted cheerily with his companions until the train was clear of Charleston, then rose, and with a word to the others stepped into the car. Operative Carnes of the United States Service slumped back in his chair with a sigh of relief.

"Thank Goodness, that's over," he said. "I was never so glad to get him safely away from a place in my life."

Haggerty of the secret service nodded in agreement. Colonel Holmes, the military aide, looked up inquiringly.

"Why so? Do you think Charleston an especially dangerous place for him to be?"

"Not ordinarily. Charleston is a very patriotic and loyal city, but I have been worried. There have been vague rumors going around. Nothing definite that we could pin down, but enough to make me pretty uneasy."

"I think you've worried needlessly. I have been in constant touch with the Military Intelligence Division and they have reported nothing alarming."

Haggerty chuckled at the look of disgust that spread over Carnes' face. Colonel Holmes bridled visibly.

"Now look here, Carnes," he began.

"Oh, horse-feathers!" interrupted Carnes. "The M.I.D. is all right in its place--Good Lord! What's that?"

* * * * *

The train gave a sudden sickening lurch. Colonel Holmes sprawled in an undignified heap in one corner of the observation platform. Carnes and Haggerty kept their feet by hanging on to the rails. From the interior of the car came cries of alarm. The train righted itself for a moment and then lurched worse than before. There was a scream of brakes as the engineer strove to halt the forward progress. The train swayed and lurched like a ship in a storm. Carnes sprang for the telephone connected with the engine cab and rang excitedly.

"Hello, Bemis," he cried when an answer came: "take off the brakes! Keep moving at full speed, no matter what happens. What? Use your gun on him, man! Keep moving even if the train tips over!"

The train swayed and rocked worse than ever as it began to gather momentum. Carnes looked back along the track and gasped. For three hundred yards behind them, the track was sinking out of sight. The train forged ahead, but it was evident that it also was sinking into the ground. The track behind them suddenly gave. With a roar like a hundred buildings collapsing, it sank out of sight in a cloud of dust. The rear car of the train hung partially over the
yawning cavern in the earth for an instant before the laboring engine dragged it to solid ground. The swaying and lurching grew less. For a mile it persisted to a slight degree. With a face the color of a sheet, Carnes made his way into the train. The President met him at the door.

"What's the trouble, Carnes?" he demanded.

"I am not sure, Mr. President. It felt like an earthquake. A great cavern opened in the earth behind us. Our train was almost trapped in it."

"An earthquake! We must stop the train at once and take charge of the situation. An emergency of that sort demands immediate attention."

"I beg you to do nothing of the sort, sir. Your presence would add little to the rescue work and your life is too precious to risk."

"But my duty to the people--"

"Is to keep yourself alive, sir! Mr. President, this may well be an attempt on your life. There are persons who would give anything to do away with you, especially at present. You have not endeared yourself to a certain class in calling for a conference of the powers to curb Russia's anti-religious tactics."

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The President hesitated. He knew Carnes well enough to know that he usually spoke from accurate knowledge and with good judgment.

"Mr. President," went on the operative earnestly, "I am responsible to the American people for your safety. I beg you to follow my advice."

"Very well, Carnes," replied the President, "I'll put myself in your hands for the present. What is your program?"

"Your route is well known. Other attempts may be planned since this one failed. Let me have you transferred incognito to another train and hurried through to Washington secretly. I am going to drop off and go back. That earthquake needs to be looked into."

Again the President hesitated.

"My desertion of the stricken area will not be favorably regarded. If I sneak away secretly as though in fear, it will be bad for the public morale."

"We'll let the special go through. No one need know that you have left it."

"Well--I guess you're right. What are you going to do about it?"

"My first move will be to summon Dr. Bird from Washington."

"That's a good move. You'd better have him bring Dr. Lassen with him. Lassen is a great volcano and earthquake specialist, you know."

"I will, sir. If you will get ready to drop of at the next connecting point, I'll send Haggerty and Bemis with you. The rest of the party can remain on the special."

"All right, Carnes, if you insist."

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Carnes went forward to the operator of the train's radio set. In half an hour the special came to a stop at a junction point and four men got off. Ten minutes later three of them climbed aboard another train which stopped for them. Carnes, the fourth man, hurried to a telephone. Fifteen minutes later he was talking to Dr. Bird at the latter's private laboratory in the Bureau of Standards.

"An earthquake, Carnes?" exclaimed the doctor as the operative described the happenings. "Wait a few minutes, will you?"

"It was no earthquake, old dear, whatever it may have been. I have examined the records of all three of the Bureau's seismographs. None of them record even a tremor. What are you going to do?"

"Whatever you say, Doctor. I'm out of my depth already."

"Let me think a moment. All right, listen. Go back to Charleston as quickly as you can and get in touch with the commanding officer at Fort Moultrie. I'll have the Secretary of War telephone him and give him orders. Get troops and go to the scene of the catastrophe. Allow no one near it. Proclaim martial law if necessary. Stop all road and rail traffic within a radius of two miles. Arrest anyone trying to pass your guard lines. I'll get a plane from Langley Field and come down on the run. Is that all clear?"

"Perfectly, Doctor. By the way, the President suggested that you bring Dr. Lassen with you."

"Since it wasn't an earthquake, he wouldn't be of much value. However, I'll bring him if I can get hold of him. Now start things moving down there. I'll get some apparatus together and join you in five hours; six at the outside. Have a car waiting for me at the Charleston airport."

* * * * *
Carnes commandeered a passing car and drove back to Charleston. He made a wide sweep to avoid the disturbed area and went direct to Fort Moultrie. Dr. Bird had been good at his word. The troops were assembled in heavy marching order when the detective arrived. A few words to the commanding officer was sufficient to set the trucks loaded with soldiers in motion. Carnes, accompanied by the colonel and his staff, went direct to the scene of the catastrophe.

He found a hole in the ground, a hundred feet wide and a quarter of a mile long, sunk to a depth of fifty feet. He shuddered as he thought of what would have happened had the Presidential train been in the center of the devastated area instead of at the edge. The edges of the hole were ragged and sloping as though the earth had caved in to fill a huge cavern underground.

State and local authorities were already on the ground, striving to hold back sightseers. They were very glad to deliver their responsibility to the representative of the federal government. Carnes added their force to that of the military. In an hour a cordon of guards were stationed about the cavern while every road was picketed two miles away. Fortunately there had been no loss of life and no rescue work was needed. The earth-shaking had been purely a local matter, centered along the line of the railroad track.

There was nothing to do but wait, Carnes thought furiously. He had worked with Dr. Bird long enough to have a fair idea of the scientist's usual lines of investigation.

"The first thing he'll want to do is to explore that hole," he mused. "Probably, that'll mean some excavating. I'd better get a wrecking train with a crane on it and a steam shovel here. A gang of men with picks and shovels might be useful, too."

He hurried to the railroad officials. The sight of his gold badge had the desired result. Telegraph keys began to click and telephones to ring. Carnes was sorely tempted to explore the hole himself, but he resisted the temptation. Dr. Bird was not always pleasant when his colleagues departed from the orders he had given.

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The morning passed, and the first part of the afternoon. Two wrecking trains stood with steam up at the edge of the hole. Grouped by the trains were a hundred negroes with shovels and picks. Carnes sat at the edge of the hole and stared down into it. He was roused from his reverie by the sound of a motor.

From the north came an airplane. High over the hole it passed, and then swerved and descended. On the under side of the wings could be seen the insignia of the Air Corps. Carnes jumped to his feet and waved his hat. Lower came the plane until it roared across the cavern less than a hundred feet above the ground. Two figures leaned out and examined the terrain carefully. Carnes waved again. One of the figures waved a hand in reply. The plane rose in the air and straightened out toward Charleston.

"We'll have the doctor here in a few minutes now," said Carnes to the Colonel. "It might be a good plan to send a motorcycle out along the Charleston road to bring him in. We don't want the guards to delay him."

The colonel gave an order and a motorcycle shot off down the road. In half an hour it came sputtering back with a huge Cadillac roaring in its wake. The car drew up and stopped. From it descended two men. The first was a small, wizened figure with heavy glasses. What hair age had left to him was as white as snow. The second figure, which towered over the first, was one to merit attention anywhere.

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Dr. Bird was as light on his feet and as quick and graceful as a cat, but there was nothing feline about his appearance. He stood well over six feet in his stockings and tipped the beam close to the two hundred mark. Not one ounce of fat was on his huge frame. So fine was he drawn that unless one looked closely he would never suspect the weight of bone and muscle that his unobtrusive tweed suit covered. Piercing black eyes looked out from under shaggy brows. His face was lean and browned, and it took a second glance to realize the tremendous height and breadth of his forehead. A craggy jutting chin spoke of stubbornness and the relentless following up of a line of action determined on. His head was topped with an unruly shock of black hair which he tossed back with a hand that commanded instant attention.

His hands were the most noteworthy thing about the famous Bureau scientist. Long slender hands, they were, with slim tapering fingers—the hands of an artist and a dreamer. The acid stains that marred them could not hide their slim beauty, yet Carnes knew that those hands had muscles like steel wire and that the doctor boasted a grip that could crush the hand of a professional wrestler. He had seen him tear a deck of playing cards in half and, after doubling, again in half, with as little effort as the ordinary man would use in tearing a bare dozen of the cards. As he climbed out of the car his keen black eyes swept around in a comprehensive glance. Carnes, trained observer that he was, knew that in that one glance every essential detail which it had taken him an hour to place had been accurately noted and stored away in the doctor's mind. He came forward to the detective.

"Has anything happened since you telephoned me?" was his first question.

"Nothing, Doctor. I followed your instructions and also assembled a crew of men with excavating tools."
"You're improving, Carnes. This is Dr. Lassen. This is a little out of your line. Doctor, but you may see something familiar. What does it look like to you?"

"Not like an earthquake, Bird, at all events. Offhand I would say that a huge cavern had been washed in the earth and the ground had caved in."

"It looks that way. If you are right, we should find running water if we dig deep enough. Have you been down in the hole, Carnes?"

"No, Doctor."

"Then that's the first thing to do. You have ropes, of course?"

* * * * *

Carnes called to the waiting gang of negroes and a dozen of these hurried up with ropes. Dr. Bird slung a rope around his body under his arms and was lowered into the hole. The rope slackened as he reached bottom. Carnes lay on his stomach and looked over the edge. Dr. Bird was gingerly picking his way across the ground. He turned and called up.

"Carnes, you and Lassen can come down if you care to."

In a few minutes the detective and the volcanologist joined him in the cavern. The top surface of the ground was rolled up into waves like the sea. The sides of the hole were almost sheer. The naked rock was exposed for thirty feet. Above the rock could be seen the subsoil, and then the layer of top soil and vegetation. Dr. Bird was carefully examining the rock wall.

"What do you make of these, Lassen?" he asked, pointing to a row of horizontal striations in the rock. The volcanologist studied them.

"They might be water marks but if so they are different from any that I have seen before," he said doubtfully. "It looks as though some force had cut the rock away in one sharp stroke."

"Exactly. Notice this yellow powder on the ridges. Water would have washed it away."

Dr. Bird stepped forward to the wall and idly attempted to pick up a pinch of the yellow powder he had referred to in his fingers. He gave an exclamation of surprise as he did so. The powder was evidently fast to the wall. He drew his knife from his pocket and the stuff. It fell readily. He scraped again and caught a speck of the falling powder in his hand. He gave a cry of surprise, for his hand sank as though borne down by a heavy weight.

With an effort he lifted his hand and examined the substance.

"Come here, Carnes," he said. "Hold your hand up to catch some of this powder as I scrape it off."

* * * * *

The detective held up his hand. Dr. Bird pried with his knife and a shower of dull yellow particles fell. Carnes' hand sank as though the bits of dust had been a lead bar. He placed his other hand under it and with an effort lifted both hands up a few inches.

"What on earth is this stuff, Doctor?" he cried. "It's as heavy as lead."

"It's a great deal heavier than lead, Carnes, old dear. I don't know what it is. I am inclined to think you did a wise thing when you sent for me. Lassen, take a look at this stuff. Did you ever run into anything like it?"

The aged volcanologist shook his head. The yellow powder was something beyond his ken.

"I have been poking around volcanos all my life," he said, "and I have seen some queer things come out of the ground--but nothing like that."

Dr. Bird poked tentatively at the substance for a moment, his brow furrowed in lines of thought. He suddenly threw back his shoulders in a gesture of decision.

"Send a gang of excavators down here," he cried. "Never mind the power shovel at present."

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Down the ropes swarmed the gang of negroes. Dr. Bird indicated an area at one end of the cavern and directed them to dig. The blacks flew to work with a will. The top soil and subsoil were rapidly tossed into buckets and hauled to the surface. When bare rock lay before them, the negroes ceased their efforts.

"What next, Doctuh, suh?" asked the foreman.

"Get dynamite!" cried the doctor. "If I'm right, this underground cavern is entered by a tunnel. We'll blast away this caved-in rock until we locate it."

Then occurred a strange thing.

"There is no need to go to that trouble, Dr. Bird," spoke a metallic voice, from nowhere, it seemed. The negroes looked at one another. Picks and shovels fell from nerveless hands.

"Your guess about a tunnel is correct, Doctor," went on the Voice. "There is a tunnel leading away from the spot where you are, but to find the end would be useless to you. I have prepared for that."

From the blacks came a low moan of fear.

"Ha'nts!" cried one of them. The cry was taken up and spread into a rolling chorus of fear. With one accord
they dropped their tools and stampeded in a mad rush toward the dangling ropes. Carnes sprang forward to stop
them.

"Let them go, Carnes!" cried the doctor. "Their work is done for the present. Let's locate that radio receiver."

"That also will be a useless search. Doctor," spoke up the Voice again. "I have perfected a transmitter which
will send my voice through space and make it audible without the aid of the clumsy apparatus you depend on. I am
also able to see you through the miles of intervening rock without the aid of any instruments at your end."

"I presume that you can hear me as well?"

"Certainly, Doctor. To save you trouble--and I dislike to see you waste the efforts of your really good brain on
minor problems--I will tell you that your surmise is correct. A tunnel does lead both to and from the place where you
stand. It twists and turns so that even you would be puzzled to plot a general direction. You would have to follow it
inch by inch. If you tried that, naturally I would cause it to collapse before you, or on top of you, if you got too
close. Be content with what you have seen and seek a better way to trace me."

"Who are you, anyway?" blurted out Carnes.

"Is it possible that you do not know? Such is fame. I thought that at least my friend Mr. Carnes would suspect
that Ivan Saranoff had done this."

"But you're dead!" protested the detective. "We killed you when we destroyed your helicopter."

"You killed merely an assistant who had disobeyed my orders. Had I not decreed his death, he would be alive
to-day. I could kill you as you stand there; you into nothingness; but I do not choose to do so--yet. Other attempts I
have made have you frustrated, but this time I shall succeed. I will institute a reign of terror which will bring your
rich, foolish country to its knees. Listen, while I give you a taste of my power. The city of Charleston is about to be
destroyed."

A thunderous roaring filled the air. Crash followed crash in rapid succession. It sounded as though all the noise
of the universe had been concentrated in the cavern. The earth shook and rocked like a restless sea. From above
came cries of terror.

The three men in the cavern were thrown to the ground. Shaken by the fall and deafened by the tumult, they
hung onto irregularities of the rock on which they lay. Gradually the tumult and the shaking subsided. The cries
from above became more apparent. Silence finally reigned in the cavern and the metallic Voice spoke again.

"Go back now and look at Charleston and you will see what to expect. The rest of your cities will soon share
the same fate. Beware of trying to trace my movements, for your lives are in the hollow of my hand."

The voice died away in silence. From the edge of the hole came a cry. A Fort Moultrie officer was peering
down at them.

"Are you all right down there?" he hailed.

"Right as hops," called Dr. Bird cheerfully. "What happened up above?"

"I don't know, Doctor. There seems to be a lot of smoke and fire over in the direction of the city. I expect the
quake shook them up a little this time. What shall we do now?"

"We're ready to come up. First I'm going to send up a wheelbarrow full of yellow powder. Rig a crane to lift it,
for it's too heavy to try to hoist with ropes."

With the aid of Carnes and Dr. Lassen, Dr. Bird collected a few cubic inches of the yellow powder from the
ridges in the rock. He made the wheelbarrow containing it fast to the wire cables of the crane and gave the signal.
Slowly it was raised to the surface. When it had safely reached there he turned to his companions.

"Grab a rope and let's go," he said.

In a few moments they were on the upper level. With the efforts of half a dozen men, the body of the
wheelbarrow was lifted into the car. With a few final words of instruction to the colonel, Dr. Bird and his
companions entered the car and were whisked away to the city.

A spectacle of destruction and ruin awaited them. Fully one-fourth of the city had sunk thirty feet into the
ground. The sinking was not even nor uniform. The sunken ground was rolled into huge waves while buildings
which had collapsed lay in confused heaps on all sides. From a dozen places in the area, columns of fire rose in the
air.

Dr. Bird wasted little time on the scene before him. His car skirted the edge of the huge hole and took the road
toward the Charleston airport, which was in a section which had suffered little. In half an hour the army transport
roared into the air carrying Dr. Bird's precious load of yellow powder. Four hours later they dropped to a landing at
Langley Field.

"Now, Carnes," said the doctor as they debarked from the plane, "there is work ahead. It may be too late to do
much to-night, but we have no time to waste. Get Bolton on the wire and tell him that we have positive evidence that
Saranoff is still alive and still up to his devil's tricks. Start every man of the secret service and every Department of
Justice agent that can be spared on the trail. He can't live underground all the time, and you ought to get on his tracks
somehow. I'm going up to the laboratory and see what I can do with this stuff. Report to me there to-morrow morning."

Carnes hurried away. Bolton, the chief of the United States Secret Service, had long ago recovered from any
professional jealousy he had ever felt of Dr. Bird. The doctor's message that Ivan Saranoff, the arch-enemy of
society, the head of the Young Labor party, the unofficial chief of the secret Soviet forces in the United States, was
alive and again in the field against law and order was enough to set in motion every force that he controlled. Waving
aside precedent and crashing his way past secretaries, he set in motion not only the agents of the Department of
Justice but also the post-office forces and the specialized but highly efficient Military and Naval Intelligence
Divisions. The telephone and telegraph wires from Washington were kept busy all night carrying orders and
bringing in reports. But despite all this activity, it was with a disappointed face that Operative Carnes sought the
doctor in the morning.

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Dr. Bird was in his private laboratory on the third floor of the Bureau of Standards. When Carnes entered he
was seated in a chair at his desk. His black eyes shone out from a chalky face like two burned holes in a blanket.
Carnes started at the appearance of utter weariness presented by the famous scientist. Dr. Bird straightened up and
squared his shoulders as the detective entered.

"Any luck, Carnes?" he asked eagerly.

"None at all, Doctor. We haven't been able to get a single trace of his corporeal existence since that submarine
was destroyed off the Massachusetts coast. All we have is Karuska's word that he is still alive."

"We heard his voice yesterday."

"His or another's."

"True. Have you set in motion every agency that the government has?"

"Every one. Either Bolton or I have talked to the Chief of Police in every large city in the United States and
Canada. Every known member of the Young Labor party who is above the mere rank and file is under close
surveillance."

"Good enough. Keep at it and you'll trace him eventually. As soon as I get a few quarts of black coffee into my
system, I'll start another line of search going."

"What did you find out last night?"

"I found that our seismograph recorded the Charleston disaster. It was merely a faint jog, about what should be
caused by a severe landslide. The disaster did not affect the earth's crust, but was purely local. That gives me a clue
to his method."

"I described the affair to Bolton and he suggested that it might be caused by a disintegrating ray."

* * * * *

Dr. Bird snorted. "When will people learn that there is not, and in the nature of things never can be, a
disintegrating ray?" he exclaimed. "Of course a ray can be made which will tear things down to their constituent
elements, but matter is indestructible, and the idea of wiping matter out of existence is absurd."

"But I have heard you say that matter and energy were interchangeable."

"That is a different proposition. I believe they are. In fact, if you remember, Carmichael proved it, although the
proof was lost at his death. Nothing of the sort was done at Charleston, however. Do you know how much energy is
contained in matter? Well, a cubic inch of copper would drive the largest ship afloat around the world twice, and
across the Atlantic to boot. The energy contained in the cubic yards of rock that were removed under Charleston
would have blown the world to fragments."

"Then what did happen?"

"Matter, as you know, is composed of atoms. These atoms are as far from one another, compared to their size,
as the stars and planets of the universe. Each atom in turn is composed of electrons, negative particles of electrical
energy, held in position about a fixed central nucleus of positive electricity known as a proton. I speak now of the
simplest element. Most of them have many protons and electrons in their make-up. The space between these
particles compared with their size is such that the universe would be crowded in comparison."

"What does that lead to?"

"I have described the composition of lead, the densest known element, over thirteen times as heavy as water,
bulk for bulk. Conceive what it would mean if some force could compress together these widely separated particles
until they touched. The resulting substance would be an element of almost inconceivable density. Such a condition is
approached in the stars, some of which are as high as four thousand times as dense as the earth. What Saranoff has
done is to find some way of compressing together the atoms into that yellow powder which we found in the cavern. He has not gone to the limit, for the stuff is only a little over four thousand times as dense as water. A cubic inch of it weighs one hundred and thirty-two pounds. With its density increased to that extent, the volume is reduced accordingly. That was what accounted for those caverns into which the earth tumbled."

"I'll believe you, Doctor," replied the detective; "but I'd believe you just as quickly if you swore that the moon was made of cream cheese made from the milk taken from the milky way. One would be just as understandable to me as the other."

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They were interrupted by the entrance of a waiter who bore a huge pot of steaming coffee. Dr. Bird's eyes lighted up as a cup was poured. Carnes knew enough not to interrupt while the doctor poured and drank eight cups of the strong black fluid. As he drank, the lines of fatigue disappeared from the scientist's face. He sat up as fresh as though he had not been working at high pressure the entire night.

"Dr. Fisher tells me that the amount of caffeine I drink would kill a horse," he said with a chuckle; "but sometimes it is needed. I feel better now. Let's get to work."

"What shall we do?"

"Despite Saranoff's words, it must be possible to trace him. He is undoubtedly releasing his energy from some form of subterranean borer, and such a thing can be located. The energy he uses must set up electrical disturbances which instruments will detect. I have had work started on a number of ultra-sensitive wave detectors which will record any wave-length from zero to five millimeters. We'll send them to various points along the seacoast. They ought to pick up the stray waves from the energy he is using to blast a path through the earth. I'm not going to bother with the waves from his motor; they may be of any wave-length, and there would be constant false alarms. I have another idea."

"What is it?"

"I am judging Saranoff from his previous actions. You remember that he used a submarine in that alien-smuggling scheme the Coast Guard broke up, and also when he loosed that sea monster on the Atlantic shipping? He seems to be rather fond of submarines."

"Well?"

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"The amount of energy he uses must be almost inconceivable," Dr. Bird went on. "He can hardly carry an amount of fuel which will enable him to bore underground for very many miles, Charleston is on the coast. I have an idea that he uses a submarine to transport his borer from point to point. After using the borer he must return to the submarine for recharging and transportation to the point where he plans to strike next. I already have two hundred planes scouring the sea looking for such a craft."

"Where do you expect him to strike next?"

"I have no idea. New York and Washington will undoubtedly be targets eventually, but neither of them may be next. Meanwhile, would you like to do a little more flying?"

"Surely."

"A plane is waiting for us at Langley Field. I want to look over the coast in the vicinity of Charleston Harbor and some of the sounds near there. If he is using a sub, he must have a base somewhere."

* * * * *

With a competent pilot at the stick, Carnes and the Doctor spent the day in exploring. The day yielded no results, and with the coming of dusk they landed at Savannah for the night. Carnes talked with Bolton over the telephone, but the secret service chief could report no favorable progress. Tired and disgusted, they retired early, but they were not destined to enjoy a night of uninterrupted sleep. At one o'clock a telegram was brought to their room. Dr. Bird tore it open and glanced sleepily at it.

"Get up, Carnes," he cried sharply. "Read this!"

The yawning detective glanced at the telegram. It contained only two words and a signature. It was signed "Ivan," and read simply, "Watch Wilmington."

"What the dickens?" he exclaimed as he studied the yellow slip. Dr. Bird was hurriedly pulling on his clothes.

"Saranoff has slipped a cog this time," said the doctor. "He sent that as a night message, but it was delivered as a straight message through error. He has got further north than I expected. We will turn out our pilot and take off. We should make Wilmington by daybreak. I'll telephone Washington and have a couple of destroyers started up Delaware Bay at once. We ought to give him a first class surprise party. I suppose that Philadelphia was meant to be his next stop."

In an hour the army plane took off into the night. At seven o'clock they were circling over Wilmington. The city had not been disturbed. For an hour they flew back and forth before they landed. Startling news awaited them.
At six that morning an earthquake had struck Wilmington, North Carolina. Half the town had sunk into the earth. Dr. Bird struck his brow with his clenched fist.

"Score one for the enemy," he said grimly. "We were too sure of ourselves, Carnes. We should have realized that he would hardly be so far north yet. Well, I've got to use the telephone while we're refueling."

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Within an hour after landing they were again in the air. One o'clock found them over the stricken city. Dr. Bird wasted no time on Wilmington but headed north along the coast. For a hundred miles he skirted the shore, two miles out. With an exclamation of disappointment he ordered the pilot to turn the plane and retrace his route southward, keeping ten miles from the shore. Fifty miles south he ordered the plane further out and again turned north. From time to time they passed a ship of the air patrol which was steadily skirting the coast, but none of them had seen a submarine. Off Cape Hatteras the pilot asked for orders.

"The gas is running low. Doctor," he said. "I think we had better put in somewhere and refuel. If we are going to keep the air much longer, you had better get a relief pilot. I have been flying for thirty hours out of the last thirty-six and I'm about done."

"Head back for Washington," said the doctor with a sigh. "I seem to have gone off on a false scent."

At Cape Charles the pilot swung east over Chesapeake Bay. Hardly had he turned than Dr. Bird gave a cry. Excitedly he pointed toward the water. Carnes grasped a pair of binoculars and looked in the direction Dr. Bird was indicating. Sliding along under the water was a long cigar-shaped shadow.

"It's a submarine!" exclaimed Carnes. "Is it a navy ship or the one we're after?"

"It's no navy sub," said the doctor positively. "It's not the right shape. Look at that bump on the side!"

The symmetry of the craft was marred by a huge projection on one side that could not be explained by the pattern of any known type of under-water craft.

"He's towing the borer!" cried the doctor in exultation. He took up the speaking tube. "Turn back to sea!" he cried. "We passed four destroyers less than ten miles out. We want to get in touch with them."

The plane roared out to sea while Dr. Bird feverishly sounded the "Alnav" call on the radio sending set. In a few minutes an answer came. From their point of vantage they could see flags break out at the peak of the destroyer leader. The four ships turned into column formation and stormed at full speed into the bay. The plane raced ahead to guide them.

"We've got him this time, Doctor!" cried Carnes in exultation. He pointed to the bay below where the submarine was still making its way slowly forward. Dr. Bird shook his head.

"I hope so," he said, "but I have my doubts. Saranoff is no fool. He wouldn't walk into a trap like this unless he had some means of escape. Here comes the first destroyer. We'll soon know the truth."

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With the radio set he directed the oncoming boat. The destroyer reduced to half speed and changed direction slightly. From side to side she maneuvered until she was less than half a mile behind the submarine and headed straight for it. Dr. Bird tapped a few words on his key. With a belch of smoke, the destroyer lurched forward. She cut the waters with her sharp bow, throwing up a wave higher than her decks. Dr. Bird watched anxiously.

The destroyer was almost over the submarine and Dr. Bird's fingers trembled on the key. One word from him would send a half dozen depth charges into the water. On came the destroyer until it was directly over the undersea craft. Dr. Bird pounded his key rapidly.

"Good Lord!" cried Carnes.

From the bump on the side of the submarine came a flash of red light. The destroyer staggered for a moment, and the entire central section of the ill-fated ship disappeared. The bow and stern came together with a rush and went down in a swirling maelstrom of water. The plane lurched in the air as a thundering crash rose from the sea.

The second destroyer, in no way daunted by the fate of her colleague, rushed to the attack. Dr. Bird pounded his key frantically in an attempt to turn her back. His message was too late or was misunderstood. Straight over the submarine went the second ship. Again came the red flash. The forward half of the destroyer disappeared and the stern slid down into a huge hole which had opened in the water.

"He's invulnerable!" cried the doctor. He pounded his key with feverish rapidity. The two remaining destroyers slackened speed and veered off. Slowly, as though loath to turn their backs on the enemy, they headed out for the broad Atlantic and comparative safety.

The submarine went slowly on her way. She did not turn west at the mouth of the Potomac but continued on up the bay. As long as there was light enough, the doctor's plane kept above her but the fading light soon made it impossible to see her. When she had disappeared from view, the doctor reluctantly gave the word to return to Washington.

* * * * *
"Where do you suppose he will attack next, Doctor?" asked Carnes when they sat again in the doctor's private laboratory.

"Washington, of course," said Dr. Bird absently as he looked up from a pile of telegrams he was running through.

"Why Washington?"

"Use your head. Representatives of every civilized power are in Washington now at the President's invitation to consider means of halting the anti-religious activities of the Soviets. The destruction of the city and the killing of these men would be a telling blow for Russia to strike."

"But, Doctor, you don't think--"

"Excuse me, Carnes; that will keep. Let me read these telegrams."

For half an hour silence reigned in the laboratory. Dr. Bird laid down the last message with a sigh.

"Carnes," he said, "I'm check-mated. I sent out a hundred ultra-sensitive short wave receivers yesterday. Four of them were located within fifty miles of Wilmington, North Carolina. One of these four was destroyed, but none of the others detected a sign of a wave during the attack. One of them was within a hundred feet of the edge of the hole. If he isn't using a ray of some sort, what on earth is he using?"

"It looked like a flash of red light when it came from the submarine."

"Yes, but it couldn't be light. Let me think."

The doctor sat for a few minutes with corrugated brows. Suddenly he sprang to his feet.

"I deserve to be beaten," he cried. "Why didn't I think of that possibility before?"

* * * * *

He hurried into his laboratory and brought out a small box with a glass front. From the top projected a spike topped with a ball. Through the glass, Carnes could see a thin sheet of metal hanging pendant from the spike.

"An electroscope," explained the doctor. "That sheet of metal is really two sheets of gold-leaf, at present stuck together. If I rub a piece of hard rubber with a woolen cloth, the rod will become charged with static electricity. If I then touch the ball with it, the charge is transferred to the electroscope and causes the two sheets of gold-leaf to stand apart at an angle. Watch me."

He took a hard rubber rod and rubbed it briskly on his coat sleeve. As he touched the ball of the electroscope the sheets of gold-leaf separated and stood apart at a right angle.

"As long as the air remains non-conducting, the two bits of gold-leaf will hold that position. The air, however, is not a perfect insulator and the charge will gradually leak off. If I bring a bit of radioactive substance, for instance, pitchblende, near the electroscope, the charge will leak rapidly. Do you understand?"

"Yes, but how is that going to help us?"

"Saranoff is accomplishing his result by artificially compressing the atoms. It is inevitable that he will do it imperfectly, and some electrons will be loosened and escape. These electrons, traveling up through the earth will make the air conducting. To-morrow we will have a means of locating the borer under ground."

"Once you locate it, how will you fight it?"

"That is the problem I must work out to-night."

"Could we bury a charge of explosive and blow it up?"

* * * * *

"Ordinary explosives would be useless," the doctor answered. "They would react in the same manner as other substances, and would be rendered harmless. Radite might do the work if it could be placed in the path, but it couldn't be. We may locate the position and depth of the borer, but long before we could dig and blast a hole deep enough to place a charge of radite before it, it would have passed on or changed direction. No, Carnes, old dear, the only solution that I can see is to turn his own guns on him. If I can, before morning, duplicate his device, we can train it on the spot where he is and reduce him and his machine to a pinch of yellow powder."

"Can you do it, Doctor?"

"What one man's brain can device, another man's brain can duplicate. The only question is that of time. I am confident that Saranoff will attack Washington to-morrow. If I can do the job to-night, we may save the city. If not--At any rate, Carnes, your job will be to see that the President and all of the heads of the government are out of the city by morning. The President may refuse to leave. Knowing him as I do, I rather expect he will."

"In that case, the issue is in the hands of the gods. Now get out of here. I want to work. Report back at daybreak with a car."

Dr. Bird turned back to his laboratory.

"He must be using a ray of some sort, possibly a radium emanation," he muttered to himself. "That would have no wave motion and might accomplish the result, although I would expect the exact opposite from it. The first thing to do is to examine that powder with a spectroscope and see if I can get a clue to the electronic arrangement."
When Carnes arrived at the Bureau of Standards at dawn he rubbed his eyes in astonishment. The buildings were lighted up and the grounds swarmed with workmen. Before the buildings were lined up a dozen trucks and twice that many touring cars. A cordon of police held back the curious. Carnes' gold badge won him an entrance and he hurried up the stairs to Dr. Bird's laboratory. The doctor's face was drawn and haggard, but his eyes glowed with a feverish light. Workmen were carrying down huge boxes.

"What's up, Doctor?" demanded the detective.

"Oh, you got here at last, did you? You're just in time. If you'd been fifteen minutes later, you would have found us gone."

"Gone where?"

"Out into Maryland in an attempt to stop Saranoff in his progress toward Washington."

"Have you found your means of combating him?"

"I hope so, although it is not what I started out to get. Did you bring a car as I told you?"

"It's waiting below."

"Good enough. I'll go in it. Williams, are those projectors all loaded?"

"Yes, Dr. Bird. The magnet will be ready to go in five minutes. The electroscopes and the other light stuff are all loaded and ready to move."

"You have done well. I'll let you bring the trucks and heavy equipment while I go ahead with the instruments. Take the road out toward Upper Marlboro. If I don't meet you before, stop there for orders."

"Very well, Doctor."

"Come on, Carnes, let's go."

He raced down the stairs with the detective at his heels. He went along the line of touring cars and spoke briefly to the drivers. He climbed into the car which Carnes had brought. As it started the other cars fell in behind it. At a speed of forty miles an hour, with a detachment of motorcycle police leading the van, the cavalcade rolled out through the deserted streets of Washington. Once clear of the city, the speed was increased.

"Did you persuade the President to leave?" asked the doctor.

"There wasn't a chance. The papers panned him so much for following my advice at Charleston that he has turned stubborn. He says that if all the forces of the government can't protect him against one man, he is willing to die."

"We've got to save him," said Dr. Bird grimly. "Hello, there's the Chesapeake ahead."

The doctor studied the country.

"We are about opposite the place where we left that sub last night. I fancy that Saranoff will operate from there, for it didn't move during the last half hour we watched it. We'll go back inland a mile or two and spread out. I have no idea how far his radiations will affect the electroscopes, but we'll try four hundred-yard intervals to start. That will enable us to cover a line twelve miles long."

He picked up a megaphone and spoke to the line of cars behind him.

"Take up four hundred yard intervals when we spread out," he said. "Every man keep his headphone on and listen for orders. Follow my car until it stops, then turn north and south and drop your men at intervals."

He reentered the car and led the way back for two miles. He halted his car at a crossroad. The cars following him turned and went to the north and south. Besides Carnes and the doctor, the car held two men from the Bureau. As they climbed out, Carnes saw that one of them carried a portable radio sending set, while the other bore an electroscope and a rubber rod. The radio operator set up his device, while the other man rubbed his coat sleeve briskly with the hard rubber and then touched the ball of the electroscope with it. The two bits of gold-leaf spread out.

"While we're waiting, I'll explain something of this to you, Carnes," said the doctor. "At four hundred-yard intervals are men with electroscopes like this one. My attempt to locate Saranoff by means of wave detectors was a failure. That proved that the ray he was using is not of the wave type. The other common ray is the cathode ray type which does not consist of vibrations but of a stream of electrons, negative particles of electricity, traveling in straight lines of high velocity. He must be knocking loose some of the electrons when he collapses the atoms. The rate of discharge of these electroscopes will give us a clue to the nearness of his device."

"Once you locate him, how do you propose to attack him?"

"The obvious method, that of using his own ray against him, fell down. However, in attempting to produce it, I stumbled on another weapon which may be equally effective. I am going to try to use an exact opposite of his ray. The cathode ray, when properly used, will bombard the atoms and knock electrons loose. I perfected last night a
device on which I have been working for months. It is a super-cathode ray. I tested it on the yellow powder and find that I can successfully reverse Saranoff's process. He can contract matter together until it occupies less than one one-thousandth of its original volume. My ray will destroy this effect and restore matter to something like its original condition."

"And the effect will be?"

"Use your imagination. He blasts out a hole by condensing the rock to a pinch of yellow powder. He moves forward into the hole he has made. I come along and reverse his process. The yellow powder expands to its original volume and the hole he has made ceases to exist. What must happen to the foreign body which had been introduced into the hole that is no longer a hole?"

Carnes whistled.

"At any rate, I hope that I am never in a hole when that happens."

"And I devoutly hope that Saranoff is. I met with one difficulty. My ray will not penetrate the depth of solid rock which separates his borer from the surface."

"Then how will you reach him to crush him? You don't expect to drill down ahead of him?"

"That is my stroke of genius, Carnes. I am going to make him bore the hole down which my ray will travel to accomplish his destruction. The cathode ray and rays of that type--"

* * * * *

"Pardon me, Doctor," interrupted the radio operator. "I have just received a message from the squadron leader of the planes patrolling the bay. He states that every inch of the Chesapeake Bay and the Potomac River have been examined and no submarine is visible."

"I expected that. He will have opened a cavern under the earth, in which his craft is safe from aerial observation. Once the borer has left it, it is invulnerable no longer."

"What reply shall I make?"

"Tell him to keep up a constant patrol. Three navy subs with radite-charged torpedos are on their way up the bay, together with half a dozen destroyers. The subs will scout for such a hole as I have described and will attack his sub if they find it. The destroyers will stand by and support them."

The operator turned to his instrument. The electroscope observer claimed the doctor's attention.

"There is a steady leak here, Doctor," he said. "I get a discharge in eleven minutes."

"Probably a result of his work in opening the hiding place for his submarine last night. Keep it charged, Jones."

"What did you say about the cathode ray, Doctor?" asked Carnes.

"The cathode ray? Oh, yes. I said that rays of that type were attracted by--Hello, look there!"

From a point a mile to the north a ball of red fire streaked up into the air. A moment later similar signals rose from other watchers in the line.

"It works, Carnes!" cried the doctor as he rushed for the car. "We've got him this time!"

* * * * *

The car raced along the road. At the first man who had signalled, it slackened speed. The doctor leaned out.

"What is your discharge rate?" he called.

"Eight minutes. Doctor."

The car rolled on. Dr. Bird repeated the question at the next post and was told that the electroscope there was losing its charge in seven minutes. The next man reported four minutes and the next man, one minute. The following station reported three minutes.

"It's right along here somewhere!" cried the doctor. "Summon everyone to this point and take up twenty-yard intervals."

From the north and south the cars came racing in. The instruments were spread out along a new line twenty yards apart. As the borer was located the intervals were decreased to fifteen feet. Dr. Bird thrust a long white rod into the ground.

"His path lies under here," he said. "Into the cars and go back a mile and test again."

The borer was making slow progress, and it was half an hour before Dr. Bird drove the second stake in the ground. With a transit he took the bearing of the path and laid it out on a large scale map.

"We'll stop him between Marr and Ritchie," he announced. "Jones, I am going back and set up my apparatus. Keep track of his movements. If he changes direction, let me know at once."

* * * * *

The doctor's car tore off to the west. Near Upper Marlboro, he met the convoy of trucks and led them to the selected spot. The trucks were unloaded and the apparatus laid out. Attached to a huge transformer were a dozen strange-looking projectors. What puzzled Carnes most was a huge built-up steel bar wound about with heavy cable. Dr. Bird had this bar erected on a truck and located it with great exactness. The projectors were set up in a battery
just east of the bar.

"How about power?" asked the doctor.

"We'll have it in five minutes," replied one of the men. "A power transmission line carrying twenty-two thousand passes within two hundred yards of here. We are phoning now to have the power cut off. As soon as the line is dead we'll cut it and bring the ends here."

The electrician was good at his word. In five minutes the power line had been cut and cables spliced to the ends. The cables were brought to the doctor's apparatus and the main lines were rigged to the ends of the cable wound around the bar. In parallel on taps, the projectors were connected. Huge oil-switches were placed in both lines.

"All ready, Doctor," reported the electrician.

"Good work, Avent. He'll be here soon, I fancy."

A car whirled up and a man leaped out with a surveyor's rod. He set it up on the ground while a companion watched through binoculars. He moved it a hundred yards to the north and then back twenty. When he was satisfied he turned to Dr. Bird.

"The direction of movement has not changed," he said. "The path will pass under this stake."

Under the doctor's supervision, the truck carrying the bar moved forward until it stood over the surveyor's stake. The battery of projectors moved to a new location a few feet east of the rod. Other cars came racing up.

"He's less than half a mile away, Doctor!" cried Jones.

"Get your electroscopes out and spot him a hundred yards from this truck."

"Very well, Doctor."

* * * * *

The men with the instruments spread out along the path of the borer. Briskly they rubbed their sleeves with the rubber rods and charged their instruments. Almost as fast as they charged them, the tiny bits of gold-leaf collapsed together. Presently the man on the end of the line shouted.

"Maximum discharge!" he cried.

Dr. Bird looked around. Every man stood ready at his post. The next man signalled that the borer was under him. Carnes felt himself trembling. He did not know what the doctor was about to do, but he felt that the fate of America hung in the balance. Whether it remained free or became the slave of Soviet Russia would quickly be decided.

Slowly the borer made its way forward. With a pale face, Jones signalled the news that it had reached the point the doctor had indicated. Dr. Bird raised his hand.

"Power!" he cried.

The electrician closed a switch and power surged through the cables around the bar. The earth rocked and quivered. A hundred yards east of the bar a flash of intolerable red light sprang from the ground with a roar like that of Niagara. Toward the bar it moved with gathering momentum.

"Back, everyone!" roared Dr. Bird.

* * * * *

The men sprang back. The searing ray approached the bar. It touched it, and bar and truck disappeared into thin air. A splutter of sparks came from the severed ends of the wire. The ray disappeared. Carnes rubbed his eyes. Where the truck had rested on solid ground was now a gaping wound in the earth.

"Projector forward!" cried the doctor. "Hurry, men!"

The trucks bearing the battery of projectors moved forward until they were at the edge of the hole. Portable cranes swung the lamps out, and men swarmed over them. The projectors were pointed down the hole. Carnes joined the doctor in peering down. A hundred yards below them the terrible ray was blazing. As they watched, its end came in sight. The ray was being projected forward from the end of a black cigar-shaped machine which was slowly moving forward.

"That's your target, men!" cried the doctor. "Align on it and signal when you are ready!"

One by one the projector operators raised their hands in the signal of "ready." Still the doctor waited. Suddenly the forward movement of the black body ceased. The ray was stationary for a moment and then moved slowly upward. A terrific roaring came from the cavern.

"Projector switch!" roared the doctor, his heavy voice sounding over the tumult.

"Ready, sir!" a shrill voice answered.

"Power!"

* * * * *

From each of the projectors a dazzling green ray leaped forth as the switch was closed. There was a crash like all the thunder of the universe. Before the astonished eyes of the detective, the hole closed. Not only did it close but
the earth piled up until the trucks were overturned and the green rays blazed in all directions.

"Power off!" roared the doctor.

The switch was opened and the ray died out. Before them was a huge mound where a moment before had been a hole.

"You see, Carnes," said Dr. Bird with a wan smile. "I made him bore his own hole, as I promised."

"I saw it, but I don't understand. How did you do it?"

"Magnetism. Rays of the cathode type are deflected from their course by a magnet. His ray proved unusually susceptible, and I drew it toward a huge electro-magnet which I improvised. When the magnet was destroyed, the ray dropped back ... to its original ... direction. That's the end ... of Saranoff. That is ... I hope ... it is."

Dr. Bird's voice had grown slower and less distinct as he talked. As he said the last words, he slumped gently to the ground. Carnes sprang forward with a cry of alarm and bent over him.

"What's the matter, Doctor?" he demanded anxiously, shaking the scientist. Dr. Bird rallied for a moment.

"Sleep, old dear," he murmured. "Four days--no sleep. Go 'way, I'm ... going ... to ... sleep...."

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THE LINK
By Alan E. Nourse

It was nearly sundown when Ravdin eased the ship down into the last slow arc toward the Earth's surface. Stretching his arms and legs, he tried to relax and ease the tension in his tired muscles. Carefully, he tightened the seat belt for landing; below him he could see the vast, tangled expanse of Jungle-land spreading out to the horizon. Miles ahead was the bright circle of the landing field and the sparkling glow of the city beyond. Ravdin peered to the north of the city, hoping to catch a glimpse of the concert before his ship was swallowed by the brilliant landing lights.

A bell chimed softly in his ear. Ravdin forced his attention back to the landing operation. He was still numb and shaken by the Warp-passage, his mind still muddled by the abrupt and incredible change. Moments before, the sky had been a vast, starry blanket of black velvet; then, abruptly, he had been hovering over the city, sliding down toward warm friendly lights and music. He checked the proper switches, and felt the throbbing purr of the anti-grav motors as the ship slid in toward the landing slot. Tall spires of other ships rose to meet him, circle upon circle of silver needles pointing skyward. A little later they were blotted out as the ship was grappled into the berth from which it had risen days before.

With a sigh, Ravdin eased himself out of the seat, his heart pounding with excitement. Perhaps, he thought, he was too excited, too eager to be home, for his mind was still reeling from the fearful discovery of his journey.

The station was completely empty as Ravdin walked down the ramp to the shuttles. At the desk he checked in with the shiny punch-card robot, and walked swiftly across the polished floor. The wall panels pulsed a somber blue-green, broken sharply by brilliant flashes and overtones of scarlet, reflecting with subtle accuracy the tumult in his own mind. Not a sound was in the air, not a whisper nor sign of human habitation. Vaguely, uneasiness grew in his mind as he entered the shuttle station. Suddenly, the music caught him, a long, low chord of indescribable beauty, rising and falling in the wind, a distant whisper of life....

The concert, of course. Everyone would be at the concert tonight, and even from two miles away, the beauty of four hundred perfectly harmonized voices was carried on the breeze. Ravdin's uneasiness disappeared; he was eager to discharge his horrible news, get it off his mind and join the others in the great amphitheater set deep in the hillside outside the city. But he knew instinctively that Lord Nehmon, anticipating his return, would not be at the concert.

Riding the shuttle over the edges of Jungle-land toward the shining bright beauty of the city, Ravdin settled back, trying to clear his mind of the shock and horror he had encountered on his journey. The curves and spires of glowing plastic passed him, lighted with a million hues. He realized that his whole life was entangled in the very beauty of this wonderful city. Everything he had ever hoped or dreamed lay sheltered here in the ever-changing rhythm of colors and shapes and sounds. And now, he knew, he would soon see his beloved city burning once again, turning to flames and ashes in a heart-breaking memorial to the age-old fear of his people.

The little shuttle-car settled down softly on the green terrace near the center of the city. The building was a masterpiece of smoothly curving walls and tasteful lines, opening a full side to the south to catch the soft sunlight and warm breezes. Ravdin strode across the deep carpeting of the terrace. There was other music here, different music, a wilder, more intimate fantasy of whirling sound. An oval door opened for him, and he stopped short,
staggered for a moment by the overpowering beauty in the vaulted room.

A girl with red hair the color of new flame was dancing with enthralling beauty and abandon, her body moving like ripples of wind to the music which filled the room with its throbbing cry. Her beauty was exquisite, every motion, every flowing turn a symphony of flawless perfection as she danced to the wild music.

"Lord Nehmon!"

The dancer threw back her head sharply, eyes wide, her body frozen in mid-air, and then, abruptly, she was gone, leaving only the barest flickering image of her fiery hair. The music slowed, singing softly, and Ravdin could see the old man waiting in the room. Nehmon rose, his gaunt face and graying hair belying the youthful movement of his body. Smiling, he came forward, clapped Ravdin on the shoulder, and took his hand warmly. "You're too late for the concert--it's a shame. Mischana is the master tonight, and the whole city is there."

Ravdin's throat tightened as he tried to smile. "I had to let you know," he said. "They're coming, Nehmon! I saw them, hours ago."

The last overtones of the music broke abruptly, like a glass shattered on stone. The room was deathly still. Lord Nehmon searched the young man's face. Then he turned away, not quite concealing the sadness and pain in his eyes. "You're certain? You couldn't be mistaken?"

"No chance. I found signs of their passing in a dozen places. Then I saw them, their whole fleet. There were hundreds. They're coming, I saw them."

"Did they see you?" Nehmon's voice was sharp.

"No, no. The Warp is a wonderful thing. With it I could come and go in the twinkling of an eye. But I could see them in the twinkling of an eye."

"And it couldn't have been anyone else?"

"Could anyone else build ships like the Hunters?"

Nehmon sighed wearily. "No one that we know." He glanced up at the young man. "Sit down, son, sit down. I-- I'll just have to rearrange my thinking a little. Where were they? How far?"

"Seven light years," Ravdin said. "Can you imagine it? Just seven, and moving straight this way. They know where we are, and they are coming quickly." His eyes filled with fear. "They couldn't have found us so soon, unless they too have discovered the Warp and how to use it to travel."

The older man's breath cut off sharply, and there was real alarm in his eyes. "You're right," he said softly. "Six months ago it was eight hundred light years away, in an area completely remote from us. Now just seven. In six months they have come so close."

The scout looked up at Nehmon in desperation. "But what can we do? We have only weeks, maybe days, before they're here. We have no time to plan, no time to prepare for them. What can we do?"

The room was silent. Finally the aged leader stood up, wearily, some fraction of his six hundred years of life showing in his face for the first time in centuries. "We can do once again what we always have done before when the Hunters came," he said sadly. "We can run away."

* * * * *

The bright street below the oval window was empty and quiet. Not a breath of air stirred in the city. Ravdin stared out in bitter silence. "Yes, we can run away. Just as we always have before. After we have worked so hard, accomplished so much here, we must burn the city and flee again." His voice trailed off to silence. He stared at Nehmon, seeking in the old man's face some answer, some reassurance. But he found no answer there, only sadness. "Think of the concerts. It's taken so long, but at last we've come so close to the ultimate goal." He gestured toward the thought-sensitive sounding boards lining the walls, the panels which had made the dancer-illusion possible. "Think of the beauty and peace we've found here."

"I know. How well I know."

"Yet now the Hunters come again, and again we must run away." Ravdin stared at the old man, his eyes suddenly bright. "Nehmon, when I saw those ships I began thinking."

"I've spent many years thinking, my son."

"Not what I've been thinking," Ravdin sat down, clasping his hands in excitement. "The Hunters come and we run away, Nehmon. Think about that for a moment. We run, and we run, and we run. From what? We run from the Hunters. They're hunting us, these Hunters. They've never quite found us, because we've always already run. We're clever, we're fortunate, and we have a way of life that they do not, so whenever they have come close to finding us, we have run."

Nehmon nodded slowly. "For thousands of years."

Ravdin's eyes were bright. "Yes, we flee, we cringe, we hide under stones, we break up our lives and uproot our families, running like frightened animals in the shadows of night and secrecy." He gULped a breath, and his eyes sought Nehmon's angrily. "Why do we run, my lord?"
Nehmon's eyes widened. "Because we have no choice," he said. "We must run or be killed. You know that. You've seen the records, you've been taught."

"Oh, yes, I know what I've been taught. I've been taught that eons ago our remote ancestors fought the Hunters, and lost, and fled, and were pursued. But why do we keep running? Time after time we've been cornered, and we've turned and fled. Why? Even animals know that when they're cornered they must turn and fight."

"We are not animals." Nehmon's voice cut the air like a whiplash. "But we could fight."

"Animals fight. We do not. We fought once, like animals, and now we must run from the Hunters who continue to fight like animals. So be it. Let the Hunters fight."

Ravdin shook his head. "Do you mean that the Hunters are not men like us?" he said. "That's what you're saying, that they are animals. All right. We kill animals for our food, isn't that true? We kill the tiger-beasts in the Jungle to protect ourselves, why not kill the Hunters to protect ourselves?"

Nehmon sighed, and reached out a hand to the young man. "I'm sorry," he said gently. "It seems logical, but it's false logic. The Hunters are men just like you and me. Their lives are different, their culture is different, but they are men. And human life is sacred, to us, above all else. This is the fundamental basis of our very existence. Without it we would be Hunters, too. If we fight, we are dead even if we live. That's why we must run away now, and always. Because we know that we must not kill men."

On the street below, the night air was suddenly full of voices, chattering, intermingled with whispers of song and occasional brief harmonic flutterings. The footfalls were muted on the polished pavement as the people passed slowly, their voices carrying a hint of puzzled uneasiness.

"The concert's over!" Ravdin walked to the window, feeling a chill pass through him. "So soon, I wonder why?" Eagerly he searched the faces passing in the street for Dana's face, sensing the lurking discord in the quiet talk of the crowd. Suddenly the sound-boards in the room tinkled a carillon of ruby tones in his ear, and she was in the room, rushing into his arms with a happy cry, pressing her soft cheek to his rough chin. "You're back! Oh, I'm so glad, so very glad!" She turned to the old man. "Nehmon, what has happened? The concert was ruined tonight. There was something in the air, everybody felt it. For some reason the people seemed afraid."

Ravdin turned away from his bride. "Tell her," he said to the old man.

Dana looked at them, her gray eyes widening in horror. "The Hunters! They've found us?"

Ravdin nodded wordlessly.

Her hands trembled as she sat down, and there were tears in her eyes. "We came so close tonight, so very close. I felt the music before it was sung, do you realize that? I felt the fear around me, even though no one said a word. It wasn't vague or fuzzy, it was clear! The transference was perfect." She turned to face the old man. "It's taken so long to come this far, Nehmon. So much work, so much training to reach a perfect communal concert. We've had only two hundred years here, only two hundred! I was just a little girl when we came, I can't even remember before that. Before we came here we were undisturbed for a thousand years, and before that, four thousand. But two hundred--we can't leave now. Not when we've come so far."

Ravdin nodded. "That's the trouble. They come closer every time. This time they will catch us. Or the next time, or the next. And that will be the end of everything for us, unless we fight them." He paused, watching the last groups dispersing on the street below. "If we only knew, for certain, what we were running from."

There was a startled silence. The girl's breath came in a gasp and her eyes widened as his words sank home.

"Ravdin," she said softly, "have you ever seen a Hunter?"

Ravdin stared at her, and felt a chill of excitement. Music burst from the sounding-board, odd, wild music, suddenly hopeful. "No," he said, "no, of course not. You know that."

The girl rose from her seat. "Nor have I. Never, not once." She turned to Lord Nehmon. "Have you?"

"Never." The old man's voice was harsh.

"Has anyone ever seen a Hunter?"

Ravdin's hand trembled. "I--I don't know. None of us living now, no. It's been too long since they last actually found us. I've read--oh, I can't remember. I think my grandfather saw them, or my great-grandfather, somewhere back there. It's been thousands of years."

"Yet we've been tearing ourselves up by the roots, fleeing from planet to planet, running and dying and still running. But suppose we don't need to run anymore?"

He stared at her. "They keep coming. They keep searching for us. What more proof do you need?"

Dana's face glowed with excitement, alive with new vitality, new hope. "Ravdin, can't you see? They might have changed. They might not be the same. Things can happen. Look at us, how we've grown since the wars with the Hunters. Think how our philosophy and culture have matured! Oh, Ravdin, you were to be master at a concert
next month. Think how the concerts have changed! Even my grandmother can remember when the concerts were just a few performers playing, and everyone else just sitting and listening! Can you imagine anything more silly? They hadn't even thought of transference then, they never dreamed what a real concert could be! Why, those people had never begun to understand music until they themselves became a part of it. Even we can see these changes, why couldn't the Hunters have grown and changed just as we have?"

Nehmon's voice broke in, almost harshly, as he faced the excited pair. "The Hunters don't have concerts," he said grimly. "You're deluding yourself, Dana. They laugh at our music, they scoff at our arts and twist them into obscene mockeries. They have no concept of beauty in their language. The Hunters are incapable of change."

"And you can be certain of that when nobody has seen them for thousands of years?"

Nehmon met her steady eyes, read the strength and determination there. He knew, despairingly, what she was thinking— that he was old, that he couldn't understand, that his mind was channeled now beyond the approach of wisdom. "You mustn't think what you're thinking," he said weakly. "You'd be blind. You wouldn't know, you couldn't have any idea what you would find. If you tried to contact them, you could be lost completely, tortured, killed. If they haven't changed, you wouldn't stand a chance. You'd never come back, Dana."

"But she's right all the same," Ravdin said softly. "You're wrong, my lord. We can't continue this way if we're to survive. Sometime our people must contact them, find the link that was once between us, and forge it strong again. We could do it, Dana and I."

"I could forbid you to go."

Dana looked at her husband, and her eyes were proud. "You could forbid us," she said, facing the old man. "But you could never stop us."

* * * * *

At the edge of the Jungle-land a great beast stood with green-gleaming eyes, licking his fanged jaws as he watched the glowing city, sensing somehow that the mystifying circle of light and motion was soon to become his Jungle-land again. In the city the turmoil bubbled over, as wave after wave of the people made the short safari across the intervening jungle to the circles of their ships. Husbands, wives, fathers, mothers—all carried their small, frail remembrances out to the ships. There was music among them still, but it was a different sort of music, now, an eerie, hopeless music that drifted out of the city in the wind. It caused all but the bravest of the beasts, their hair pricking on their backs, to run in panic through the jungle darkness. It was a melancholy music, carried from thought to thought, from voice to voice as the people of the city wearily prepared themselves once again for the long journey.

To run away. In the darkness of secrecy, to be gone, without a trace, without symbol or vestige of their presence, leaving only the scorched circle of land for the jungle to reclaim, so that no eyes, not even the sharpest, would ever know how long they had stayed, nor where they might have gone.

In the rounded room of his house, Lord Nehmon dispatched the last of his belongings, a few remembrances, nothing more, because the space on the ships must take people, not remembrances, and he knew that the remembrances would bring only pain. All day Nehmon had supervised the loading, the intricate preparation, following plans laid down millennia before. He saw the libraries and records transported, mile upon endless mile of microfilm, carted to the ships prepared to carry them, stored until a new resting place was found. The history of a people was recorded on that film, a people once proud and strong, now equally proud, but dwindling in numbers as toll for the constant roving. A proud people, yet a people who would turn and run without thought, in a panic of age-old fear. They had to run, Nehmon knew, if they were to survive.

And with a blaze of anger in his heart, he almost hated the two young people waiting here with him for the last ship to be filled. For these two would not go.

It had been a long and painful night. He had pleaded and begged, tried to persuade them that there was no hope, that the very idea of remaining behind or trying to contact the Hunters was insane. Yet he knew they were sane, perhaps unwise, naive, but their decision had been reached, and they would not be shaken.

The day was almost gone as the last ships began to fill. Nehmon turned to Ravdin and Dana, his face lined and tired. "You'll have to go soon," he said. "The city will be burned, of course, as always. You'll be left with food, and with weapons against the jungle. The Hunters will know that we've been here, but they'll not know when, nor where we have gone." He paused. "It will be up to you to see that they don't learn."

Dana shook her head. "We'll tell them nothing, unless it's safe for them to know."

"They'll question you, even torture you."

She smiled calmly. "Perhaps they won't. But as a last resort, we can blank out."

Nehmon's face went white. "You know there is no coming back, once you do that. You would never regain your memory. You must save it for a last resort."

Down below on the street the last groups of people were passing; the last sweet, eerie tones of the concert were rising in the gathering twilight. Soon the last families would have taken their refuge in the ships, waiting for
Nehmon to trigger the fire bombs to ignite the beautiful city after the ships started on their voyage. The concerts were over; there would be long years of aimless wandering before another home could be found, another planet safe from the Hunters and their ships. Even then it would be more years before the concerts could again rise from their hearts and throats and minds, generations before they could begin work again toward the climactic expression of their heritage.

Ravdin felt the desolation in the people's minds, saw the utter hopelessness in the old man's face, and suddenly felt the pressure of despair. It was such a slender hope, so frail and so dangerous. He knew of the terrible fight, the war of his people against the Hunters, so many thousand years before. They had risen together, a common people, their home a single planet. And then, the gradual splitting of the nations, his own people living in peace, seeking the growth and beauty of the arts, despising the bitterness and barrenness of hatred and killing—and the Hunters, under an iron heel of militarism, of government for the perpetuation of government, split farther and farther from them. It was an ever-widening split as the Hunters sneered and ridiculed, and then grew to hate Ravdin's people for all the things the Hunters were losing: peace, love, happiness. Ravdin knew of his people's slowly dawning awareness of the sanctity of life, shattered abruptly by the horrible wars, and then the centuries of fear and flight, hiding from the wrath of the Hunters' vengeance. His people had learned much in those long years. They had conquered disease. They had grown in strength as they dwindled in numbers. But now the end could be seen, crystal clear, the end of his people and a ghastly grave.

Nehmon's voice broke the silence. "If you must stay behind, then go now. The city will burn an hour after the count-down."

"We will be safe, outside the city." Dana gripped her husband's hand, trying to transmit to him some part of her strength and confidence. "Wish us the best, Nehmon. If a link can be forged, we will forge it."

"I wish you the best in everything." There were tears in the old man's eyes as he turned and left the room.

* * * * *

They stood in the Jungle-land, listening to the scurry of frightened animals, and shivering in the cool night air as the bright sparks of the ships' exhausts faded into the black starry sky. A man and a woman alone, speechless, watching, staring with awful longing into the skies as the bright rocket jets dwindled to specks and flickered out.

The city burned. Purple spumes of flame shot high into the air, throwing a ghastly light on the frightened Jungle-land. Spires of flame seemed to be seeking the stars with their fingers as the plastic walls and streets of the city hissed and shriveled, blackening, bubbling into a vanishing memory before their eyes. The flames shot high, carrying with them the last remnants of the city which had stood proud and tall an hour before. Then a silence fell, deathly, like the lifeless silence of a grave. Out of the silence, little whispering sounds of the Jungle-land crept to their ears, first frightened, then curious, then bolder and bolder as the wisps of grass and little animals ventured out and out toward the clearing where the city had stood. Bit by bit the Jungle-land gathered courage, and the clearing slowly, silently, began to disappear.

Days later new sparks of light appeared in the black sky. They grew to larger specks, then to flares, and finally settled to the earth as powerful, flaming jets.

They were squat, misshapen vessels, circling down like vultures, hissing, screeching, landing with a grinding crash in the tall thicket near the place where the city had stood. Ravdin's signal had guided them in, and the Hunters had seen them, standing on a hilltop above the demolished amphitheater. Men had come out of the ships, large men with cold faces and dull eyes, weapons strapped to their trim uniforms. The Hunters had blinked at them, unbelieving, with their weapons held at ready. Ravdin and Dana were seized and led to the flagship.

As they approached it, their hearts sank and they clasped hands to bolster their failing hope.

The leader of the Hunters looked up from his desk as they were thrust into his cabin. Frankle's face was a graven mask as he searched their faces dispassionately. The captives were pale and seemed to cringe from the pale interrogation light. "Chickens!" the Hunter snorted. "We have been hunting down chickens." His eyes turned to one of the guards. "They have been searched?"

"Of course, master."

"And questioned?"

The guard frowned. "Yes, sir. But their language is almost unintelligible."

"You've studied the basic tongues, haven't you?" Frankle's voice was as cold as his eyes.

"Of course, sir, but this is so different."

Frankle stared in contempt at the fair-skinned captives, fixing his eyes on them for a long moment. Finally he said, "Well?"

Ravdin glanced briefly at Dana's white face. His voice seemed weak and high-pitched in comparison to the Hunter's baritone. "You are the leader of the Hunters?"

Frankle regarded him sourly, without replying. His thin face was swarthy, his short-cut gray hair matching the
cold gray of his eyes. It was an odd face, completely blank of any thought or emotion, yet capable of shifting to a
strange biting slyness in the briefest instant. It was a rich face, a face of inscrutable depth. He pushed his chair back,
his eyes watchful. "We know your people were here," he said suddenly. "Now they've gone, and yet you remain
behind. There must be a reason for such rashness. Are you sick? Crippled?"
Ravdin shook his head. "We are not sick."
"Then criminals, perhaps? Being punished for rebellious plots?"
"We are not criminals."
The Hunter's fist crashed on the desk. "Then why are you here? Why? Are you going to tell me now, or do you
propose to waste a few hours of my time first?"
"There is no mystery," Ravdin said softly. "We stayed behind to plead for peace."
"For peace?" Frankle stared in disbelief. Then he shrugged, his face tired. "I might have known. Peace! Where
have your people gone?"
Ravdin met him eye for eye. "I can't say."
The Hunter laughed. "Let's be precise, you don't choose to say, just now. But perhaps very soon you will wish
with all your heart to tell me."
Dana's voice was sharp. "We're telling you the truth. We want peace, nothing more. This constant hunting and
running is senseless, exhausting to both of us. We want to make peace with you, to bring our people together again."
Frankle snorted. "You came to us in war, once, long ago. Now you want peace. What would you do, clasp us to
your bosom, smother us in your idiotic music? Or have you gone on to greater things?"
Ravdin's face flushed hotly. "Much greater things," he snapped.
Frankle sat down slowly. "No doubt," he said. "Now understand me clearly. Very soon you will be killed. How
quickly or slowly you die will depend largely upon the civility of your tongues. A civil tongue answers questions
with the right answers. That is my definition of a civil tongue." He sat back coldly. "Now, shall we commence
asking questions?"
Dana stepped forward suddenly, her cheeks flushed. "We don't have the words to express ourselves," she said
softly. "We can't tell you in words what we have to say, but music is a language even you can understand. We can
tell you what we want in music."
Frankle scowled. He knew about the magic of this music, he had heard of the witchcraft these weak chicken-
people could weave, of their strange, magic power to steal strong men's minds from them and make them like
children before wolves. But he had never heard this music with his own ears. He looked at them, his eyes strangely
bright. "You know I cannot listen to your music. It is forbidden, even you should know that. How dare you propose-
-"
"But this is different music." Dana's eyes widened, and she threw an excited glance at her husband. "Our music
is beautiful, wonderful to hear. If you could only hear it--"
"Never." The man hesitated. "Your music is forbidden, poisonous."
Her smile was like sweet wine, a smile that worked into the Hunter's mind like a gentle, lazy drug. "But who is
to permit or forbid? After all, you are the leader here, and forbidden pleasures are all the sweeter."
Frankle's eyes were on hers, fascinated. Slowly, with a graceful movement, she drew the gleaming thought-
sensitive stone from her clothing. It glowed in the room with a pearly luminescence, and she saw the man's eyes
turning to it, drawn as if by magic. Then he looked away, and a cruel smile curled his lips. He motioned toward the
stone. "All right," he said mockingly. "Do your worst. Show me your precious music."
Like a tinkle of glass breaking in a well, the stone flashed its fiery light in the room. Little swirls of music
seemed to swell from it, blossoming in the silence. Frankle tensed, a chill running up his spine, his eyes drawn back
to the gleaming jewel. Suddenly, the music filled the room, rising sweetly like an overpowering wave, filling his
mind with strange and wonderful images. The stone shimmered and changed, taking the form of dancing clouds of
light, swirling with the music as it rose. Frankle felt his mind groping toward the music, trying desperately to reach
into the heart of it, to become part of it.
Ravdin and Dana stood there, trancelike, staring transfixed at the gleaming center of light, forcing their joined
minds to create the crashing, majestic chords as the song lifted from the depths of oblivion to the heights of glory in
the old, old song of their people.
A song of majesty, and strength, and dignity. A song of love, of aspiration, a song of achievement. A song of
peoples driven by ancient fears across the eons of space, seeking only peace, even peace with those who drove them.
Frankle heard the music, and could not comprehend, for his mind could not grasp the meaning, the true
overtones of those glorious chords, but he felt the strangeness in the pangs of fear which groped through his mind,
cringing from the wonderful strains, dazzled by the dancing light. He stared wide-eyed and trembling at the couple
across the room, and for an instant it seemed that he was stripped naked. For a fleeting moment the authority was
gone from his face; gone too was the cruelty, the avarice, the sardonic mockery. For the briefest moment his cold gray eyes grew incredibly tender with a sudden ancient, long-forgotten longing, crying at last to be heard.

And then, with a scream of rage he was stumbling into the midst of the light, lashing out wildly at the heart of its shimmering brilliance. His huge hand caught the hypnotic stone and swept it into crashing, ear-splitting cacophony against the cold steel bulkhead. He stood rigid, his whole body shaking, eyes blazing with fear and anger and hatred as he turned on Ravdin and Dana. His voice was a raging storm of bitterness drowning out the dying strains of the music.

"Spies! You thought you could steal my mind away, make me forget my duty and listen to your rotten, poisonous noise! Well, you failed! Do you hear? I didn't hear it, I didn't listen, I didn't! I'll hunt you down as my fathers hunted you down, I'll bring my people their vengeance and glory, and your foul music will be dead!"

He turned to the guards, wildly, his hands still trembling. "Take them out! Whip them, burn them, do anything! But find out where their people have gone. Find out! Music! We'll take the music out of them, once and for all."

* * * * *

The inquisition had been horrible. Their minds had had no concept of such horror, such relentless, racking pain. The blazing lights, the questions screaming in their ears, Frankle's vicious eyes burning in frustration, and their own screams, rising with each question they would not answer until their throats were scorched and they could no longer scream. Finally they reached the limit they could endure, and muttered together the hoarse words that could deliver them. Not words that Frankle could hear, but words to bring deliverance, to blank out their minds like a wet sponge over slate. The hypnotic key clicked into the lock of their minds; their screams died in their brains. Frankle stared at them, and knew instantly what they had done, a technique of memory obliteration known and dreaded for so many thousands of years that history could not remember. As his captives stood mindless before him, he let out one hoarse, agonized scream of frustration and defeat.

But strangely enough he did not kill them. He left them on a cold stone ledge, blinking dumbly at each other as the ships of his fleet rose one by one and vanished like fireflies in the dark night sky. Naked, they sat alone on the planet of the Jungle-land. They knew no words, no music, nothing. And they did not even know that in the departing ships a seed had been planted. For Frankle had heard the music. He had grasped the beauty of his enemies for that brief instant, and in that instant they had become less his enemies. A tiny seed of doubt had been planted. The seed would grow.

The two sat dumbly, shivering. Far in the distance, a beast roared against the heavy night, and a light rain began to fall. They sat naked, the rain soaking their skin and hair. Then one of them grunted, and moved into the dry darkness of the cave. Deep within him some instinct spoke, warning him to fear the roar of the animal.

Blinking dully, the woman crept into the cave after him. Three thoughts alone filled their empty minds. Not thoughts of Nehmon and his people; to them, Nehmon had never existed, forgotten as completely as if he had never been. No thoughts of the Hunters, either, nor of their unheard-of mercy in leaving them their lives—lives of memoryless oblivion, like animals in this green Jungle-land, but lives nonetheless.

Only three thoughts filled their minds:
- It was raining.
- They were hungry.
- The Saber-tooth was prowling tonight.

They never knew that the link had been forged.
"... there may be something in the nature of an occult police force, which operates to divert human suspicions, and to supply explanations that are good enough for whatever, somewhat in the nature of minds, human beings have—or that, if there be occult mischief makers and occult ravagers, they may be of a world also of other beings that are acting to check them, and to explain them, not benevolently, but to divert suspicion from themselves, because they, too, may be exploiting life upon this earth, but in ways more subtle, and in orderly, or organised, fashion." Charles Fort: "LO!"

John Strawmyer stood, an irate figure in faded overalls and sweat-whitened black shirt, apart from the others, his back to the weathered farm-buildings and the line of yellowing woods and the cirrus-streaked blue October sky. He thrust out a work-gnarled hand accusingly.

"That there heifer was worth two hund'rd, two hund'rd an' fifty dollars!" he clamored. "An' that there dog was just like one uh the fam'ly; An' now look at'm! I don't like t' use profane language, but you'ns gotta do som'e'n about this!"

Steve Parker, the district game protector, aimed his Leica at the carcass of the dog and snapped the shutter. "We're doing something about it," he said shortly. Then he stepped ten feet to the left and edged around the mangled heifer, choosing an angle for his camera shot.

The two men in the gray whipcords of the State police, seeing that Parker was through with the dog, moved in and squatted to examine it. The one with the triple chevrons on his sleeves took it by both forefeet and flipped it over on its back. It had been a big brute, of nondescript breed, with a rough black-and-brown coat. Something had clawed it deeply about the head, its throat was slashed transversely several times, and it had been disemboweled by a single slash that had opened its belly from breastbone to tail. They looked at it carefully, and then went to stand beside Parker while he photographed the dead heifer. Like the dog, it had been talon-raked on either side of the head, and its throat had been slashed deeply several times. In addition, flesh had been torn from one flank in great strips.

"I can't kill a bear outa season, no!" Strawmyer continued his plaint. "But a bear comes an' kills my stock an' my dog; that there's all right! That's the kinda deal a farmer always gits, in this state! I don't like t' use profane language—"

"Then don't!" Parker barked at him, impatiently. "Don't use any kind of language. Just put in your claim and shut up!" He turned to the men in whipcords and gray Stetsons. "You boys seen everything?" he asked. "Then let's go."

* * * * *

They walked briskly back to the barnyard, Strawmyer following them, still vociferating about the wrongs of the farmer at the hands of a cynical and corrupt State government. They climbed into the State police car, the sergeant and the private in front and Parker into the rear, laying his camera on the seat beside a Winchester carbine.

"Weren't you pretty short with that fellow, back there, Steve?" the sergeant asked as the private started the car.

"Not too short. 'I don't like t' use profane language,'" Parker mimicked the bereaved heifer owner, and then he went on to specify: "I'm morally certain that he's shot at least four illegal deer in the last year. When and if I ever get anything on him, he's going to be sorrier for himself then he is now."

"They're the characters that always beef their heads off," the sergeant agreed. "You think that whatever did this was the same as the others?"

"Yes. The dog must have jumped it while it was eating at the heifer. Same superficial scratches about the head, and deep cuts on the throat or belly. The bigger the animal, the farther front the big slashes occur. Evidently something grabs them by the head with front claws, and slashes with hind claws; that's why I think it's a bobcat."

"You know," the private said, "I saw a lot of wounds like that during the war. My outfit landed on Mindanao, where the guerrillas had been active. And this looks like bolo-work to me."

"The surplus-stores are full of machetes and jungle knives," the sergeant considered. "I think I'll call up Doc Winters, at the County Hospital, and see if all his squirrel-fodder is present and accounted for."

"But most of the livestock was eaten at, like the heifer," Parker objected.
"By definition, nuts have abnormal tastes," the sergeant replied. "Or the eating might have been done later, by foxes."

"I hope so; that'd let me out," Parker said.

"Ha, listen to the man!" the private howled, stopping the car at the end of the lane. "He thinks a nut with a machete and a Tarzan complex is just good clean fun. Which way, now?"

"Well, let's see." The sergeant had unfolded a quadrangle sheet; the game protector leaned forward to look at it over his shoulder. The sergeant ran a finger from one to another of a series of variously colored crosses which had been marked on the map.

"Monday night, over here on Copperhead Mountain, that cow was killed," he said. "The next night, about ten o'clock, that sheepflock was hit, on this side of Copperhead, right about here. Early Wednesday night, that mule got slashed up in the woods back of the Weston farm. It was only slightly injured; must have kicked the whatzit and got away, but the whatzit wasn't too badly hurt, because a few hours later, it hit that turkey-flock on the Rhymer farm. And last night, it did that." He jerked a thumb over his shoulder at the Strawmyer farm. "See, following the ridges, working toward the southeast, avoiding open ground, killing only at night. Could be a bobcat, at that."

"Or Jink's maniac with the machete," Parker agreed. "Let's go up by Hindman's gap and see if we can see anything."

* * * * *

They turned, after a while, into a rutted dirt road, which deteriorated steadily into a grass-grown track through the woods. Finally, they stopped, and the private backed off the road. The three men got out; Parker with his Winchester, the sergeant checking the drum of a Thompson, and the private pumping a buckshot shell into the chamber of a riot gun. For half an hour, they followed the brush-grown trail beside the little stream; once, they passed a dark gray commercial-model jeep, backed to one side. Then they came to the head of the gap.

A man, wearing a tweed coat, tan field boots, and khaki breeches, was sitting on a log, smoking a pipe; he had a bolt-action rifle across his knees, and a pair of binoculars hung from his neck. He seemed about thirty years old, and any bobby-soxer's idol of the screen would have envied him the handsome regularity of his strangely immobile features. As Parker and the two State policemen approached, he rose, slinging his rifle, and greeted them.

"Sergeant Haines, isn't it?" he asked pleasantly. "Are you gentlemen out hunting the critter, too?"

"Good afternoon, Mr. Lee. I thought that was your jeep I saw, down the road a little." The sergeant turned to the others. "Mr. Richard Lee; staying at the old Kinchwalter place, the other side of Rutter's Fort. This is Mr. Parker, the district game protector. And Private Zinkowski." He glanced at the rifle. "Are you out hunting for it, too?"

"Yes, I thought I might find something, up here. What do you think it is?"

"I don't know," the sergeant admitted. "It could be a lynx. Canada lynx. Jink, here, has a theory that it's some escapee from the paper-doll factory, with a machete. Me, I hope not, but I'm not ignoring the possibility."

The man with the matinee-idol's face nodded. "It could be a lynx. I understand they're not unknown, in this section."

"We paid bounties on two in this county, in the last year," Parker said. "Odd rifle you have, there; mind if I look at it?"

"Not at all." The man who had been introduced as Richard Lee unslung and handed it over. "The chamber's loaded," he cautioned.

"I never saw one like this," Parker said. "Foreign?"

"I think so. I don't know anything about it; it belongs to a friend of mine, who loaned it to me. I think the action's German, or Czech; the rest of it's a custom job, by some West Coast gunmaker. It's chambered for some ultra-velocity wildcat load."

The rifle passed from hand to hand; the three men examined it in turn, commenting admiringly.

"You find anything, Mr. Lee?" the sergeant asked, handing it back.

"Not a trace." The man called Lee slung the rifle and began to dump the ashes from his pipe. "I was along the top of this ridge for about a mile on either side of the gap, and down the other side as far as Hindman's Run; I didn't find any tracks, or any indication of where it had made a kill."

The game protector nodded, turning to Sergeant Haines.

"There's no use us going any farther," he said. "Ten to one, it followed that line of woods back of Strawmyer's, and crossed over to the other ridge. I think our best bet would be the hollow at the head of Lowrie's Run. What do you think?"

The sergeant agreed. The man called Richard Lee began to refill his pipe methodically.

"I think I shall stay here for a while, but I believe you're right. Lowrie's Run, or across Lowrie's Gap into Coon Valley," he said.

* * * * *
After Parker and the State policemen had gone, the man whom they had addressed as Richard Lee returned to his log and sat smoking, his rifle across his knees. From time to time, he glanced at his wrist watch and raised his head to listen. At length, faint in the distance, he heard the sound of a motor starting.

Instantly, he was on his feet. From the end of the hollow log on which he had been sitting, he produced a canvas musette-bag. Walking briskly to a patch of damp ground beside the little stream, he leaned the rifle against a tree and opened the bag. First, he took out a pair of gloves of some greenish, rubberlike substance, and put them on, drawing the long gauntlets up over his coat sleeves. Then he produced a bottle and unscrewed the cap. Being careful to avoid splashing his clothes, he went about, pouring a clear liquid upon the ground in several places. Where he poured, white vapors rose, and twigs and grass grumbled into brownish dust. After he had replaced the cap and returned the bottle to the bag, he waited for a few minutes, then took a spatula from the musette and dug where he had poured the fluid, prying loose four black, irregular-shaped lumps of matter, which he carried to the running water and washed carefully, before wrapping them in and putting them in the bag, along with the gloves. Then he slung bag and rifle and started down the trail to where he had parked the jeep.

Half an hour later, after driving through the little farming village of Rutter's Fort, he pulled into the barnyard of a rundown farm and backed through the open doors of the barn. He closed the double doors behind him, and barred them from within. Then he went to the rear wall of the barn, which was much closer the front than the outside dimensions of the barn would have indicated.

He took from his pocket a black object like an automatic pencil. Hunting over the rough plank wall, he found a small hole and inserted the pointed end of the pseudo-pencil, pressing on the other end. For an instant, nothing happened. Then a ten-foot-square section of the wall receded two feet and slid noiselessly to one side. The section which had slid inward had been built of three-inch steel, masked by a thin covering of boards; the wall around it was two-foot concrete, similarly camouflaged. He stepped quickly inside.

Fumbling at the right side of the opening, he found a switch and flicked it. Instantly, the massive steel plate slid back into place with a soft, oily click. As it did, lights came on within the hidden room, disclosing a great semiglobe of some fine metallic mesh, thirty feet in diameter and fifteen in height. There was a sliding door at one side of this; the man called Richard Lee opened and entered through it, closing it behind him. Then he turned to the center of the hollow dome, where an armchair was placed in front of a small desk below a large instrument panel. The gauges and dials on the panel, and the levers and switches and buttons on the desk control board, were all lettered and numbered with characters not of the Roman alphabet or the Arabic notation, and, within instant reach of the occupant of the chair, a pistollike weapon lay on the desk. It had a conventional index-finger trigger and a hand-fit grip, but, instead of a tubular barrel, two slender parallel metal rods extended about four inches forward of the receiver, joined together at what would correspond to the muzzle by a streamlined knob of some light blue ceramic or plastic substance.

The man with the handsome immobile face deposited his rifle and musette on the floor beside the chair and sat down. First, he picked up the pistollike weapon and checked it, and then he examined the many instruments on the panel in front of him. Finally, he flicked a switch on the control board.

At once, a small humming began, from some point overhead. It wavered and shrilled and mounted in intensity, and then fell to a steady monotone. The dome about him flickered with a queer, cold iridescence, and slowly vanished. The hidden room vanished, and he was looking into the shadowy interior of a deserted barn. The barn vanished; blue sky appeared above, streaked with wisps of high cirrus cloud. The autumn landscape flickered unreally. Buildings appeared and vanished, and other buildings came and went in a twinkling. All around him, half-seen shapes moved briefly and disappeared.

Once, the figure of a man appeared, inside the circle of the dome. He had an angry, brutal face, and he wore a black tunic piped with silver, and black breeches, and polished black boots, and there was an insignia, composed of a cross and thunderbolt, on his cap. He held an automatic pistol in his hand.

Instantly, the man at the desk snatched up his own weapon and thumbed off the safety, but before he could lift and aim it, the intruder stumbled and passed outside the force-field which surrounded the chair and instruments.

For a while, there were fires raging outside, and for a while, the man at the desk was surrounded by a great hall, with a high, vaulted ceiling, through which figures flitted and vanished. For a while, there were vistas of deep forests, always set in the same background of mountains and always under the same blue cirrus-laced sky. There was an interval of flickering blue-white light, of unbearable intensity. Then the man at the desk was surrounded by the interior of vast industrial works. The moving figures around him slowed, and became more distinct. For an instant, the man in the chair grinned as he found himself looking into a big washroom, where a tall blond girl was taking a shower bath, and a pert little redhead was vigorously drying herself with a towel. The dome grew visible, coruscating with many-colored lights and then the humming died and the dome became a cold and inert mesh of fine white metal. A green light above flashed on and off slowly.
He stabbed a button and flipped a switch, then got to his feet, picking up his rifle and musette and fumbling under his shirt for a small mesh bag, from which he took an inch-wide disk of blue plastic. Unlocking a container on the instrument panel, he removed a small roll of solidograph-film, which he stowed in his bag. Then he slid open the door and emerged into his own dimension of space-time.

Outside was a wide hallway, with a pale green floor, paler green walls, and a ceiling of greenish-off-white. A big hole had been cut to accommodate the dome, and across the hallway a desk had been set up, and at it sat a clerk in a pale blue tunic, who was just taking the audio-plugs of a music-box out of his ears. A couple of policemen in green uniforms, with ultrasonic paralyzers dangling by thongs from their left wrists and bolstered sigma-ray needlers like the one on the desk inside the dome, were kidding with some girls in vivid orange and scarlet and green smocks. One of these, in bright green, was a duplicate of the one he had seen rubbing herself down with a towel.

"Here comes your boss-man," one of the girls told the cops, as he approached. They both turned and saluted casually. The man who had lately been using the name of Richard Lee responded to their greeting and went to the desk. The policemen grasped their paralyzers, drew their needlers, and hurried into the dome.

Taking the disk of blue plastic from his packet, he handed it to the clerk at the desk, who dropped it into a slot in the voder in front of him. Instantly, a mechanical voice responded:

"Verkan Vall, blue-seal noble, hereditary Mavrad of Nerros. Special Chief's Assistant, Paratime Police, special assignment. Subject to no orders below those of Tortha Karf, Chief of Paratime Police. To be given all courtesies and co-operation within the Paratime Transposition Code and the Police Powers Code. Further particulars?"

The clerk pressed the "no"-button. The blue sigil fell out the release-slot and was handed back to its bearer, who was drawing up his left sleeve.

"You'll want to be sure I'm your Verkan Vall, I suppose?" he said, extending his arm.

"Yes, quite, sir."

The clerk touched his arm with a small instrument which swabbed it with antiseptic, drew a minute blood-sample, and medicated the needle prick, all in one almost painless operation. He put the blood-drop on a slide and inserted it at one side of a comparison microscope, nodding. It showed the same distinctive permanent colloid pattern as the sample he had ready for comparison; the colloid pattern given in infancy by injection to the man in front of him, to set him apart from all the myriad other Verkan Valls on every other probability-line of paratime.

"Right, sir," the clerk nodded.

The two policemen came out of the dome, their needlers holstered and their vigilance relaxed. They were lighting cigarettes as they emerged.

"It's all right, sir," one of them said. "You didn't bring anything in with you, this trip."

The other cop chuckled. "Remember that Fifth Level wild-man who came in on the freight conveyor at Jandar, last month?" he asked.

If he was hoping that some of the girls would want to know, what wild-man, it was a vain hope. With a blue-seal mavrad around, what chance did a couple of ordinary coppers have? The girls were already converging on Verkan Vall.

"When are you going to get that monstrosity out of our restroom," the little redhead in green coveralls was demanding. "If it wasn't for that thing, I'd be taking a shower, right now."

"You were just finishing one, about fifty paraseconds off, when I came through," Verkan Vall told her.

The girl looked at him in obviously feigned indignation.

"Why, you--You parapeeper!"

Verkan Vall chuckled and turned to the clerk. "I want a strato-rocket and pilot, for Dhergabar, right away. Call Dhergabar Paratime Police Field and give them my ETA; have an air-taxi meet me, and have the chief notified that I'm coming in. Extraordinary report. Keep a guard over the conveyor; I think I'm going to need it, again, soon." He turned to the little redhead. "Want to show me the way out of here, to the rocket field?" he asked.

Outside, on the open landing field, Verkan Vall glanced up at the sky, then looked at his watch. It had been twenty minutes since he had backed the jeep into the barn, on that distant other time-line; the same delicate lines of white cirrus were etched across the blue above. The constancy of the weather, even across two hundred thousand parayears of perpendicular time, never failed to impress him. The long curve of the mountains was the same, and they were mottled with the same autumn colors, but where the little village of Rutter's Fort stood on that other line of probability, the white towers of an apartment-city rose--the living quarters of the plant personnel.

The rocket that was to take him to headquarters was being hoisted with a crane and lowered into the firing-stand, and he walked briskly toward it, his rifle and musette slung. A boyish-looking pilot was on the platform, opening the door of the rocket; he stood aside for Verkan Vall to enter, then followed and closed it, dogging it shut while his passenger stowed his bag and rifle and strapped himself into a seat.
"Dhergabar Commercial Terminal, sir?" the pilot asked, taking the adjoining seat at the controls.
"Paratime Police Field, back of the Paratime Administration Building."
"Right, sir. Twenty seconds to blast, when you're ready."
"Ready now." Verkan Vall relaxed, counting seconds subconsciously.

The rocket trembled, and Verkan Vall felt himself being pushed gently back against the upholstery. The seats, and the pilot's instrument panel in front of them, swung on gimbals, and the finger of the indicator swept slowly over a ninety-degree arc as the rocket rose and leveled. By then, the high cirrus clouds Verkan Vall had watched from the field were far below; they were well into the stratosphere.

There would be nothing to do, now, for the three hours in which the rocket sped northward across the pole and southward to Dhergabar; the navigation was entirely in the electronic hands of the robot controls. Verkan Vall got out his pipe and lit it; the pilot lit a cigarette.

"That's an odd pipe, sir," the pilot said. "Out-time item?"
"Yes, Fourth Probability Level; typical of the whole paratime belt I was working in." Verkan Vall handed it over for inspection. "The bowl's natural brier-root; the stem's a sort of plastic made from the sap of certain tropical trees. The little white dot is the maker's trademark; it's made of elephant tusk."

"Sounds pretty crude to me, sir." The pilot handed it back. "Nice workmanship, though. Looks like good machine production."

"Yes. The sector I was on is really quite advanced, for an electro-chemical civilization. That weapon I brought back with me--that solid-missile projector--is typical of most Fourth Level culture. Moving parts machined to the closest tolerances, and interchangeable with similar parts of all similar weapons. The missile is a small bolt of cupro-alloy coated lead, propelled by expanding gases from the ignition of some nitro-cellulose compound. Most of their scientific advance occurred within the past century, and most of that in the past forty years. Of course, the life-expectancy on that level is only about seventy years."

"Humph! I'm seventy-eight, last birthday," the boyish-looking pilot snorted. "Their medical science must be mostly witchcraft!"

"Until quite recently, it was," Verkan Vall agreed. "Same story there as in everything else--rapid advancement in the past few decades, after thousands of years of cultural inertia."

"You know, sir, I don't really understand this paratime stuff," the pilot confessed. "I know that all time is totally present, and that every moment has its own past-future line of event-sequence, and that all events in space-time occur according to maximum probability, but I just don't get this alternate probability stuff, at all. If something exists, it's because it's the maximum-probability effect of prior causes; why does anything else exist on any other time-line?"

Verkan Vall blew smoke at the air-renovator. A lecture on paratime theory would nicely fill in the three-hour interval until the landing at Dhergabar. At least, this kid was asking intelligent questions.

"Well, you know the principal of time-passage, I suppose?" he began.

"Yes, of course; Rhogom's Doctrine. The basis of most of our psychical science. We exist perpetually at all moments within our life-span; our extraphysical ego component passes from the ego existing at one moment to the ego existing at the next. During unconsciousness, the EPC is 'time-free'; it may detach, and connect at some other moment, with the ego existing at that time-point. That's how we precog. We take an autohypno and recover memories brought back from the future moment and buried in the subconscious mind."

"That's right," Verkan Vall told him. "And even without the autohypno, a lot of precognitive matter leaks out of the subconscious and into the conscious mind, usually in distorted forms, or else inspires 'instinctive' acts, the motivation for which is not brought to the level of consciousness. For instance, suppose, you're walking along North Promenade, in Dhergabar, and you come to the Martian Palace Café, and you go in for a drink, and meet some girl, and strike up an acquaintance with her. This chance acquaintance develops into a love affair, and a year later, out of jealousy, she rays you half a dozen times with a needler."

"Just about that happened to a friend of mine, not long ago," the pilot said. "Go on, sir."

"Well, in the microsecond or so before you die--or afterward, for that matter, because we know that the extraphysical component survives physical destruction--your EPC slips back a couple of years, and re-connects at some point pastward of your first meeting with this girl, and carries with it memories of everything up to the moment of detachment, all of which are indelibly recorded in your subconscious mind. So, when you re-experience the event of standing outside the Martian Palace with a thirst, you go on to the Starway, or Nhergal's, or some other bar. In both cases, on both time-lines, you follow the line of maximum probability; in the second case, your subconscious future memories are an added causal factor."

"And when I back-slip, after I've been needled, I generate a new time-line? Is that it?"

Verkan Vall made a small sound of impatience. "No such thing!" he exclaimed. "It's semantically inadmissible
to talk about the total presence of time with one breath and about generating new time-lines with the next. All time-lines are totally present, in perpetual co-existence. The theory is that the EPC passes from one moment, on one time-line, to the next moment on the next line, so that the true passage of the EPC from moment to moment is a two-dimensional diagonal. So, in the case we're using, the event of your going into the Martian Palace exists on one time-line, and the event of your passing along to the Starway exists on another, but both are events in real existence.

"Now, what we do, in paratime transposition, is to build up a hypertemporal field to include the time-line we want to reach, and then shift over to it. Same point in the plenum; same point in primary time--plus primary time elapsed during mechanical and electronic lag in the relays--but a different line of secondary time."

"Then why don't we have past-future time travel on our own time-line?" the pilot wanted to know.

That was a question every paratimer has to answer, every time he talks paratime to the laity. Verkan Vall had been expecting it; he answered patiently.

"The Ghaldron-Hesthor field-generator is like every other mechanism; it can operate only in the area of primary time in which it exists. It can transpose to any other time-line, and carry with it anything inside its field, but it can't go outside its own temporal area of existence, any more than a bullet from that rifle can hit the target a week before it's fired," Verkan Vall pointed out. "Anything inside the field is supposed to be unaffected by anything outside. Supposed to be is the way to put it; it doesn't always work. Once in a while, something pretty nasty gets picked up in transit." He thought, briefly, of the man in the black tunic. "That's why we have armed guards at terminals."

"Suppose you pick up a blast from a nucleonic bomb," the pilot asked, "or something red-hot, or radioactive?"

"We have a monument, at Paratime Police Headquarters, in Dhergabar, bearing the names of our own personnel who didn't make it back. It's a large monument; over the past ten thousand years, it's been inscribed with quite a few names."

"You can have it! I'll stick to rockets!" the pilot replied. "Tell me another thing, though: What's all this about levels, and sectors, and belts? What's the difference?"

"Purely arbitrary terms. There are five main probability levels, derived from the five possible outcomes of the attempt to colonize this planet, seventy-five thousand years ago. We're on the First Level--complete success, and colony fully established. The Fifth Level is the probability of complete failure--no human population established on this planet, and indigenous quasi-human life evolved indigenously. On the Fourth Level, the colonists evidently met with some disaster and lost all memory of their extraterrestrial origin, as well as all extraterrestrial culture. As far as they know, they are an indigenous race; they have a long pre-history of stone-age savagery.

"Sectors are areas of paratime on any level in which the prevalent culture has a common origin and common characteristics. They are divided more or less arbitrarily into sub-sectors. Belts are areas within sub-sectors where conditions are the result of recent alternate probabilities. For instance, I've just come from the Euro-american Sector of the Fourth Level, an area of about ten thousand parayears in depth, in which the dominant civilization developed on the North-West Continent of the Major Land Mass, and spread from there to the Minor Land Mass. The line on which I was operating is also part of a sub-sector of about three thousand parayears' depth, and a belt developing from one of several probable outcomes of a war concluded about three elapsed years ago. On that time-line, the field at the Hagraban Synthetics Works, where we took off, is part of an abandoned farm; on the site of Hagraban City is a little farming village. Those things are there, right now, both in primary time and in the plenum. They are about two hundred and fifty thousand parayears perpendicular to each other, and each is of the same general order of reality."

The red light overhead flashed on. The pilot looked into his visor and put his hands to the manual controls, in case of failure of the robot controls. The rocket landed smoothly, however; there was a slight jar as it was grappled by the crane and hoisted upright, the seats turning in their gimbals. Pilot and passenger unstrapped themselves and hurried through the refrigerated outlet and away from the glowing-hot rocket.

* * * * *

An air-taxi, emblazoned with the device of the Paratime Police, was waiting. Verkan Vall said good-by to the rocket-pilot and took his seat beside the pilot of the aircab; the latter lifted his vehicle above the building level and then set it down on the landing-stage of the Paratime Police Building in a long, side-swooping glide. An express elevator took Verkan Vall down to one of the middle stages, where he showed his sigil to the guard outside the door of Tortha Karf's office and was admitted at once.

The Paratime Police chief rose from behind his semicircular desk, with its array of keyboards and viewing-screens and communicators. He was a big man, well past his two hundredth year; his hair was iron-gray and thinning in front, he had begun to grow thick at the waist, and his calm features bore the lines of middle age. He wore the dark-green uniform of the Paratime Police.

"Well, Vall," he greeted. "Everything secure?"

"Not exactly, sir." Verkan Vall came around the desk, deposited his rifle and bag on the floor, and sat down in
one of the spare chairs. "I'll have to go back again."

"So?" His chief lit a cigarette and waited.

"I traced Gavran Sarn." Verkan Vall got out his pipe and began to fill it. "But that's only the beginning. I have to trace something else. Gavran Sarn exceeded his Paratime permit, and took one of his pets along. A Venustian nighthound."

Tortha Karf's expression did not alter; it merely grew more intense. He used one of the short, semantically ugly terms which serve, in place of profanity, as the emotional release of a race that has forgotten all the taboos and terminologies of supernaturalistic religion and sex-inhibition.

"You're sure of this, of course." It was less a question than a statement.

Verkan Vall bent and took cloth-wrapped objects from his bag, unwrapping them and laying them on the desk. They were casts, in hard black plastic, of the footprints of some large three-toed animal.

"What do these look like, sir?" he asked.

Tortha Karf fingered them and nodded. Then he became as visibly angry as a man of his civilization and culture-level ever permitted himself.

"What does that fool think we have a Paratime Code for?" he demanded. "It's entirely illegal to transpose any extraterrestrial animal or object to any time-line on which space-travel is unknown. I don't care if he is a green-seal thavrad; he'll face charges, when he gets back, for this!"

"He was a green-seal thavrad," Verkan Vall corrected. "And he won't be coming back."

"I hope you didn't have to deal summarily with him," Tortha Karf said. "With his title, and social position, and his family's political importance, that might make difficulties. Not that it wouldn't be all right with me, of course, but we never seem to be able to make either the Management or the public realize the extremities to which we are forced, at times." He sighed. "We probably never shall."

Verkan Vall smiled faintly. "Oh, no, sir; nothing like that. He was dead before I transposed to that time-line. He was killed when he wrecked a self-propelled vehicle he was using. One of those Fourth Level automobiles. I posed as a relative and tried to claim his body for the burial-ceremony observed on that cultural level, but was told that it had been completely destroyed by fire when the fuel tank of this automobile burned. I was given certain of his effects which had passed through the fire; I found his sigil concealed inside what appeared to be a cigarette case."

"And the nighthound?"

"It was in the car with him, but it escaped. You know how fast those things are. I found that track"--he indicated one of the black casts--"in some dried mud near the scene of the wreck. As you see, the cast is slightly defective. The others were fresh this morning, when I made them."

"And what have you done so far?"

"I rented an old farm near the scene of the wreck, and installed my field-generator there. It runs through to the Hagraban Synthetics Works, about a hundred miles east of Thalna-Jarvizar. I have my this-line terminal in the girls' rest room at the durable plastics factory; handled that on a local police-power writ. Since then, I've been hunting for the nighthound. I think I can find it, but I'll need some special equipment, and a hypno-mech indoctrination. That's why I came back."

"Has it been attracting any attention?" Tortha Karf asked anxiously.

"Killing cattle in the locality; causing considerable excitement. Fortunately, it's a locality of forested mountains and valley farms, rather than a built-up industrial district. Local police and wild-game protection officers are concerned; all the farmers excited, and going armed. The theory is that it's either a wildcat of some sort, or a maniac armed with a cutlass. Either theory would conform, more or less, to the nature of its depredations. Nobody has actually seen it."

"That's good!" Tortha Karf was relieved. "Well, you'll have to go and bring it out, or kill it and obliterate the body. You know why, as well as I do."

"Certainly, sir," Verkan Vall replied. "In a primitive culture, things like this would be assigned supernatural explanations, and imbedded in the locally accepted religion. But this culture, while nominally religious, is highly rationalistic in practice. Typical lag-effect, characteristic of all expanding cultures. And this Euro-American Sector really has an expanding culture. A hundred and fifty years ago, the inhabitants of this particular time-line didn't even know how to apply steam power; now they've begun to release nuclear energy, in a few crude forms."

Tortha Karf whistled, softly. "That's quite a jump. There's a sector that'll be in for trouble, in the next few centuries."

"That is realized, locally, sir." Verkan Vall concentrated on relighting his pipe, for a moment, then continued: "I would predict space-travel on that sector within the next century. Maybe the next half-century, at least to the
Moon. And the art of taxidermy is very highly developed. Now, suppose some farmer shoots that thing; what would
he do with it, sir?"

Tortha Karf grunted. "Nice logic, Vall. On a most uncomfortable possibility. He'd have it mounted, and it'd be
put in a museum, somewhere. And as soon as the first spaceship reaches Venus, and they find those things in a wild
state, they'll have the mounted specimen identified."

"Exactly. And then, instead of beating their brains about where their specimen came from, they'll begin asking
when it came from. They're quite capable of such reasoning, even now."

"A hundred years isn't a particularly long time," Tortha Karf considered. "I'll be retired, then, but you'll have
my job, and it'll be your headache. You'd better get this cleaned up, now, while it can be handled. What are you
going to do?"

"I'm not sure, now, sir. I want a hypno-mech indoctrination, first." Verkan Vall gestured toward the
communicator on the desk. "May I?" he asked.

"Certainly." Tortha Karf slid the instrument across the desk. "Anything you want."

"Thank you, sir." Verkan Vall snapped on the code-index, found the symbol he wanted, and then punched it on
the keyboard. "Special Chief's Assistant Verkan Vall," he identified himself. "Speaking from office of Tortha Karf,
Chief Paratime Police. I want a complete hypno-mech on Venusian nighthounds, emphasis on wild state, special
emphasis domesticated nighthounds reverted to wild state in terrestrial surroundings, extra-special emphasis hunting
techniques applicable to same. The word 'nighthound' will do for trigger-symbol." He turned to Tortha Karf. "Can I
take it here?"

Tortha Karf nodded, pointing to a row of booths along the far wall of the office.

"Make set-up for wired transmission; I'll take it here."

"Very well, sir; in fifteen minutes," a voice replied out of the communicator.

Verkan Vall slid the communicator back. "By the way, sir; I had a hitchhiker, on the way back. Carried him
about a hundred or so parayears; picked him up about three hundred parayears after leaving my other-line terminal.
Nasty-looking fellow, in a black uniform; looked like one of these private-army storm troopers you find all through
that sector. Armed, and hostile. I thought I'd have to ray him, but he blundered outside the field almost at once. I
have a record, if you'd care to see it."

"Yes, put it on," Tortha Karf gestured toward the solidograph-projector. "It's set for miniature reproduction here
on the desk; that be all right?"

Verkan Vall nodded, getting out the film and loading it into the projector. When he pressed a button, a dome of
radiance appeared on the desk top; two feet in width and a foot in height. In the middle of this appeared a small
solidograph image of the interior of the conveyor, showing the desk, and the control board, and the figure of Verkan
Vall seated at it. The little figure of the storm trooper appeared, pistol in hand. The little Verkan Vall snatched up his
tiny needler; the storm trooper moved into one side of the dome and vanished.

Verkan Vall flipped a switch and cut out the image.

"Yes. I don't know what causes that, but it happens, now and then," Tortha Karf said. "Usually at the beginning
of a transposition. I remember, when I was just a kid, about a hundred and fifty years ago--a hundred and thirty-nine,
to be exact--I picked up a fellow on the Fourth Level, just about where you're operating, and dragged him a couple
of hundred parayears. I went back to find him and return him to his own time-line, but before I could locate him,
he'd been arrested by the local authorities as a suspicious character, and got himself shot trying to escape. I felt badly
about that, but--" Tortha Karf shrugged. "Anything else happen on the trip?"

"I ran through a belt of intermittent nucleonic bombing on the Second Level." Verkan Vall mentioned an
approximate paratime location.

"Aagh! That Khiftan civilization--by courtesy so called!" Tortha Karf pulled a wry face. "I suppose the intra-
family enmities of the Hvadka Dynasty have reached critical mass again. They'll fool around till they blast
themselves back to the stone age."

"Intellectually, they're about there, now. I had to operate in that sector, once--Oh, yes, another thing, sir. This
rifle." Verkan Vall picked it up, emptied the magazine, and handed it to his superior. "The supplies office slipped up
on this; it's not appropriate to my line of operation. It's a lovely rifle, but it's about two hundred percent in advance
of existing arms design on my line. It excited the curiosity of a couple of police officers and a game-protector, who
should be familiar with the weapons of their own time-line. I evaded by disclaiming ownership or intimate
knowledge, and they seemed satisfied, but it worried me."

"Yes. That was made in our duplicating shops, here in Dhergabar." Tortha Karf carried it to a photographic
bench, behind his desk. "I'll have it checked, while you're taking your hypno-mech. Want to exchange it for
something authentic?"

"Why, no, sir. It's been identified to me, and I'd excite less suspicion with it than I would if I abandoned it and
mysteriously acquired another rifle. I just wanted a check, and Supplies warned to be more careful in future."
Tortha Karf nodded approvingly. The young Mavrad of Nerros was thinking as a paratimer should.
"What's the designation of your line, again?"
Vorkan Vall told him. It was a short numerical term of six places, but it expressed a number of the order of ten
to the fortieth power, exact to the last digit. Tortha Karf repeated it into his stenomemograph, with explanatory
comment.
"There seems to be quite a few things going wrong, in that area," he said. "Let's see, now."
He punched the designation on a keyboard; instantly, it appeared on a translucent screen in front of him. He
punched another combination, and, at the top of the screen, under the number, there appeared:
EVENTS, PAST ELAPSED FIVE YEARS.
He punched again; below this line appeared the sub-heading:
EVENTS INVOLVING PARATIME TRANSPOSITION.
Another code-combination added a third line:
(ATTRACTION PUBLIC NOTICE AMONG INHABITANTS.)
He pressed the "start"-button; the headings vanished, to be replaced by page after page of print, succeeding one
another on the screen as the two men read. They told strange and apparently disconnected stories--of unexplained
fires and explosions; of people vanishing without trace; of unaccountable disasters to aircraft. There were many
stories of an epidemic of mysterious disk-shaped objects seen in the sky, singly or in numbers. To each account was
 appended one or more reference-numbers. Sometimes Tortha Karf or Vorkan Vall would punch one of these, and
read, on an adjoining screen, the explanatory matter referred to.
Finally Tortha Karf leaned back and lit a fresh cigarette.
"Yes, indeed, Vall; very definitely we will have to take action in the matter of the runaway nighthound of the
late Gavran Sarn," he said. "I'd forgotten that that was the time-line onto which the Ardrath expedition launched
those antigrav disks. If this extraterrestrial monstrosity turns up, on the heels of that 'Flying Saucer' business,
everybody above the order of intelligence of a cretin will suspect some connection."
"What really happened, in the Ardrath matter?" Vorkan Vall inquired. "I was on the Third Level, on that
Luvarian Empire operation, at the time."
"That's right; you missed that. Well, it was one of these joint-operation things. The Paratime Commission and
the Space Patrol were experimenting with a new technique for throwing a spaceship into paratime. They used the
cruiser Ardrath, Kalzarn Jann commanding. Went into space about halfway to the Moon and took up orbit, keeping
on the sunlit side of the planet to avoid being observed. That was all right. But then, Captain Kalzarn ordered away a
flight of antigrav disks, fully manned, to take pictures, and finally authorized a landing in the western mountain
range, Northern Continent, Minor Land-Mass. That's when the trouble started."
He flipped the run-back switch, till he had recovered the page he wanted. Vorkan Vall read of a Fourth Level
aviator, in his little airscrew-drive craft, sighting nine high-flying saucerlike objects.
"That was how it began," Tortha Karf told him. "Before long, as other incidents of the same sort occurred, our
people on that line began sending back to know what was going on. Naturally, from the different descriptions of
these 'saucers', they recognized the objects as antigrav landing-disks from a spaceship. So I went to the Commission
and raised atomic blazes about it, and the Ardrath was ordered to confine operations to the lower areas of the Fifth
Level. Then our people on that time-line went to work with corrective action. Here."
He wiped the screen and then began punching combinations. Page after page appeared, bearing accounts of
people who had claimed to have seen the mysterious disks, and each report was more fantastic than the last.
"The standard smother-out technique," Vorkan Vall grinned. "I only heard a little talk about the 'Flying Saucers', and all of that was in joke. In that order of culture, you can always discredit one true story by setting up ten
others, palpably false, parallel to it--Wasn't that the time-line the Tharmax Trading Corporation almost lost their
paratime license on?"
"That's right; it was! They bought up all the cigarettes, and caused a conspicuous shortage, after Fourth Level
cigarettes had been introduced on this line and had become popular. They should have spread their purchases over a
number of lines, and kept them within the local supply-demand frame. And they also got into trouble with the local
government for selling unrationed petrol and automobile tires. We had to send in a special-operations group, and
they came closer to having to engage in out-time local politics than I care to think of." Tortha Karf quoted a line
from a currently popular song about the sorrows of a policeman's life. "We're jugglers, Vall; trying to keep our
traders and sociological observers and tourists and plain idiots like the late Gavran Sarn out of trouble; trying to
prevent panics and disturbances and dislocations of local economy as a result of our operations; trying to keep out of
out-time politics--and, at all times, at all costs and hazards, by all means, guarding the secret of paratime
transposition. Sometimes I wish Ghaldron Karf and Hesthor Ghrom had strangled in their cradles!"
Verkan Vall shook his head. "No, chief," he said. "You don't mean that; not really," he said. "We've been paratiming for the past ten thousand years. When the Ghaldron-Hesthor trans-temporal field was discovered, our ancestors had pretty well exhausted the resources of this planet. We had a world population of half a billion, and it was all they could do to keep alive. After we began paratime transposition, our population climbed to ten billion, and there it stayed for the last eight thousand years. Just enough of us to enjoy our planet and the other planets of the system to the fullest; enough of everything for everybody that nobody needs fight anybody for anything. We've tapped the resources of those other worlds on other time-lines, a little here, a little there, and not enough to really hurt anybody. We've left our mark in a few places--the Dakota Badlands, and the Gobi, on the Fourth Level, for instance--but we've done no great damage to any of them."

"Except the time they blew up half the Southern Island Continent, over about five hundred parayears on the Third Level," Tortha Karf mentioned.

"Regrettable accident, to be sure," Verkan Vall conceded. "And look how much we've learned from the experiences of those other time-lines. During the Crisis, after the Fourth Interplanetary War, we might have adopted Palnar Sarn's 'Dictatorship of the Chosen' scheme, if we hadn't seen what an exactly similar scheme had done to the Jak-Hakka Civilization, on the Second Level. When Palnar Sarn was told about that, he went into paratime to see for himself, and when he returned, he renounced his proposal in horror."

Tortha Karf nodded. He wouldn't be making any mistake in turning his post over to the Mavrad of Nerros on his retirement.

"Yes, Vall; I know," he said. "But when you've been at this desk as long as I have, you'll have a sour moment or two, now and then, too."

* * * * *

A blue light flashed over one of the booths across the room. Verkan Vall got to his feet, removing his coat and hanging it on the back of his chair, and crossed the room, rolling up his left shirt sleeve. There was a relaxer-chair in the booth, with a blue plastic helmet above it. He glanced at the indicator-screen to make sure he was getting the indoctrination he called for, and then sat down in the chair and lowered the helmet over his head, inserting the ear plugs and fastening the chin strap. Then he touched his left arm with an injector which was lying on the arm of the chair, and at the same time flipped the starter switch.

Soft, slow music began to chant out of the earphones. The insidious fingers of the drug blocked off his senses, one by one. The music diminished, and the words of the hypnotic formula lulled him to sleep.

He woke, hearing the lively strains of dance music. For a while, he lay relaxed. Then he snapped off the switch, took out the ear plugs, removed the helmet and rose to his feet. Deep in his subconscious mind was the entire body of knowledge about the Venusian nighthound. He mentally pronounced the word, and at once it began flooding into his conscious mind. He knew the animal's evolutionary history, its anatomy, its characteristics, its dietary and reproductive habits, how it hunted, how it fought its enemies, how it eluded pursuit, and how best it could be tracked down and killed. He nodded. Already, a plan for dealing with Gavran Sarn's renegade pet was taking shape in his mind.

He picked a plastic cup from the dispenser, filled it from a cooler-tap with amber-colored spiced wine, and drank, tossing the cup into the disposal-bin. He placed a fresh injector on the arm of the chair, ready for the next user of the booth. Then he emerged, glancing at his Fourth Level wrist watch and mentally translating to the First Level time-scale. Three hours had passed; there had been more to learn about his quarry than he had expected.

Tortha Karf was sitting behind his desk, smoking a cigarette. It seemed as though he had not moved since Verkan Vall had left him, though the special agent knew that he had dined, attended several conferences, and done many other things.

"I checked up on your hitchhiker, Vall," the chief said. "We won't bother about him. He's a member of something called the Christian Avengers--one of those typical Euro-American race-and-religious hate groups. He belongs in a belt that is the outcome of the Hitler victory of 1940, whatever that was. Something unpleasant, I daresay. We don't owe him anything; people of that sort should be stepped on, like cockroaches. And he won't make any more trouble on the line where you dropped him than they have there already. It's in a belt of complete social and political anarchy; somebody probably shot him as soon as he emerged, because he wasn't wearing the right sort of a uniform. Nineteen-forty what, by the way?"

"Elapsed years since the birth of some religious leader," Verkan Vall explained. "And did you find out about my rifle?"

"Oh, yes. It's reproduction of something that's called a Sharp's Model '37 .235 Ultraspeed-Express. Made on an adjoining paratime belt by a company that went out of business sixty-seven years ago, elapsed time, on your line of operation. What made the difference was the Second War Between The States. I don't know what that was, either--I'm not too well up on Fourth Level history--but whatever, your line of operation didn't have it. Probably just as well
for them, though they very likely had something else, as bad or worse. I put in a complaint to Supplies about it, and got you some more ammunition and reloading tools. Now, tell me what you're going to do about this nighthound business."

Tortha Karf was silent for a while, after Verkan Vall had finished.

"You're taking some awful chances, Vall," he said, at length. "The way you plan doing it, the advantages will all be with the nighthound. Those things can see as well at night as you can in daylight. I suppose you know that, though; you're the nighthound specialist, now."

"Yes. But they're accustomed to the Venus hotland marshes; it's been dry weather for the last two weeks, all over the northeastern section of the Northern Continent. I'll be able to hear it, long before it gets close to me. And I'll be wearing an electric headlamp. When I snap that on, it'll be dazzled, for a moment."

"Well, as I said, you're the nighthound specialist. There's the communicator; order anything you need. He lit a fresh cigarette from the end of the old one before crushing it out. "But be careful, Vall. It took me close to forty years to make a paratimer out of you; I don't want to have to repeat the process with somebody else before I can retire."

***

The grass was wet as Verkan Vall--who reminded himself that here he was called Richard Lee--crossed the yard from the farmhouse to the ramshackle barn, in the early autumn darkness. It had been raining that morning when the strato-rocket from Dhergabar had landed him at the Hagraban Synthetics Works, on the First Level; unaffected by the probabilities of human history, the same rain had been coming down on the old Kinchwalter farm, near Rutter's Fort, on the Fourth Level. And it had persisted all day, in a slow, deliberate drizzle.

He didn't like that. The woods would be wet, muffling his quarry's footsteps, and canceling his only advantage over the night-prowler he hunted. He had no idea, however, of postponing the hunt. If anything, the rain had made it all the more imperative that the nighthound be killed at once. At this season, a falling temperature would speedily follow. The nighthound, a creature of the hot Venus marshes, would suffer from the cold, and, taught by years of domestication to find warmth among human habitations, it would invade some isolated farmhouse, or, worse, one of the little valley villages. If it were not killed tonight, the incident he had come to prevent would certainly occur.

Going to the barn, he spread an old horse blanket on the seat of the jeep, laid his rifle on it, and then backed the jeep outside. Then he took off his coat, removing his pipe and tobacco from the pockets, and spread it on the wet grass. He unwrapped a package and took out a small plastic spray-gun he had brought with him from the First Level, aiming it at the coat and pressing the trigger until it blew itself empty. A sickening, rancid fetor tainted the air--the scent of the giant poison-roach of Venus, the one creature for which the nighthound bore an inborn, implacable hatred. It was because of this compulsive urge to attack and kill the deadly poison-roach that the first human settlers on Venus, long millennia ago, had domesticated the ugly and savage nighthound. He remembered that the Gavran family derived their title from their vast Venus hotlands estates; that Gavran Sarn, the man who had brought this thing to the Fourth Level, had been born on the inner planet. When Verkan Vall donned that coat, he would become his own living bait for the murderous fury of the creature he sought. At the moment, mastering his queasiness and putting on the coat, he objected less to that danger than to the hideous stench of the scent, to obtain which a valuable specimen had been sacrificed at the Dhergabar Museum of Extraterrestrial Zoology, the evening before.

Carrying the wrapper and the spray-gun to an outside fireplace, he snapped his lighter to them and tossed them in. They were highly inflammable, blazing up and vanishing in a moment. He tested the electric headlamp on the front of his cap; checked his rifle; drew the heavy revolver, an authentic product of his line of operation, and flipped the cylinder out and in again. Then he got into the jeep and drove away.

For half an hour, he drove quickly along the valley roads. Now and then, he passed farmhouses, and dogs, puzzled and angered by the alien scent his coat bore, barked furiously. At length, he turned into a back road, and from this to the barely discernible trace of an old log road. The rain had stopped, and, in order to be ready to fire in any direction at any time, he had removed the top of the jeep. Now he had to crouch below the windshield to avoid overhanging branches. Once three deer--a buck and two does--stopped in front of him and stared for a moment, then bounded away with a flutter of white tails.

He was driving slowly, now; laying behind him a reeking trail of scent. There had been another stock-killing, the night before, while he had been on the First Level. The locality of this latest depredation had confirmed his estimate of the beast's probable movements, and indicated where it might be prowling, tonight. He was certain that it was somewhere near; sooner or later, it would pick up the scent.

Finally, he stopped, snapping out his lights. He had chosen this spot carefully, while studying the Geological Survey map, that afternoon; he was on the grade of an old railroad line, now abandoned and its track long removed, which had served the logging operations of fifty years ago. On one side, the mountain slanted sharply upward; on the other, it fell away sharply. If the nighthound were below him, it would have to climb that forty-five degree slope,
and could not avoid dislodging loose stones, or otherwise making a noise. He would get out on that side; if the nighthound were above him, the jeep would protect him when it charged. He got to the ground, thumbing off the safety of his rifle, and an instant later he knew that he had made a mistake which could easily cost him his life; a mistake from which neither his comprehensive logic nor his hypnotically acquired knowledge of the beast's habits had saved him.

As he stepped to the ground, facing toward the front of the jeep, he heard a low, whining cry behind him, and a rush of padded feet. He whirled, snapping on the headlamp with his left hand and thrusting out his rifle pistol-wise in his right. For a split second, he saw the charging animal, its long, lizardlike head split in a toothy grin, its talon-tipped fore-paws extended.

He fired, and the bullet went wild. The next instant, the rifle was knocked from his hand. Instinctively, he flung up his left arm to shield his eyes. Claws raked his left arm and shoulder, something struck him heavily along the left side, and his cap-light went out as he dropped and rolled under the jeep, drawing in his legs and fumbling under his coat for the revolver.

In that instant, he knew what had gone wrong. His plan had been entirely too much of a success. The nighthound had winked him as he had driven up the old railroad-grade, and had followed. Its best running speed had been just good enough to keep it a hundred or so feet behind the jeep, and the motor-noise had covered the padding of its feet. In the few moments between stopping the little car and getting out, the nighthound had been able to close the distance and spring upon him.

* * * * *

It was characteristic of First-Level mentality that Verkan Vall wasted no moments on self-reproach or panic. While he was still rolling under his jeep, his mind had been busy with plans to retrieve the situation. Something touched the heel of one boot, and he froze his leg into immobility, at the same time trying to get the big Smith & Wesson free. The shoulder-holster, he found, was badly torn, though made of the heaviest skirting-leather, and the spring which retained the weapon in place had been wrenched and bent until he needed both hands to draw. The eight-inch slashing-claw of the nighthound's right intermediary limb had raked him; only the instinctive motion of throwing up his arm, and the fact that he wore the revolver in a shoulder-holster, had saved his life.

The nighthound was prowling around the jeep, whining frantically. It was badly confused. It could see quite well, even in the close darkness of the starless night; its eyes were of a nature capable of perceiving infrared radiations as light. There were plenty of these; the jeep's engine, lately running on four-wheel drive, was quite hot. Had he been standing alone, especially on this raw, chilly night, Verkan Vall's own body-heat would have lighted him up like a jack-o'-lantern. Now, however, the hot engine above him masked his own radiations. Moreover, the poison-roach scent on his coat was coming up through the floor board and mingling with the scent on the seat, yet the nighthound couldn't find the two-and-a-half foot insectlike thing that should have been producing it. Verkan Vall lay motionless, wondering how long the next move would be in coming. Then he heard a thud above him, followed by a furious tearing as the nighthound ripped the blanket and began rending at the seat cushion.

"Hope it gets a paw-full of seat-springs," Verkan Vall commented mentally. He had already found a stone about the size of his two fists, and another slightly smaller, and had put one in each of the side pockets of the coat. Now he slipped his revolver into his waist-belt and writhed out of the coat, shedding the ruined shoulder-holster at the same time. Wriggling on the flat of his back, he squirmed between the rear wheels, until he was able to sit up, behind the jeep. Then, swinging the weighted coat, he flung it forward, over the nighthound and the jeep itself, at the same time drawing his revolver.

Immediately, the nighthound, lured by the sudden movement of the principal source of the scent, jumped out of the jeep and bounded after the coat, and there was considerable noise in the brush on the lower side of the railroad grade. At once, Verkan Vall swarmed into the jeep and snapped on the lights.

His stratagem had succeeded beautifully. The stinking coat had landed on the top of a small bush, about ten feet in front of the jeep and ten feet from the ground. The nighthound, erect on its haunches, was reaching out with its front paws to drag it down, and slashing angrily at it with its single-clawed intermediary limbs. Its back was to Verkan Vall.

His sights clearly defined by the lights in front of him, the paratimer centered them on the base of the creature's spine, just above its secondary shoulders, and carefully squeezed the trigger. The big .357 Magnum bucked in his hand and belched flame and sound—if only these Fourth Level weapons weren't so confoundedly boisterous!—and the nighthound screamed and fell. Recoiling the revolver, Verkan Vall waited for an instant, then nodded in satisfaction. The beast's spine had been smashed, and its hind quarters, and even its intermediary fighting limbs had been paralyzed. He aimed carefully for a second shot and fired into the base of the thing's skull. It quivered and died.

* * * * *

Getting a flashlight, he found his rifle, sticking muzzle-down in the mud a little behind and to the right of the
Tortha Karf had advised him to carry a needler, or a blaster, or a neurostat-gun, but Verkan Vall had been unwilling to take such arms onto the Fourth Level. In event of mishap to himself, it would be too easy for such a weapon to fall into the hands of someone able to deduce from it scientific principles too far in advance of the general Fourth Level culture. But there had been one First Level item which he had permitted himself, mainly because, suitably packaged, it was not readily identifiable as such. Digging a respectable Fourth-Level leatherette case from under the seat, he opened it and took out a pint bottle with a red poison-label, and a towel. Saturating the towel with the contents of the bottle, he rubbed every inch of his torso with it, so as not to miss even the smallest break made in his skin by the septic claws of the nighthound. Whenever the lotion-soaked towel touched raw skin, a pain like the burn of a hot iron shot through him; before he was through, he was in agony. Satisfied that he had disinfected every wound, he dropped the towel and clung weakly to the side of the jeep. He grunted out a string of English oaths, and capped them with an obscene Spanish blasphemy he had picked up among the Fourth Level inhabitants of his island home of Nerros, to the south, and a thundering curse in the name of Mogga, Fire-God of Dool, in a Third-Level tongue. He mentioned Fasif, Great God of Khift, in a manner which would have got him an acid-bath if the Khiftan priests had heard him. He alluded to the baroque amatory practices of the Third-Level Illyalla people, and soothed himself, in the classical Dar-Halma tongue, with one of those rambling genealogical insults favored in the Indo-Turanian Sector of the Fourth Level.

By this time, the pain had subsided to an over-all smarting itch. He’d have to bear with that until his work was finished and he could enjoy a hot bath. He got another bottle out of the first-aid kit—a flat pint, labeled “Old Overholt,” containing a locally-manufactured specific for inward and subjective wounds—and medicated himself copiously from it, corking it and slipping it into his hip pocket against future need. He gathered up the ruined shoulder-holster and threw it under the back seat. He put on his shirt. Then he went and dragged the dead nighthound onto the grade by its stumpy tail.

It was an ugly thing, weighing close to two hundred pounds, with powerfully muscled hind legs which furnished the bulk of its motive-power, and sturdy three-clawed front legs. Its secondary limbs, about a third of the way back from its front shoulders, were long and slender; normally, they were carried folded closely against the body, and each was armed with a single curving claw. The revolver-bullet had gone in at the base of the skull and emerged under the jaw; the head was relatively undamaged. Verkan Vall was glad of that; he wanted that head for the trophy-room of his home on Nerros. Grunting and straining, he got the thing into the back of the jeep, and flung his almost shredded tweed coat over it.

A last look around assured him that he had left nothing unaccountable or suspicious. The brush was broken where the nighthound had been tearing at the coat; a bear might have done that. There were splashes of the viscid stuff the thing had used for blood, but they wouldn’t be there long. Terrestrial rodents liked nighthound blood, and the woods were full of mice. He climbed in under the wheel, backed, turned, and drove away.

Inside the paratime-transposition dome, Verkan Vall turned from the body of the nighthound, which he had just dragged in, and considered the inert form of another animal—a stump-tailed, tuft-eared, tawny Canada lynx. That particular animal had already made two paratime transpositions; captured in the vast wilderness of Fifth-Level North America, it had been taken to the First Level and placed in the Dhergabar Zoological Gardens, and then, requisitioned on the authority of Tortha Karf, it had been brought to the Fourth Level by Verkan Vall. It was almost at the end of all its travels.

Verkan Vall prodded the supine animal with the toe of his boot; it twitched slightly. Its feet were cross-bound with straps, but when he saw that the narcotic was wearing off, Verkan Vall snatched a syringe, parted the fur at the base of its neck, and gave it an injection. After a moment, he picked it up in his arms and carried it out to the jeep.

"All right, pussy cat," he said, placing it under the rear seat, "this is the one-way ride. The way you're doped up, it won't hurt a bit."

He went back and rummaged in the debris of the long-deserted barn. He picked up a hoe, and discarded it as too light. An old plowshare was too unhandy. He considered a grate-bar from a heating furnace, and then he found the poleax, lying among a pile of wormeaten boards. Its handle had been shortened, at some time, to about twelve inches, converting it into a heavy hatchet. He weighed it, and tried it on a block of wood, and then, making sure that the secret door was closed, he went out again and drove off.

An hour later, he returned. Opening the secret door, he carried the ruined shoulder holster, and the straps that had bound the bobcat’s feet, and the ax, now splotched with blood and tawny cat-hairs, into the dome. Then he
closed the secret room, and took a long drink from the bottle on his hip.

The job was done. He would take a hot bath, and sleep in the farmhouse till noon, and then he would return to
the First Level. Maybe Tortha Karf would want him to come back here for a while. The situation on this time-line
was far from satisfactory, even if the crisis threatened by Gavran Sam's renegade pet had been averted. The presence
of a chief's assistant might be desirable.

At least, he had a right to expect a short vacation. He thought of the little redhead at the Hagraban Synthetics
Works. What was her name? Something Kara--Morvan Kara; that was it. She'd be coming off shift about the time
he'd make First Level, tomorrow afternoon.

The claw-wounds were still smarting vexatiously. A hot bath, and a night's sleep--He took another drink, lit his
pipe, picked up his rifle and started across the yard to the house.

* * * * *

Private Zinkowski cradled the telephone and got up from the desk, stretching. He left the orderly-room and
walked across the hall to the recreation room, where the rest of the boys were loafing. Sergeant Haines, in a languid
gin-rummy game with Corporal Conner, a sheriff's deputy, and a mechanic from the service station down the road,
looked up.

"Well, Sarge, I think we can write off those stock-killings," the private said.
"Yeah?" The sergeant's interest quickened.
"Yeah. I think the whatzit's had it. I just got a buzz from the railroad cops at Logansport. It seems a track-
walker found a dead bobcat on the Logan River branch, about a mile or so below MMY signal tower. Looks like it
tangled with that night freight up-river, and came off second best. It was near chopped to hamburger."

"MMY signal tower; that's right below Yoder's Crossing," the sergeant considered. "The Strawmyer farm night-
before-last, the Amrine farm last night--Yeah, that would be about right."

"That'll suit Steve Parker; bobcats aren't protected, so it's not his trouble. And they're not a violation of state
law, so it's none of our worry," Conner said. "Your deal, isn't it, Sarge?"

"Yeah. Wait a minute." The sergeant got to his feet. "I promised Sam Kane, the AP man at Logansport, that I'd
let him in on anything new." He got up and started for the phone. "Phantom Killer!" He blew an impolite noise.

"Well, it was a lot of excitement, while it lasted," the deputy sheriff said. "Just like that Flying Saucer thing."
THE END

Contents

SONNY
By Rick Raphael

Of course, no one actually knows the power of a thought. That is, the milli--or megawatts type of power ...

Private Jediah Cromwell was homesick for the first time since his induction into the Army. If he had gotten
homesick on any of at least a dozen other occasions during his first two weeks in the service, he might never have
gotten beyond the induction center. But the wonders and delights of his first venture beyond the almost inaccessible
West Virginia hills of his birth had kept him too awed and interested to think about home.

When Cletus Miller headed up the trail to Bluebird Gulch, Ma felt him coming around the bend below the
waterfall a mile across the gorge. She laid down her skinning knife and wiped her hands clean of the blood of the rabbits Jed had brought in earlier in the morning.
"Sonny," she called to Jed, "trouble's acoming."
Jediah crossed the corn patch to her side. "What kinda trouble, Ma?"
"Cletus Miller's comin'," Ma Cromwell said. "He ain't been up here since the week afore your Pa died. I don't
know what it is but it's bound to be trouble."

A few minutes later Miller hallooed from the bottom of the garden patch, then trudged up to the cabin.
"Set and rest, Cletus," Ma said. "Sonny, fetch Cletus a coolin' dip." Jed ambled down to the spring sluice and
dipped out a pint of clear, mountain water.
"Got mail fer you," Cletus said, waving an envelope. "Guvermint mail. Fer Sonny."
Two weeks later, Jediah swung down the mountain to Owl Creek, carrying a small sack with his good clothes
and shoes in it. The draft notice was stuffed into his overall pockets along with biscuits and meat Ma had insisted he take.

"Go along now, Sonny," she had directed him, "and don't you fret none about me. The corn's 'most ready. You
got a good supply of firewood in, more'n enought to last me all winter. If your guvermint need us Cromwells to fight, then I reckon its our bounden duty. Your grandsire and greatgrandsire both wuz soldiers and if'n your Pa hadn't gone and gotten his leg busted and twisted afore the guvermint called him I reckon he'd have been one, too. I've learned you all I can and you can read 'n write 'n do sums. Just mind your manners and come on home when they don't need you no more."

In Owl Creek the first real part of the excitement hit Jed. He had been as far as Paulsburg, twenty miles farther and that was almost as big as the county seat at Madison. Now he was going to go even beyond Madison--right to the city. And then maybe the Army would send him more places.

The Army did.

Everything had been wonderful, almost overwhelming, from the moment he boarded a bus for the first time in his life until he arrived at Fort McGruder. He could hardly believe the wealth of the government in issuing him so many clothes and giving him so much personal gear. And while the food wasn't what Ma would have cooked, there was lots of it. He liked the other recruits who had ridden down to McGruder with him, even though a couple of the city fellows had been kind of teasing.

He liked the barracks although his bunk mattress wasn't as soft as Ma's eiderdown comforts. He liked everything--until the sergeant had cussed at him this afternoon.

Now Jed lay on his bunk and counted the springs on the upper bunk occupied by Private Harry Fisher. It was close to eight o'clock and the barracks were full of scores of young soldiers. A crap game was going on three bunks away and across the aisle; another country boy was picking at a guitar. The bunk above sagged with the weight of Harry Fisher, who was reading a book.

Jed's mind kept coming back to the cussin' out he had gotten, just for not knowing the Army insisted on a body wearing shoes no matter what he was doing. Jed had never been cussed at before in his entire life. True, Ma never hesitated about taking a willow switch to him when he was a young 'un, or a stob of kindling when he got older. But she always whipped him in a gentle fashion, never losing her temper and always explaining with each whistling swing of switch or club, just what he'd done wrong and why this was for the good of his immortal soul.

Thinking about Ma, Jed got homesick. He closed his eyes and looked around for Ma. "Sonny," she said, "you in trouble?"

Lying on his bunk at Fort McGruder, Jed smiled happily and thought back an answer. "Nope, Ma. Jest got to wonderin' what you wuz doing."

Whatever Ma was going to say was lost amid the yells and growls of the men in the barracks as the electricity went off. "Who turned the lights off?" Fisher cried from the top bunk. "It's not 'lights out' time yet."

* * * * *

The noise jerked Jed back to the present and his eyes opened. The lights came on.

"Where are the dice," one of the crapshooters barked. "I rolled a seven just when the lights went out."


The lights went out and the yells went up throughout the two-story barracks.

Jed opened his eyes and the lights came on.

At the end of the barracks, Corporal Weisbaum came out of his sacredly private room and surveyed the recruits. "Awright," he roared, "so which one of you is the wise guy making with the lights?"

"So nobody, corporal," a recruit sitting on the end bunk answered. "So the lights went out. Then they come back on. So who knows? Maybe the Army ain't paying its light bills. I had a landlady back in Brooklyn who usta do the same thing anytime I got late with her rent mon...."

"Shaddup," Weisbaum snarled. "Maybe it was power trouble. But if it happens again and I find out one of you monkeys is bein' smart, the whole platoon falls out and we'll get a little night air exercising." He stalked back into his room and slammed the door.

The barracks buzzed angrily for a few moments. Jed sat up and peered up at Fisher.

"That there officer shorely don't talk very nice, you know that Harry," Jed said.

Fisher laid down the book and peered under his thick-rimmed glasses at the lanky mountain boy.

"How old are you, Jed," he asked.

"Nineteen."

"Lived up in the hills all those years?" Fisher inquired.

"Yup," Jed replied. "This is the furthneste I've ever been." His normally cheerful face fell slightly. "Kinda makes me lonesome in a way, though. Folks back home jest plain don't talk thataway one to the other."

Fisher leaned over the edge of his bunk. "Let me tell you something, Jed. Don't let talk like that worry you.
First of all, he's no officer. And second, he doesn't really mean it and it's just a way the Army has of making men of us. You'll hear lots more and lots worse before you get back to those West Virginia hills of yours."

Jed lay back down on the bunk. "Mebbe so," he admitted. "Don't mean I gotta like it much, though. Ma never talked thataway to me, no matter how bad a thing I done."

Jed closed his eyes and thought of home. Ought to say goodnight to Ma. He let his mind reach out to the cabin almost two states distant.

The lights went out in the barracks, two of the crapshooters started swinging at each other in the dark and the commotion drifted upwind to the platoon sergeant's room in another barracks two buildings away.

In the confused yells and the shouting of Corporal Weisbaum, Jed gave up trying to say goodnight to Ma and opened his eyes again.

The lights in the barracks came back on just as Platoon Sergeant Mitchell walked in the front door.

The two crapshooters were tangled in a heap in the center aisle of the barracks, still swinging. Corporal Weisbaum had the Brooklyn recruit by the front of his T-shirt, waving a massive fist under the boy's nose.

"AT EASE!" Mitchell boomed. The barracks shook and suddenly there was quiet. "Now just what is going on here?" he demanded.

Weisbaum released his grip on the recruit and the two brawlers scrambled to their feet. The corporal glared at the forty-odd recruits in the barracks. "I warned you mush heads what would happen the next time one of you fiddled with them lights. Now I'm gonna give you just five minutes to fall out in front in fatigues and combat boots. MOVE!"

"Lay off," one of the recruits muttered, "nobody touched the lights. They just went off."

Weisbaum turned a cold stare on the youngster. "Just went out, eh? O.K. Let's see. Sergeant Mitchell, did the lights go out in your building?"

"Did you notice if the lights were out in any other buildings when you came up?" Again Mitchell shook his head.

"Just this barracks, huh?"

Mitchell nodded.

There was a moment of silence. "Five minutes, you jugheads," Weisbaum roared. "Five minutes or I'll have your flabby hides hung like wallpaper in my room."

By the time the platoon got back in the barracks after a five-mile walk around the perimeter of the post, Taps were sounding and the lights went out as soon as the men hit their bunks. The talking was over. Jed felt better after the pleasant walk in the night air. He decided Ma would be asleep anyway by this time. He turned his head into his pillow and was snoring in ten seconds.

* * * * *

Once Jed began getting the feel of what was wanted of him, his training improved and the wrath of the platoon sergeants and corporals was directed elsewhere. The recruits moved rapidly through the hardening period and with each day, Jed found the going easier. By the time the platoon was ready for the rifle range, Jed hadn't had time to give more than a brief occasional thought about home.

When the supply sergeant issued him his M-14 rifle, Jed carried it back to the barracks like a young bridegroom carrying his beloved across their first threshold.

"Harry," he said in an awed voice to his bunkmate, "ain't that jest about the most bee-oootiful thing you ever did see?"

Fisher was sitting on the lower bunk beside Jed, working the action on his own rifle. "It's a lovely weapon, allright. I just hope I can hit the side of a barn with it."

"Hit a barn with it," Jed said in amazement, "why, Harry, with this here gun I could hit a squirrel in the eye two ridges away and let you pick which eye."

Fisher grinned. "I've heard you mountain boys are pretty good with a rifle. We'll see just how good you are next week when we go out on the range."

The following Monday morning on the range, the platoon gathered around Corporal Weisbaum.

"Awright, you bums," the corporal sneered, "here's where we separate the men from the boys. Don't let the noise shake you too bad and if it kicks you in the shoulder a little, don't flinch. Remember what you learned in dry fire practice--hold 'em and squeeze 'em off. This is just familiarization fire, so don't worry if you don't hit the first few shots."

He gestured. "Awright. First order on the firing line."

Twenty men of the platoon, Jed included, moved up the embankment to the firing positions. Two hundred yards away the big targets were lined up like billboards along the line of pits.
From the range control tower in the middle of the firing line, the bullhorn speakers blared. "Familiarization fire. Prone position." Twenty riflemen dropped to their knees and then forward onto their bellies, their cheeks cuddling the stocks of the rifles.

"Twenty rounds. With ball ammunition, load and lock." Twenty bolts snapped shut.

"Ready on the right? Ready on the left?"


Jed squinted down the sights and carefully squeezed off a shot. A ragged volley followed down the line. Jed was in position Number Eighteen and down range, his target atop a large painted sign bearing the same number, dropped. Jed rolled over and yelled at Corporal Weisbaum. "Hey, corporal. I must have shot 'n broke that there target. It just fell down."

Weisbaum grinned. "You didn't break nothing, hillbilly. You just got lucky and hit somewhere on the target. Every time you hit it, they pull it down and mark where your shot hit so you can correct your sights. See, here it comes back up again."

Target Number Eighteen rose above the pits. In the dead center of the small black bull's-eye was a small white dot. Weisbaum stared at the target, then swung a pair of binoculars to his eyes. "Man, talk about luck. You hit it smack in the center of the black."

The target dropped again for a pasted patch over the hole. Then it came up.

Jed grinned happily and rolled back to the prone position, looked briefly down the sight and squeezed off another round. The target dropped again. In a moment it was back up, the same white marker disk showing in the black. Weisbaum put the glasses to his eyes again. "I knew it was luck. You musta missed it, hillbilly, cause that's the same mark you had last shot."

Jed frowned and waited for the target to be pulled and pasted, then fired again. Once more it came up with the identical white marker in the center. It was Weisbaum's turn to frown. "Better check that sight, Cromwell. You can't shoot on luck forever. Them last two rounds never touched the target."

The range radio safety operator came up to the corporal and handed him the walkie talkie. "Pit wants to talk to you, corporal."

Weisbaum took the handset and held it to his ear. "This is Corporal Weisbaum. Yeah. He WHAT! You sure? Yeah, pull it and paste it. This I want to see."

He handed the handset to the radioman and glared at Jed. "So now you're some kinda wise guy, huh, hillbilly? You think you can keep shootin' on luck? The pits say you been hitting the same spot every time. Nobody can do that. Now, go ahead, hillbilly. I want to see you do it again."

Jed rolled over on his belly, looked and fired. Down went the target to come up again with another dead-center marker.

"He did it again," the radioman declared to the corporal.

Weisbaum was beginning to get an awed look on his face. "Go on, hillbilly, keep firing."

Behind the corporal and the recruit, the radioman was talking softly to the pits. "He's in position ... he's aiming ... he's holdin—" The operator stopped talking and shook his handset and held it again to his ear. Jed fired. A split second later the radio burst into voice. "... Did it again," the pit operator yelled excitedly.

Jed fired all twenty rounds into the exact same hole and the range firing came to a screeching halt. By the time he was on the final round, all other firing had stopped and range officers and safety NCO's were gathered in a semicircle around the prone mountain boy.

Weisbaum pounded Jed on the back as the young recruit scrambled to his feet and dusted his fatigues. "Man, what an eye. Wait 'til the old man sees this. Look," he took Jed by the arm, "you shoot like this all the time back in them hills you come from?" Jed nodded. "I thought so," Weisbaum cried happily. "Go sit down and take it easy. I want the old man to come out and see this."

* * * * *

Jed smiled happily and walked off the firing line amidst the admiring stares of his fellow recruits. He flung himself on the ground in the shade of a stack of ammunition boxes and grinned to himself. Shucks, all that excitement over a little shooting. Back home he did it all the time. But it'd make Ma proud to know he could do something real good. He let his mind travel for the first time in weeks.

On the range road a few feet away, a convoy of trucks carrying another recruit company to the ranges farther down the line, suddenly spluttered and came to a stop as their engines died.

"Ma," Jed thought, "you busy?"

Behind the cabin in Bluebird Gulch, Ma Cromwell laid down the axe she had been splitting firewood with and closed her eyes. "'Bout time you remembered your maw," she replied. "You all right, Sonny?"

"I'm jest fine, Ma. An' I did somethin' good, too, Ma. I just showed these Army fellers what us Cromwells kin
do with a rifle gun."

Jed lay in the warm sun and let the light filter through his closed eyelids. He paid no attention to the clanging of truck hoods and the muttered curses of a half dozen truck driver as they clambered over the front of their vehicles trying to figure out what was causing them to have engine trouble.

"What did you do, Sonny?" Ma asked.

"Tweren't really nothing, Ma," Jed replied. "I shot this here newfangled gun they gave me at a big ol' target 'n' hit it, Ma. Honest, Ma, that black circle they got in that thing is jest 'bout as big as the hind end of a black bear and it ain't no further away than the bottom of the cornfield from the cabin door."

In the range control tower, Corporal Weisbaum was getting madder every second.

"What's the matter with that switchboard operator," he screamed. "Don't he hear the buzzer?" He shook the phone and roared again. Finally, he slapped it down on the hook. "Gimme that radio," he said, reaching for the handset. The operator shook his head sadly. "No use, corp. It's deader'n doornail. Don't know what's the matter. It just quit."

Weisbaum looked around and spotted one of the regular jeep drivers standing at the foot of the tower. "Mahoney," he yelled. "Get in your jeep and go back and get the old man. Tell him he's gotta see Cromwell shoot. You can tell him what happened."

The jeep driver started towards his vehicle. "And Mahoney," Weisbaum yelled after him, "while you're there, bring back another radio and tell that idiot on the switchboard we got wire trouble." Mahoney nodded and went to his jeep.

Back at the cabin, Ma Cromwell wiped her face with her apron skirt. "Shore hot today," she thought. "You hot there, too, Sonny?"


"You gettin' enough to eat, child?" Ma asked.

Jed frowned slightly and stepped up his mental output. A half mile down range and a thousand feet up, an Army helicopter heading for a maneuver area, coughed and quit. The blades went into autogyro as it sank quickly to earth.

Vehicles all over the post came to a spluttering stop and office lights and refrigerators went off.

"What did you say, Ma?" Jed asked. "Seemed like you got sorta weak."

"'Tain't me." Ma snorted. "Jest that nosy Miz Hawkins. She's gotta listen in on everybody's private talk up in these hills, seems like." There was the feeling of an indignant gasp and then Ma's thoughts came booming through. Jed relaxed and grinned. The chopper was almost on the ground when its engine caught fire once again and went surging up and forward. The surprised pilot fought to get control before he slammed into a low hill. Lights came back on and electrical equipment began running other than close to the range.

"Shouldn't ought to talk like that, Ma," Jed grinned. "She's jest bein' friendly like."

"Hm-m-m," Ma sniffed, "gettin' so's a body cain't even talk with her own kinfolk without everybody in these parts listenin' in."

Mahoney got out of his jeep and walked back to the tower. "Jeep won't start," he called up to Weisbaum. The corporal turned purple and leaned over the edge of the tower. "Ta hell with it then," he roared. "Now get those bums back on the line. We got a whole platoon to shoot out and I want to see that hillbilly do the same thing in the standing position."

"Cromwell," he bellowed, "get up on that line."

Jed opened his eyes quickly and then shut them for another moment.

"Got to go, Ma," he thought quickly, "that corporal feller's yellin' again. You take care, Ma."

"I will, Sonny," Ma thought back. "Mind your manners."

Jed got up and hurried to the firing line. In the tower, the phone began ringing and the radio and telephone operators began reporting the equipment trouble they'd been having. On the road, one of the truck drivers half-heartedly stepped on the starter for the tenth time. The engine roared to life. The other drivers stopped and stared, then climbed down from fenders and front bumpers and tried their own starters. The trucks and their puzzled drivers left. Firing resumed.

That evening in the barracks, Harry Fisher complimented the mountain boy. "Nice shooting today, Jed," he said, "I was on the radio in the pits while you were shooting. I don't think anyone ever saw anything like that before."

Jed smiled at his friend and bunkmate. "It's easy to do, real easy Harry," he said. "I reckon everyone could do it once they get the hang of it."

Fisher smiled ruefully. "You're looking at one guy who'll never get the hang of it," he said, "whatever the 'hang of it' might be."
"Honest, Harry," Jed said earnestly, "all you gotta do is jest think them bullets into that big black spot."

Fisher laughed. "I could think like Socrates and never come close to..." He stopped and stared at Jed with a half-smile. "You know, Jed, you're kind of weird sometimes. 'Think the bullets.' Come to think of it, though, that's not the only weird thing. Did you know that every time you were getting ready to shoot our radios went dead today?"

Jed frowned thoughtfully. "'That's funny. I ain't ever heard of that happenin' afore. O' course, we never had radios in Bluebird Gulch. Only thing we ever had trouble with wuz the 'lectric light bulbs in Paulsburg the one-two times our folks went down there. Seems like them lights wuz goin' out everytime one of us wuz mind-talkin' with some homefolks."

Harry stared puzzledly at the mountain boy.

"You know," Jed tried to explain, "like when you might of fergot somethin' someone wanted real bad from the store. Or mebbe like one time when Ma'n me wuz in the big store in Paulsburg and she wuz gettin' some fancy cloth fer Miz Culpepper. Store didn't have no fancy cloth like Miz Culpepper wanted, with big red flowers. Only had blue flowers. So Ma, she mind-asked Miz Culpepper if the blue ones would be all right. Every durned 'lectric light bulb in that store went out."

Fisher was beginning to get a dazed look on his face. "'Mind-asked.' 'Mind-talk.' You mean what I think you mean, Jediah?" he asked.

"Reckon I do," Jed said emphatically. "Just like I mind-talked with Ma this afternoon an' tole her what all the hurrah was about jest 'cause I flung them bullets through that big ol' black spot."

"You talked with your mother back in West Virginia this afternoon?" Fisher pressed. "From the rifle range?"

"Shore did," Jed said happily. "Most plumb forgot fer a couple o' weeks now, what with us bein' so consarned busy. It wuz purely fine to talk with Ma."

Fisher's brain was spinning. "Can you contact her anytime you want to?"

"Shore kin," Jed said proudly. "It takes a mite more power though, the furthern I git from home. Or if Miz Hawkins is listenin' in."

"Let's see you do it now," Fisher demanded.

Jed shut his eyes. "Ma," he thought, "you got time fer a chat?"

The lights went out all over the barracks. Fisher fainted.

When he came to, he was lying on Jed's bunk with the mountain boy leaning over him solicitously. "You all right, Harry?" Jed asked anxiously. "Ma's worried 'bout you."

Harry fainted again.

When he came to the second time, Jed had gone running down the barracks aisle to Corporal Weisbaum's room. Harry sat up and swung his feet over the edge of the bunk. He was light-headed and his brain was still whirling.

A minute later Jed came back leading Weisbaum. The corporal peered down at Fisher. "You sick 'er somethin' Fisher?" he asked. "Get too much sun today?"

Harry shook his head. "No. I'm O.K. now, corporal. Must have been something I ate. I'll be all right."

Weisbaum reached down and felt Harry's forehead. "You look kinda peaked to me. You hit the sack and if you don't feel O.K. in the morning, I'll put you on sick call."

Harry shook his head again. "No need for that. I'll be all right. I'm going outside and get some fresh air. Jed, will you give me a hand, please?"

He stood up shakily and Jed took his arm. "O.K.," Weisbaum said, "but if you don't feel so good, you're going to the dispensary, you hear." He went back to his room.

Harry and Jed walked out of the barracks into the night air. Fisher paused and breathed deeply, then turned to face Jed. "You always been able to mind-talk with you mother?" he asked.

"Why, shore," Jed replied. "Most folks back home kin. Shore saves a heap o' walkin' over them hills."

"And did the lights go out when you talked that way?" Harry inquired.

"Well now, I don't rightly know," Jed said. "Only place what has them lights close by is Paulsburg and that's thuthy miles from Owl Creek and us folks ain't got much truck fer them big cities. Don't reckon any of us ever been there more 'n three-four times in our whole lives. But it shore happens in Paulsburg whenever we gossip thataway. Never thought nothin' of it afore, though. Reckon, now that I study on it a mite, it's 'cause we got to use more of the power to reach across them hills. Ma once said she reckon us Cromwells could mind-talk with the Empereer of all Roosha if'n we had to. 'Course, we'd be straining our heads a mite fer all that distance 'cause Ma says Roosha and England is a heap further from Bluebird Gulch'n even Madison. Or Fore McGruder, I reckon."

Harry though quietly for a moment.

"When was the last time you talked with your mother that way?" he asked.

"Don't rightly know or remember jest when it wuz," Jed replied. "Seems like it wuz 'bout the fust week we wuz..."
here. One night, in the barracks, I kinda got homesick I reckon, ’cause that wuz the day I got cussed out for the first
time in my whole, entire life.”

Harry smacked his clenched fist into his hand. "That's it," he cried. "That's it. That was the night the lights went
out three time in the barracks. The night Weisbaum made us take the five-mile moonlight hike because he thought
someone was fooling with the lights."

He grabbed Jed by the arm. "That was the night, wasn't it, Jed?"
"Come to think of it," Jed replied, "I reckon it wuz. There wuz such a hurrah when the lights keep a-goin' out, I
never did get to hear what Ma had to say. 'N by the time we got back from that little walk, I plumb fergot to ask her.
"You know somethin' Harry, I plumb fergot what would happen to them lights. By gosh, I reckon I wuz the one
what got us all in trouble. I jest reckon I better go 'n tell the fellers I'm sorry 'bout that."

Fisher grabbed his sleeve. "Oh no you don't," he snapped. "You're coming with me."

Ten minutes later, two slightly scared recruits stood on the steps leading to the post commander's quarters. Jed
started back down the steps. Harry held tightly to his arm. "Come on," he whispered savagely, "we're going to talk
with the colonel, Jed. Now don't you go getting chicken on me, you hear."

"Harry, I ain't never even see'd no colonel, much less 'n talk to one," Jed said, "and I reckon I jest as soon not,
if'n you don't mind."

"I do mind," Harry snapped and pulled Jed up to the door.
Their ring was answered by a pretty, teenaged girl. She smiled inquiringly at the two young soldiers.
"Miss," Harry stammered, "we'd like to talk with Colonel Cartwright, please."
The girl turned into the house. "Dad," she called, "someone to see you."

Colonel William Cartwright came to the door. The light from the room glinted off the silver eagle on his collar.

"What can I do for you men?" he asked.
Harry gulped and took a firm grip on his courage. "Sir, I want to show you something right now," Harry stammered. "It's urgent, colonel."

"Now see here Fisher," the colonel said, "we've got proper channels for any problems you might have and I
don't take care of those things at my quarters. I have an office in post headquarters and with the permission of your
company commander, you can see my adjutant during duty hours. Or the chaplain."

"Please, sir," Harry gulped. "It's awfully important."

"Well," the colonel hesitated, "this is most unusual."

"Yes, sir, it is most unusual," Harry agreed.
"All right," the post commander sighed, "what is it?"

"Sir, are your house lights all working?" Harry repeated.

"Now look here, Fisher," the colonel said, "we've got proper channels for any problems you might have and I
don't take care of those things at my quarters. I have an office in post headquarters and with the permission of your
company commander, you can see my adjutant during duty hours. Or the chaplain."

"Yes, the lights appear to
be all functioning."
The post commander looked stunned.
"That's not all either, sir," Harry continued. "He can 'think' bullets to a target."
"Come in the house," the colonel said weakly. "That's an order, soldiers."

* * * * *

Three weeks later, Sergeants First Class Harold Fisher and Jediah Cromwell were putting the finishing touches to their own private room. Jed sank down onto the soft mattress on the big bed. "Glory be, Harry, I jest can't seem to catch my breath, we've been movin' so fast 'n doin' so much. All them there tests with them tanks and them airyplanes in Californy and that other funny place. Ma thought it was kinda funny I had so much time fer jest a-sittin' 'n chattin' with her. Now we're here 'n I ain't allowed to say nothing to her."

He stole a proud glance at the new chevrons on the sleeve of his fancy, blue dress uniform. "Gosh but Ma would be proud to hear about all what's happened to us. I purely wish I could tell her."

Harry snapped up from the bureau drawer where he had been placing his clothing.
"Watch it, Jed. You know what the general said. Now don't you go and queer this deal for us just because you're getting a little homesick," Harry warned. "We're the only Army GI's in this outfit and this is pretty plush. You know what the general said, 'no talking with Ma until you get permission.' Remember?"

Jed sighed. "Oh, I remember, rightly enough. Only I shore wish they'd let me just think 'hello' to her. I ain't never been so far from her afore and its gonna take a heap of powerful mind-talk to get to her."

"Never you mind, now Jed," Harry said, "you'll get all the chances you want to talk with her. Just be patient."

He turned back to his clothing. The was a knock at the door and then it opened to admit a small, conservatively-dressed civilian. Both sergeants jumped to their feet.

"Good morning, gentlemen," the civilian said. "I'm George Wadsworth, first secretary at the Embassy here." He looked around the room and smiled. "Your quarters satisfactory, men?" Both soldiers nodded happily.

"Good," Wadsworth said. "Oh, by the way Sergeant Cromwell," he turned to Jed, "we've just learned that our hosts plan to launch their manned Moon rocket within the next hour or so. Isn't that interesting?"

Jed nodded vigorously.
"I thought so, too," Wadsworth continued. "I should imagine that your mother would find this quite interesting as well, don't you think, Sergeant Cromwell?"

"'Deed she would, sir," Jed said enthusiastically.

"Quite so," Wadsworth said mildly. "Why don't you just take the rest of the day off and tell her about it. While you're at it, you might bring her up to date on your trip. And there's a wonderful view of the Kremlin from this window. I'm sure she'll be interested in all this. Just have a nice long chat. Take all day. Take two days if you like. No hurry, you know."

He smiled and turned to leave the room. "Don't forget to tell her about your airplane ride, too," he added and then walked to the door.

"Thank you, sir," Jed called out after him.
Jed grinned happily and lay down on the nice, soft mattress.
"Ma," he thought, concentrating harder than he ever did before, "it's me agin."

All electrical power went off over the western dominions of the Union of Soviet Socialist Republics.

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**Contents**

**HOLES INCORPORATED**

By L. Major Reynolds

The red-headed secretary asked, "Names, please?"
"Ted Baker."
"Bill Stephens."
"To see H. Joshua Blair. We have an appointment."
"It's for three-thirty. We called up two weeks ago."

The secretary said, "Oh, yes. I have you on the list." She checked them off, studied them vaguely, asked, "What was it you wanted to see Mr. Blair about?"

Ted Baker held out the small steel box he was carrying. "About this."
"Ah--what is it?"
"It's a box."
"I can see that," the redhead snapped. "What is it for? What does it do?"

"It's for construction work. It makes holes."

The girl sighed. It was late in the day and she didn't care much, really. She snapped an intercom button. An inquiring voice rasped at her. She said, "A Mr. Baker and a Mr. Stephens to see you."

Evidently it was all right because she snapped off the button and pointed to a door. "In there."

They went in the door and faced a desk large enough to play tennis on. The man behind the desk gave them a cordial snarl. "Well, what have you got on your mind? And don't take all day to tell me."

Ted extended the box. "This. We'd like to sell it to you."

"What is it? A bomb?"

"No, sir. It makes holes. It makes holes real quick."

Bill Stephens came forward with further explanation. "You see, sir, Ted and I are inventors. We make, well--things. We've been working on this invention in our basement and it seems to be a success."

"We don't quite know why it's a success," Ted said, "but it is."

"We'd like to demonstrate it for you."

"Well, go ahead and demonstrate."

Ted raised the box and aimed it horizontally at nothing in particular. He pressed a black button. There was an odd whirring noise. He took his hand off the button and lowered the box.

"What are you waiting for?" Blair growled.

"Nothing. That's it. I've made the hole."

"Are you two crazy? What kind of a fool trick--?"

Ted reached down and took a pencil off the desk. "May I borrow this?" Without waiting for permission, he put the pencil carefully into the place he'd pointed the box. Half the pencil disappeared. He took his hand away. The part of the pencil still in sight didn't come with it. It stayed where it was, lying in thin air, horizontally, with no apparent support.

H. Joshua Blair goggled and turned three shades whiter. "Wha-wha-what the hell!"

"And now, if you'll try to move the pencil, the demonstration will be complete."

Ted demonstrated. He trained the box on the visible remains of the pencil. It vanished.

"Well, I'll be damned!"

"We figure this will save you a lot of money in construction work," Bill said. "You can get along without riveters. You just have a man put holes in girders with this and push the rivets through. You also make holes for the beam-ends, and your entire building will be anchored in the fourth dimension."

"Do it again," Blair said.

Ted made another hole and put another pencil into it. Blair grasped the pencil and applied leverage. The pencil snapped at the point it entered the next dimension but the broken end of the far piece was not to be seen.

"That's right," Bill said. "We've got a workshop in my basement. We invent in the evenings after we come home from work."

"What do you work at?"

"I read gas meters. He's a clerk in a supermarket."

"I suppose you want money for this thing."

"We'd like to sell it, yes, sir."

"How much do you want for it?"

"Well, we don't know. What's it worth to you?"

"Nothing probably. Leave it here a few days. I'll look it over and let you know."

"But--"

"And don't call me--I'll call you."
"But--"
"Leave your address and phone number with my secretary."
After Ted and Bill left, Blair yelled, "Get me Jake Steadman in the engineering department!" He didn't bother using the intercom, but his secretary heard him anyhow.

Ted and Bill went to work on an idea they had for the treatment of leather. You dipped your shoes in a solution and they lasted forever. The thing didn't work too well, however. It was full of bugs. They tried to eliminate the bugs and once in a while they thought of H. Joshua Blair.

"Don't you think it's about time he called us?" Ted asked.
"Don't be so impatient. He's a big man. He owns a big company. It takes time."
"He's had over a month."
"Relax. We'll hear from him."

Another week passed, and another, until one evening Ted came galloping into the workshop with news. "That big new addition to the City Hall! They're working on it! H. Joshua Blair Construction Company. A big sign says so!"

"Relax. You'll blow a tube."
"Relax hell! He's using our invention to put up the steel girders. Just like we suggested to him. Guys with boxes like ours making holes and putting in rivets!"
Bill stopped what he was doing. "He said he'd call us. Maybe he forgot. Maybe we better go see him."
They both knocked off work the next day and got to Blair's office at nine o'clock. The red-headed secretary said, "You'll have to make an appointment."

"Appointment hell!" Ted headed for the inner door. Bill followed him. They went into H. Joshua Blair's office to find him in conference with two vice-presidents. Ted said, "Mr. Blair, we came--"

"Who in the devil are you?"
"You remember us. Ted Baker and Bill Stephens. We came about our invention."
"What invention?"
"Our hole maker. You're using it on the City Hall addition."
Blair glowered. "Where'd you get the idea it was yours? Have you got any patents to show?"
"Well, no. We didn't--"
"I did! Fourteen good solid patents. You two better go peddle your groceries."
"Now look, Mr. Blair."
Blair raised his voice. "Throw these two bums out!"
Three huskies appeared as by magic to do Blair's bidding. As Ted and Bill landed on the sidewalk, one of the vice-presidents said, "Do you think that was smart, H. J.? They might cause trouble."
Blair snorted. "They haven't got a prayer. A meter reader and a grocery clerk!"
"We could have at least given them a few hundred."
"Not on your life. Never give a sucker an even break, Jim. Give them anything at all, we acknowledge their claim. That'd be stupid."
"Maybe you're right."
"Of course I'm right. It's business. Now about those other bids. By gad! We can run every contractor in town out of competition! They can't touch our prices!"
Out on the sidewalk, Bill and Ted sat mournfully looking up at the vast steel skeleton, held together literally by their own genius. Ted said, "We got a raw deal."
"Maybe we had it coming. We were pretty stupid."
"Anything we can do?"
"Doesn't look like it."
"Maybe the leather solution will turn out."
"Maybe." Bill looked wistfully up at the steel skeleton. "At even a cent a hole, we'd have done all right."
"Let's go home and get to work."

In the Mighty and Benevolent Kingdom of Szkazia, a minor reign of terror existed. The King, tired of complaints from his subjects, had just finished dressing down his Prime Minister. The Prime Minister was passing the abuse on to his Chief Scientist. "If something isn't done soon, I won't be responsible for your head, my friend. The King is in a rage."
The eyes of the Chief Scientist watered--partly from fear, and partly from nights and days spent in his
laboratory beating out his brains on one idea after another.

"I'm doing my best, sire--"

"It's not good enough! These steel girders coming out of nowhere! Banging people in the head--whacking them in the stomach! Why it isn't safe to walk through the halls of the Administration Building. Even the bedrooms of the Executive Apartments are not safe! The other night the Director of Propaganda had just gone to bed--"

"I know of the incident," the Chief Scientist said hurriedly.

"Oh, you do? But you've done nothing about--"

"I've been working hard," the scientist said patiently, "and I think I have the solution. Give me another day."

"One day, then. After that--" The Prime Minister made a significant slicing motion with his finger.

The Prime Minister chewed his fingernails and watched the clock. Sleep was out of the question with the King calling up every little while yelling for action. The Minister counted the hours and presented himself at the Royal Laboratories precisely twenty-four hours later. "Time's up," he snapped.

The Chief Scientist was wiping his face. There were new lines around his mouth. He indicated a small steel box. "I think I've got it," he said. "Come with me."

They went swiftly to the Administration Building. "This should be close enough. We depress this lever and--and hope."

"Well, do it--do it!"

The Chief Scientist pushed the lever on the steel box. A whirring sound came from within. All the steel girder ends in sight--all the nasty little rivets--disappeared. The Chief Scientist smiled and wiped his face again. "It worked," he said.

"Excellent! I'll see that you get a medal."

"Thank you," the Chief Scientist said sadly. That was the trouble with people nowadays. They either handed you a medal or your head.

Ted and Bill stared sadly at the mess around the City Hall. Bill said, "It's a good thing it collapsed at night so nobody was killed, isn't it?"

"You said it. I'd have felt guilty if there'd been any casualties."

"What do you suppose went wrong?"

"You got me. What do you think they'll do to old Blair?"

"I don't know, but it looks pretty bad. They refused to let him out on bail."

"Serves him right. The way he treated us."

"You've got it wrong. He treated us swell. He did us a big favor. We could have been blamed for this."

Bill thought it over before saying, "I guess you're right. I hadn't looked at it that way."

"Let's go home and get to work on the leather solution."

So they did.

THE END
I studied and worked and learned my trade I had the life of an earthman made; But I met a spaceman and got way-laid-- I went where I wasn't going!

Making his way from square to square of the big rope hairnet that served as guidelines on the outer surface of the big wheel, Mike Blackhawk completed his inspection of the gold-plated plastic hull, with its alternate dark and shiny squares.

He had scanned every foot of the curved surface in this first inspection, familiarizing himself completely with that which other men had constructed from his drawings, and which he would now take over in the capacity of chief engineer.

Mike attached his safety line to a guideline leading to the south polar lock and kicked off, satisfied that the lab was ready for the job of turning on the spin with which he would begin his three months tour of duty aboard.

The laws of radiation exposure set the three-month deadline to service aboard the lab, and he had timed his own tour aboard to start as the ship reached completion, and the delicate job of turning her was ready to begin.

U.N. Space Lab One was man's largest project to date in space. It might not be tremendous in size by earth standards of construction, but the two hundred thirty-two foot wheel represented sixty-four million pounds of very careful engineering and assembly that had been raised from Earth's surface to this thirty-six-hour orbit.

Many crews had come and gone in the eighteen months since the first payload had arrived at this orbit--but now the first of the scientists for whom the lab was built were aboard; and the pick of the crews selected for the construction job had been shuttled up for the final testing and spin-out.

Far off to Mike's left and slightly below him a flicker of flame caught his eye, and he realized without even looking down that the retro-rockets of the shuttle on which he had arrived were slowly putting it out of orbit and tipping it over the edge of the long gravitic well back to Earth. It would be two weeks before it returned.

Nearing the lock he grasped the cable with one hand, slowing himself, turned with the skill of an acrobat, and landed catlike, feet first, on the stat-magnetic walk around the lock.

He had gone over, minutely, the inside of the satellite before coming to its surface. Now there was only one more inspection job before he turned on the spin.

Around this south polar hub-lock, which would rotate with the wheel, was the stationary anchor ring on which rode free both the stat-walk and the anchor tubes for the smaller satellites that served as distant components of the mother ship.

Kept rigid by air pressure, any deviation corrected by pressure tanks in the stationary ring, the tubes served both to keep the smaller bodies from drifting too close to Space Lab One, and prevented their drifting off.

The anchor tubes were just over one foot in diameter, weighing less than five ounces to the yard--gray plastic and fiber, air-rigid fingers pointing away into space--but they could take over two thousand pounds of compression or tension, far more than needed for their job, which was to cancel out the light drift motion caused by crews kicking in or out, or activities aboard. Uncanceled, these motions might otherwise have caused the baby satellites to come nudging against the space lab; or to scatter to the stars.

There had been talk of making them larger, so that they might also provide passageway for personnel without the necessity for suiting up; but as yet this had not been done. Perhaps later they would become the forerunners of space corridors in the growing complex that would inevitably develop around such a center of man's activities as this laboratory in its thirty-six hour orbit.

At the far end of the longest anchor tube, ten miles away and barely visible from here, was located the unshielded, remote-controlled power pile that supplied the necessary energy for the operation of the wheel. Later, it was hoped, experimental research now in progress would make this massive device unnecessary. Solar energy would make an ideal replacement; but as yet the research was not complete, and solar energy had not yet been successfully harnessed for the high power requirements of the Lab.

Inside this anchor tube ran the thick coaxial cable that fed three-phase electric power from the atomic pile to the ship.

At the far end of the second anchor tube, five miles off in space, was Project Hot Rod, the latest in the long series of experiments by which man was attempting to convert the sun's radiant energy to useful power.

At the end of the third anchor tube, and comparatively near the ship, was the dump--a conglomeration of
equipment, used and unused booster rocket cases, oddments of all sorts, some to be installed aboard the wheel, others to be used as building components of other projects; and some oddments of materials that no one could have given a logical reason for keeping at all except that they "might be useful"—all held loosely together by short guidelines to an anchor ring at the tube's end.

* * * * *

Carefully, Mike checked the servo-motor that would maintain the stationary position of the ring with clocklike precision against the drag of bearing friction and the spin of the hub on which it was mounted; then briefly looked over the network of tubes before entering the air lock.

Inside, he stripped off the heavy, complicated armor of an articulated spacesuit, with its springs designed to compensate for the Bourdon tube effect of internal air pressure against the vacuum of space, appearing in the comfortable shorts, T-shirt, and light, knit moccasins with their thin, plastic soles, that were standard wear for all personnel.

He was ready to roll the wheel.

Feeling as elated as a schoolboy, Mike dove down the central axial tube of the hub, past the passenger entrances from the rim, the entrances to the bridge and the gymnasium-shield area, to the engineering quarters just below the other passenger entrances from the rim, and the observatory that occupied the north polar section of the hub.

The engineering quarters, like all the quarters of the hub, were thirty-two feet in diameter. Ignoring the ladder up the flat wall, Mike pushed out of the port in the central axis tunnel and dropped to the circular floor beside the power console.

Strapping himself down in the console seat, he flipped the switch that would connect him with Systems Control Officer Bessandra Khamar at the console of the ship's big computer, acronymically known as Sad Cow.

"Aiee-yiee, Bessie! It's me, Chief Blackhawk!" he said irreverently into the mike. "Ready to swing this buffalo!"

Bessie's mike gave its preliminary hum of power, and he could almost feel her seeking out the words with which to reprimand him. Then, instead, she laughed.

"Varyjat! Mike, haven't you learned yet how to talk over an intercom? Blasting a girl's eardrums at this early hour. It's no way to maintain beautiful relationships and harmony. I'm still waiting for my second cup of coffee," she added.

"Wait an hour, and this cup of coffee you shall have in a cup instead of a baby bottle," Mike told her cheerfully. "Space One's checked out ready to roll. Want to tell our preoccupied slipstick and test-tube boys in the rim before we roll her, or just wait and see what happens? They shouldn't get too badly scrambled at one-half RPM—that's about .009 gee on the rim-deck—and I sort of like surprises!"

"No, you don't!" Bessie said severely. "No, you don't. They need an alert, and I need to finish the programming on Sad Cow to be sure this thing doesn't wobble enough to shake us all apart. Even at a half RPM, your seams might not hold with a real wobble, and I don't like the idea of falling into a vacuum bottle as big as the one out there without a suit."

"How much time do you need?"

"On my mark, make it T minus thirty minutes. That ought to do it. O.K., here we go." There was a brief pause, then Bessie's voice came formally over the all-stations annunciator system.

"Now hear this. Now hear this. All personnel. On my mark it is T minus thirty and holding. Why are you goons moving that stuff ahead of schedule and without notifying balance control? What do you think this is, a rock-bound coast? Think we're settled in to bedrock like New York City? I should have known," she muttered, forgetting to flip the switch off, "my horoscope said this would be a shaky sort of day."

Chad Clark glanced up from his position at the communications console across the bridge from Bessie, to
where her shiny black hair, cut short, framed the pert Eurasian features of the girl that seemed to be hanging from the ceiling above him.

"Is it really legal," he asked, "using such a tremendously complicated chunk of equipment as the Sacred Cow for casting horrible scopes? What's mine today, Bessie? Make it a good one, and I won't report you to U.N. Budget Control!"

"Offhand, I'd say today was your day to be cautious, quiet and respectful to your betters, namely me. However," she added in a conciliatory tone, "since you put it on a Budget Control basis, I'll ask the Cow to give you a real, mathematicked-out, planets and houses properly aligned, reading.

"Hey, Perk!" Her finger flipped the observatory com line switch. "Have you got the planets lined up in your scopes yet? Where are they? The Sacred Cow wants to know if they're all where they ought to be."

Out in the observatory, designed to swing free on the north polar axis of the big wheel, Dr. P. E. R. Kimball, PhD, FRAS, gave a startled glance at the intercom speaker.

"I did not realize that you would wish additional observational data before the swing began. I am just getting my equipment lined up, in preparation for the beginnings of the swing, and will be unable to give you figures of any accuracy for some hours yet. Any reading I could give you now would be accurate only to within two minutes of arc--relatively valueless." The voice was cheerful, but very precise.

"Anything within half an hour of arc right now would be O.K." Bessie's voice hid a grin.

"In that case, the astronomical almanac data in the computer's memory should be more than sufficiently precise for your needs." There was a dry chuckle. "Horoscopes again?"

As Bessie turned back to the control side of her console, she saw a hand reach past her to pick up a pad of paper and pencil from the console desk. She glanced around to find Mike leaning over her shoulder, and grinned at him as she began extracting figures from the computer's innards for a "plus or minus thirty seconds of arc" accuracy.

Mike sketched rapidly as she worked, and she turned as she heard him mutter a disgusted curse.

"These are angular readings from our present position," he said in an annoyed tone. "Get the Cow to rework them into a solar pattern."

"Yes, sir, Chief Blackhawk, sir. What did you think I was doing?"

"You're getting them into the proper houses for a horoscope. I want a solar pattern. Now tell that Sacred Cow that you ride herd on to give me a polar display pattern on one of the peepholes up there," he said, glancing at the thirty-six video screens above the console on which the computer could display practically any information that might be desired, including telescopic views, computational diagrams, or even the habitats of the fish swimming in the outer rim channels.

The display appeared in seconds on the main screen, and Mike growled as he saw it.

"Have the Cow advance that pattern two days," he said furiously. Then, as the new pattern emerged, "I should have known it. It looks like we're being set up for a solar flare. Right when we're getting rolling. It might be a while, though. Plenty of time to check out a few gee swings. But best you rehearse your slipstick jockeys in emergency procedures."

"A flare, Mike? Are you sure?"

"Of course I'm not sure. But those planets sure make the conditions ripe. Look." And he held his pencil across the screen as a straight line dividing the pattern neatly through the center.

"Look at the first six orbits, Jupiter's right on the line. And Mercury won't be leaving until Jupe crosses that line." The "line" that Mike had indicated with his pencil across the screen would have, in the first display shown all but one of the first six planets already on the same side of the sun and in the new display, two days later, it showed all six of the planets bunched in the 180° arc with Earth only a few degrees from the center of that arc.

"Hadn't thought to check before," he said, "but that's about as predictable as anything the planets can tell you. We can expect a flare, and probably a dilly."

"Why, Mike? If a solar flare were due, U.N. Labs wouldn't have scheduled us this way. What makes you so sure that means there's a solar flare coming? I thought they weren't predictable?"

"It's fairly new research--but fairly old superstition," Mike said. "You play with horoscopes--but my people have been watching the stars and predicting for many moons. I remember what they used to say around the old tribal fires."

"When the planets line up on one side of the sun, you get trouble from man and beast and nature. We weren't worried about radio propagation in those days, but we were worried about seasons, and how we felt, and when the buffalo would be restless."

"More recently some of the radio propagation analysts have been worrying about the magnetic storms that blank out communications on Earth occasionally when old Sol opens up with a broadside of protons. Surely plays
hell with communications equipment.

"Yep, there's a flare coming. Whether it's caused by gravitational pull, when you get the planets to one side of Sol; or whether it's magnetism—I just don't know."

"Shucks," she said, "we had a five-planet line-up in 1961; and nothing happened; nothing at all. The seers—come to think of it, some of them were Indians, but from India," she added, "not Amerinds—the seers all predicted major catastrophes and the end of the world and all kinds of things, and nothing happened."

"Bessie," Mike's voice was serious. "I remember 1961 as well as you do. You had several factors that were different then—but you had solar flares then. Quite spectacular ones. You just weren't out here, where they make a difference of life or death.

"Don't let anybody hold us too long getting this station lined up and counted down and tested out. Because we've got things building up out there, and we may get that flare, and it may not be two days coming," he finished.

With that the Amerind sprang catlike to a hand-hold on the edge of the central tunnel and vanished back towards the engineering station, from which he would control the test-spin of the big wheel.

* * * * *

Bessandra Khamar, educated in Moscow, traced her ancestry back to one of the Buryat tribes of southern Siberia, a location that had become eventually, through the vast vagaries of history, known as the Buryat Autonomous Soviet Socialist Republic.

She was of a proud, clannish people, with Mongolian ancestry and a Buddhist background which had not been too deeply scarred by the political pressures from Western Russia. Rebellious of nature, and of a race of people where women fought beside their men in case of necessity, she had first left her tribal area to seek education in the more advanced western provinces with a vague idea of returning to spread—not western ideologies amongst her people—but perhaps some of their know-how. This she had found to be a long and involved process; and more and more, with an increase of education, she had grown away from her people, the idea of return moving ever backwards and floundering under the impact of education.

She had been an able student, though independent and quite argumentative, with a mind and will of her own that caused a shaking of heads amongst her fellow students.

Having sought knowledge in what, to her, were the western provinces of her own country, she had delved not only into the knowledge of things scientific, but into the wheres and whyfores of the political situations that made a delineation between the peoples of Russia and the other peoples of the world.

Somehow she had been accepted as part of a trade mission to South America, and with that first trip out of her own country her horizons had broadened. Carefully she had nurtured that which pleased others in such a way that she had been recommended to other, similar tasks. And eventually she had gone to the U.N. on an extended tour of duty. It was here for the first time that she had heard of the recruitment of a staff for the new U.N. Space Lab project, and here she had made a basic decision: To seek a career, not in her own country or back among the peoples of her own clan, but in the U.N. itself, where she could better satisfy the urge to know more of all people.

She had, of course, been educated in a time of change. As a child she had attended compulsory civilian survival classes, as had nearly every person in the vast complex of the Soviet Union. She had learned about atomic weapons; and that other peoples for unknown reasons as far as she could determine, might declare her very safety and life forfeit to causes she did not understand.

Later, as she had made her way westward seeking reasons and causes for these possible disasters, and more knowledge in general, her country had undergone what amounted to a revolutionary change. Not only her country, but the entire world had moved during her lifetime from an armed camp or set of camps with divided interests and the ability for total annihilation, towards a seeking of common goals—towards a seeking of common understandings.

The catastrophe that had threatened to engulf the entire world and claim the final conquest had occurred while she was a very junior student in Moscow, when the two major nations that were leaders—or had thought themselves to be leaders, so far as atomic weaponry and such were concerned—had stood almost side by side in horror, and attempted to halt the conflagration that had been sparked by a single bomb landed on the mainland of China by Formosa.

While Russia and the United States had stood forth in the U.N. and renounced any use of atomic weapons, the short and bitter struggle which reached its termination in a mere five days had brought the world staggering to the ultimate brink of atomic war, as the Formosan Chinese made their final bid for control of mainland China.

The flare of atomic conflict had been brief and horrible. Where the bombs had come from had been the subject of acrimonious accusations on the floor of the U.N. The United States had forsworn knowledge, and for a time no one had been able to say from whence they had come. Later, shipping records had proven their source in the Belgian Congo as raw material, secretly prepared and assembled on Formosa itself, and it became obvious to the entire world that an atomic weapon was not something that could be hidden in secrecy from the desires of desperate men.
The Chinese mainland had responded with nuclear weapons of its own; weapons they, too, had not been known to possess, but had possessed. That the rest of the world had not been sucked into the holocaust was a credit to the statesmen of both sides. That disarmament was agreed to by all nations was a matter of days only from the parallel but unilateral decisions of both Russia and the United States, that disarmament must be accomplished while there was yet time.

Under the political pressures backed by the human horror of all nations, the nuclear disarmament act of the U.N. had given to the U.N. the power of inspection of any country or any manufacturing complex anywhere in the world; inspection privileges that overrode national boundaries and considerations of national integrity, and a police force to back this up—a police force comprised of men from every nation, the U.N. Security Corps.

The United Nations, from a weak but hopeful beginning, had now stepped forth in its own right as an effective world government. There was no political unity at a lower echelon amongst the states or sub-governments of the world. To each its own problems. To each its own ideologies. To each, help according to its needs from the various bureaus of the U.N. And from each the necessary taxes for the support of the world organization.

In Russia the ideology of Marx-Lenin was still present. And in other countries other ideologies were freely supported. But the world could no longer afford an outright conflict of ideologies, and U.N. Security was charged not only with the seeking out and destruction of possible hoards of atomic weapons, but also with the seeking out and muzzling of those who expressed an ideology at all costs, even the cost of the final suicide of war, to their neighbors.

No hard and fast rules could be drawn to distinguish between a casual remark made in another country as to one's preference for one's own country, and an active subversion design to subvert another country to one's own ideology. But nevertheless, the activity of subversion had become an illegal act under the meaning of "security." And individual governments had recalled agents from their neighboring countries—not only agents, but simple tourists as well. For the stigma of having an agent arrested in another country and brought to trial at the U.N. was a stigma that no government felt it could afford.

Over the world settled a pall. The one place outside of one's own country, where one's ideology could be spoken of with impunity, was within the halls of the U.N. Assembly itself, under the aegis of diplomatic immunity. Here the ideologies could rant and rave against each other, seeking a rendering of a final decision in men's age-old arguments; but elsewhere such discussions were verboten, and subject to swift, stiff penalties.

There were some who thought quietly to themselves that perhaps in the reaction to horror they had voted too much power to a small group of men known as Security, but there were others, weary of the insecurity of world power-politics, who felt that Security was a blessing, and would for all time protect all men in the freedom of their own beliefs. The pressures had been great, and the pendulum of political weight had swung far in an opposite direction. In fact, man had achieved that which he would deny—in a reach for freedom, he had made the first turn in the coil that would bind him—in the coil that would bind the mass of the many to the will of the very few.

In school in Moscow, these things touched Bessandra's life only remotely. The concepts, the talk, the propaganda from Radio Moscow, these she heard, but they were not her main interests.

Her main interests were two—one, the fascination which the giant computer at Moscow University held for her; and two, the students around her. People, she had noted, had behavior patterns very similar to the complex computer; not as individual units, though as individual units they could also be as surprisingly obtuse as the literal-minded reaction of the computer; but in statistical numbers they had an even greater tendency to act as the computer did.

The information fed them and their reactions to it had a logic all its own; not a logic of logic, but a logic of reaction. And the reaction could be controlled, she noted, in the same self-corrective manner that was applied to logic in the interior of the computer—the feedback system.

It was obvious that with a statistical group of people, the net result of action could be effectively channeled by one person in an obscure position acting as a feedback mechanism to the group, and with selective properties applied to the feedback.

At one point she had quietly, and for no other reason than to test this point to her own satisfaction, sat back and created a riot of the women students at the University, without once appearing either as the cause or the head or leader in the revolt. The revolt in itself had been absolutely senseless, but the result had been achieved with surprisingly little effort on the part of one individual.

Computers and people had from that day become her tools, whenever she decided to bend them to her will.

Even earlier in her career, she had managed to put her rebellious nature under strict control, never appearing to be a cause in herself; never appearing as a leader among the students; merely a quiet student intent upon the gain of
knowledge and oblivious to her surroundings.

Later as she realized her abilities, she had sought council with herself and her Buddhist ancestry, to determine what use her knowledge should serve. And to her there was but one answer: Men were easily enslaved by their own shortcomings; but men who were free produced more desirable results; and if she were to use their shortcomings at all, it must be to bend them in the path of freedom that she might be surrounded by higher achievements rather than sheep-like activities which she found to be repugnant.

Gradually she had achieved skill in the manipulation of people; always towards the single self-interest of creating a better and more pleasant world in which she herself could live.

* * * * *

In rim sector A-9, Dr. Claude Lavalle was having his troubles. Free fall conditions that were merely inconvenient to him were proving near-disastrous to the animals in the cages around him.

Many and various were the difficulties that he had had with animals during his career, but never before such trifles that built peu à peu--into mountains.

Claude Lavalle had originally planned to leave his stock of animals, which contained sets of a great many of the species of the small animals of Earth, on their own gravity-bound planet until well after the spin supplied pseudo-gravity to the ship; but the schedule of the shuttles' loads had proved such as to make possible the trip either far in the future, or to put him aboard on this trip, with spin only a few hours away.

The cages, with their loads of guinea pigs, rabbits, hamsters and other live animals to be used in the sacrificial rites of biochemical research were, to put it mildly, a mess. Provision had been made for feeding and watering the animals under free-fall conditions, but keeping them sanitary was proving a near-impossible task; and though the cages were sealed to confine the inevitable upset away from the remainder of the lab, it was good to hear that the problem was nearly over as the news of the imminent countdown came over the loud-speaker.

Meantime, Dr. Claude Lavalle was having his difficulties, and he wished fervently that his assistants could have been sent up on the shuttle with him.

* * * * *

In rim-sector A-10, the FARM (Fluid Agricultural Recirculating Method control lab, according to the U.N. acronym), Dr. Millie Williams, her satiny brown skin contrasting to her white T-shirt and shorts, was also having her troubles.

The trays of plants, in their beds of sponge plastic and hydroponic materials, were all sealed against free-fall conditions, but should be oriented properly for the pseudo-gravity as the great wheel was given its rotational spin.

The vats of plankton and algae concentrates were not so important as to orientation, but should be fed into their rim-river homes as soon as possible, although this could not be done until the rim spin was well under control.

The trays, the plants, the plankton, the algae—even a large proportion of the equipment in the lab, were all new, experimental projects, designed to check various features of the food and air cycles that would later be necessary if men were to send their ships soaring out through the system.

The primary purpose of Lab One was a check of the various survival systems and space ecology programs necessary to equip the future explorations under actual space conditions. Her job on the FARM would be very important to the future feeding and air restoration of spacemen; but more important, the efficient utilization of the wheel itself, since success in shipboard purification of air and production of food would free the shuttle to bring up other types of mass.

At present, the ship's personnel were existing almost entirely on tanked air, but within two weeks one of the three air-restoration projects on the satellite—either hers, in which hydroponic plants and algae were the basic purifiers; or projects in the chem and physics labs—would have to be already functioning in the job, or extra shuttles would have to be devoted to air transportation until they were ready.

The provision of good fresh vegetables and fresh, spring-like air would almost certainly be up to her department. The other two labs, Dr. Carmencita Schorlemmer in chemistry, and Dr. Chi Tung in physics, were both working on the air-restoration problem by different means—electro-chemistry in the one case; gas dialysis membranes in the other.

The work of the physics labs was operating on the differential ability of various gas molecules to "leak" through plastic membranes under pressure, causing separation of the various molecular constituents of the atmosphere; shunting carbon dioxide off in one direction, and returning oxygen and the inert nitrogen and other gases back to the surrounding atmosphere.

This latter method had proved highly satisfactory back on Earth, where it was separating out fissionable materials in large quantities and high purities from closely similar isotopes; and would now be tested for efficiency versus weight in some of the new problems being encountered in space.

A fourth method, direct chemical absorption by soda lime, had been discarded early in the program, although it
was still used in spacesuit air cleaners, and for the duration of the canned air program under which they were now operating.

The lab was like that—no problem has a single solution. And it was the lab’s job to evaluate as many solutions as possible so that the best, under different conditions, might be proved and ready for use in later programs.

* * * * *

Paul Chernov, ordinary spaceman—which meant that he had only a little more specialized training than the average college graduate—was working in the dump, surrounded by much of the equipment that remained to be placed aboard Space Lab One, and trying to identify the particular object he sought.

Looking down almost directly over the eastern bulge of the African coast, he sighted what was probably the ECM lathe he was after, and kicked towards it, simultaneously pulling his pistol-gripped Rate of Approach Indicator from the socket in his suit.

The RAI gun, he sometimes felt, was the real reason he’d become a spaceman in these tame days. Even if he couldn’t be a space pirate, it gave him the feel.

Humming to himself, he aimed the search beam from the tiny gallium-arsenide laser crystal that was the heart of the gun at the bulky object, and read off the dial at the back of the “barrel” the two meter/second approach velocity and the twenty-eight meter distance.

He could as easily have set the RAI gun to read his velocity and distance in centimeters or kilometers, and it would have read as well his rate of retreat, if that had been the factor.

Paul’s RAI gun might be, to others, a highly refined, vastly superior great-grandson of the older radar that had required much more in the way of equipment than the tiny bulk of this device, but to him, alone in his spacesuit, the galaxy spread around him, it was the weapon with which he had conquered the stars.

In the distance, off beyond the wheel in a trailing orbit, the huge spherical shape of Project Hot Rod glowed its characteristic green—another application of the laser principle, but this one macroscopic in comparison to the tiny laser rate-of-approach gun.

Happily, Paul burst into song.

“There’s a sky-trail leading from here to there And another yonder showing; But I’ve a yen for gravity-- This is where I wasn’t going!”

From the other side of the dump, Tombu’s voice bellowed into his ears over the intercom. “If you’re going to audition for the stars, cut down the volume!”

Paul grinned and reached for the volume control.

"O.K., M’Numba, ’s m’numba!--I’m a space-yodler from way out. Heave a line over this way and let’s get this ECM lathe aboard."

Tombu’s "last name" M’Numba had delighted Paul from the moment he’d heard the story of its origin. By the customs of his own country, Tombu had only a single name. However, when he had first enrolled as a student in England there had been a lack of comprehension between him and the rather flustered registrar and, when he had muttered something about "my number," the registrar had misunderstood and put him down as M’Numba. Tombu had let it stand.

Paul Chernov, fine-boned, blond, with an ancestral background of the Polish aristocracy, and his side-kick, Tombu, black, muscular giant from the Congo, were one of the strangest combinations of this international space lab crew. Yet it was perhaps even stranger that the delicate-looking blond youth was a top machinist, a trade that he had plied throughout his student days in order to economically support an insatiable thirst for knowledge. A trade that had led him to this newest center of man’s search for knowledge.

But perhaps the combination was not so strange, for Tombu, also, was of the aristocracy—an aristocracy that could perhaps be measured in terms of years extending far behind the comparable times for any European aristocracy.

Tombu was Swahili, a minor king of a minor country which had never been recognized by the white man when he invaded Africa and set up his vast protectorates that took no account of the peoples and their tribal traditions; protectorates that lumped together many hundreds of individual nations and tribes into something the white man looking at maps could label "Congo."

Tombu himself, educated in the white man’s schools to the white man’s ways, and probing ever deeper into the white man’s knowledge, was only vaguely aware of his ancestral origin. He counted his kingdom in negative terms, terms that were no longer applicable in a modern world. Where national boundaries everywhere were melting further and further into disuse, it would seem to his mind foolish to lay claim to a kingship that had been nonexistent for more than one hundred years over a people that had been scattered to the four winds and ground together with other peoples in the Belgian Congo protectorate.

Odd the combination might be; but together the two machinists worked well, with a mutual respect for each
other's abilities and a mutual understanding that is rare to find among members of different races.

Quickly they lashed and anchored the crate containing the lathe and hauled it in towards the main south lock of the big wheel.

* * * * *

These were not the only activities in and around the wheel, or other places in space. Man already had a toehold in space, and that toehold was gradually growing into a real beachhead. Swarms of satellites in their short, fast orbits down close to Earth had been performing their tasks for many years. Astronauts had come and gone, testing, checking, probing however briefly; bravely clawing their way up the sides of the long gravitic well that separated Earth from space.

The moon project that had originally been forecast for immediate accomplishment had met with delay. As yet there was no base on the moon, though men had been there, and this was bound to occur.

But the lab was not here so much as a stepping stone to the moon as it was to provide information for the future manned trips out towards Mars and the asteroids; and in towards Venus and the sun.

Besides research, the big wheel would provide living quarters for men building other projects; would provide a permanent central for the network of communications beams that was gradually encompassing man's world and would eventually spread to the other planets as well. Cooperating with this master communications central, other satelites, automatic so far, occupied the same orbit, leading and lagging by one hundred twenty degrees.

A twenty-four hour orbit would have been more advantageous from the point of view of communications, except for the interference that would have been occasioned by the vast flood of electrons encircling Earth in the outer Van Allen belt. These electrons, trapped by Earth's magnetic field from the solar wind of charged particles escaping the sun, unfortunately occupied the twenty-four hour orbit, and, as their orbit expanded and contracted under the influence of the shifting magnetic field and solar flares, could produce tremendous havoc even in automatic equipment, so that it had been deemed economically impractical to set up the originally-postulated three satellites in stationary twenty-four orbits as communications terminals.

As the next best choice, the thirty-six-hour orbit had been selected. It gave a slow rate of angular displacement, since the satellite itself moved ten degrees an hour, while Earth moved 15°, for a differential rate of only five degrees an hour, making fairly easy tracking for the various Earth terminals of the communications net; and making possible a leisurely view of more than ninety per cent of Earth's surface every seventy-two hours.

The other two power and communications stations which led and lagged Space Lab One by 120° each, would combine to command a complete view of Earth, lacking only a circle within the arctic regions, so that they could provide power and communications for the entire world--a fact which had been the political carrot which had united Earth in the effort to create the labs with their combined technologies.

The danger of such powerful instruments as Hot Rod, concentrating megawatt beams of solar energy for relay to earth, and which could also be one of man's greatest weapons if it fell into unscrupulous hands, had been carefully played down, and also carefully countered in the screening by the Security Forces of U.N. of the personnel board.

* * * * *

T minus three and counting.

On the zero signal Mike in the engineer's quarters would change the now idly-bubbling air jets in the rim-rivers over to the fully-directional drive jets necessary to spin the fluid in counter-rotation through the rim tanks.

The suiting-up and strapping down were probably unnecessary, Mike thought, but in space you don't take chances.

"T minus two and counting." Bessie's voice rang over the com circuit in officially clipped clarity.

From the physics lab came a rather oddly pitched echo. "Allee allee in free fallee! Hold it, please, as Confusion would say! Paul forgot to secure the electrolite for the ECM equipment. Can't have these five-gallon bottles bouncing around!"

"And we can't have you bouncing around either, Dr. Chi Tung. Get that soup under wraps quick. How much time do you need?" came the captain's voice from his console angled over Bessie's head.

Clark's voice could be heard murmuring into his Earth-contact phone. "T minus two. Holding."

Less than two minutes later, Dr. Chi released the hold by announcing briefly, "Machine shop and physics department secure."

"T minus two and counting...."

"T minus one and counting...." Bessie continued officially. "Fifty, forty, thirty, twenty...." The faint whine of high-speed centrifugal compressors could be heard through the ship.

"Ten...." The jets that had previously bubbled almost inaudibly took on the sound of a percolating coffee pot.

"... Four, three, two, one, mark."

The bubbling became a hiss that settled into a soft susurrus of background noise, as the jets forced air through
the river of water in the circular tanks of the rim.

The water began to move. By reaction, the wheel took up a slow, circular motion in the opposite direction.

Then, gently, the wheel shook itself and settled into a complacently off-center motion that placed Bessie somewhere near the actual center of rotation.

"We're out of balance, Mr. Blackhawk," said the captain, one hand on the intercom switch.

"Bessie, ask the Cow what's off balance." It was Mike's voice from engineering control. "Thought we had this thing trued up like a watch."

But the computer had already taken over, and was controlling the flow of water to the hydrostatic balance tank system, rapidly orienting the axis of spin against the true axis of the wheel.

The wobble became a wiggle; the wiggle became the slightest of sways; and under the computer's gentle ministrations, the sways disappeared and Space Lab One rolled true.

Slowly Mike inched the jet power up, and the speed and "gravity" of the rim rose--from 0.009 to 0.039 to the pre-scheduled 0.15 of a gravity--two RPM--at which she would remain until a thorough test schedule over several days had been accomplished. Later tests would put the rim through check-out tests to as high as 1.59 gee, but "normal" operation had been fixed at two RPM.

In the background, the susurrus of the air jets rose slightly to the soft lullaby-sound that the wheel would always sing as she rolled.

* * * * *

New, experimental, her full complement of six hundred scientists and service personnel so far represented by only one hundred sixty-three aboard, the big wheel that was Space Lab One rotated majestically at her hydrodynamically controlled two revolutions per minute.

She gave nearly half her mass to the water that spun her--huge rivers of water, pumped through the walls of the wheel's rim, forming a six-foot barrier between the laboratories within the rim and the cosmic and solar radiations of outer space.

Arguments on Earth had raged for months over the necessities--or lack of them--for the huge mass of water aboard, but the fluid mass served many purposes better than anything else could serve those purposes.

As a radiation shield, it provided sufficient safety against cosmic radiations of space and from solar radiations, except for solar flare conditions, to provide a margin of safety for the crew over the three months in which they would do their jobs before being rotated back to Earth for the fifteen-month recovery period.

The margin was nearly enough for permanent duty--and there were those who claimed it was sufficient--but the claim had not been substantiated, and the three months maximum for tour was mandatory.

Originally, shielding had not been considered of vital importance, but experience had proven the necessity. The first construction personnel had been driven back to Earth after two weeks, dosimeters in the red. The third crew didn't make it. All five died of radiation exposure from a solar flare. An original two weeks' limit was raised as more shielding arrived--three weeks, four, five--now the shadowy edge of the theoretic ninety-day recovery rate from radiation damage and the ninety days required to get the maximum safe dosage overlapped--but safety procedures still dictated that a red dosimeter meant a quick return to Earth whether the rate of recovery overlapped or not.

The question was still open whether more shielding would be brought up to make the overlap certain, or whether it would be best to maintain a personnel rotation policy indefinitely. Some factions on Earth seemed determined that rotation must remain not only a procedural but an actual requirement--their voices spoke plainly through the directives and edicts of U.N. Budget Control--but from what source behind this bureaucratic smokescreen it would have been difficult to say.

As a heat sink, the water provided stability of temperature that would have been difficult to achieve without it. Bathed in the tenuous solar atmosphere that extends well beyond the orbit of Earth, and with a temperature over 100,000 C, maintenance of a livable temperature on board the big wheel was not the straight-forward balancing of radiation intercepted/radiation outgoing that had been originally anticipated by early writers on the subject.

True, the percentage of energy received by convection was small compared to that received by radiation; but it was also wildly variable.

As a biological cultural medium, the hydraulic system provided a basis for both air restoration and food supplies. When the proper balance of plankton and algae was achieved, the air jets that gave the ship its spin would also purify the ship's air, giving it back in a natural manner the oxygen it was now fed from tanks.

As a method of controlling and changing the rate of rotation of the wheel, the rivers of water had already proven themselves; and as a method of static balancing to compensate for off-center weights, masses of it could be stopped and held in counterbalance tanks around the rim, thus assuring that the observatory, in its stationary position on the hub, would not suddenly take up an oscillatory pattern of motion as the balance within the wheel was shifted either by moving equipment or personnel.
In effect, the entire ship operated against a zero-M-I calculation which could be handled effectively only by the computer. The moment of inertia of the ship must be constantly calculated against the moment of inertia of the hydraulic mass flowing in the rim. And the individual counterbalance tanks must constantly shift their load according to the motions of the crew and their masses of equipment that were constantly being shifted during installation. For already the observatory was hard at work, and its time must not be stolen by inappropriate wobbles of the hub.

A continuously operating feedback monitor system was capable of maintaining accuracy to better than .01% both in the mass inertial field of centrifugal force affecting the rim; and in overall balance that might otherwise cause wobbles in the hub.

While such fine control would not be necessary to the individual comfort of the personnel aboard, it was very necessary to the accuracy of scientific observation, one major purpose of the lab; and even so, many of the experimenters would require continuous monitor observation from the computer to correct their observations against her instantaneous error curve.

The mass of water in the rim formed a shell six feet through, surrounding the laboratories and living quarters--walls, floor and ceiling--since its first function was that of radiation shielding.

But the bulk of this water was not a single unit. It was divided into separate streams, twenty in number, in each of which various biological reactions could be set up.

While a few of the rivers were in a nearly chemically pure state, most of them were already filling with the plankton and algae that would form the base of the major ecological experiments, some with fresh water as their medium, others using sea water, complete with its normal micro-organisms supplemented from the tanks of concentrate that Dr. Millie Williams had brought aboard. One or two of the rivers were operating on different cycles to convert human waste to usable forms so that it might reenter the cycles of food and air.

Several of the rivers were operating to provide fish and other marine delicacies as part of the experiment to determine the best way of converting algae to food in a palatable form.

Within, the rivers were lighted fluorescently--an apparent anomaly that was due to the fact that the problems of shielding marine life from direct sunlight in such a shallow medium had not yet been worked out; while the opaque plastic that walled the laboratories within the rivers was a concession to their strength, since the clear plastic that would have provided aquarium walls for the lab and complete inspection for a constant and overall check of the ecological experiments had been overruled by U.N. Budget Control. Portholes at various spots made the seacquariums visible from any part of the rim, but in Dr. Millie's laboratory alone were the large panels of clear plastic that gave a real view into the rivers.

This ecological maze of rivers and eddies and balance tanks; of air jets and current and micro-life; of spin-rate-control and shielding, were all keyed to servo-regulated interdependence that for this self-contained world replaced the stability achieved in larger ecologies through survival mechanisms.

Within the maze, existing by it and contributing to it, were the laboratories concerned with other things, but surrounded by the waters that had made life's beginnings possible on Earth, and the continuance of life possible in space. Man might some day live in space almost totally without water, but for now they had brought a bit of the mother waters with them.

Sitting in complacent control of these overall complexities that must be met with automatic accuracy was the Starrett Analogue/Digital Computer, Optical Wave type 44-63, irreverently referred to by the acronymically-minded as Sad Cow, though more frequently as the Sacred Cow, or simply Cow.

Most of the computer's intricate circuits were hidden behind the bulkhead in a large compartment between the control center and the south polar lock; but it was from this console in the control center that her operation was keyed.

From this position, every function of the wheel was ordered.

This was the bridge.

Spaced equally around its thirty-two-foot ring-shaped floor were the computer's console where Bessie presided; the com center in charge of Communications Officer Clark; and the command console where Captain Naylor Andersen, commanding officer of Space Lab One had his formal, though seldom-occupied post.

At the moment, Nails Andersen was present, black cigar clamped firmly between his teeth; hamlike Norwegian hands maneuvering a pencil, he was making illegible notes on a scrap of paper--illegible to others because they were in his own form of shorthand that he had worked out over the years as he tried to make penciled notes as fast as his racing mind worked out their details.

Whether Nails were politician or scientist would be hard to say. Certainly his rise through the ranks of U.N.
Bureaus had been rapid; certainly in this rise he had been political, with the new brand of politics that men were learning—world, rather than national politics. Certainly, also, he was a scientist; and certainly he had used his political abilities on the behalf of science, pushing and slashing at red-tape barriers.

Nails was more than most responsible for the very existence of U.N. Space Lab One, and Project Hot Rod besides. He was also a sponsor of many other projects, both those that had been done and those that were yet to be done.

The justification of a space project in these times was difficult indeed; for no longer could nations claim military superiority as a main reason for pushing forward across the barriers of the inner marches of space; for spending billions in taxes in experimental research. For a project to achieve reality now, it must have benefits, visible benefit, for the majority of mankind. It must have a raison d'être that had nothing of a military flavor. And occasionally Nails had been hard put to explain why, to people who did not understand; to explain his feeling that men must expand or die; that from a crowded planet there could be only one frontier, and that an expansion outward into space.

Of course there were, Nails admitted to himself, other frontiers. The huge basin of the Amazon had been bypassed and ignored by man, and quite possibly would be in the future as well. The oceans, covering seventy-five per cent of Earth's surfaces also presented a challenge to man, and the possibility of a new frontier of conquest.

But these did not present the limitless frontier for expansion offered by space. Men must look upon them as only temporary challenges, and cherish them as remaining problems, never to be solved for fear of a loss of the problem itself.

Yet space was different. Here man's explorations could touch upon infinities that were beyond comprehension, into that limitless void man could plunge ever outward for thousands of generations without ever reaching a final goal or solving a last problem. Here was a frontier worthy of any man, against which the excess energies of a warrior spirit might be expended without harm to their fellows.

To open a crack in this frontier was Nails' supreme goal, because, once opened, men need never fight again amongst themselves for lack of a place to go or a thing to do.

* * * * *

Space Lab One had been in spin for two days.

On Earth, TV viewers no longer demanded twenty-four hours of Lab newscasts, and were returning to their normal cycles of Meet the Press, the Doctor's Dilemma, and the Lives of Lucy, and other juicier items of the imagination that, now that their lab was a functioning reality, seemed far more exciting than the pictures of the interminably spinning wheel and the interviews with scientists aboard that had filled their screens during the spin-out trial period.

On the wheel itself, life was settling into a pattern, with comments about being able to stand upright becoming old hat.

In rim sector A-9, Dr. Claude Lavalle's birds and beasts had adapted themselves to the light gravity; and their biological mentor had evolved feeding, watering, and cleaning methods that were rapidly becoming efficient.

Next door, Dr. Millie Williams' FARM had survived the "take-off" and the plants, grateful for their new, although partial gravity, were now stretching themselves towards the overhead fluorescents in a rather fantastic attempt to imitate the early growing stages of Jack's famous beanstalk.

In the machine shop, Paul Chernov carefully inspected the alignment of the numeric controlled laser microbeam milling and boring machine, brought it to a focus on a work piece, and pressed an activation switch that started the last pattern of tiny capillary holes in the quartz on which he was working. In moments the pattern was completed.

Gently removing the work piece from its mounting, he turned to the open double bulkhead that served as an air lock in emergencies and that separated his shop from the physics lab beyond, where Dr. Y. Chi Tung, popularly known as Ishie, was busy over a haywire rig. Chief Engineer Mike Blackhawk and Tombu beside him.

Reverently, Dr. Chi took the part from Paul's hands. "A thousand ancestral blessings," he said. "Confusion say the last piece is the most honored for its ability to complete the gadget, and this is it.

"Of course," he added, "Confusion didn't say whether it would work or not."

"What does the gadget do?" asked Paul.

"Um-m-m. As the European counterpart of Confusion, Dr. Heisenberg might have explained it, this is a device to confuse confusion by aligning certainties and creating uncertainties in the protons of this innocent block of plastic." The round, saffron-hued Chinese face looked at Paul solemnly.

"As the good Dr. Heisenberg stated, there is a principle of confusion or uncertainty as to the exact whereabouts of things on the atomic level, which cannot be rendered more exact due to disturbance caused by the investigation of its whereabouts. My humble attempt is to secure a sufficiently statistical sample of aligned protons to obtain data on
the distortion of the electron orbits caused by an external electrostatic field, thus rendering my own uncertainties
more susceptible of analysis in a statistical manner."

Suddenly he grinned. "It's a take-off," he said, "from the original experiments in magnetic resonance back in '46.

"The fields generated in these coils are strong enough to process all the protons so that their axis of spin is
brought into alignment. At this point, the plastic could be thought of as representing a few billion tiny gyroscopes all
lined up together.

"Matter of fact," he said in an aside, "if you want a better explanation of that effect, you might look up the
maintenance manual on the proton gyroscopes that Sad Cow uses. Or the manuals for the M.R. analyzer in the chem
lab. Or the magnetometer we use to keep a check on Earth's magnetic field.

"So far, about the same thing.

"What I'm trying to do is place radio frequency fields and electrostatic fields in conjunction with the D.C.
magnetic field, so as to check out the effect of stretching the electron orbits of the hydrogen atoms in predictable
patterns.

"I picked this place for it, because it was as far away from Earth's field as I could get. And Mike, when I get
ready to test this thing, I'm going to pray to my ancestors and also ask you to turn off as many magnetic gadgets as
you safely can."

Mike was squatting on his heels by the haywire rig, built into what looked suspiciously like a chassis extracted
from one of the standard control consoles of the communication department.

Reaching gingerly in through the haywire mass of cables surrounding the central components, he pointed to one
of the coils and exclaimed in the tones of a Sherlock Holmes, "Ah-ha, my dear Watson! I have just located the final
cue to my missing magnaswedge. I suppose you know the duty cycle on those coils is only about 0.01?"

"Not after I finished with them!" Ishie grinned unrepentant. "Besides, I don't want to squash anything in the
field. I just want a nice, steady field of a reasonable magnitude. As Confusion would say, he who squashes small
object may unbalance great powers."

* * * * *

While he talked, Ishie had been busy inserting the carefully machined piece of quartz plate that Chernov had
brought, into a conglomeration of glassware that looked like a refugee from the chem lab, and flipped a switch that
causd a glowing coil inside a pyrex boiler to heat a small quantity of water, which must escape through the
carefully machined capillary holes in the plate he had just installed. Each jet would pass through two grids, and on
towards a condenser arrangement from which the water would be recirculated into the boiler by a small pump which
was already beginning to churkle to itself.

"O.K.," Mike said. "I dig the magnetic resonance part. And how you're using the stolen coils. But what's this
gadget?" and he pointed to the maze of glass and glass tubing.

"Oh. Permit me to introduce Dr. Ishie's adaptation of a French invention of some years previous, which permits
the development of high voltages by the application of heat to the evaporation of a fluid medium such as water--of
which we have plenty aboard and you won't miss the little that I requisitioned--causing these molecules to separate
and pass at high speed through these various grids, providing electrostatic potentials in their passage which can be
added quite fantastically to produce the necessary D.C. field which...."

As he spoke, Mike's finger moved nearer a knob-headed bolt that seemed to be one of the two holding the glass
device to its mounting board, and an inch and a half spark spat forth and interrupted the dissertation with a loud
"Yipe!"

"Confusion say," Ishie continued as Mike stuck his finger in his mouth, "he who point finger of suspicion
should be careful of lurking dragons!

"Anyhow, that's what it does. There are two thousand separate little grids, each fed by its capillary jet, and each
grid provides about ninety volts."

Tombu took the opportunity to inquire, "Have you got that RF field-phase generator under control yet?" He
pointed to still another section of the chassis.

"Oh, yes." The physicist nodded. "See, I have provided a feedback circuit to co-ordinate the pick-up signal with
the three-phase RF output. The control must be precise. Can't have it skipping around or we don't get a good
alignment."

There was a gurgling churkle from the innocent-looking maze as the "borrowed" aerator pump from the FARM
supplies began returning the condensate back to the boiler.

* * * * *

Major Steve Elbertson stood on the magnetic stat-walk of the south polar loading lock, gazing along the anchor
tube to Project Hot Rod five miles away.
"There are no experts in the ability to maneuver properly in free fall," he told himself, quieting his dissatisfaction with his own self-conscious efforts at maintaining the military dignity of the United Nations Security Forces in a medium in which a man inevitably lost the stances that to him connoted that dignity.

Awkwardly, he attached the ten-pound electric device affectionately known to spacemen as the scuttlebug, to the flat ribbon-cable that would both power and guide him to Hot Rod.

As the wheels of the scuttlebug clipped over the ribbon-cable, one above and two below, and made contact with the two electrically conductive surfaces, he saw the warning light change from green to red, indicating that the ribbon was now in use, and that no one else should use it until he had arrived at the far end.

Seeing that the safety light was now in his favor, he swung his legs over the seat—a T-bar at the bottom of the rod which swung down from the drive mechanism—grasped the rod, and pulled the starting trigger.

The accelerative force of one gee, the maximum of which the scuttlebug was capable, provided quite a jolt, but settled down very quickly to almost zero as he picked up speed and reached the maximum of one hundred twenty miles per hour.

A very undignified method of travel, he thought. Yet for all that, the scuttlebugs were light and efficient, and reduced transit time between outlying projects and the big wheel to a very reasonable time, compared to that which it would take for a man to jump the distance under his own power—and, he thought, without wasting the precious mass that rockets would have required.

The low voltage power supplied by the two flat sides of the ribbon was insufficient to have provided lethal contact, even if the person were there without the insulation of a spacesuit around him, a very unlikely occurrence. Furthermore, the structure of the cable, with the flat, flexible insulation between its two conductive surfaces, made it practically impossible to short it out; and the flanged wheels of the scuttlebug clipped over it in such a fashion that, once locked, it was thought to be impossible that they could lose their grip without being unlocked.

As Steve gained speed along the ribbon, "his" Project Hot Rod was in view before him—appearing to be a half moon which looked larger than the real moon in the background behind it; and seeming to stand in the vastness of space at a distance from the far end of the long anchor tube, a narrow band of bright green glowing near its terminator line.

From the rounded half of the moon, extending sunward, four bright, narrow traceries seemed to outline a nose that ended in a pale, globular tracery at its tip, pointing to the sun.

The narrow traceries were in actuality four anchor tubes, similar to the one beside which he rode; and mounted in their tip was the directing mirror that would aim Hot Rod’s beam of energy.

* * * * *

Project Hot Rod was actually a giant balloon eight thousand feet in diameter, one-half "silvered" with a greenish reflective surface inside that reflected only that light that could be utilized by the ruby rods at its long focal center; and that absorbed the remainder of the incident solar radiation, dumping it through to its black outside surface, and on into the vastness of space. This half of the big balloon was the spherical collector mirror, facing, through the clear plastic of its other half, the solar disk.

Well inside the balloon, at the tip of the ruby barrel that was its heart, were located the boiler tubes that activated the self-centering inertial orientation servos which must remain operational at all times. If the big mirror were ever to present its blackened rear surface to the sun for more than a few minutes, the rise in temperature would totally destroy the entire project. Therefore, these servos had been designed as the ultimate in fail-safe, fool-proof control to maintain the orientation of the mirror always within one tenth of one degree of the center of Sol.

Their action was simplicity itself. The black boiler tubes were shielded in such a way that so long as the aim was dead center on the sun they received no energy; but let the orientation shift by a fraction of a degree, and one of these blackened surfaces would begin to receive reflected energy from the mirror behind it; the liquid nitrogen within would boil, and escape under pressure through a jet in such manner as to re-orient the position to the center of the tracking alignment.

Since the nitrogen gas escaped into the balloon, the automatic pressure regulator designed to maintain pressure within the balloon would extract an equal quantity of gas, put it back through the cooling system on the back side of the mirror, and return it as liquid to the boiler.

These jets were so carefully and precisely balanced that there was virtually no "hunting" in the system.

The balloon itself was attached to its anchor tube by a one hundred meter cable that gave free play to these orientation servos. The anchor point was the exact center of the black outside surface of the mirror-half of the balloon; and beside that anchor point was the air lock to the control center, to which Steve was now going.

From the control room, a column extended up through the axis of the balloon for thirty-five hundred feet—and most of the surface of this column was covered with the new type, high power ruby rods, thirty feet long and one-half inch in diameter, mounted in tubular trays of reflective material which took up sufficient space to make each rod
occupy two inches of the circumference of the tube on which it was mounted.

These ruby rods were the heart of the power system, converting the random wave fronts of noncoherent light received from the mirror into a tremendous beam of coherent infrared energy which could be bundled in such a pattern as to reach Earth’s surface in a focal point adjustable from here to be something between twenty-two feet in diameter to approximately one mile in diameter.

The banks of rods were so arranged that each of the one hundred sections comprising the three thousand feet of receptive surface at the focus of the mirror formed a concentric circle of energy beams; each circle becoming progressively smaller in diameter, so that the energy combined into one hundred concentric circles, one within the other, as it left the rods; but these circles were capable of the necessary focusing that could bring them all together into a single small point near Earth’s surface.

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The beam leaving the rods represented three hundred seventy-five million watts of energy, tightly packaged for delivery to Earth. But this was only a small fraction of the solar energy arriving at the big mirror.

The remainder, the loss, must be dumped by the black surface at the back; and to account for the loss in the rods themselves, to prevent their instantaneous slagging into useless globules of aluminum oxide, their excess loss energy must also be dumped.

A cooling bath of liquid nitrogen therefore circulated over each rod and brought the excess heat to the rear of the big lens, where it, too, could be dumped into the blackness of space beyond.

For all its size and complexity, Hot Rod was only a trifle over six per cent efficient; but that six per cent of efficiency arriving on Earth would be highly welcome to supplement the power sources that statistics said were being rapidly depleted.

The spherical shape of the mirror itself, one of the easiest possible structures to erect in space, had dictated the placement of the rods through its center since there was no single focal point for the entire mirror surface.

But it had also added a complication. From this position, the rods could have been designed to fire either straight forward or straight back.

However, due to the hollow nature of the thirty-five hundred foot laser barrel; the necessity for access to the rods from inside that barrel; and the placement of the control booth at its outside end, the firing could only be forward, straight towards the sun on which the mirror was focused.

But to be useful, the beam must be able to track an ever-moving target.

This problem had been solved by one of the largest mirror surfaces that man had ever created--flat to a quarter of a wave-length of light, and two hundred fifty feet in diameter, the beam director, from this distance looking as though it were a carelessly tossed looking-glass from milady's handbag, anchored one diameter forward of the big power balloon.

For all its size, this director mirror had very little mass. Originally it had been planned to be made of glass in much the same manner as Palomar's 200-inch eye. But this plan had been rejected on the basis of the weight involved.

Instead, its structure was a rigid honeycomb of plastic; surfaced by a layer of fluorocarbon plastic which had been brought to its final polish in space, and then carefully aluminized to provide a highly reflective, extremely flat surface.

This mirror was also cooled by the liquid nitrogen supplied from the back side of the big mirror. Necessarily so, since even its best reflectivity still absorbed a sufficient portion of the energy from the beam it deflected to have rapidly ruined it if it were not properly cooled.

The several tons of ruby rods in the barrel, with their clear sapphire coatings, were far more valuable than any gems of any monarch that had ever lived on Earth. Synthetic though they were, Steve Elbertson, the project's military commander, knew they had been shipped here at fantastic cost and were expected to pay for themselves many thousands of times over in energy delivered.

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As yet, the project had had no specific target; nor had it been fully operational as of midnight yesterday.

But this "morning" for the first time the terrific energy of the laser beam would be brought to bear on the Greenland ice cap--three hundred seventy-five million watts of infrared energy adjusted to a needle-point expected to be twenty-two feet in diameter at Earth's surface, delivering one million watts per square foot, that should put a hole a good way through the several thousand feet of glacier there in its fifteen minutes of operation, possibly even exposing the bare rock beneath, and certainly releasing a mighty cloud of steam.

Focused to this needle sharpness, the rate of energy delivery was many orders of magnitude higher than that delivered by man's largest nuclear weapons only a few yards from ground zero.

Today's test was primarily scheduled as a test of control in aiming and energy concentration. Careful co-
ordination of the project by ground control was vital, so that no misalignment of the beam could possibly bring it to bear on any civilized portion of Earth's surface. For, fantastic as this Project Hot Rod might be as a source of power for Earth, Major Elbertson knew that it was also the most dangerous weapon that man had ever devised.

Therefore, the scientists were never alone in the control booth, despite the mile-long security records of each. Therefore, he and his men were in absolute control of the men who controlled the laser.

Therefore, too, Steve told himself, as the time came when there would be a question of command between himself and Captain Nails Andersen, science advisor to the U.N. and commander of Space Lab One, his own secret orders were that he was to take command--and the rank that would give him that command was already bestowed, ready for activation.

Nails Andersen, Steve reminded himself with amusement, had originated the laser project; had fought it through against the advice of more cautious souls; and had, through that project, attained command of the space lab, and the rank that made that command possible, all in the name of civilian science.

But not command of the laser project, Steve told himself.

Not of the most dangerous military weapon ever devised--dangerous and military for all that it was a civilian project, developed on the excuse that it would power Earth, which was rapidly eating itself out of its power sources.

Not in command of that, Steve told himself. Nobody but a military man could properly protect--and if necessary, properly use--such power.

Those were his secret orders; and he had the papers--and the authority from Earth--to back him up. And orders to shoot to kill without hesitation if those orders were questioned.

Meantime, today's peacetime experiment would bring forcibly to the attention of Earth both the power for good and the power for destruction of the laser which he commanded.

Project Hot Rod was manned twenty-four hours a "day." The new shift of scientists--the ones who would turn on the powerful--or deadly--beam, would come aboard in about half an hour. The men who had put the finishing touches on the project during the past shift would remain for another hour. His own crew of Security men shifted with the scientists--but he, himself, shifted at will.

The immensity around him went unheeded as Steve Elbertson, eyes on Project Hot Rod, savored the power of the beam that could control Earth.

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In the observatory, Perk Kimball and his assistant Jerry Wallace were having coffee as the various electronic adjuncts to the instruments of the observatory warmed up. Transistors and other solid state components that made up the majority of the electronic equipment in the observatory required no "warm up" in the sense that the older electron tubes had--but when used in critical equipment, they were temperature sensitive, and he allowed for time to reach a stable operating temperature. Then, too, the older electron tubes had not been entirely replaced. Many of them were still in faithful service.

The day would not be spent in the observation which was their main job there, because calibration of many of the instruments remained to be done, and the observatory was behind schedule, having had a good deal of its time taken up in the sightings required by the communications lab and Project Hot Rod.

Both of the astronomers were heartily sick of spending so much of their observational time with recalcitrant equipment; and in making observations of the globe from which they had come. After all, why should an astronomer be interested in Earth? Though admittedly this was the first observatory in man's entire history that had had the opportunity for such a careful scrutiny.

"This flare business, that our captive Indian was predicting," Jerry asked. "Think there's anything to it? Or am I just learning rumors about my profession from lay sources?"

"A rather presumptuous prediction, though he may be right." Perk's clipped tone was partly English, partly the hauteur of the professional. To him, solar phenomena were strictly sourced on the sun, and if they were to be understood at all, it would be in reference to the internal dynamics of the sun itself.

"The torroidal magnetic fields dividing the slowly rotating polar regions from the more rapid rotation near the solar equator," he said slowly, rather pedantically, but as though talking to himself, "should have far more effective control over solar phenomena than the periodic unbalance created by the off-center gravitic fields when the inner planets bunch on the same side of their solar orbits.

"To imply otherwise would be rather like saying that the grain of sand is responsible for the tides."

"Yet," he added honestly, "the records compiled by some of the communications interests that used to be greatly disturbed by the solar flares' influence on radio communications, seem to indicate that there is a connection. So there is the possibility, however remote, that our captive redskin might be right; or rather, that there is a force involved that makes the two coincidental."

But even as he talked, an unnoticed needle on the board began an unusual, wiggling dance, far different from
its ordinary, slow averaging reactions. Twice, without being noticed, it swung rapidly towards the red line on its meter face; and then on its third approach the radiation counter swung over the red line and triggered an alarm.

From only one source in their environment could they expect that level of X-ray intensity. Without so much as a pause for thought, as the alarm screamed, barely glancing at the counter, Perk reached for the intercom switch and intoned the chant that man had learned was the great emergency of space: "Flare, flare, flare--take cover."

Simultaneously, he flipped three switches putting the observatory, the only completely unshielded area within the satellite, on automatic, to record as much as it could of the progress of the solar flare with its incomplete equipment, while he and Jerry dove through the open air lock down the central well to the emergency shield room in the center of the hub.

It was a poor system, Perk thought, that hadn't devised sufficient shielding for the observatory so that they could watch this phenomenon more directly. "We'll have to work on that problem," he told himself and since his recommendations would carry much weight after this tour of duty, he could be sure that any such system that he could devise would be instrumented.

* * * * *

Major Steve Elbertson, caught in mid-run between the lab and Project Hot Rod, resisted the temptation to reverse the scuttlebug on the line and pull himself to a fast stop, as the flare warning from the observatory came to him over the emergency circuit of his suit, followed by Bessie's clipped official voice saying:

"A flare is in progress. Any personnel outside the ship should get in as rapidly as possible. Personnel in the rim have seven minutes in which to secure their posts and report to the flare-shield area in the hub. Spin deceleration will take effect in three minutes; and we are counting on my mark towards deceleration. Mark, three minutes."

The Security officer squeezed the trigger of the "bug" tighter in a vain effort to force it and himself forward at a higher speed.

The lesser shielding of the Hot Rod control room would not provide a sufficient safety factor even for the X rays that he knew were already around him; but he must supervise the security of the shutdown; and he could only be very thankful that he was already nearly there and would not have to make the entire round trip under emergency conditions.

The scuttlebug automatically reversed and began slowing for the end of its run--tripped by a block signal set in the ribbon cable. As it came to a stop at the end of the long anchor tube, Steve dismounted and kicked over the short remaining distance, which was spanned only by a slack cable to permit the inertial orientation servos of Hot Rod unhindered freedom to maintain their constant tracking of the solar disk.

Passing through the air lock of the control room, he reflected that his exposure would probably be sufficient to give a touch of nausea in the first half hour.

Inside Hot Rod control there was little excitement. The equipment was being turned off in the standard approved safety procedures necessary to turn control over to the laser communication beam which would put the project under Earth control at Thule Base, Greenland, until the emergency was over.

This separate, low-power control beam, focused on Thule Base nearly eighty miles away from the main focus of Hot Rod on its initial target, carried all of the communications and telemetry necessary for the close co-ordination between Thule and the project.

As Elbertson entered, the Hot Rod communications officer was switching each of the control panels in turn to Earth control, while Dr. Benjamin Koblenisky, project chief, stood directly behind him, supervising the process. Elbertson took up his post beside Dr. Koblenisky, replacing the Security aide who had had the past shift. "Suit up," he said to the man briefly.

As the communications officer completed the turnover, and the other five scientists in the lab left their posts to suit up, the com officer glanced up, received a nod from Dr. Koblenisky, and said into his microphone "All circuits have now been placed in telemetry security operation. On my mark it will be five seconds to control abandonment. Mark," he said after another nod from Dr. Koblenisky. "Four, three, two, one, release."

His hand on the master switch, he waited for the green light above it to assure him that the communications lag had been overcome, and as the green light came on, pushed the switch and rose from the console.

Major Elbertson stepped behind him, scanned the switches, inserted his key into the Security lock, and turned it with a final snap, forcing a bar home through the handles of all of the switches to prevent their unauthorized operation by anyone until the official Security key should again release them. In the meantime, no function could be initiated within the laser system by anyone other than the Security control officer at Thule Base on Earth.

Hot Rod was secured, and its crew were taking turns at the lock to make the life-saving run back to the flare-shield area in the hub of Lab One.

Last man out, three minutes after the original alarm, Steve glanced carefully around his beloved control booth, entered the now-empty air lock, and reaching the outside vacuum dove fast and hard toward the anchor terminal and
the scuttlebug that would take him swiftly to the big wheel and its comparative safety.

* * * * *

In the gymnasium that served under emergency conditions as the flare-shield area of the hub, long since dubbed the "morgue," the circular nets of hammocks that made it possible to pack six hundred personnel into an area with a thirty-two foot diameter and a forty-five foot length, were lowered. They would hardly be packed this time, since less than one-third of the complement were yet aboard.

Even so, each person aboard had his assigned hammock space, two and a half feet wide; two and a half feet below the hammock above; and seven feet long; and each made his way toward his assigned slot.

At one end of the morgue was the area where the cages of animals from Dr. Lavalle's labs were being stored on their assigned flare-shield shelves; and where Dr. Millie Williams was supervising the arrangements of the trays and vats of plants that must be protected as thoroughly as the humans.

At the other end of the morgue, the medics were setting up their emergency treatment area, while nearby the culinary crew pulled out and put in operating condition the emergency feeding equipment.

The big wheel's soft, susurrus lullaby had already changed to a muted background roar as her huge pumps drew the shielding waters of the rim into the great tanks that gave the hub twenty-four feet of shielding from the expected storm of protons that would soon be raging in the vacuum outside.

The ship was withdrawing the hydraulic mass from its rim much as a person in shock draws body fluids in from the outer limbs to the central body cavities. The analogy was apt, for until danger passed, the lab was knocked out, only its automatic functions proceeding as normal, while its consciousness hovered in interiorized, self-protective withdrawal.

On the panel before Bessie the computer's projection of expected events showed the wave-front of protons approaching the orbit of Venus, and on the numerical panel directly below this display the negative count of minutes continued to march before her as the wave-front approached at half the speed of light.

The expected diminishment of X rays had not yet occurred. Normally, there would be a space of time between their diminishment and the arrival of the first wave of protons; but so far it had not happened.

Six minutes had passed, and the arriving personnel of Project Hot Rod came in through the locks from the loading platform, diving through the central tunnel over Bessie's head and on to the shielded tank beyond.

Seven minutes; and from Biology lab came an excited voice. "I need some help! I've lost a rabbit. I came back for the one I'd been inoculating but he got away from me, and I can't corner him in this no-gravity!"

Bessie wasn't sure what to say, but Captain Andersen spoke into his intercom. "Dr. Lavalle," he said in a low voice, but with the force of command, "ninety per cent of your shielding has already been withdrawn. Abandon the rabbit and report immediately to the hub!"

The pumps were still laboring to bring in the last nine per cent of the water that would be brought. The remaining one per cent of the normal hydraulic mass of the rim had been diverted to a very small-diameter tube at the extreme inner portion of the rim, and was now being driven through this tube at frantically higher velocities to compensate for the removal of the major mass, and to maintain a small percentage of the original spin, so that the hub would not be totally in free fall, though the pseudo-gravity of centrifugal force had already fallen to a mere shadow of a shadow of itself, and some of the personnel were feeling the combined squammishness of the Coriolis effect near the center of the ship, and the lessening of the gravity, pseudo though it had been, that they had had with them in the rim.

As the last tardy technician arrived, the medics were already selecting out the nearly ten per cent of the personnel who had been exposed to abnormally dangerous quantities of radiation during the withdrawal procedure, which included, of course, all the personnel that had been aboard Project Hot Rod at the time of the flare.

Even as the medics went about injecting carefully controlled dosages of sulph-hydral anti-radiation drugs, the beginnings of nausea were evident among those who had been overexposed. However, only the dosimeters could be relied on to determine whether the nausea was more from the effects of radiation; the effects of the near-free-fall and Coriolis experienced in the hub; or perhaps some of it was psychosomatic, and had no real basis other than the fear engendered by emergency conditions.

Major Steve Elbertson was already in such violent throes of nausea that his attending medic was having difficulty reading his dosimeter as he made use of the plastic bag attached to his hammock; and he was obviously, for the moment at least, one of the least dignified of the persons on board.

Displays of the various labs in the rim moved restlessly across most of the thirty-six channels of the computer's video displays, as Bessie scanned about, searching for dangerously loose equipment or personnel that might somehow have been left behind.

In the Biology lab, the white rabbit that had escaped was frantically struggling in the near-zero centrifugal field with literally huge bounds, seeking some haven wherein his disturbed senses might feel more at home, and...
eventually finding a place in an overturned wastebasket wedged between a chair and a desk, both suction-cupped to
the floor. Frightened and alone, with only his nose poking out of the burrow beneath the trash of the wastebasket, he
blinked back at the silent camera through which Bessie observed him, and elicited from her a murmur of pity.

Seven minutes and forty-five seconds. The digital readout at the bottom of Bessie's console showed the
computer's prediction of fifteen seconds remaining until the expected flood of protons began to arrive from the sun.

As radiation monitors began to pick up the actual arrival of the wave front, the picture on her console changed
to display a new wave front, only fractionally in advance of the one that the computer had been displaying as a
prediction.

* * * * *

The storm of space had broken.

Captain Andersen's voice came across the small area of the bridge that separated them. "Check the rosters,
please. Are all personnel secured?"

Bessie glanced at the thirty-two minor display panels, checking visually, even as her fingers fed the question to
the computer.

The display of the labs, now that the rabbit was settled into place, showed no dangerously loose equipment
other than a few minor items of insufficient mass to present a hazard, and no personnel, she noted, as the Cow
displayed a final check-set of figures, indicating that all personnel were at their assigned, protected stations in the
morgue, in the engineering quarters, and on the bridge.

"All secure," she told the captain. "Evacuation is complete."
"Well handled," he said to her, then over the intercom: "This is your captain. Our evacuation to the flare-shield
area is complete. The ship and personnel are secured for emergency conditions, and were secured well within the
time available. May I congratulate you.

"The proton storm is now raging outside. You will be confined to your posts in the shield area for somewhere
between sixteen and forty-eight hours.

"As soon as it is possible to predict the time limit more accurately, the information will be given to you."

As he switched out of the ship's annunciator system, Captain Nails Andersen leaned back in his chair and
stretched in relief, closing his eyes and running briefly over the details of the evacuation.

When he opened them again, he found a pinch bottle of coffee at his elbow, and tasting it, found it sugared and
creamed to his preference. His eyes went across the bridge to the computer console, and lingered a moment on the
slender, dark figure there.

Amazing, he thought. The dossier, the personal history, her own and all the others aboard, he had studied
carefully before making a selection of the people who would be in his command for this time. Not that the decision
had been totally his, but his influence had counted heavily.

This one he had almost missed. Only by asking for an extra survey of information had he caught that bit about
the riot at Moscow University that had raged around her ears, apparently without touching or being influenced by or
influencing her own quiet program.

They didn't think alike was evident. That this was a competent sociologist, and not just a computer
technician had not at first been evident. But Nails was well pleased with his decision in the selection of this
particular unit of his command.

Things would go well in her presence, he felt. Details he might have struggled with would iron out or
disappear, and scarcely come to his attention at all.

Very competent, he thought. And attractive, too.

* * * * *

In the engineering compartment, Mike was adjusting the power output from the pile ten miles away, down from
the full emergency power that had been required to pump the more than five hundred thousand cubic feet of water
from the rim to the hub in seven minutes, to a level more in keeping with the moderate requirements of the lab as it
waited out the storm.

As he threw the last switch, he became aware of a soft scuffling sound behind him, and turned to see tiny Dr. Y
Chi Tung, single-handedly manhandling through the double bulkhead the bulky magnetic resonance device on
which he had been working when the flare alarm sounded, and having the utmost difficulty even though the near
free-fall conditions made his problem package next to weightless.

The monkeylike form of the erudite physicist, dwarfed by the big chassis, gave the appearance of a small boy
trying to hide an outsize treasure; but the nonchalant humor that normally poked constant fun at both his profession
as a physicist and the traditions of his Chinese ancestors, was lacking.

Dr. Ishie was both breathless and worried.

"Mike," he gasped. "I was afraid to leave it, unshielded. It might pick up some residual activity. Radiation, that
is. From those hydrogen hordes outside." He let the object rest for a moment, mopping his head while he talked. "Can you hide it in here? I'm not really anxious to have Budget Control know where some of this stuff went—even though I have honorable intentions of returning the components later—and the good captain down there on the bridge might not consider its shielding important, either, if he knew I'd sabotaged his beautiful evacuation plan to bring my pet along!" The tone of Ishie's voice indicated his uncertainty as to Mike's reception.

The idea of Dr. Y Chi Tung worrying about any components he might have "requisitioned" seemed almost irreverent to Mike. Budget Control would gladly have given that eminent physicist a good half of the entire space station, if he had expressed his needs through the proper channels—as a matter of fact, anything on board that wasn't actually essential to the lives of those on the satellite.

But Ishie seemed genuinely unaware of his true status, and the high regard in which he was held. Besides, Mike suspected in him a constitutional inability to deal through channels.

Recognizing the true sensitivity that underlay Ishie's constant humor and ridicule of himself, Mike kept himself from laughing aloud at the stealth of the man who could have commanded the assistance of the captain himself in shielding whatever he thought it necessary to shield.

Instead, he carefully kept his face solemn while he commented: "It ought to fit in that rack over there." He pointed to a group of half-filled racks. "We can slip a fake panel on it. Nobody will be able to tell it from any of the other control circuits."

Ishie heaved a deep sigh of relief and grinned his normal grin. "Confusion say," he declared, "that ninety-six pound weakling who struggle down shaft with six hundred pound object, even in free fall, should have stood in bed."

It took the two of them the better part of half an hour to get the unit into place; to disguise its presence; and to make proper power connections. Ishie had objected at first to connecting it up, and Mike explained his insistence by saying that "If it looks like something that works, nobody will look at it twice. But if it looks like something dead, one of my boys is apt to take it apart to see what it's supposed to be doing." He didn't mention his real reason—a heady desire to run a few tests on the instrument himself.

The job done, the two sat back on their heels, admiring their handiwork like bad boys.

"Coffee?" asked Mike.

"Snarl. Honorable ancestor Confusion doesn't even need to tell me what to do now. My toy is safe. I am going to bed. I have worked without stopping for two days and now the flare has stopped me.

"Confusion decide to relent. He tell me now: 'He who drive self like slave for forty-eight hours is nuts and should be sent to bed.' I hope," he added, "that the hammocks are soft; but I don't think I shall notice. I know just where to go for I checked in once to fool the Sacred Cow before I went to get my beautiful. Now I go back again."

And without so much as a thank-you, he staggered out, grasping for hand-holds to guide himself in a most unspacemanlike manner.

Mike craftily sat back, still on his heels beside the object, and watched until Ishie had disappeared, and then turned his full interest to the playtoy that fortune had placed in his shop.

Without hesitation he removed the false front they had so carefully put in place. He still had a long tour of duty ahead, and it was very unlikely that he would be interrupted, or, if interrupted, that anyone would question the object on which he worked. It would be assumed that this was just another piece of equipment normally under his care.

Carefully he looked over the circuits, checking in his mind the function of each. Then he went to his racks and began selecting test equipment designed to fit in the empty racks around it. Oscilloscope, signal generator, volt meters and such soon formed a bank around the original piece of equipment, in positions of maximum access.

Gingerly he began applying power to the individual circuits, checking carefully his understanding of each component.

The magnetic field effect, Ishie had explained; but this three-phase RF generator—that puzzled him for a while.

Then he remembered some theory. Brute strength alone would not cause the protons to tip. Much as a top, spinning off-center on its point, will swing slowly around that point instead of tipping over, the spinning protons in the magnetic field would precess, but would not tip and line up without the application of a rotating secondary magnetic field at radio frequencies which would make the feat of lining them up easy.

There, then, were two of the components that Ishie had built into his device. A strong magnetic field supplied by the magnaswedge coils—stolen magnaswedge coils if you please—and a rotating RF field supplied by the generator below the chassis.

But this third effect? The DC electric field? That one was new to him.

In his mind he pictured the tiny gyroscopes all brought into alignment by the interplay of magnetic forces; and
around each proton the tiny, planetary electrons.

Yet it was very well to think of the proton nucleus of the hydrogen atom as a simple top, he reminded himself; but they were more complex than that. Each orbiting electron must also contribute something to the effect.

At that point, Mike remembered, the electron itself would be spinning, a lighter-weight gyroscope, much as Earth has a lighter weight than the Sun. The electron, too, had a magnetic field; more powerful than the proton's field because of its higher rate of spin, despite its lighter mass. The electron could also be lined up.

Somewhere in the back of his mind, Mike remembered having read of another effect. The electron's resonance. Electron para-magnetic resonance.

It, too, could be controlled by radio frequencies in a magnetic field—but the frequencies were different, far up in the microwave region; about three centimeters as Mike recalled—and he went back to his supply cabinet to get another piece of equipment, a spare klystron that actually belonged to the radar department but that was "stored" in his shop.

At these frequencies, the three centimeter band of the electromagnetic spectrum, energy does not flow on wires as it does in the lower frequency regions. Here plumbing is required. But Mike, amongst other things, was an expert RF plumber.

Even experts take time to set up klystrons, and it was three hours later before Mike was ready with the additional piece of haywire equipment which carefully piped RF energy into the plastic block.

This refinement by itself had been done before; but some of the others that Mike applied during his investigation probably hadn't—at least not to any such tortured piece of plastic as now existed between the pole faces of the device.

To have produced the complete alignment of both the protons and the electrons within a mass might have been attempted before. To have applied an electrostatic field in addition to this had perhaps been attempted before. To have done all three, at the same time to the same piece of plastic, and then to have added the additional tortures that Mike thought up as he went along, was perhaps a chance combination, repeatable once in a million tries, one of those experimental accidents that sometimes provide more insight into the nature of matter than all of the careful research devised by multi-million-dollar-powered teams of classical researchers.

When the contraption was in full operation, he simply sat on his heels and watched, studying out in his mind the circuits and their effects.

The interruption of the magnetic resonance by the electrostatic field—by the DC—with the RF plumbing—twisted by—each time the concept came towards the surface, it sank back as he tried to pull it into consciousness.

Churkling to itself, the device continued applying its alternate fields and warps and strains.

"It's a Confusor out of Confusion by Ishie, who is probably as great a creator of Confusion as you could ask," Mike told himself, forgetting his own part in the matter, watching intently, waiting for the concept to come clear in his mind.

Presently he went over to his console, to his pads of paper and pencils, and began sketching rapidly, drawing the interlocking and repulsing fields, the alignments, mathing out the stresses—in an attempt to visualize just what it was that the Confusor would now be doing....

* * * * *

In the Confusor itself, a tiny chunk of plastic, four by four inches square and one-half inch thick, resting in the middle of the machine between the carefully aligned pole-faces of the magnet, was subjected to the cumulatively devised stresses, a weird distortion of its own stresses and of the inertia that was its existence.

Each proton and electron within the plastic felt an urge to be where it wasn't—felt a pseudo-memory, imposed by the outside stresses, of having been traveling at a high velocity towards the north star, on which the machine chanced to be oriented; felt the new inertia of that velocity....

Each proton and electron fitted itself more snugly against the north pole face and pushed with the entire force of its newly-imposed inertial pattern.

Forty pounds to the square inch six hundred forty pounds over the surface of the block, the plastic did its best to assume the motion that the warped laws of its existence said that it already had.

It was only one times ten to the minus five of a gravity that the four by four by half inch piece of carefully machined plastic presented to the sixty-four million pound mass of Space Lab One.

But the force was presented almost exactly along the north-south axis of the hub of the ship, and in space a thrust is cumulative and momentum derives per second per second.

The Confusor churkled quietly as the piece of plastic exerted its tiny mass in a six hundred forty pound attempt to take off towards the north star. And, since the piece itself was rigidly mounted to its frame, and the frame to the ship, the giant bulk of five million cubic feet of water, thirty-two million pounds of mass; and the matching mass-bulk of the ship itself, responded to the full mosquito-sized strength of the six hundred forty pound thrust, and was
moved--a fraction of a fraction of a fraction of a centimeter in the first second; a fraction of a fraction in the second; a fraction....

* * * * *

On the bridge, the com officer had completed transmitting the captain's detailed report of the evacuation to the hub-shield area caused by the solar flare.

On another line, under Bessie's ministrations, the computer was feeding the data obtained by the incomplete equipment in the observatory in its automatic operation.

The captain himself was finishing a plastic-bottle of coffee, while he wrote up his log.

It was exactly nine minutes since the Confusor had come into full operation.

The fractions of fractions of centimeters had added on the square of the number of seconds; and the sixty-four million pounds of mass of Space Lab One has moved over thirteen meters.

Trailing the wheel ten miles off, was the atomic pile, directly attached to its anchor tube.

Tightening, each with a whanging snap too tiny to be remarked within the mass of the ship, were the cables that attached the various items of the dump to their anchor finger.

But still free on the loose one hundred meter cable that attached it to its anchor, and which had had fifteen meters of slack when the ship first began its infinitesimal movement, was Project Hot Rod.

Nine minutes and twenty-three seconds. The velocity of the wheel with its increasing mass of trailing items, was five point four six centimeters per second. The nearly four million pound mass of Hot Rod was slowly being left behind.

The cable tautened the final fraction of a centimeter. Its tug was not fast, but was unfortunately applied very close to the center of gravity of the entire device, since most of Hot Rod's weight was concentrated in and around the control room.

Five point four six centimeters per second. Four million pounds of mass.

If the shock had been direct, it would have equaled two point eight million ergs of energy, created by the fractional movement of the mighty mass of the ship against Hot Rod.

But the shock was transmitted through the short end of a long lever. The motion at the beam director mirror, a full diameter out from the eight thousand foot diameter balloon that was Hot Rod, was multiplied nearly sixteen thousand times. Hot Rod rolled on its center of gravity, and its beam-director mirror swung in a huge arc. Sixteen thousand centimeters per centimeter of original motion. Eight hundred and seventy-three meters in the first second, before the tracking servos took over and began to fight back.

* * * * *

Hot Rod fought at the end of its tether like a mighty jellyfish hooked on the end of a line.

Gradually the swings decreased. Four hundred meters; two hundred meters; one hundred meters; fifty meters; twenty-five meters--and it had come back to a nearly stable focus on the sun.

But the beam director had also been displaced, and vibrated. Internally, the communications beam to Thule Base had been interrupted; and the fail-safe had not failed-safely.

The mighty beam had lashed out. The vibrations of the directing mirror began placing gigantic spots and sweeps of irresistible energy across the ice cap of Greenland, in an ever-diminishing Lissajous pattern.

By the time the servos refocused the communications beam on Thule, there was no Thule; only a burnt-out crater where it had been.

Slowly, but surely, the giant balloon settled itself to the task of burning a hole through the Greenland ice cap at a spot eighty miles north of that now-burnt-out Thule Base that had originally been planned as a test of its accuracy; and to the simple task of holding that focus in spite of the now steady, though infinitesimal acceleration under which it joined the procession headed by Lab One.

Now that the waves of action and reaction from the shock energy of its sudden start had subsided, Hot Rod's accuracy was proving great indeed; and its beam focus was proving as small as had been predicted.

But the instruments that would have measured those facts no longer existed.

In the engineering control center of Space Lab One, the Confusor churred quietly and continued to pit its mosquito might against its now nearly seventy-eight million pound antagonist, as the protons and electrons of the plastic that was center to its forces did their inertial best to occupy that position in space towards the north star in which the warped fields around them forced them to belong--the mosquito strained its six hundred forty pound thrust against its giant in the per second per second acceleration that was effective only in the fraction of a fraction of a fraction of a centimeter in the first second, but that compounded its fractions per second.

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On the quiet bridge, the captain looked up as the Com Officer said, "Thule Base, sir," and switched on his mike.
"Hot Rod has been sabotaged," a frantic voice on the other end of the beam shouted in his ear without formalities. "She's running wild. Kill her! Repeat, Hot Rod is wild! Kill Hot Rod! Kill--" the mike went dead as Captain Andersen switched to the morgue intercom.


As he switched off the intercom, the communications officer spoke urgently. "Captain. I've lost contact with Thule base."

"Keep trying to raise them," Captain Andersen said. He turned to Bessie. "Give me a display of the Hellmaker," he said; then, almost to himself, "There's still a flare in progress out there. We've got to kill it without sending men into that--"

He cut himself off in midsentence, as the computer displayed both Hot Rod, swaying gently as she fought out the battle of the focus through its final moments, and a telescopic view of Greenland, a tiny, glowing coal of red showing at the center of her focus.

Through the door nearly catapulted the first of the Project Hot Rodders, followed almost on his heels by twelve more.

"Where is Major Elbertson?"

"In sick bay, sir. He got a big radiation dose--"

The captain flipped the intercom key.

"Calling Major Elbertson in sick bay. Report to the bridge on the double, no matter what your condition. This is the captain speaking."

The intercom came alive at far end.

"This is Dr. Green, Captain Andersen. Major Elbertson is unconscious. He cannot report for duty. He was extremely ill from exposure to radiation and we have administered sulph-hydral, antispasmodic, and sedative."

Nails Andersen turned to the project crew.

"Which of you are Security officers?"

Three men stepped forward.

"Are all the project members here?"

"No, sir," said one. "Eight of our men are in sick bay."

"Very well," said the captain. "Now hear this, all of you. There is a saboteur--maybe more than one, we do not know--among you. There is no time to find out which of you it is. However, he has managed to leave Project Hot Rod operational while unattended. You are to turn it off, and to prevent the saboteur from stopping you. Do you understand?"

"Who's in charge?"

"Hot Rod communications officer, sir. I turned it over last thing before we shut down. Under the instructions of Dr. Koblensky. That's the shutdown procedure."

"Where's Dr. Koblensky?"


"Who's senior officer here?"

"I'm Dr. Johnston." It was a man in front. Rather small, pedantic-looking. "I'm Dr. Koblensky's ... well, assistant." The word came hard as though the fact of an assistantship were at the least distasteful.

"Who's senior in Security?"

"I, sir. Chauveneer."

"Very well. Dr. Johnston and Chauvens ... sor? ... are in charge. Now shut down that ruby hellmaker as fast as it can be done."

"But, captain," Dr. Johnston spoke, "we can't turn it off. We haven't the authority. We haven't the Security key. And the radiation won't let up for hours."

"I have just given you the authority. As for the radiation, that's a hazard you'll have to take. What's this about a Security key?" The captain's voice was not gentle.

"Major Elbertson has the key. He has the only key. Without it, the station cannot be removed from Earth control. Earth is in control. They can turn it off, captain." Dr. Johnston's voice took on as firm a tone of authority as that of the captain.

"Chau ... Chau ... You!" barked the captain. "Get that key!" He waited until the Security officer had disappeared through the door, then turned to the scientist.
“Dr. Johnston, Earth is not in control. I do not know why, and there is no way of finding out. Hot Rod is wild, and that,” he pointed at the enlarging red spot that centered the computer display, “is what your ruby is doing to Earth.

“You will turn off the project, at gunpoint if necessary,” he continued in a grim voice. “If you turn it off volitionally, you will be treated for radiation. If you refuse, you will not live to be treated for anything. Do you understand? How many men do you need to help you ... and I do mean you ... with the job?” he asked.

Dr. Johnston hesitated only fractionally, and Nails Andersen mentally put him down on the plus side of the personnel for the shortness of his com lag. Then he said, “The job will require only two men for the fastest accomplishment. You realize, captain that you are probably signing our death warrants--the two of us. But,” he added, glancing only casually at the display on the console, “I can understand the need to sign that warrant, and I shall not quibble.”

The intercom spoke. “This is Dr. Green, captain. There is no key on the person of Major Elbertson. We have searched thoroughly, sir. I understand the need is of an emergency nature. The key is not on his person. We have taken every possible measure to arouse him, as well, and have been unsuccessful.”

Andersen flipped his switch. “Let me speak to the Hot Rod Security officer,” he said briefly.

“Chauvenseer speaking, sir,” the man's voice came on.

“Do you know what the key looks like?”

“Yes, sir. It looks somewhat like a common Yale key, sir. But I've never seen another just like it.”

“There is only the one?”

“Yes, sir.”

“Where would he keep it, if not on his person?”

“I don't know, sir. We came straight to the morgue--the shield area, from the air lock. I don't believe he stopped off anywhere he could have put it.”

The captain turned to the second Security officer. “Search Elbertson's spacesuit,” he said. Then to the intercom, “Search his hammock. Search every spot he went near. That key must be found in minutes. Commandeer as many men as can help in the search without getting in the way.”

He paused a moment, then flipped another intercom key.

“Mr. Blackhawk,” he said.

The intercom warmed at the far end. “Yes sir?” Mike's voice was relaxed.

“Is there any way to turn off Hot Rod without the Security key?”

“Why sure, captain.” Mike's voice held a grin. “I could pull the power switch.”

“Pull it. Fast. Hot Rod's out of control.”

Mike's hand flashed to a master switch controlling the power that fed Hot Rod, and blessing as he did it the fallacy of engineering that had required external power to power the mighty energy collector.

In the big balloon now happily following the wheel at the end of its tether, the still-undamaged power-off fail-safe went into operation. The mirror surface behind each ruby rod rotated into its shielding position, dispersing the energy that the huge mirror directed towards the rods, back into space.

Hot Rod was secure.

Mike received only one further communication from the captain.

“Mr. Blackhawk,” he was asked over the intercom, “is there any way that you secure the Hot Rod power switch so that it cannot be turned on without my personal authorization?”

“Sure, captain, I can--”

The captain interrupted. “Mr. Blackhawk, I should prefer that you not tell me or anyone else aboard the method you will use; and that you make your method as difficult as possible to discover. This I shall leave,” he added dryly, “to your rather ... fertile ... imagination.

“There is reason to believe that Project Hot Rod was turned on by a saboteur. Your method must be proof against him, and if he exists, he will not be stupid.” The captain switched off.

Mike turned to the control panel, and after a few minutes thought busied himself for some time.

Then he headed for the bridge where Dr. Johnston, Chauvenseer, and the captain had dismissed the others and were utilizing every check that Dr. Johnston could dream up to assure themselves that Hot Rod was actually turned off and would remain secure at least for the duration of the flare; and trying as well to find out just what form the sabotage had taken.

Without interrupting the others, Mike seated himself at the subsidiary post at the computer's console on Bessie's right, and got her to brief him while he examined the close-up display of Hot Rod.
After a few minutes he reached over and increased the magnification to its maximum, showing only a small portion of the balloon, then moved the focus to display the control room entrance as well as part of the anchor tube and the cable between the two.

"I think I've found your saboteur, sir," he said.

The captain was at his side almost instantly. "Where is he?" he asked briefly.

"Not he, sir. It. And I'm not sure just where--but look. Hot Rod's cable is taut. There's thrust on the balloon. That probably means a puncture and escaping nitrogen.

"I think," he said, "that the saboteur may have been a meteor that punctured the balloon, and the nitrogen escaping through the hole it made is now producing enough thrust to keep that cable taut. Though," he added thoughtfully, "I don't see why the servos couldn't maintain the beam to Thule--though obviously, they couldn't."

"How dangerous is such a puncture?" asked the captain. "How seriously would Hot Rod be damaged? How soon must it be repaired?"

"The puncture itself shouldn't be too dangerous. Even if all the nitrogen's gone, the balloon's in a vacuum and won't collapse--and that's about the only serious effect a puncture would have. Just a moment. We'll estimate its size by the thrust it's giving the ship," he added, and turned to Bessie.

"Ask the Cow whether we're getting thrust on the ship; and if so, how much. Wait a minute," he added, "if you ask for thrust on the ship, she'll say there isn't any because Hot Rod would be pulling us, not pushing. And if you ask her for the thrust on Hot Rod, she hasn't got any sensors out there.

"Hm-m-m. Ask her if we have added any off-orbit velocity; and if so how much."

* * * * *

The computer displayed the answer almost as soon as she received the question.

"Well," said Mike, "that's not too large a hole. Ask her how... let's see... how many pounds of thrust that velocity represents. That way we don't confuse her with whether it's push or pull."

The Cow displayed the answer, six hundred forty pounds of thrust.

"O.K.," said Mike. "Thanks." Then to the captain and the scientist and Security officer who were waiting beside him: "The puncture is obviously small enough to serve as a jet, rather than to have let the nitrogen out in one whoosh, since that would have given you far more than six hundred forty pounds of thrust. Therefore, it will probably be quite simple to patch the hole.

"Nitrogen is obviously escaping, but it wouldn't be worth a man's life to send him out into that flare-storm to patch it. We may even have enough nitrogen aboard to replace what we lose.

"The best I can figure," he said, "is that the meteor must have hit the orientation servos and thrown them off a bit. We'll have to wait till after the flare to make more than an educated guess, though.

"We shouldn't be too far off-orbit by the time the flare's over, either, even with that jet constant. It'll take quite a bit of work, but we should be able to get her back into position with not too many hours of lost worktime."

"Except for Thule, I'd say we got off fairly light.

"Yes," he added grimly, "it looks like that's what your saboteur was. Rather an effective saboteur, but you'll have a hard time putting him up against a firing wall."

Having satisfied himself as to existing conditions, Mike excused himself shortly and went back to the engineering quarters, but his mind was no longer on Ishie's strange device. He glanced rapidly at the instruments regulating the power flow to the wheel, then stretched out comfortably on the acceleration couch and in minutes was asleep.

The captain, Dr. Johnston and Chauvenseer remained on the bridge another hour, convincing themselves that Mike's analysis was correct, and dictating a report to Earth, before the captain called in an aide to take over the bridge, and the three retired.

In the morgue, Dr. Y Chi Tung, who still slept peacefully as he had since the moment he reached his hammock, muttered quietly in his sleep, "Confusion--"

* * * * *

Mike snapped awake and glanced guiltily at the clock. Six hours had passed.

A situation report from the Cow was the first thing on his agenda any time that he had been out of contact for any length of time, flare or not.

It was not his job to be in constant contact with the complete situation of the ship and its vast complexities; he was not the captain. Nor was it in the manuals that he should have access to the computer's huge memory banks and abilities other than through "channels"--i.e., Bessie. But the book definition of the information he needed for his job, and his own criteria, were somewhat different, and he had built on Earth and installed shortly after he came aboard, a subcontrol link which put him in direct contact with the placid-Cow.

His original intention in rigging the link had been to use the calculator for that occasional math problem which
might be more quickly resolved with her help; but then the criteria of needed information, curiosity, or both, had got
the better of him, and the secret panel hidden in the legitimate control panels of an engineer's console was actually
quite a complete link, covering all of the Cow's multiple functions without interfering in any way with Bessie's
control links, or revealing its existence. This linkage gave Mike the only direct access to the computer's store of
information and abilities other than that of the operator at the control console.

And Mike's secret pride was the vocoder circuit with which he had terminated his link, originated because a
teletype system similar to that used at the control console would have been too obvious; and his nimble fingers got
all tangled up on a keyboard anyhow.

Bessie might speak to the Cow through the teletype link and switches of her control console, but only Mike had
the distinction of being able to speak directly to the big computer, and get the complacent, somewhat mooing
answers; and only Mike knew of the existence of the vocoder aboard.

It had taken some care to get used to the literal-minded conversation that resulted; but eventually Mike felt he
had worked out a satisfactory communications ability with the overly obvious "cow."

What he wanted now was a situation report. If he simply asked for that, however, he'd have received such miles
of data that he'd have been listening for hours. So instead he broke his question down into the facets that he needed.

In a few minutes he had elicited the information that the solar flare was now predicted to be terminated and the
major part of the flare protons past their solar orbital position within another ten hours; that Earth co-ordinates had
shifted, indicating their own orbital shift to be a trifle over thirty-seven kilometers north in the past eight hours.

North? he thought. Hot Rod's pull on a taut cable would be to the south.

No. Lab One could be re-oriented to trail the thrusting balloon. But the lab's servos should have prevented that
re-orientation unless the thrust were really heavy.

"What is our velocity?" he asked. Temporarily he was baffled by the placid Cow's literal translation of his
request as one for any actual velocity, since she had replied with a figure very close to their original orbital speed.
"What is our velocity at right angles to original course?" he inquired.

And the Cow's reply came: "Two-o-o hundred and fifty-seven point seven six centimeters per second."

That should be about right for six hundred forty pounds of thrust for, say, six and a half hours; and the distance
of the orbit shift was about right.

But the direction?

"Is Hot Rod pulling us north?" he asked.

"No-o-o," came the placid reply.

"If it's pulling us south, then why--" He stopped himself. Any "why" required inductive reasoning, and of that
the Cow was not capable. Instead of asking why they were moving north with a south thrust, Mike broke his
question into parts. He'd have to answer the "why" himself, he knew.

"Is Hot Rod pulling us south?" he asked.

"No-o-o-oo," came the answer.

This time he was more careful. "In which direction is the thrust on Hot Rod oriented?" he asked.

"No-oorth."

"Then Hot Rod is--" Quickly he stopped and rephrased the statement which would have had a question in its
tone but not its semantics, into a question that would read semantically. "Is Hot Rod pulling us north?"

"No-o-o-oo," came the reply.

Carefully. "Is Hot Rod pulling us?"

"No-o-o-oo."

Mike was stumped. Then he figured a literalness in his phrasing.

"Is Hot Rod pushing or in any other way giving motion to Space Lab One?" he asked.

"No-o-o-oo," came the answer.

Now Mike was stumped.

"Is Space Lab One under acceleration?" he asked.

"Ye-es," said the Cow.

"Then where in hell is that acceleration coming from?" Mike was exasperated.

"We a-are uunder no-o-o acceleration fro-om he-ell," the literal mind told him.

* * * * *

Mike laughed ruefully. No acceleration from hell--well, that was debatable. But no thrust from the hellmaker
was not a debatable point. The Cow wasn't likely to be wrong, though her appalling literalness was such that an
improperly phrased question might make her seem to be.

Computers, he thought, would eventually be the salvation of the human race, whetting their inventors' brains to
higher and higher efforts towards the understanding of communications.
Very carefully now he rephrased his question. "From what, and from what point is the acceleration of Space Lab One originating?"

"From the co-ontinu-ous thrust o-originating at a po-oint thirteen fe-et from the a-axial center of the whe-el, in hu-ub section five no-orth, one hundred twelve degrees fro-om reference ze-ero of the engine-eering lo-ongitude references sta-ation assigned in the con-struction ma-anual dealing with relative po-sitions o-of ma-asses lo-ocated o-on Spa-ace La-ab O-one."

Mike glanced up at the tube overhead, which represented the axial passageway down the hub of the wheel. Thirteen feet from the imaginary center of that tube, and in his own engineering compartment.

Then his gaze traveled on around the oddly built, circular room with its thirty-two-foot diameter. The reference to hub section five north meant this compartment. The degrees reference referred to the balancing co-ordinates by which the Cow kept the big wheel statically balanced during rotation. There was a bright stripe of red paint across the floor which indicated zero degrees; and degrees were counted counterclockwise from the north pole of the wheel.

His eyes strayed across the various panels and racks and came to rest in the one hundred twelve degree area. A number of vacant racks, some holding the testing equipment he had moved there not too many hours before--and churling quietly in its rack near the floor, Ishie's Confusor of Confusion.

Mike contemplated the device with awed respect, then phrased another question for the Cow.

"Exactly how much thrust is being exerted on that point?" he asked.

The computer reeled off a string of numbers so fast that he missed them, and was still going into the far decimal places when Mike said:

"Whoa! Approximate number of pounds, please."

"A-approximately six hundred forty. You-u didn't specify the limits o-of a-accuracy tha-at you-u wanted." The burred tone was still complacent.

"Just what acceleration has that given us?" asked Mike, still looking at the Confusor. "Approximately," he added quickly.

"Present a-acceleration is a-approximately eight point nine five ti-imes te-en to the mi-inus third ce-entimeters per se-cond per se-cond. I ca-an ca-arry that to-o-o several mo-ore de-cimal pla-aces if you-u wi-ish."

"No, thanks, I think you've told me enough."

Mike stood up.

This, he thought, needs Ishie. And coffee, he told himself as a second thought.

And then as a third thought, he turned back to his secret vocoder panel, and said: "The information you have just given me is to be regarded as top secret and not to be discussed except over this channel and by my direct order. Absolutely nothing that would give any one a clue to the fact that there is a method of acceleration aboard. Understood?"

"Ye-es, Mah-ike."

"O.K."

Mike switched off the vocoder, flipped his intercom to the temporary galley in the morgue, and ordered two breakfasts readied. Then he set off for the morgue.

Mike Blackhawk located Dr. Y. Chi Tung's hammock, and nudged the scientist unceremoniously. The small physicist awoke and attempted to sit up in one gesture; bumped his head on the hammock above, and laid back down just as suddenly.

"Come on down to engineering will you Ishie?" The request was spoken softly.

"Hokey, dokey," said Ishie and crawled out of the narrow aperture with the agility of a monkey.

Gesturing to the other to follow him, Mike led the way to the galley first, where the two picked up the readied breakfast and took them to Mike's quarters.

The "cups" of coffee were squeeze bottles; the trays were soft plastic packages, similar to the boil-in-the-bag containers of frozen food that had been common on Earth for some time.

Mike hesitated at the entrance to his engineering quarters, considering whether to shut the bulkhead, but discarded the idea as being more of an attention-getter than a seal for secrecy. He gestured Ishie to the bunk, and parked himself at his console.

"We're in trouble," he said. "You and I together are responsible for the first space attack on Earth."

He stopped and waited, owl-eyed, but the small physicist simply tackled his breakfast with no further comment than a raised eyebrow.

"We," said Mike solemnly, "wiped out Thule Base last night."

"As Confusion would say, there's no Thule like a dead Thule. What are you getting at Mike? You sound serious."
"You mean you slept through ... you didn't know we ... you didn't hear the ... yes, I guess you slept! Well...."
Rapidly Mike sketched the events of the past nine hours, bringing his story completely up to date, including the
information he'd gleaned from the Cow, but making no reference to his access to the computer's knowledge. Instead,
he attributed the conclusions to himself.
The physicist sat so still when he had finished that Mike became seriously concerned. "Thule...." he began, but
Ishie started to speak.
"Mike, it did? It couldn't ... but ... of course, it must have ... the fields ... six hundred forty pounds of thrust!
Only six hundred forty, yet ... yes, it could, if the thrust were exactly aligned ... thrust ... Mike, thrust! Mike, thrust!
Real thrust! Mike do you know what this means?" His eyes were alight. His voice was reverent. He sprang from the
bunk and knelt before the rack that held the churkling Confusor.
"My pretty," he said. "My delicate pretty. What you have done! Mike, we've got a space drive!"
"Thule, schmule--Mike, we've got a space drive!"
Mike grinned to himself. He needn't have worried. Not about Ishie, any how.
But now Ishie was gesturing him over.
"Mike," he said, "you must show me in detail. In exact detail. What did you do? What was your procedure?"
Mike came over and casually reached towards the churkling device, saying "Why, I--" but Ishie reacted with
catlike swiftness, blocking the man before he could even touch the rack.
"No, don't touch it! Just tell me what you did!"
Carefully now, Mike began outlining in detail his inspection of the device and each step he had taken as he
added to its complexities.
When he had finished, the two sat back on their heels thinking. Finally, Mike spoke.
"Ishie, will you please tell me just how does this thing ... this Confusor ... get that thrust? Just exactly what is
involved here?"
Ishie took his time answering, and when he did his words come slowly. "Ah, yes. Confusor it is. I was
attempting to confound Heisenberg's statement; but instead I think between us we have confused the issue.
"Heisenberg said that there was no certainty in our measurement of the exact orbit of an electron. That the
instrument used to measure the position of the electron must inevitably move the electron; and the greater the
attempt at precise measurements, the greater the error produced by the measurements.
"It was my hope," he went on, "to provide greater accuracy of measurement, by use of statistics over the vast
number of electrons in orbit around the hydrogen atoms within the test mass. But this, apparently, will not be.
"Now to see what it is we have done.
"First, let us make a re-expression of the laws of math-physics. You understand that I am feeling my way here,
for what we have done and what I thought I was doing are quite different, and I am looking with hindsight now at
math-physics from the point of reality of this thrust.
"As I understand it, there's a mutual exclusiveness of particles, generally expressed by the statement that two
particles may not occupy the same space at the same time.
"But as I would put it, this means each particle owns its own place. Now, inertia says that each particle not only
owns its own place, but owns its own temporal memory of where it's going to be unless something interferes with it.
"Now let me not confuse you with semantics. When I say 'memory' and 'knowing' I am not implying a sentient condition. I am speaking of the type of memory and knowing that is a strain in the structure of the proton or atom. This is ... well, anyhow, not sentient. You will have to translate for yourself.

"So to continue, inertia, the way I would put it, says that each particle not only owns its own place, but owns its own temporal memory of where it is going unless it is interfered with.

"In other words, the particle arriving here, now, got here by remembering in this other sense that it was going from there to there to there with some inherent sort of memory. This memory can't be classified as being in relation to anything but the particle itself. No matter how you move the things around it, as long as the things around it don't exert an influence on the particle, the particle's memory of where it's been and where it's going form a continuous straight line through space and must, therefore, have spatial co-ordinates against which to form a 'memory' pattern of former and future action.

"Now as I understand gravity, it's simply the statement that all particles in space are covetous, in this same non-sentient sense, of the position in space of all their neighboring particles. In other words, it's a contravention or the attempted contravention of the statement that two particles may not be in the same place at the same time. It seems that all particles have an urge to try to be in each other's space. And this desire is modified by the distance that separates them.

"This adds up to three rules:
1. No two particles may occupy the same space at the same time.
2. Even though they can't, they try.
3. They all know where they're going, and where they've been without relation to anything but the spatial co-ordinates around them.

"That third statement seems to me to knock something of a hole in Einstein's relativity theory. Unless you wish to grant all these particles some method of determining their relationship to particles that are not near them.

"Communication between particles by any means is apparently limited by the speed of light, which is a relationship between space and time, but apparently, from what we know of inertia, if the universe contained only a single particle, and that particle was in motion, it would continue to move regardless of the fact that its motion could not be checked upon in relation to other particles.

"This indicates to me that the particle has an existence in space because it is created out of space, and that space must, therefore, have some very real properties of its own regardless of what is or is not in it. The very fact that there is a limiting speed to light and particle motion introduces the concept that space has physical properties.

"In order to have an electromagnetic wave, one must have a medium in which an electric field or a magnetic field may exist. In order to have matter, which I believe to be a form of electromagnetic field in stasis, one must have special properties which make the existence of matter possible. In order to have inertia, one must also have spatial properties which make the existence of inertia possible.

"People are fond of pointing out that there's nothing to get hold of in free space in order to climb the ladder of gravity, or in order to move between the planets, and that the only possibility of motion of a vehicle in space is to throw something away, or, in other words, lose mass in order to gain speed by reaction. Which is simply a statement that as far as we can tell a force can only be exerted relative to two points—or between two points or masses.

"But this does not account for the continuance of motion once started.

"Inertia says a body will move once started, but it doesn't say why or how. How does that particle once started gain the knowledge to continue without some direct control over its spatial framework? That it will continue, we know. That in the presence of a gravitic field or a magnetic field or other attractive force at right angles to its motion, we can create an acceleration which will maintain it in an exactly circular path called an orbit. But how does it remember, as soon as that field ceases to exist, where it was going before it was last influenced? That it will continue in a straight line indefinitely, without such an influence, we know. That it can be influenced over a distance by various field effects, we also know. But what is the mechanism of influence whereby it influences itself to continue in a straight line? And what handle did we get hold of to convert that influence of self to our own advantage in moving this ship?"

* * * * *

Mike stared at Ishie with vast respect.

"I thought you physics boys did it all with math," he said softly, "and here you've outlined the facts of space that an Indian can feel in his bones—and you've done it in good, solid English that makes some sense.

"In other words," Mike was almost talking to himself as he tried to reword Ishie's theorizing into his own type of thinking, "the particle in motion creates a strain in the fabric—the field—of space; and that fabric must attempt to relieve itself of the strain. A particle in motion makes it possible for the fabric of space to smooth itself out behind the particle; and the fabric attempts to smooth itself on through the area occupied by the particle while it is moving,
and so the fabric of space smoothing itself is a constant thrust behind the particle's motion, continuing that motion and making the particle scat to where he wasn't going.

"When that same particle is stopped," Mike was visualizing the process to himself, "the force of the attempt to smooth itself out by the fabric of space exists equally around the particle on all sides; so that the particle will be held stopped by the attempt of the fabric to smooth itself until set into motion again by a force greater than that of inertia-for inertia, then, is the attempt of the fabric of space to smooth itself.

"Quite possibly," Mike was speaking very slowly now as he mocked up and watched the forces of this inertia, "matter itself is created out of the fabric of space, and in its creation, in the stasis condition that keeps it existing as a particle rather than dissolving back into the original fabric, it creates the strain in the fabric--in space--that will then seek to smooth itself so long as the particle shall exist.

"Thus this, then, is inertia--the attempt of the fabric of space to smooth itself; to get rid of the strain of the particle that has been created from itself."

Ishie shook his head. "Not quite," he said, "but you're getting close."

Mike shook himself like a dog coming out of water.

"Oh, well," he said. "Anyway, we've got a space drive--flea sized. Now the question before the board becomes, just what are we going to do with it? Turn it over to the captain?"

"Confusion say," said Ishie, "he who has very little is often most generous. But he who has huge fortune is very cautious about dispersing it. Let's first be sure what we've got," he grinned slyly at Mike, "before we become overgenerous with information."

Mike heaved a huge sigh of relief. He had been afraid he would have to argue Ishie into this point of view.

"Speaking of math, Mike, you're no slouch at it yourself, if you figured out all those orbit co-ordinates in your head, and arrived at an exact figure on the amount of thrust. It would be very nice for our future investigations if we had some method of putting the Cow to work on this." The little physicist sat back, grinned knowingly, and continued: "Where's your secret panel, Mike? We've got to keep this information from going to anybody else."

"Oh, I already--" Mike stopped. "I mean," he floundered, "uh ... how did you know?" A foolish grin spread over his face. "It's right behind you," he said. "And I've got it by voice," he said. "Just push the switch in the corner and talk to it."

* * * * *

Ishie turned, glanced at the panel, and went over to the switch, pushing it. "I wondered how you were concealing the teletype," he said. "You mean you really talk to it?"

The Sacred Cow's voice came back. "Reference not understood. Please explain.""

"Oy!" said Ishie. "It even sounds like a cow!"

"Ye-es, si-cr," said the Cow. "A cow is an herbivorous mammal, usually domesticated, and found in most of the countries of Earth. What specific data did you want? The milk supply--""

"Hold it," Mike said, forestalling a long dissertation on the dairy industry.

Catching on quickly to the literal-mindedness of the placid computer, Ishie fired a direct question.

"What is our current position in relation to the equatorial orbit that we should be following?" he asked.

There was a sputter from the speaker, very much as though someone had been caught off guard and almost said something, and then the placid reply came back.

"That information is top secret. Please identify yourself as Mike and I will answer you."

Ishie groaned, depressed the cutoff switch and turned to Mike.

"You fixed it," he said. "If a simple question like that gets an answer like that, how long do you think it will take the captain to find out something's wrong with the Cow?"

Mike lunged for the switch, but Ishie held him back.

"Hold it, Boy. You've made enough electronic mistakes for one day. This takes some thinking over."

"We better think fast," said Mike. "The captain'll ask that question second now, or a question like it."

"All right," said Ishie. "First we've got to withdraw your original order--and you'd better not trust your own memory as to what it was. You ask the Cow to tell you what order you gave her making certain information top secret. Then when she tells you exactly what you said, you tell her to cancel that order."

Mike did as he was told.

"Why," said Ishie, "did you give such an order in the first place? Never mind answering that question," he added, "but it's lucky she hasn't been refusing to give people the time of day, and referring them to you. As a matter of fact--glancing up at the clock on the wall--"it looks like she has. That clock hasn't moved since I got here."

Even as he spoke, the clock whirred, jumped forty-five minutes, and settled down to its steady, second-by-second spin.

"Ishie," said Mike, "we figured out a space drive, and that was great. But if we can figure out how to
communicate an idea to a computer, we're real geniuses."

Ishie turned on the vocoder. "Please supply us," he told the Cow, "with a complete recording of your latest conversation with Mike."

And as the computer started back over the dialogue that has just occurred between herself and Mike, Ishie interrupted. "Not that," he said, "I mean the last previous conversation."

Then he sat back as the Cow unreeled a fifteen minute monologue which repeated both sides of the conversation including the order to make everything top secret.

Having listened through this, Ishie said: "At the point where Mike asks you about acceleration, you will now erase the rest of the conversation and substitute this comment from yourself: 'The lab is being accelerated by an external magneto-ionic effect.' This will be your only explanation of acceleration applied to the ship. Now please repeat your conversation with Mike."

Then he sat back to listen through the recording again.

This time when it came to the part about acceleration, without hesitation, the Cow referred blithely to the external magneto-ionic effect that was causing acceleration.

When Ishie asked the computer: "How could this effect be canceled?" and listened to a long syllogistic outline which, if condensed to a single, understandable sentence meant simply "by reversing the field in respect to the lab with a magnet on board the lab."

Ishie heaved a great sigh of relief, and said, "Now, Mike, we can go to work. For of course," he added, "we must have authority to install our magnetic coils, and what better authority is there than the Cow?"

"Confusion say it is better to have the voice of authority speak with your words than to be the voice of authority."

"Now," he said, "let us see what we have really got here."

* * * * *

As they worked, time progressed. The empty racks around the Confusor slowly filled with more test instruments both borrowed and devised; and the formerly unoccupied corner of the section of panels took on more and more the look of a complete installation, in the center of which the Confusor still churkled quietly, pitting its strength against the mighty monster to which it was so firmly tied.

Two hours were spent in testing circuits, each one exhaustively. Then Ishie turned to Mike.

"We need still yet another test that we have not provided. A strain gauge to find out how much thrust a mosquito puts out. There's one in the physics lab. I'll run get it."

"You will not," said Mike. "Genius you may be, but proton-proof you're not. We can rig that right here."

Walking over to the spare parts locker, Mike brought back a complete readout display panel, a spare from one of the Cow's bridge consoles; and quickly connected it in to the data link on which the vocoder operated. Then, carefully instructing the computer as to the required display, he settled back.

"That'll do it," he said. "The Cow can tell us all we need to know right on that panel--about acceleration, lack of it, or change of it that we may cause by changing the parameters of our experiment. Those racks were checked out to stand up under eighty gees," he added. "Typical overspecification. They never said what would happen to the personnel under those conditions."

Ishie turned the Confusor off and then back on, and watched the display gauge rise to the six hundred forty mark, and then show the fraction above it .12128. Then carefully, ever so infinitesimally, he adjusted a knob on the device. The readout sank towards zero, coming to rest reading 441.3971.

"We'll have to put a vernier control on this phase circuit," Ishie said to himself. "It jumped thirty per-cent, and I scarcely breathed on it."

After a few more checks on the operation of the phase control, he turned to the power control for the magnetic field. Carefully, Ishie lowered the field strength, eye on the readout panel. As the field strength lowered, the reading increased.

The indication was that by lowering the field strength only ten per cent, he had increased the thrust to sixteen hundred pounds--which, he felt, was close to the tolerance of the machine structure.

Carefully he increased the field strength again. Faithfully the reading followed it down the scale.

Then he had another thought. Running the field strength down and the pressure up, and again arriving at sixteen hundred pounds, he turned off the Confusor, waited a few moments, and turned it back on.

The reading remained zero.

Apparently, then a decrease in field strength would cause an increase in thrust; but the original field strength was necessary in order to initiate the thrust field.

Carefully he nudged the field strength back up, and suddenly there were seven hundred ten pounds indicated thrust.
Thrust could apparently be initiated by a field strength a few per cent lower, but not much lower, than the original operating point.

Captain Naylor Andersen arrived on the bridge with an accusing air, but feeling refreshed. He had slept longer than he intended—and though he had asked Bessie to call him when she came back on duty two hours earlier, he had not been called.

"You needed the sleep, captain," she told him unrepentant. "I checked with the Cow. The flare's predicted to continue for another eight hours. We're simply in standby."

However, various observatories on Earth had not been asleep. Within fifteen minutes of the time he reached the bridge, a message from U.N. Headquarters chattered in over the teletype.

"Tracking stations report your orbital discontinuity too great to have been achieved by jet action of nitrogen escaping from Hot Rod. Hot Rod pressures insufficient to achieve your present apparent acceleration. Please explain discrepancy between these reports and your own summation of ten hours previous. Suggest close and continual observation of Project Hot Rod. Suspect, repeat strongly suspect, possibility of sabotage. End message."

Nails Andersen stared at the sheet that the com officer had placed in his hands. Then he pressed the intercom to the morgue.

"Dr. Kimball. Please report to the bridge. Dr. P.E.R. Kimball. Please report to the bridge immediately."

Then he turned to Bessie. "Ask the Cow for an orbit computation from the time of the ... er ... meteor last night."

Under Bessie's practiced, computer-minded fingers, the answer wanted came quickly—a displayed string of figures, each to three decimal places, accompanied by a second display on the captain's console showing the old equatorial orbit across a grid projection of the Earth's surface to a point of departure over the mid-Atlantic where it began curving ever farther north, up across the tip of South America, very slightly off course.

The captain glanced at the display of Hot Rod and its taut-cable, and realized with a sickening sense of unreality that no jet action on Hot Rod could have caused it to lead the station in this northerly direction; and that instead it was placidly trailing behind. It was now farther south of the Space Lab than its original position; but their orbit had been displaced to the north.

Perk appeared beside the console, but the captain ignored the astronomer for a moment longer, while he leaned back thinking.

What could be the answer? A leak in the Space Lab itself? That would give acceleration; minor, not to have triggered an alarm—it should have triggered an alarm—but acceleration. Sufficient for the off-orbit shown? He did a brief calculation in his head. It wouldn't take much. Very little, for the time that had passed—Very well, then. He put down a leak in his mind as a possibility. Now, water or air? It could be either, if his reasoning this far were correct. He looked up.

"Have the Cow display barometric readings for each section of the rim and for each compartment in the central hub," he said briefly to Bessie; and to the astronomer, "Dr. Kimball, take that side seat at the computer console and check our progress on this orbital deviation," and he gestured at the display on his screen.

Perk moved to the post with only a nod.

The barometric displays held constant, with only fractional deviations that might have been imposed by the spin of the big wheel, or error in the instruments themselves. Balanced against temperature readings, they worked out to possible fractions of gain or loss so small as to be insignificant, indicating only the inaccuracies of measurement that inevitably occur in comparing the readings of a number of instruments.

The captain had hardly digested the readings displayed by the computer when Perk looked up with a puzzled frown.

"The computer records a continuous acceleration over the past eleven hours and forty-three minutes," he said, "and attributes it," he looked even more puzzled, "to a magneto-ionic effect?" There was a definite question in his voice.

"It's only about six hundred forty pounds," he added. "It must be an external effect caused by the flare."

"Please investigate the effect as thoroughly as possible," the captain told Perk, then dictated a message to the com officer.

"To U.N. Headquarters, Earth, from Captain Naylor Andersen, commanding Space Lab One. Original assumption that disaster was attributable to meteoric impact on Project Hot Rod appears mistaken. Investigation indicates we are under acceleration from an external magneto-ionic effect which is exerting about—" he called to Perk. "Did you say six hundred forty pounds?"

The astronomer nodded, and the captain continued, "Which is exerting about six hundred forty pound pressure
against this satellite. We are now working out corrective measures and will inform you immediately they are prepared. If your observatories can give us any advice, please message at once. End."

Then the captain depressed his intercom switch to the morgue. "Dr. Chi. Please report to the bridge. Repeat. Dr. Chi Tung. Please report to the bridge at once."

His own intercom hummed, and a voice came on. "Dr. Chi Tung is not in the morgue. He left with Mr. Blackhawk some time ago."

The captain frowned, but pushed the engineering room intercom. "Is Dr. Chi with you, Mr. Blackhawk?" he asked, and when Mike's voice answered, "Yes, sir," he said, "Will you both report to the bridge at once, please?"

When the two arrived, only a little tardily, on the bridge, the captain addressed Ishie.

"You heard of the disaster last night?" The physicist nodded. "We assumed then," the captain told him, "that a meteor had caused the disturbance. That it had gone through the balloon making a hole through which the balloon's nitrogen was escaping, making a jet action and accelerating the ship."

"It seems, however, that we are under acceleration, and that the acceleration is too great to be such jet action, since Hot Rod does not have sufficient pressure."

"The computer reports that the acceleration is derived from an external magneto-ionic effect. Would such an effect be a result of a flare?" he asked.

"I believe it could, captain. I should have to do a bit of math, but...."

"We will assume, then, that the computer is correct," the captain told him. "Could such an effect have a sufficiently great effect on this ship to give it as much as six hundred forty pounds of thrust?"

"Again, I should have to check the math, captain, but I would assume so."

"Mr. Blackhawk," the captain turned to his engineer, "could such a thrust throw Hot Rod off her communications beam and cause last night's disaster?"

"I guess I'd have to check by math, too, captain...." Mike appeared to debate the question. "It would be a very small acceleration at first, of course," he said, "from six hundred forty pounds of thrust. But Hot Rod's cable is slack, and the velocity needn't be great to give it quite a jolt when the slack was taken up. Yes, I feel sure that could happen, captain."

The captain relaxed a little, and a half-smile played near the corner of his mouth as he said to Mike, "I believe, then, we may have found the real saboteur, Mr. Blackhawk." Then to Ishie. "Doctor, I believe that your field is the one in which the most experience lies towards finding a means for counteracting the effect that is now influencing our orbit. I am putting you in charge of the problem. The pull, according to the computer, is as I said, six hundred forty pounds. Do you think you can work out a method for counteraction?"

"I think ... possibly, yes, captain. Let me say, probably yes."

"Then please do so, and report the method to me. I will then submit it to the other scientists aboard that may have some selective knowledge in the field, and to Earth. You may, of course, call on any of the personnel of the ship for assistance, and possibly Mr. Blackhawk may be of assistance to you. He is familiar with the equipment aboard."

"You probably recognize the urgency of the problem so I shall not attempt to underline that urgency further, other than to say that it is of the utmost importance," he ended.

* * * * *

Five minutes later the two conspirators were back in the engineering quarters, grinning like Cheshire cats, and mentally rolling up their sleeves to go to work. They had, to all intents and purposes, carte blanche to work out the construction of the device they would need for an enlarged Confusor with a real thrust, even though they would have to appear to co-operate with a multitude of other interested parties. Mike and Ishie were both becoming adept students of the mythical Dr. Confusion, and neither doubted their combined ability to handle that part of the problem.

"Now," said Ishie, "Confuson say he who can fly on wings of mosquito fly better on wings of eagle. How much thrust do we want, Mike?"

"What are our limits?" asked the practical engineer.

"Limits, schlimits. We got power. Of course," he added, "we are limited by the acceptable stress limits on the wheel, and ... yes ... by the stress limits on our plastic, too."

"The wheel was designed to stand upwards of 1.5 gee maximum spin--but that's only radial strength," Mike began figuring. "Don't think anybody ever calculated the stress of pulling the hub loose, endwise. No reason to, you know, and it wasn't expected to land or anything. And really, nobody expected it to stand in service more than a 1.5 gee spin on the rim. They computed these racks to take all kinds of shock, but the overall structure is rather flimsily built." He paused for thought. "We could maybe put a tenth of a gee on the axis, but I better check some of the stress figures against the structural pattern with the Cow first. We'll have to give some thought to strengthening things
later, if we really want to go into the fantastic possibility of landing this monster anywhere."

Consulted, the Sacred Cow computed a potential maximum stress-safety at the hub of something over two
tenths of a gee, and the two finally settled on one-tenth as well within the limits.

"Now the other limit," said Ishie. "This little piece of plastic will only stand a pressure approaching the point at
which it begins to distort and run out of the field. This stuff is quoted to have a compression-yield strength of one
hundred ten pounds to the square inch. We probably shouldn't exceed ... hm-m-m ... ninety pounds. Let's get the
Cow to tell us how big a chunk of surface area that represents."

The answer was discouraging. Mike rapidly converted the figure in centimeters to feet, and came up with
nearly an eighty-three foot diameter for a circular surface.

"Looks like we'll have to put it out on the spokes," he muttered in disgust, but Ishie shook his head quickly.

"No need, Mike. Later on we'll need a few thrust points out on the rim for good aiming, but we don't have to
have all this surface area in one unit or even in one place. Also, we do not need to consider only the surface of an
homogeneous piece of plastic material.

"This plastic can be cast. Very easily. In it, we can insert structures that will absorb the strain from many
surfaces within, rather than only on a front surface.

"I expect some of the glass thread with which the hull of the ship was made could be inserted with no trouble.
Each thread, then, would take up the strain, and a mass of them distributed through the plastic could deliver a greatly
increased amount of thrust from a volume of plastic rather than from a surface area."

* * * * *

Mike started to object. "To get an absolutely parallel magnetic field, the gap between the pole faces can't be
very wide."

"Perhaps I wasn't considering pole faces," Ishie answered. "Our investigation has already shown that once
initiated the thrust-effect works best in a very low magnetic field.

"Such a low, parallel magnetic field would quite probably be found inside of a simple solenoid coil."

"O.K.," Mike answered, "but you have also found that a very high magnetic field is required to initiate the
action. How do you get that inside a solenoid without an iron core?"

"As you say, a strong field must initiate the action. Let us try another experiment, Mike."

Ishie turned the Confusor off, selected a piece of wire from Mike's supplies, and wound a ten-turn coil over the
large magnetic coils of the experimental device.

The leads from this he ran to a pulse-generator that could be accurately adjusted to supply pulses of anything
from a tenth microsecond to a tenth second.

Selecting the shortest possible duration, he then set the magnetic field adjustment on the experimental device to
a point just below that point on which it had turned on previously.

"Now we see." Turning on the device, he glanced at the display panel which still showed zero thrust. Then he
triggered a single one-microsecond pulse into the additional ten turns of winding. The readout display showed zero
microseconds—the display changed, dropping so quickly into position that the pulse thrust itself was not recorded—but
the figure turned up seven hundred thirty pounds thrust on the display panel.

"So," said Ishie, "we can initiate thrust with a one thousand microsecond pulse. Can you design a power supply
that would achieve that field for that time in a solenoid having ... say ... one per cent as high a field strength as the
one we are using here?"

"O.K.," said Mike. "I get you. Sounds to me like this thing is going to look like a barrel when we get through
with it.

"I wish," he added, "that we could get one point one gee. And land this thing on Earth. And have a big parade,
with Space Lab One hovering just overhead to the cheers and the blaring bands and the--"

"Confusion say, he who would poke hole in hornets nest had best be prepared with long legs." Ishie grinned.
"You don't think anybody would really appreciate our doing that, do you Mike? Outside of the people themselves,
that is, that aren't directly concerned with man's welfare? We haven't done this in the proper manner of team
research and billions spent in experiments and planned predicted achievements made with the proper Madison
Avenue bow to the financier that made it possible. You know what they do to wild-haired individualists down there,
don't you?"

Mike shrugged. "Oh, well," he said, "you're right of course. But it was a beautiful dream. How do you suppose
we can build these and still keep all the scientists aboard and on Earth happy that they're just innocent magneto-ionic
effect cancelers? Boy, that was a beauty, Ishie!"

"Best we have two sets of drawings. The ones for us can be sketchy, and need not have too much exactitude of
design. We know what we're doing—at least, I hope we do.
"But let us make a second set of drawings that is somewhat different, though of a simpler shape and design, on which other scientists aboard can speculate, and which can be sent to Earth to confuse the confusion."

* * * * *

The two went to work with a will, and as the two sets of drawings emerged, they were indeed different. The set from which they would actually work was only mildly described as sketchy. The papers looked like the notations a man makes for himself to get the figures he will set into a formalized pattern as it takes shape, before throwing his penciled figurings into the wastebasket.

The second set was exact; created with drawing instruments on Mike's drafting board, and each of the component circuits would have created an effect that would have interlocked in the whole, but it would take the most erudite of persons to figure each into its effect, and its effect into the whole, and the effect of the whole was somewhat that somebody might someday figure out—but would possibly cancel a magneto-ionic effect if such existed. The drawings looked extremely impressive.

As the second set of drawings neared completion, Ishie glanced at the clock, then turned to the Cow's vocoder. "How soon will Space Lab One reach the northernmost point of her present orbit and begin a swing to the south?" he asked.

Mike looked puzzled, but the Cow answered, "In ten minutes, thirty-seven seconds. At precisely 05:27:53 ship time."

"I think," said Ishie, "we'd best put a switch on our magnetic field so that we can reverse the field and the thrust."

"Why?" asked Mike.

"Because," Ishie explained, "when we reach the top of our course northward, then the thrust of the Confusor and Earth's gravity come into conflict, moving our entire orbit off-center and bringing us closer to the pole. In not too many orbits, that eccentricity in our orbit might pull us into the Van Allen belt. We can't afford that. Now, if we reverse the thrust at the right time, our orbit will be enlarged and we stay out of troubled spaces."

Mike was still puzzled. "I don't see how that works," he said. "Why wouldn't we just go off in a spiral on our present thrust?"

"The acceleration of Earth is a much greater influence," Ishie tried to make it clear, "than our little mosquito here. As long as they work together, things go well. But when Earth dictates that we will now swing south, be it ever so few degrees south, our mosquito is overpowered and can only drag us clear to Earth-center on a closing spiral, which would eventually lead us to crash somewhere in the southern hemisphere, a good many orbits from now.

"I hope," he said, "reversing the magnetic field will indeed reverse our little mosquito's thrust." He moved toward the Confusor.

"Hold it," said Mike. "The displacement in orbit won't be very much, at least on the first few go-arounds, will it? and if we switch it now, somebody'll start getting suspicious of this magneto-ionic effect. The effect that's doing all this. A sudden reversal might not be in its character, if it had a character. And anyhow, we don't want to give another jerk on Hot Rod. We might jerk something loose this time. We've already wiped out Thule Base--and there's no use adding scalps to an already full belt."

"O.K.," said Ishie. "Then now, I think it is time that we presented our formal drawings to the captain; and I think that when we present them we will suggest that we start work immediately on construction, even while he is checking out our drawings through his experts, so that the project will not be delayed."

* * * * *

On the bridge, the captain received the drawings with relief.

"Thank you, gentlemen. If these prove out, you may have saved the satellite by the rapidity of your work. Dr. Kimball calculated that our present acceleration will take us dangerously close to the Van Allen belt in about three orbits, and I need not tell you what that would mean."

Ishie spoke up immediately. "In that case, captain, perhaps Mr. Blackhawk and I had better start construction on this device immediately, without waiting for you to complete the check-out. That may save us invaluable time."

"Of course," said the captain. "What assistance will you need?"

"Of the greatest priority," replied Ishie gravely, "is access to the machine shop. The solar flare should be about wearing itself out."

"Oh ... of course. It may be." The captain's face was slightly red as he realized he had not thought to check this point. "Bessie, ask the computer...."

"Yes, sir," she answered quickly, and returned shortly. "The computer says the radiation count is down to ten M.R. above normal."

"It's a fairly low reading, even if it is above the Cow's normal-safe mark. That reading could go on for hours, which we may not have," commented Ishie. "Perhaps we could disregard so narrow a differential...."
"In your opinion, doctor," the captain asked, "would it be safe to return the personnel to the rim? Of course, I would have to return the entire ship to normal conditions in order to give the machine shop or any other part of the rim its normal six-foot shielding," he added, "so please consider your answer carefully."

"I think you would be quite safe to do so, captain. Considering the fact that otherwise we may go into the Van Allen belt, I think it should be done without question."

To himself, Mike chortled gleefully. This grave, pedantic physicist was about as unlike the co-conspirator with whom he had worked for the past nearly ten hours as was possible. "The guy's a genius at a lot of things," he thought to himself. "Puts on the social mock-up expected of him like you'd put on a suit of clothes—and takes it off just as completely," he added as an afterthought.

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The return to the rim was slower than had been the evacuation—but it was complete within twenty minutes of the decision to return the satellite to normal.

In the machine shop, Paul and Tombu, with Ishie and Mike, were gathering the materials they'd need for the odd construction—Paul singing to himself as he worked.

"I got in the shuttle, thought it went to the Base; I'd learned my trade; there I'd take my place Safely on Earth; but I found me in space-- I'd went where I wasn't going!"

"What's that song?" asked Ishie of the spaceman.

"Oh, that's just 'The Spaceman's Lament.' You make it up as you go along." His voice grew louder, taking the minor, wailing key at a volume the others could hear.

"I got on the wheel, thought I'd stay for the ride-- I'd found a funny suit in which to hide-- But I went through a closet—and I was outside! I'd went where I wasn't going!"

Tombu and Mike joined happily in the chorus, bawling it out at the top of their lungs as they began the work that would make the big Confusor.

"Oh ... there's a sky-trail leading from here to there And another yonder showing-- But when I get to the end of the run It'll be where I wasn't going!"

Meanwhile, facsimile copies of the official drawings had been made for the other interested scientists aboard, and also sent by transfax to U.N. headquarters for distribution among Earth's top-level scientists.

They were innocent enough in concept, and sufficiently complex in design to require a great deal of study by these conservative individuals who would never risk a hasty guess as to the consequences of even so simple an action as sneezing at the wrong time.

*** *** ***

Major Steve Elbertson awoke with a start, to see a medic's eyes inches from his own. For a moment, fearing himself under physical attack, he struck out convulsively, and then as the face withdrew he sat up slowly.

He was slightly nauseous; very dizzy; and his instincts told him that he needed a gallon of coffee as soon as he could get it. Then the medic's voice penetrated.

"Please, sir, you must rest. No excitement."

Almost, he was persuaded. It would be so easy to relax; to give someone else the responsibility. But the concept of responsibility brought him struggling up again.

Hot Rod was a dangerous weapon. He could not act irresponsibly.

"How long was I out?" he muttered.

The medic glanced at the clock. "Just over nineteen hours, sir."

"Wha-at? You dared to keep me off duty that long? I must report for duty at once."

"Please, sir. No excitement. You must rest. Just a moment and I'll call Dr. Green." With that the medic turned and fled.

As Dr. Green approached, Steve Elbertson was already on his feet, swaying dizzily, white as a sheet, but perhaps the latter was more from anger than from anything else.

"Major Elbertson. You received a severe dose of radiation. You are under my personal supervision and will return to bed at once."

"Is the flare over?" Elbertson asked the question, although already vaguely aware that the ship was again spinning, that he was standing on the floor fairly firmly, and that, therefore, the emergency must be over.

"Yes."

"In that case, sir, my duty is to my post on Hot Rod."

"Hot Rod's out of commission and so are you. I cannot be responsible for the consequences if you do not follow my orders."

"Explain that, please. About Hot Rod, I mean."

"Why, it was struck by a meteor shortly after the flare last night. I think I heard someone say that it burned out
Thule Base before they managed to turn it off."

Without waiting for more, Elbertson brushed past the doctor and headed for the bridge.

The captain was startled by the mad-looking, unshaven scarecrow of an officer that approached him, demanding in a near-scream, "What happened? What have you done? What did you DO to Project Hot Rod? No one should have tampered with it without my direct order! Captain, if that mechanism has been ruined, I'll have them nail your hide to the door!"

"Major!" The captain stood. "This may be a civilian post, but you are still an officer and I am your superior. Return to your quarters and clean up. Then report to me properly!"

For a moment there was seething rebellion on Elbertson's already wild features. Then, automatonlike, he turned and walked stiffly away without saluting.

But the stiffness left him as he passed through the door. Momentarily he sagged against a wall for support, far weaker than he thought possible for a man of his youth and what he thought of as his condition. Making his way almost blindly to Security's quarters in rim-section B-5, he staggered through the door and on towards the latrine, shouting at Chauvenseer to "Get out of that sack and give me a detailed report on events since the flare. Oh, and send somebody for coffee--lots of coffee."

* * * * *

On the bridge the captain flipped the intercom to Dr. Green's station. "Is Major Elbertson under the influence of any unusual drugs, doctor?" he asked when he'd reached the medical staff chief. "Anything that might make his behavior erratic?"

"Only sedatives, captain. And, oh yes, those new sulph-hydral anti-radiation shots. We're not too familiar with what they do, though the reports indicate the worst effect is a mild anoxemia, which generally results in something of a headache. Of course, that's if the quantity of the drug was precisely calibrated. They can be fatal," he added as an afterthought.

"Would anoxemia cause a change in character, doctor?"

"It might. It might make one behave either stupidly or irrationally--temporarily or permanently, depending on the severity of the effect."

"Did Major Elbertson seem normal to you when you discharged him from hospital?"

"I did not discharge him, captain. I ordered him to remain under my care. But he seemed greatly upset, and short of force I could not have kept him from leaving."

"I see." The captain paused, then asked: "Doctor, please consider carefully. Would you consider Major Elbertson's condition serious enough to warrant confining him to bed by force?"

"Probably not. He should come out of it in a few hours. Exercise may possibly be good for him, though I doubt if he's capable of much of it." The doctor chuckled as though at a private joke with himself, then added, "He's really quite weak physically, you know, even without the after effects of radiation and drugs."

"Thank you, doctor."

* * * * *

Back in his quarters, Elbertson was refusing to admit to himself the fact of his own weakness. He had been quite ill in the shower, had managed to slash himself rather badly with the razor while shaving, but was now smartly attired in a clean pair of the regulation coveralls, with the insignia of his rank properly in place--and so weak he could hardly move.

The coffee hadn't helped much.

The briefing had helped even less. The major knew himself guilty of negligence while on duty. Inadvertently, but as though by his very hand, certainly through the agency of some saboteur he had failed to spot, his weapon had been turned on his own troops at Thule, key post in the plan.

It was possible that the entire plan had been sabotaged, though that seemed quite unlikely. Its ramifications were too great. So long as Hot Rod still existed, was still within their reach, the plan was operational.

The nonsense about a magneto-ionic effect he discarded without hesitation. Obviously it was sabotage, possibly by someone with a plan of his own, more probably by someone in the pay of one of the big power companies that would like to see the operation at least postponed. Obviously--he gave up.

Nothing would be obvious until he knew in exact detail what had occurred, what the plans of the enemy would be, where next they would strike--and who was the enemy.

But that last, at least, was almost obvious. Who else, but the man who had carried the political battle, against all odds, that Hot Rod be created? Who else but Captain Naylor Andersen could possibly have delivered this sneaking, underhanded attack against himself and his comrades?

Who else, he thought, but a man so callous as to order him, sick as he was, as though he were a mere cadet, to leave the bridge.
Major Elbertson's mind was made up as to the identity of the enemy. But he would have to proceed with care, or he would key the plan before the time was ripe. There must be no great shake-up in personnel, or undue attention from Earth to the potentials of Project Hot Rod.

Perhaps the saboteur's cover-story of a magneto-ionic effect would serve his ends as well--at least until his comrades on Earth signaled that the time was ripe.

Yet now that Hot Rod had proved its power, the time was ripe. It was that proof on which the plan had waited. And perhaps this very sabotage would prove to be the "incident" on which the plan hinged....

Even as he fought to clear his normally organized mind of the weariness of his body that now sapped at its strength, the call came.

Chauvenseer appeared at his side, saluting smartly. "Com Officer Clark, sir, reports a message from Earth. The message, sir. 'Begin Operation Ripe Peach.'"

Major Elbertson pulled himself to a military stance, returning his aide's salute with complete precision. Briefly he considered gathering all his men, all the Security personnel, and storming the bridge.

No, obviously the enemy was organized--an unforeseen circumstance. Obviously the captain was not alone. Obviously his men included at least some of these slipstick boys--and he would command the loyalty of them all, since he was somewhat of their ilk himself.

No, an officer must seek the most advantageous position from which to deliver his ultimatum. He must use Hot Rod itself to control them. If Hot Rod itself were actually sabotaged, then the plan must wait until he could have it repaired. He doubted it was hurt.

The flare had thrown off all original sequences--but perhaps that was to his advantage.

To Chauvenseer he snapped: "This is the detail of our immediate operation. Get four of our best men besides yourself. Have each of them come separately and unobtrusively to the south polar lock, where I will meet them. I will bring Smith with me.

"Have each of the others take his assigned post for Operation Ripe Peach--but order them to take no action other than to prevent anyone on board from doing anything unusual that might be an enemy operation--until I alert them that Operation Ripe Peach is operational.

"Their orders will, of course, come on our personal radios, Security Band 2Z21. "Execute!" he ended, saluting smartly.

* * * * *

As the Security squad moved, with individual secrecy, towards their various posts, Captain Andersen was considering that Elbertson would probably snap out of it as soon as he had had coffee and a shave. The man had probably been severely affected by the drugs he had been given. He would make no further reference to the incident of erratic behavior, unless it continued.

Bessie, having at the moment nothing else to do, was busily plying the Sacred Cow not only for her own horoscope for the day, but also those of the several persons of whom she was most fond, while carefully keeping a shielding bunch of paper work in a place to make it appear that she was officially busy. The captain's horoscope, she recognized, didn't look much worse than the rest of them, but was definitely the worst. One of those mathematical jumbles that somehow didn't interpret clearly. None of them looked very good today.

Out on the rim, things were getting back to normal. The labs were functioning again, most of them according to their assigned, routine procedures; but in some, heads were drawn together over the absorbing diagrams supplied by Mike and Ishie.

Mike and Ishie themselves had already put in twelve hours almost without a break. Working under stress, neither of them had remembered to eat.

There was a cough at the entrance to the machine shop, and Dr. Millie Williams' soft voice said "May I come in?"

The two looked up as the slender figure of the dark-skinned biologist entered the lab, balancing "trays" with plastic bottles atop.

"If I know you, Dr. Ishie; and you, too, Mike--you haven't eaten," she said with a smile. "Now, have you?"

"Millie," said Mike, "you've just reminded me that I'm as hollow as a deserted bee-stump after the bears get through with it!"

"Little Millie," said Ishie, looking up at the figure nearly as tiny as his own, "you must be telepathic as well as beautiful. Confusion say 'Gee, I'm hungry!'"

"I'm told that the fate of the satellite depends on you two," Millie smiled. "I thought I'd just give our fate a little extra chance. Now drop what you're doing and light into this.

"After that, if you've got a job for a mere biologist, I've got my lab readied up where it can last till I get back and--I'm not bad with a soldering iron. Meantime, why don't you let Paul and Tombu go eat while you eat?"
"Good idea," said Mike. "You two. You heard the lady. We gotta give our fate the benefit of victuals. Scat."

As soon as the physicist and the engineer were settled to the plastic containers of food and coffee she had brought, wolfling them down hungrily, Millie opened up.

"While we're alone, I'm going to speak my piece," she said. "You two will do me the honor of not taking offense if I say that you have the most brains and the least consciences aboard--and I happen to share the latter characteristic."

The two looked up guiltily and waited.

"Now don't stop eating, for I'm not through talking," she said. "That magneto-ionic effect canceler you dreamed up would probably cancel the six hundred forty pound magneto-ionic effect pull you dreamed up--if such a thing existed.

"What I want to know ... don't stop eating until you've decided whether you're going to let me in on your game or not ... is what really does exist? I might be of some help, you know."

"But--" Mike and Ishie simultaneously choked over their food, looked at each other, and then Mike blurted out, "but how could she know?"

"Don't worry," said Millie. "I'm probably the only one. It takes a person with little conscience and much imagination--takes a thief to catch a thief, I mean--yes, I think I mean that quite literally. Besides, I can help with some of that glassware that disappeared out of my supplies several days ago. Oh yes, I knew it was gone and where it went--but I figured any purpose you had was a good one, Ishie.

"But for how I personally canceled the idea of your magneto-ionic effect from the flare--it just happens that last night I was curious while everybody was asleep. When Bessie first came on duty this morning, I offered to relieve her while she had a cup of coffee, and I got a half-hour all by myself with the Cow. The captain wasn't up yet. Her console's so simple anyone with a basic knowledge of computers and cybernetics could figure her out.

"Practically the first question I asked--something about our orbit--the Cow told me that the information was top secret, and to get it I must go to the proper channel and identify myself as Mike. I started to intercom you, Mike, to tell you that your machinations were showing, but Bessie came back about then. I hung around to see what would happen, and pretty soon Bessie asked the Cow about the same question--but instead of getting the same answer, the Cow told her that an external magneto-ionic field was pulling us out of line.

"So I went up to your engineering place. I rather thought you'd like to know what the Cow had told me--but Dr. Ishie was there, and so instead I went about my own business until I could figure things out.

"Now I couldn't figure things out. But I could figure there's a monkey wrench somewhere--and since the two of you have been sticking together like Siamese twins, I know it will be perfectly all right to ask you in front of Ishie.

"Now," she finished, "do I get my girlish curiosity satisfied? You don't have to tell me. I'll just keep on being puzzled quietly and without indicating the slightest magneto-ionic dubiousness, if you'd rather. But I might be helpful; and I would like to know."

"Confusion say," Ishie declared through the side of his mouth, "that he who inadvertently puts big foot in mouth is apt to get teeth kicked loose. We are very lucky, Mike, that it was Millie who asked the question of the Cow at that time. Besides, we've got to tell somebody sooner or later. We can't just run off by ourselves.

"Yes, Millie, I think you have a job," he said. "Your help here will be appreciated, of course. But what we really need is a way of bridging the gap between ourselves and the rest of the personnel before it gets too wide. How's your P.R. these days?"

"That's something I learned in a hard school, public relations," she answered nonchalantly. "De-segregation was just beginning when I was a girl back in Georgia. But maybe I'd better know what the gap is."

"But why, then," she said, uncomprehending, "are you hiding it?" But before they could answer, she answered her own question again. "You'd have to. Of course. Otherwise it'll be strangled in red tape. Otherwise nobody'll let you work on it any more, except as head of a research team stuck off somewhere. Otherwise, Budget Control would..."
...take it over and make a fifteen-year project out of it—and the two of you will probably have it in practical operation...."

She looked at the molds and wiring taking form all across the machine shop.

"Oh, no! You'll have it in operation--soon!"

"Yes, soon--and we hope soon enough." Ishie sighed, then grinned impudently. "There is," he said, "the little matter of the fact that—in all innocence but nevertheless quite actually—we wiped out Thule Base.

"If we don't get the big Confusor in operation very soon, it may be that we shall spend a good deal of time in Earth's courts proving our innocence while someone else botches most thoroughly the job of creating a Confusor that could take us to the stars. And that," he added mournfully, "neither of us would enjoy. We might not even be able to prove our innocence, for there would be many very anxious to prove us sufficiently guilty to keep us out of the way for many years.

"So you see," he said, "you have a very real P.R. problem. Our assistants here could work better if they knew what they were doing. The people aboard the wheel would be most excited by a space drive, and would give us every aid.

"But what the law says, it says—and the captain would have no choice but to put us in irons if he heard, though I think our captain is such that he would not want to do it.

"We must tell everyone what we have, for where the wheel takes us, they will go. But we can't tell them, for if we tell anyone, it will get back to Earth—and we murdered Thule, according to the law of Earth.

"It is a very neat problem," he said.

* * * * *

Major Steve Elbertson arrived first at Project Hot Rod, and trailing behind him on their scuttlebugs, the other six men.

As he slipped through the lock and out of his spacesuit, he reached down the neck of his coveralls and carefully extracted the Security key in its flat, plastiskin packet, from between his shoulder blades. At least the villainous captain had not gotten his hands on this, he thought, and whatever damage had been done to Hot Rod probably could be quickly repaired.

He had heard of the hunt for the key, and been silently amused, though he had volunteered no information to his briefing officer, Chauveneer.

Stepping forward as briskly as a sick rag doll, he fitted the key into the Security lock and snapped open the bar that prevented Hot Rod's use.

As the others entered, he turned to them. Supporting himself against the edge of the console and managing to look perfectly erect and capable despite his weakness, he said: "I have instructed each of you to learn as much as you could of the operation of this device. It is now necessary that the civilian scientists," he pronounced the "civilian" as though it were a dirty word, "be relieved of their rule over this weapon, and that the military take its proper place, as the masters of the situation. I trust each of you has learned his lessons carefully, because it is now too late for mistakes—although we have with us assistance far superior to that of the civilians.

"Gentlemen," he said, and his voice took on power as he talked, "it is a pleasure to re-introduce to you a companion whom you have known as Lathe Smith.

"This, gentlemen," he said formally, gesturing one of the men forward, "is the Herr Doktor Heinrich Schmidt, of whom you would have heard were you familiar with the more erudite of the developments of space physics.

"Dr. Schmidt," he added, "it is a pleasure to be able to again accord you the courtesies and respect that are your due.

"Now for myself," he continued, "it may surprise you to know that I, too, have a somewhat more advanced rank than you have expected." Deliberately he unpinned the major's insignia that he wore, and brought out a sealed packet, opened it, and pinned on four stars.

"Gentlemen," he finished, "may I introduce myself? General Steve Elbertson, commanding officer of all space forces of the United Nations Security Forces.

"Now," he said briskly to his astounded men, his voice crackling with authority, "take stations.

"Dr. Schmidt will key in the number one laser bank only. You will select as your target area that area through which the passenger spokes of the wheel pass. These will each in turn be your targets if it becomes necessary to fire.

"Dr. Schmidt has advised me that, should it become necessary to fire on the hub, the resultant explosion of the shielding water will wreck the big wheel.

"If we should miss and hit the rim, the resultant explosion would inevitably wreck both the big wheel and Project Hot Rod.

"Therefore, gentlemen, I caution the most accurate possible aim.

"And Dr. Schmidt, will you connect the storage power supply you have readied, please?"
Quickly then, he slid into the communications officer's seat, as the Security officers assumed each of the four major posts of the project, while Chauveneuse took up a stance at his general's right hand, ready to respond as directed.

On the bridge, Captain Nails had been annoyed. Too many queries from people who really didn't have authority over his satellite. Too many directives and counter-directives were flooding at him from various officials on Earth.

Some one down there even had the temerity to suggest that Security take over--not officially, just sort of take over.

If that didn't take the cake, he thought. Trying to put that crumb Security officer into command, real command, of a scientist? Over HIS people? Never!

And just because somebody had a wild idea about sabotage--after all, the whole thing must be some sort of effect or accident. Why couldn't they leave people alone long enough to find out what was really going on?

And where was Elbertson, anyhow? The man had had plenty of time to freshen up. Possibly he had caved in some place. The medic had said he was sick. But even so, I'd best check, he thought.

Reaching for the intercom switch that would give him a private line to Security quarters in the rim, his gaze happened to fall on the panel that still displayed Hot Rod on its taut cable--

--And seven figures riding the end of the cable to the air lock.

Elbertson, of course, he thought furiously. And taking his men out when the proton level was still too high to go beyond the rim shielding....

Then the captain stopped in mid-thought. This was no idle act of a man feeling the effects of drugs.

He switched the intercom quickly to the Hot Rod crew's quarters on the rim. "Dr. Koblensky!" he almost shouted into the mike.

"Just a minute, sir," came the answer, and seconds that seemed like eternities passed before the doctor's calm voice answered, "Dr. Koblensky speaking."

"Did you know that seven men were going out to Hot Rod?"

"Of course not. They mustn't...."

The captain switched off and changed to the intercom for the machine shop. "Dr. Ishie. Mr. Blackhawk. To the bridge on the double. Fast," he said.

It might not be the saboteur, he thought, but the chances looked grimly real that Earth was right--that the whole thing was sabotage, and those were the seven saboteurs. While he waited, he checked the Security quarters for Elbertson. The major was not there, nor was he in the hospital.

Elbertson, he thought. I've been blind.

He decreased the magnification of Hot Rod so that the entire project showed.

Mike arrived first, almost skidding to a stop at the captain's console, Ishie right behind him.

"The saboteur--seven men that I believe to be saboteurs--are aboard Hot Rod," the captain told him crisply.

"Can they activate it?"

"Captain, there's no saboteur...." Mike began, but the captain interrupted.

"Gentlemen, I'm not asking you to be the judge of that. If they are saboteurs, is there any way that they can activate Hot Rod?"

"Oh, they could have storage batteries aboard, I suppose." Mike didn't even pretend to be excited.

"Then we will assume they have, Mr. Blackhawk." The tone of the captain's voice told Mike he'd better damned well believe in those saboteurs or tell the captain the truth--and that quickly. "Now, assuming Hot Rod can be activated, we will also assume that their first aim will be to control the wheel. They would, therefore, aim at the hub and issue an ultimatum."

"They might aim at a target on Earth, and issue an ultimatum to us." Mike would play the game.

"No. We would refuse such an ultimatum. They would aim at us. Can you prevent that?"

Mike thought hard. He'd better come up with an answer to that one saboteurs or no.

"If they shot through the hub, they'd hit our shielding water and explode the hub-hull. That would wreck the wheel, and they'd need the wheel. The only place they could safely shoot us would be the passenger spokes, and that would take some pretty fine target shooting--with only one laser bank. They could do it though," he said thoughtfully.

"Assume, Mr. Blackhawk, that if they couldn't hit the passenger spokes, they'd be willing to destroy the wheel in order to gain control. Is there any way to prevent that?"

Mike stood completely silent for almost a minute. Then he grinned. "Sure," he said. "If we turned the rim towards Hot Rod, they couldn't fire into the rim without hitting that shielding--and that would create an explosion, even from their smallest possible shot, that would almost inevitably take Hot Rod with it. If we turn the lab so that
only the rim is towards Hot Rod, it's suicide to shoot us."

"You will swing the rim of the wheel into that alignment as rapidly as it can possibly be done." The captain's
voice practically lifted the two men off the bridge, and they were on their way to the engineering quarters with every
appearance of the urgency they should have felt if they had not known who--or rather what--was the real saboteur.

Then Mike heard Ishie's soft voice from behind him, slightly breathless. "At that, you'd better swing the rim
and swing her fast, Mike. The captain sure 'nuff believes in his saboteurs, and it's just possible they're real."

O.K., thought Mike, and really moving now he reached the engineering quarters a good ten strides ahead of his
companion.

As he entered the open bulkhead lock he saw a man that he recognized as one of the Security personnel, and
brushing on past him said, "If you want to see me, come back later. I'm going to be very busy here for a while."

Mike headed for the panel that controlled the air jets and other devices that spun the wheel.

The Security man didn't hesitate. Seeing the ship's engineer about to make important--and possibly subversive--
adjustments, he drew his needle gun and aimed it squarely at Mike's back. "Halt--in the name of Security!" he
barked.

Slowly Mike swung around, eying the man coldly, and began a question.

But there was no need. Dr. Chi Tung, having seen what was going on through the lock before he entered, had
held back just long enough for the Security man to turn fully towards Mike. Now he launched himself through the
lock like a small but well-guided missile, and arriving on the Security guard's back, had his gun-arm down and half
broken before the man knew what was happening. Had he been alone, it is possible that the larger man might have
won. But Mike had never been fond of people who pulled guns on him, even if they were only sleepy guns.

Between the two of them, the Security guard was lucky not to lose his life in the first two seconds of battle.

The conflict ended almost before it had begun, with a meaty slap of Mike's fist connecting with the man's jaw,
right below the ear. It hadn't been a clean punch, Mike thought, but then he wasn't really used to fighting in this
gravity. Anyhow, the man was out.

And now came the question of what to do with him, but Mike left that to Ish.

He turned back to the precession panel a bit more convinced that perhaps the captain had been right--perhaps
there were enemies aboard.

The precession controls, though operational, had not to date been required. Carefully, Mike switched the
sequence that would put them into active condition but not operate. That was left to the Cow.

Turning to the vocoder panel, he directed the Cow to take over control of the now active precession equipment;
to use the sun as a referant for the axis of precession, and to move the pole ninety degrees in a clockwise direction
around that axis of precession.

Under these directions, the big wheel began to turn, not as it had been turning, but sideways. The operation
would take ten minutes, and the axis of this new turn would be aligned directly on Sol by the computer.

The Cow's help in such a maneuver was required, because the precession could only be accomplished by
switching valves between the tanks of the rim in such a manner that water was switched north on one side of the
wheel, and south on the opposite side of the wheel, and the points of this switching between the tanks must remain
in a stable position relative to the spin of the wheel. The valves that accomplished this, seventy-two of them, were
spaced at intervals of five degrees around the rim, but only two out of the seventy-two could be active at any time;
and these must be selected by the computer's controls so that always the precessive force was properly aligned to
produce the required precession.

When the precession was finished, the rim of the wheel would be aligned, still with the sun, but also with
Project Hot Rod which had been to their south.

As a third thought, Mike switched off the Confuser.

Having set up the necessary factors, Mike turned back to the problem of the Security guard, or saboteur,
whichever he might be, but found this problem had already been well taken care of. Not satisfied with simply tying
the man up, Ishie had bound him with wire to somewhat the resemblance of an Egyptian mummy, and then for
added good measure, given him two sleepy shots with his own needle gun; put electrician tape across his mouth; and
taken from him everything he could possibly use either as a method of communication or as a weapon.

At least, Mike thought, Ishie is a thorough workman when he sets his mind to it.

Having parked the Security man in a nearby tool locker, with the feeling that he would keep for a while there,
Ishie turned back to Mike with a grin.

"Confusion say those who play with firearms should be cautious! Mike, this convinces me. I've heard snatches
of what's going on on Earth, and it looks like somebody is putting over a fast one down there. Seems like maybe our
own Security boys are part of it. They would be the ones the captain saw going out to Hot Rod. And that means
they've got a purpose out there. Is good to know they can't shoot us now, at least in a few minutes now, without getting themselves shot back. But they can shoot at Earth. Any ideas?"

"Well ... I thought some time ago that there was a little fallacy involved in that project when I saw how they hung the beam-director way out in front on those little old balloon-poles. They've got 'em bent, and if any one or two of 'em should happen to get punctured, the other two would move the mirror complete out of the laser beam focus. Then the only thing they could shoot would be the sun--and I don't think it'd care.

"Ishie, you stay here just to keep the home fires burning and make sure that nobody fiddles with anything we don't want 'em to. All of the bulkheads leading into this section can be locked from the inside--a feature I haven't seen fit to point out to other people who really don't need to know."

* * * * *

Walking around the floor, Mike carefully secured the four bulkheads, two leading back to the morgue; two leading forward to the north pole end of the hub. And then, jumping catlike upward and grasping the access ladder to the central axis tube, he carefully bolted that one, too.

Dropping back to the floor he stepped over to the intercom and switched in Captain Nails' circuit.

"Mission accomplished, sir. And you were quite right. One of our Security servos is off balance. I'm attending to the matter."

"Thank you, Mr. Blackhawk." The captain's voice was calm, quite unlike the voice he'd used to them on the bridge. "You would do well to listen for the ... sound ... of those servos." The captain's voice stopped but the intercom continued to hum, alive from his end.

"Ishie," said Mike, "the captain's in trouble, and he's asking us to listen in on what goes on the bridge. He's left his intercom open.

"Now I've got a mission to accomplish; and you can't leave here, because this post's got to be operational. But you can listen and do whatever the captain tells you.

"And, Ishie--if anybody takes the bridge away from the captain, you tell the Cow not to obey any orders or answer any questions unless they come from here."

With that, Mike leaned over, loosened an inspection plate in the floor, and climbed down a ladder through the inspection tube that led through the six feet of normal-shield water directly beneath the floor into the seventeen-foot flare-shielding chamber beyond. This was the tank which surrounded the hub and held all of the waters of the rim during flare conditions; but was now holding only the air supply which, during a flare, was pumped to the rim.

Making his way back towards the center of the hub, Mike considered his luck in being one of the people most familiar with the entire structure of the ship. It would be unlikely that enemies operating aboard would think to cut off the air and water passages, or even keep them under surveillance. Nevertheless, he would be cautious.

He must now get to the machine shop, and enter it without triggering any more of those--he laughed quietly to himself--Security servos.

The particular tank he was in he had selected carefully. Of the twenty-one possible combinations, this one he knew would bring him into the water under the north hall that circled the outer rim.

In a few strides he reached the three-foot-diameter spoke tube through which the flood of water would pour during a draw-in action such as that they had had during the flare; let himself over the side head first, let go and began falling down the seventy-nine foot length of the tube, accelerated by the light pseudo-gravity of the spin. Even so, he spread his legs and arms against the walls of the tube to act as a brake, so as not to arrive with too much impact at the bottom of the tube.

As he hit the water at the bottom, the tube swung around the circumference of the rim to the point at its far side at which it entered its particular river.

The course of his dive carried Mike to the bottom of the curve, and he started crawling up its far side to where the tunnel entered the rim-river. There the motion of the fluorescent-lighted water caught him, and he was swirled quickly to his target, twenty-five feet along, inspection plate B-36. He grasped the hand-hold by the plate before he swirled past, loosened the plate, lifted it only enough to be sure that the room was empty, and then pushed it off, pulled himself through, and emerged into the whining dimness of Compressor Room 9, next to the machine shop. The low whine assaulting his ears was that created by the air compressors that fed the jets that drove the waters through the rim.

Stepping over to the wall locker, Mike took out a dry pair of shorts, a T-shirt, and moccasins, kept there for the purpose of making changes after such swimming inspections of the rim tanks.

* * * * *

Before entering the machine shop, Mike spotted the Security man through the open bulkhead--just standing there while Paul and Tombu grimly worked on; and Millie sat idle, watching.

Mike entered the machine shop casually, as though intent on business, brushed past the Security man, and
stepped over to the tape-controlled, laser-activated milling machine as though to inspect its progress.

Then, as though finding an error, he halted its operation and swung the laser-head back away from the work piece.

The head swung free in his hand, attached to the machine but nevertheless free. Casually, without even looking at the Security man, he had somehow centered the laser directly on him. Just as casually, he stepped to one side.

"The beam from this machine is quite capable of milling the hardest materials," he said, still casually, as though to himself. "Even a diamond can't withstand it."

Now he looked directly at the Security guard. "It's capable," he said in an even tone, "of milling a hole right through your guts if you even to much as breathe too deep."

Then to Chernov, "Move around behind him, out of range of this beam, and secure the man please. Millie, is there any thing in your department that will make sure he won't talk for while?"

"Yes, Mike, but I don't think I'd better go there right now. There aren't many of them, but these boys seem to be spread out all over."

Chernov had the gun now; and the personal communicator from the Security man as well. "O.K.," said Mike. "I don't think he can give us much trouble in there," pointing at the air-lock bulkhead through which he had just entered. "We can go in and out through the physics lab," he said. "Best we shut that off now before some more of these boys wander along."

When both the lab and the Security man were under control, Paul Chernov turned to Mike. "That milling-laser," he said. "It's got a focus of about six inches maximum. How did you fix it so it could burn the guard at that distance?"

"I didn't," said Mike briefly. "He already knows that lasers can reach from here to Earth. Why should I bother to tell him any different?" Turning to Tombu he handed him the Security man's radio. "See if you can rig this," he said, "to broadcast everything they say over the general intercom channel. It's about time we let people know what's happening."

It took Tombu only minutes to hook up the radio. As he turned it on, Elbertson's voice came over the loud-speaker system. A roll call of Security men was apparently being completed. The last three men responded as called. The Elbertson's voice, crisp but somewhat labored, came over the Security beam, booming throughout the ship. "It is obvious that the renegade scientists and engineer of the wheel have replaced the men guarding their sectors. As we were informed, the captain had put them in charge. Since they struck the first blow, it is now up to Security to converge on them and eliminate them."

"Jones, Nackolai and Stanziale are detailed to the Dr. Chi mission. Nilson, Bernard and Cossairt are detailed to get the Indian. The rest of you will take over where you are posted, and secure all personnel to their quarters."

"Clark. Drop your cover and take over control of the bridge."

"I expect to have Hot Rod operational within five minutes. And Clark. Instruct the computer to discontinue precession operations that have been initiated."

"Take whatever measures are necessary to carry out these instructions."

"This is no longer an undercover operation, gentlemen. Security is taking control."

"This is war."

As the last sentence came over the loud-speaker, Mike sprang to the intercom. He quickly keyed the direct line to engineering.

"Ishie," he said, "I gather you're safe?"

"Yes, Mike. Situation here very secure. I heard announcement of conflict. You need not tell me to put the Cow under our control. It is done. She will obey no one else until further instructed from here. I didn't instruct her to obey only instructions by me, Mike, because we are all expendable now."

As he finished speaking, the intercom went dead. Obviously the communications officer, as his first act, had turned off the central intercom power system under his control.

On the bridge, from the time that Mike and Ishie had left, the picture of what was occurring had grown more ominous by the minute.

More than the vague, official messages had been flooding in from Earth. At the captain's command, the communications officer had opened up a channel for news broadcasts, and put it on the speaker so they could all hear.

The news round-ups indicated that various elements and factions in the world below had had their say--each more vicious than the last.
From an original rumor of a minor space disaster, it had become a tremendous accident that had wiped out Thule Base and left a smoking ruins of Greenland.

From this it had become--possible sabotage.

From this, a direct, unprovoked attack by the scientists on Earth itself.

Suddenly statesmen were standing forth in the U.N., condemning the actions of country after country that had made possible the great wheel; and just as suddenly, word had been announced:

Earth would be protected. The U.N. would act.

The U.N., it suddenly was found, controlled the majority of all weapons on Earth; controlled the majority of all armies, navies, and all stockpiles of ships and planes and ammunition that it had so boastingly told everyone that it had scrapped.

The honeyed phrases of a few years before that there would always be peace on Earth, and that the U.N. had taken the bite out of war, changed; and the individual nations were now forgotten.

Now the U.N. itself was the military power; and now it would be U.N. telling others what to do.

Mobilization would be declared. A war footing for the economy. Everyone must fight back against the insane scientists above with their inhuman weapon.

With appalling swiftness, where apparently nothing had been before, a military force stepped forth in full armor to grind man's hopes for freedom under an iron heel while waving its fist at the stars.

At first there had been voices crying out against this monstrous action, this unbelievable birth, in the U.N. Assembly. But the voices had become fewer and fewer, weaker and weaker, and in a matter of hours had been drowned out.

Amazingly, even now, there were one or two who stood up in an attempt to stem the tide; but they were ignored, and a ninety-eight per cent favorable vote was cast.

The U.N. Security Forces had been granted dictatorial powers.

For the "duration of the emergency."

The die was cast, and the yoke fitted, ever so snugly but firmly, across mankind's back, while he cheered the fitting.

Captain Nails Andersen sat stunned at his console.

The communications officer sat back, paying little attention to the board before him, a light smirk on his face.

But the smirk dropped from his face suddenly. Rising over the background chatter of the radio announcements from U.N. Headquarters, came loudly over the ship general intercom the voice of Major Steve Elbertson, counting down through the list of Security personnel.

He, too, sat stunned until, as the voice ended "This is war," he came to, stood up needle gun in hand, pointed at the captain.

"I don't know how your slipstick boys cracked our code and picked that message up," he said, "and I don't really care. As you heard, the major has ordered me to take command of the bridge. I hereby do so."

Coming through the bulkhead were two more Security men, each with a needle gun. His gun unwaveringly pointed at the captain, Com Officer Clark reached down and flipped the red switch that turned off the power to all of the ship intercoms.

* * * * *

On board Hot Rod, the Security crew was working against an accelerated time-schedule now. The aiming controls of Hot Rod's big mirror were infinitely precise--and correspondingly slow. As soon as the storage power supply had been wired into the big weapon--a precise operation, requiring both skill and time--the factors had been keyed in that would bring the mirror in an arc, turning it to bear precisely on that area of space through which the passenger spokes of the wheel turned; but the motion of the mirror was infinitesimally slow.

As the crew of Hot Rod strove to get it into position to fire; and the computer on the wheel strove to precess the wheel to a position where firing would be fatal to the firer, it became a race between giant snails.

But already the rim of the big wheel had inched slightly ahead in the race; and the main part of the hub was disappearing behind it. In spite of Elbertson's orders, the big wheel continued to turn its rim directly towards the giant balloon with its bulbous nose.

It was a curious sensation, seeing the big wheel from this angle. Much the same sensation as that of an ant, staring at the oncoming wheel of a huge truck.

* * * * *

In the machine shop, Mike was rummaging around in one of the tool lockers. "Any sort of a small telescope," he muttered, almost to himself. Then "Paul, is there a theodolite or anything like that left lying around in here?"

"Yes," said Paul, moving off to a cabinet in another part of the room. "We needed them when we were putting the wheel together."
"O.K." Mike turned back to the laser milling machine. "Now can we take the focusing lens off of this, and rig something to give me a focus at about 4.5 miles? Or would it need focusing at all? Shooting at that distance?"

"Depends on what you shoot, Mike. The unfocused beam can make a black surface very hot very quick. But from a mirror surface, it would just bounce, unless it's carefully focused."

"It ought to take care of the plastic at least, then."

"Go right through it. You gonna laser Hot Rod?"

"No. Just the anchor tubes that hold the mirror; and maybe a slash through the nitrogen tank at the back. Here, make me a bracket to fit these two things together, so I can see what I'm aiming at." He handed the theodolite telescope and the laser milling-head to Paul.

"How much of the machine do I have to take to power that milling-head?" he asked Tombu.

"Oh, most of it's just control circuits. This box on the back is the power supply. Plugs right in to ship's power."

"Hey!" Mike called over to Paul now busy constructing a bracket. "Make that bracket to hold this power supply, too. Oh, and round me up about sixty feet of extension cord, Tombu."

"But, Mike, how are you going to get out there?" Millie's voice was concerned. "They've probably got men all over the place out here on the rim. If you try to go through the corridor towards an emergency lock, they'll have you sure with their needle guns. You heard Elbertson delegate three men to kill you!"

"I expect I can find a place where they aren't." And picking up the Security radio from the intercom bench, he turned it on and spoke into it.

"Elbertson, this is Mike Blackhawk. You now have twenty minutes to surrender," and he cut off.

"Major Elbertson," he said, turning on the Security radio, "you now have five minutes to surrender." And he cut off.

Mike turned to Tombu. "Get me some plastic wrapping material. Preferably a plastic bag. I've got to make this stuff waterproof."

When the power supply, telescope, milling head and extension cord were rigged and carefully wrapped in plastic to make a waterproof package, he attached them with a shoulder rope.

"Too bad we didn't make a lock in the wall right here," he muttered. "But I don't suppose the Security guards will be guarding those empty labs over in the R-12 sector. Guess I'm going for a swim now." And with that, Mike reached down and carefully removed the inspection plate from one of the floor tanks, and lowered himself over the edge into the racing waters.

Hanging there with one hand, he carefully pulled his plastic bag into position beside and slightly behind his body, and let go. Instantly he was sucked away into the subdued blue fluorescent-lighted glow of the waters of the rim.

"Glad they figured these planktons need light," he thought to himself. "I'd have a time finding where I'm going in the dark."

Forty-five seconds later, he reached up and snatched at a passing hand-hold, next to a plate marked with the numbers of the lab he sought.

Wrenching the handle of the inspection plate and pushing it free, he climbed out into the deserted lab; made his way out into the corridor, his unwieldy package hanging to his shoulder and runlets of water making a trail behind him--and stepped into the nearby emergency lock.

In the lock he quickly donned one of the emergency spacesuits that hung there, gathered up his bundle again, and stepped out on the catwalk of the inner part of the rim, under the brilliant night sky at the moment, but turning towards its "sunrise." He opened his plastic package.

"Major Elbertson," he said, turning on the Security radio, "you now have five minutes to surrender."

Attaching his suit to the guideline nearby, part of the rim's "hairnet," he crept out over the inside edge of the rim. From this position he had a full view of the glowing bubble that was Hot Rod for the few seconds until the movement of the rim took him past the "sunrise" point and turned him sunwards.

Last time Mike had been out on the rim, the wheel had not been turning. There'd been no reference of up and down, other than the rim itself as an oddly curved floor. Now he felt disoriented. The wheel was spinning, the hub, therefore, seemed "up." And from the edge of the rim where he clung to its hairnet, all directions were down.

The stars seemed to sweep beneath his feet and over his head; and though it was a slow pattern, only twice as fast as the crawl of a second hand around the face of a clock, it was, nevertheless, disorienting.

Bracing himself carefully into the net, with his back wedged firmly against the rim, he adjusted his bizarre "gun" to rest on his knees so that he could sight in the direction that was, to his body's senses, straight down.

Not at all, he thought, like trying to shoot fish in a barrel. More like being the fish and trying to shoot the people outside the barrel.

Back in the shadow again. Not really shadow where he sat, but the rim around him, below him, and curving away from him, had disappeared in its brief nightside, and there came Hot Rod again. Carefully he tracked it; then
putting his eye to the scope he focused briefly on one of the high-pressure supporting tubes that formed the rigid structure from which the aiming mirror was held in place.

And fired.

The tube burst, noiselessly but quite spectacularly. And the mirror itself shuddered shook, as the tube's gases escaped.

Now he was in bright sunlight again, quickly closing his eyes as the sun itself looked full into his vision, and slowly passed to be following by Earth, to be followed by a blank stretch of starry space, and here again was Hot Rod.

Carefully he tracked another of the supporting tubes.

And fired.

And again a spectacular, writhing collapse--and this time, the mirror fell free, supported by only two tubes, and permanently out of focus, incapable of aiming the monster beam.

This time, Hot Rod was definitely secure from the misapplication of Security.

"Three minutes," he spoke into the radio. "Your weapon is dead. My next shot will be through the nitrogen tank at your air-lock. I wouldn't advise you to be there."

The wheel turned once more, as the radio came alive from the other end.

"Mr. Blackhawk, do you realize that what you are doing constitutes mutiny in space and will be dealt with accordingly on Earth? I have officially taken control of Hot Rod at the command of my superiors in the new U.N. Security Control Command."

Mike didn't bother to answer. As the wheel turned him towards Hot Rod again, he said into the radio, "Two minutes."

Elbertson's voice came again. "With this new weapon we control Earth. Don't you realize that you can't stand up against the new people's government of Earth?"

The wheel came around. Mike replied: "One minute."

The lock on the Hot Rod control room opened. Frantic tiny figures burst forth, activated scuttlebugs, and started on the five-mile trek back towards the big wheel.

Mike worked his way back through the clinging net to the catwalk, failing completely to see the tiny figure that dodged beneath the rim as he approached.

Glancing around he carefully scanned over the entire inner rim before stepping out into the sunlight of the catwalk itself. Nothing.

Then a blink caught his eye, and he glanced up toward the observatory. There. In the observatory.

He thought for a minute it was someone signaling, but it was only a touch of sunlight on the shiny surface of the automatic tracking telescope, which was poked out of the open shutters of the airless observatory, still doing its automatic job of recording solar phenomena in the absence of the astronomers.

* * * * *

Instead of re-entering the lock as he had intended, Mike linked his safety line to one of the service lines that lay along the nearest spoke, and kicked up it.

On Earth, he could have jumped maybe four feet with that motion. But here, it carried him the full distance to the outer wall of the hub-shielding tank, where he grasped another line, quickly transferred his safety line, and began working his way toward the observatory.

As the intersection of the rim where Mike had been passed into darkness, another figure moved and jumped up the same line he had taken. But this Mike did not notice.

Reaching the bulge at the end of the shielding tank and crawling up over it, Mike made his way up, at an odd reversed angle, through the netting; and into the observatory dome through its open shutter.

Making his way about in the open vacuum in free-fall conditions of the observatory, Mike carefully checked the lock at the main axis to make sure that he could get into it without arousing an alarm for any guards that might be nearby.

The lock showed vacant, and empty. Just as he was about to enter it, he saw another figure in a spacesuit come drifting through the open shutter where he had entered.

Mike stepped into the lock, closed the door behind him as though he had not noticed, and cycled the lock. But he did not remove his suit and did not leave.

As the lock showed clear, the observatory door opened again, and the two spacesuited figures stood face to face. Mike with needle gun raised checked himself in surprise. Then he motioned the other figure into the lock.

"And just what are you doing here?" he inquired as the air around them became sufficient to carry his voice.

"You might have needed help," answered Dr. Millie Williams in a small, scared voice as she took off her helmet and shook out her long hair.
"And just what," Mike inquired, "were you planning to do about it besides having me shoot you by mistake?"

Millie held up an oversize pair of calipers. "The Security people," she said, "are not the only ones with

weapons. I borrowed this from the machine shop."

Mike stared down at the odd-looking "weapon."

"It's hard," Millie continued, "to look at more than one thing at a time through a spacesuit helmet. I could've got
'em in the air hose while you held their attention."

Mike's chuckle was just a trifle ragged, and his mutter about blood-thirsty panthers didn't really go unheard as

he began shucking his spacesuit.

This was the most dangerous point, Mike knew. The axis tube went from the observatory straight through to the

south polar lock, with nothing to block sight or sound from traveling its length. They'd have to simply chance it. The

spacesuits shucked, he opened the lock.

Their luck held. No Security man was stationed opposite the mouth of the axis tube at the south polar lock.

Halfway to the engineering quarters, Mike stopped, used a special key to open an inspection plate, and they
dropped lightly into the huge shielding tank that now held only air. From there the pair back-tracked Mike's original

path to the inspection plate in the engineering quarters, and so into his own bailiwick, where they found Ishie

standing on catlike guard, a wrench in one hand, waiting for whatever might come up.

"Confusion say," the grinning Chinese physicist declared, "two for one is good luck."

* * * * *

General Steve Elbertson made his way wearily in through the south lock and on to the bridge where he found

the communications officer in complete charge with two Security men for assistants. The captain and Bessie were
effectively bound, and placed in spare console seats.

General Elbertson made his way to the captain's console and seated himself.

Hot Rod was dead, but their control was by no means lessened.

That he himself had not been shot dead on the way from Hot Rod was, to him, a confirmation of the weakness

of his enemies.

The satellite was under his control. The scientists would repair Hot Rod--and well he knew how to see to it that

they did so.

U.N. Security Forces were in complete, dictatorial command of Earth.

He had only to eliminate the renegade Indian, and long before the Security scuttlebug, now on its way from
Earth loaded with crack troops, should arrive, Security would be in complete command not only of the Space Lab,
but of the weapon, which would by then be in repair.

As a final test of its operation, it would be amusing to use the Indian, Blackhawk, as a target; and perhaps the

captain as well, though he might have to use them as examples sooner--the captain and some others.

The fortuitous accident that had put Hot Rod in operation ahead of schedule had also stepped many plans
months ahead. No violence had actually been planned until the weapon had been thoroughly tested; but now things
looked to be working in orderly fashion; working with the well-oiled precision of a master-plan, properly designed
and properly executed in the proper military manner.

Only one small difficulty marred the current smoothness of the operation. The Security men were attempting to

instruct the computer to precess the wheel back to its original position.

In reply, for every figure of any type sent over the keyboard, the Cow sent back a half-yard of confused,
rambling figures and would do nothing else.

General Elbertson snapped a single command. "Turn the thing off. We'll get to that later."

Busily the men switched the keys to the "off" position. Just as busily the Cow continued to pour out figures,
terspersed with rambling pages of physics covering such odd subjects as the yak population of the Andes, the

number of buffalo that were purported to be able to dance on the rim of the Grand Canyon--a fantastic figure--some

confused statement about the birth rate in Indo-China, and an equally confused statement about the learning rate in

schools in Haddock.

Eventually, if one cared to sort it out, the Cow might produce the entire Encyclopedia Britannica for the year
1911; and then again, possibly for the year 33,310. Actually, it only depended on what you wished to select. It was a
vast mass of material that was being happily upchucked into the lap of the confused communications officer and his
two, unhelpful assistants.

Not a single one of the view panels, either those at the computer's console or the ones at the captain's console,
were presenting a readable picture. Hodgepodges and flickerings, yes. Scraps of star-lit sky--perhaps. Or vaguely
wavy electronic patterns that would have been familiar to anyone who ever looked at a broken TV set.

The Cow was really wild.

Leaning back in the captain's chair, watching the screen casually, General Elbertson chuckled.
He didn't, he noticed, feel nearly so weary.

The position actually was good, even if those idiots didn't know what they were doing with the computer. That could be straightened out.

Somewhere, he was sure, there was cause for great pride in his actions.

The peaceful glow of victory seemed to settle about him.

He HAD won. He was in the captain's chair of the only space station that man had ever put in orbit.

His worst enemy was tied to a chair only a few feet away.

At times like this a man could glow, could feel expansive even towards his enemies.

Naylor wasn't such a bad chap. If he hadn't thrown in with the scientists he might even now be a fellow officer, entitled to full respect and honor.

General Elbertson did not consider it odd that his face was suddenly flushed with triumph. There was a glow of energy. Why, he could even get up and dance a jig—and this he proceeded to do.

Around him, the two Security men joined in, followed by the communications officer—and then, realizing that their friends couldn't dance with them, they undid the ropes and invited the captain and Bessie to join them.

Soon they were all whirling giddily, though there was hardly the space for it. Maybe they should go next door, into the large clear area that was the ship's gymnasium when not being used as a morgue.

Surprisingly, amidst these dancing figures, a head emerged from the floor. All of them leaned over to laugh at it; and even the needle gun failed to frighten them.

* * * * *

Bessie had a hangover. She groaned and stretched. There certainly must have been lots of vodka at that party last night.

Party? What party?

It was difficult to separate various concepts and orient herself to a present where and when.

Slowly the soft susurrus background song of the big wheel penetrated consciousness, and another, closer roar.

Millie taking a shower, she realized.

Suddenly she came out of the vagueness wide awake, the hangover cleared magically, evaporating much too quickly to have been caused by alcohol.

But she had been tied up to a chair on the bridge beside Nails, prisoner of the Security men, only minutes ago.

"What was going on?"

"Millie stepped out of the shower into the compartment the two girls occupied, and smiled.

"How're you doing? About to come out of it?"

"Da, Da eta--" with an effort Bessie switched to English. "Explosion? What happened?"

"Oh, Mike just had to get the Security men off guard. Something to do with the air supply. He asked me to apologize to you if you don't feel so good. But after all, we got the Lab back and that's the main thing."

"Security. Oh! I've got to get to Nails right away. They've taken over Earth, too, you know. We've got to make sure they don't get control of the projects. We'll be shot of course. But their ambitions rest on having control of Hot Rod and the wheel. Probably secret control---"

"But--"

"Nails has got to figure out how to destroy the project without too many casualties. Maybe he can get some of our men back to Earth, though of course we're all expendable. We can't let these monsters have the wheel and Hot Rod! That's what they need for power---"

"Bessie--"

"Of course, we can stand and fight for as long as possible, but we're sitting ducks, and even with Hot Rod there's not much we can do--we can't fire on Earth, we'd hit friend as well as enemy. So I think we've just got to stand and fight a bit, and then destroy both Hot Rod and the wheel. Anyhow, that's Nails' decision, and I've got to get to Nails---"

"Whoa!" Millie finally managed to stem the flow. "We're not stuck--not just stuck here in orbit any longer, waiting to see what's going on on Earth," she said softly, "or what they're going to do about us 'mad scientists.' Mike and Ishie started this whole thing when one of their experiments turned out to be a space drive, and the boys are working real hard on getting a drive unit set up capable of taking our whole complex out into space. But they need somebody to tell the captain ... uh ... properly ... as soon as he's awake that is ... uh ... you know what I mean."

"Whoa, yourself, girl. What's this--space drive?"

"Well, they didn't find out themselves until after it had wiped out Thule Base--nearly ten hours after that, in fact. That magneto-ionic thing the Sacred Cow's been talking about--they invented that real quick to cover up. You see ... oh, it's too complicated.

"Look, we've got a real space drive. We can go to the moon or Mars--or Pluto if we want to. And we've got to
let Nails know real quick that he can get us out of here--and without making him mad that we wrecked Thule Base. But really, after the way those Security goons acted, maybe he won't be mad if you handle it right. How about it?"

The hangover was disappearing magically. But this flow of information was nearly as bad.

A space drive? Bessie knew she couldn't evaluate one way or the other on that. That would be Nails' problem.

But they were in a pickle, and it would be up to her to see that Nails didn't waste too much time evaluating things. Those Security men had been prepared to play real rough, and more of them were on their way up.

"Where is Nails?"

"The boys put him to bed. In his quarters. He got a dose of the same stuff that put you out. He ought to be coming to almost any time now. And probably mad about the whole thing."

Instantly, Bessie was on her feet, flinging on clothes, and out down the corridor toward Nails' private stateroom.

* * * * *

It had been thirty-two hours since Major--General--whatever it was Elbertson--had been defeated on the bridge for the final time.

He and his men were now securely locked in one of the empty labs. The paralysis effect of the needle gun had probably worn off. Mike hadn't checked to find out.

Bessie and her relief operators were watching the prisoners through a video display on the Sacred Cow's console, and would report anything unusual that went on to Captain Andersen.

Mike, Ishie, Millie, Paul and Tombu had completed the new Confusor drive units, and they were nearly installed.

More time would be taken arranging the engineering quarters so that the installation of her control panel and the units themselves would be completed.

This part, Mike didn't like too well. It meant re-arranging his already carefully arranged units, and considerable re-wiring without interfering with any of the basic functions of the wheel.

The new units had turned out to look very little like the original. Fourteen feet long by eighteen inches outside diameter, they looked very much like a group of stove-pipes arranged in a circular pattern around the engineering quarters, braced from wall to wall.

The control console itself, even though made rapidly, had the look of a carefully planned and well-made unit; something that might have turned up in one of Earth's better R&D labs, as part of a multi-million dollar project.

All together, the drive rods would provide something better than a tenth of a gee thrust for the combined mass of the wheel, Hot Rod, the pile and the other subsidiary units around them.

A tenth of a gee. Not enough to land on Earth; but with things down there the way they were now, who wanted to?

With these units, the whole storehouse of the solar system was at their disposal. With these units they could reach the asteroids.

With these units, they could range as far out as Pluto without fear of consequences--without, Mike added to himself, even the fear of radiation that was a constant threat to them here, for the farther from the sun they went, the less radiation they would have to endure. The three months would be extended. For those who needed it, better shielding could be found.

The system was theirs. Possibly, also the stars beyond.

That, he reminded himself, if they could get these units installed before the scuttlebug arrived.

Undoubtedly, Earth Security had sent arms as well as men.

Where they were, not strictly on course, but still in a satellite-type orbit, they remained sitting ducks for any number of countermeasures that Earth might throw against them.

Once gone from this orbit, there was not sufficient rocket-power on Earth to track them down. If they took Hot Rod with them, there was no single weapon at man's command that could stop them. And take Hot Rod with them they would.

In his address to the ship's personnel this morning, Captain Nails had made it quite clear that they wanted no part of the plots and counterplots of Earth; that theirs was the job of scientists, not soldiers; that a path was open to them that they would follow.

Later, they could return. Later, with the supplies that were free to be taken from space, they could build strength.

They could return quietly, one by one, two by two, at times and places of their own choosing. Then, and only then, they could lend aid to those on Earth who would always fight for freedom.

But not now.
They were yet weak; the path of escape and the path of promise lay before them.
The only help they could be would be to follow that path.
It might not be that the path led where they wanted to go--or where they thought they were going--but
nevertheless the path was there, and follow it they must.

* * * * *
Quite a speech, Mike thought. There had been much more, but that, and the Declaration of the Freedom of
Space, were the parts that had stayed with him.
That last they had broadcast back to Earth, thrown, as it were, into the screaming teeth of the new dictatorial
leaders.
Mike leaned back from what he was doing and caught Ishie's eye.
He chuckled, and said "That was quite a mass of stuff that the Cow upchucked on your command. Why didn't
you just freeze her like I thought you were going to do?"
"Confusion say," quoth Ishie blandly, "he who would play poker with dishonest men should never put all cards
on table too soon. Or in other words, Confusion is the better part of valor. The garbage made them think that the
Cow had sprung a cog somewhere, without ever guessing that we had control.
"And by the way, Mike, that was quite a trick you pulled with the air supply. Having the Cow boost up the
oxygen on the bridge until those idiots got so drunk they were climbing the walls."
"You don't happen to have any education as a psychologist, do you Ishie? Or perhaps a brain surgeon?" Mike
inquired. "It seems a shame to drag those Security apes along with us. We can't just dump them overboard, but it
would be nice if we could just confuse them or something."
"Sorry, Mike. Techniques of brainwashing are a bit out of my line. Beside, Confusion say those who run from
wolf pack have better chance if they leave some meat behind for the wolves to fight over. I've already spoken to
Captain Nails about it. We intend to dump them overboard--just twenty minutes before the scuttlebug arrives. In
suits, of course," he added. "Then we'll take off and see whether Security takes care of its own."
There was a possibility, Mike felt grimly, that perhaps Security wouldn't take care of its own. But then, he
asked himself, did he really care? And found it very difficult to come up with an answer. But he realized with vast
respect that the master of Confusion was not himself confused as to the issues involved before them.
"It's lucky for us," Mike said, "that you happened to pick this time to be aboard. Your work would have gone
more smoothly if you'd waited until the next go-round."
Ishie grinned, for once slightly embarrassed. "Confusion say," he said, "luck is for those who make it. I
expected that with Hot Rod coming into operation, some such play would be attempted. I've met Security before."
Millie laid down her soldering iron, and disappeared through the bulkhead, returning shortly with a tray of
sandwiches and coffee.
Coffee in real cups, for there was spin on the satellite, things were working well, and those bottles--ugh.
"Relax, boys, we've still got three hours," she told them. "Radar hasn't spotted the scuttlebug yet. But our new
communications officer, Lal, has them on the line. He's apparently convinced them of his honorable intentions and
gotten an exact prediction of arrival time. They think Major ... uh, General Elbertson has the situation well in hand.
They even think Hot Rod's operational!"
The crew relaxed around the circular room, squatting wherever convenient, and sipping luxuriously at the cups
of coffee, munching sandwiches, and for the moment content.
Hot Rod had been secured to the ship with extra acceleration cables, and as soon as practicable a remote-
controlled Confusor would be placed aboard to assist in any fast maneuvers that they might have to make; but for
now there was no acceleration, and the group composed of the wheel, the big laser, the dump and the pile moved
peacefully in orbit under free-fall conditions.
Millie began to hum a soft tune. Someone else brought forth a harmonica that had been smuggled aboard, and
suddenly Paul Chernov burst into song, his deep baritone, perhaps inspired by the captain's speech earlier in the day,
lending the wailing "The Spaceman's Lament," an extra folk beat:
"The captain spoke of stars and bars Of far-off places like maybe Mars But the slipsticks slip on this ship of
ours-- And we'll get where I wasn't going!"
Mike looked over at Millie as she drank her coffee, a slender, dark figure--able with a soldering iron; able as a
defending panther; able as a spaceman's mate. He was glad the captain of the ship was a proper marrying officer, for
he had an idea the feeling he felt was mutual, as he joined with the crew in the chorus:
"There's a sky-trail leading from here to there And another yonder showing-- But when we get to the end of the
run It'll be where I wasn't going...."
The battle alarm caught him in the middle of a dream, a dream that took place in a white house in a small town in Ohio, when both he and Alice had been very young and the grown adults he now called his children had really been little more than babies.

He rolled out of his bed immediately on hearing the gong, as any good sailor would, and slipped into his pants and shoes and felt around the bulkhead for his life jacket. He slipped into it and tightened the buckles, then put on his cap with the captain's insignia.

He opened the hatch and stepped out into the passageway, blinking for a moment in the unaccustomed light and trying to shake away the remnants of his dream. Officers were boiling up the passageway and up the ladder, some eager ensigns dressed only in their shorts and their life jackets. It was more wise than funny, he thought slowly. Ships had gone down in a matter of seconds and anybody who spent precious moments looking for his pants or his wallet never got out.

Harry Davis, the Exec, a portly man in his fifties, burst out of his stateroom, still trying to shake the sleep from gummy lids.

The Captain shook his head, trying to alert his mind to the point where it could make sensible evaluations, and started up the corridor.

"Any idea what it is, Harry?"

Davis shook his head. "Not unless it's what we've been expecting."

What we've been expecting. The Captain grasped the iron piping that served for railings and jogged up the ladder. Fifty miles north, lolling in the North Sea and holding maneuvers, was the Josef Dzugashvili, a hundred thousand tons of the finest aircraft carrier the Asiatic Combine had produced, carrying close to a hundred Mig-72's and perhaps half a dozen light bombers.

The Josef had been operating there for nearly a week. The Oahu had been detached from the Atlantic Fleet only a few days ago, to combat the possible threat. Maybe the ships were only acting as stake-outs for the politicians, the Captain thought slowly. The tinder waiting for the spark. And it wouldn't take much.

A curious pilot who might venture too close, a gunner with a nervous temperament ...

And now, maybe, this was it. It had to come some day. You couldn't turn the other cheek forever. And he, for one, was glad. He had spent almost all his life waiting for this. A chance to get even ...

Davis opened the hatch to the wheelhouse and the Captain slipped in, closing it tight behind him. It was pitch black and it took his eyes a few moments to adjust to it. When they had, he could make out the shadowed forms of the OD, the first class quartermaster at the wheel, and the radarman hunched over the repeater, the scope a phosphorescent blur in the darkness.

The ports were open in violation of GQ--it was a hot summer night--and the slight breeze that blew off the swelling sea smelled clean and cool. It was the only kind of air for a man to breathe, the Captain mused abstractly.

He glanced sharply through the ports. There was nothing that bulked on the dark horizon, and so far as he could tell, all the stars were fixed--there were none of the tell-tale flashes of jet exhausts.

He walked over to where the OD stood by the radar scope, seemingly fascinated by the picture on it. McCandless had the watch, a young lieutenant of not more than twenty-five but one with good sense and sound judgment nonetheless. A man who wasn't prone to panic, the Captain thought.

"What's the situation, Lieutenant?"

McCandless' voice was nervous. "I'm not exactly sure, sir. Not ... yet."

A brief regret at an interrupted dream of Ohio flickered in the back of the Captain's mind.

"What do you mean, you're not sure?" His voice was a little sharper than he intended, a little more querulous than he had meant it to be. It was, he thought, the voice of an old man, annoyed at having his sleep disturbed.

The younger man wasn't disturbed by the sharpness and the Captain's estimation of McCandless went up another notch.

"Ten minutes ago CIC reported an object approaching us from the south at an altitude of fifty miles."

Approaching from the south, the Captain thought. So it couldn't have been from the Josef. And fifty ... miles ...
up. That was two hundred and fifty thousand feet. A guided missile, perhaps? But whose? There were only friendly
countries to the south.

"It's passed directly overhead," McCandless continued, consciously trying to make his voice sound factual,
"and continued in the direction of Josef. It settled towards sea level, then stopped a mile up."

"Stopped, Lieutenant?"

"Yes, sir. It's hovering over the Josef now." McCandless paused. When he started again, his voice was shaking.
It was funny he hadn't noticed it before, the Captain thought. You could almost smell the fear in the wheelhouse.
"CIC estimated its speed overhead as being in excess of a thousand miles an hour and its size about that of the Josef
itself."

The Captain felt the sweat gather on his temples and ran his hand half angrily over his forehead and through his
thinning silver hair. He was too old a man to let fear affect him any more and he was too tired a man to waste his
energy mopping his forehead every few minutes in a gesture that would show his feelings to the crew. Maybe it was
only vanity, he thought, but when your muscles went soft and started pushing back against your belt and your hair
turned gray and started a strategic retreat, you tended to take more care of your reputation. It wasn't as fragile as the
rest of you, it didn't tarnish with the gold of your braid or sag with your muscles. And he had enjoyed a reputation as
a fearless man of sound judgment.

"Did you order up a drone plane?"

McCandless nodded in the dark. "It went up a few minutes ago, sir. The television picture should be coming in
any moment."

It would be an infra-red picture, the Captain thought. It wouldn't show too much, provided the plane could get
close enough to get anything at all, but it would show something.

"Have you made any evaluations, Lieutenant?"

He could feel the tenseness build up again in the compartment. Everybody was listening intently, waiting for
the first semi-official hint of what had gotten them up in the middle of the night.

Then McCandless voiced what the Captain had already taken to be a foregone conclusion.

"I think it's a spaceship, sir." McCandless waved at the stars beyond the port. "From some place out there."

* * * * *

The picture started coming in at oh three hundred. The Captain and Davis and McCandless clustered about the
infra-red screen, watching the shadowy picture build up.

It wasn't much of a picture, the Captain thought. It was vague and indistinct and the drone plane was shooting
the scene from too far away. But he could make out the Dzugashvili, a gloomy shape that bulked huge in the water,
the planes clustered on its deck like small, black flies. But that wasn't what interested him. He had seen restricted
photographs and complete descriptions and evaluations of the Josef's fighting capabilities before. What was of vastly
more importance was the huge structure that hovered above the Josef, a mile overhead. A structure that blocked out
the stars over a roughly rectangular area the same size as the Josef itself.

McCandless and Davis were still straining their eyes for details of the alien ship by the time the Captain had
 glanced away and was formulating policy. The picture was too vague, he thought. There was nothing that could be
seen that would tell you much about the ship. And if they were correct in thinking it was a ... his mind hesitated at
the thought ... spaceship, then it would be impossible to tell whether certain features were armament or not. And it
would be futile to speculate on the capabilities of that armament.

McCandless and Davis finished with their inspection of the screen and turned to the Captain, waiting for orders.

"Recall the plane," the Captain said. "Send it out again at dawn. And send a message to Radio Washington,
giving them complete details. You may relax GQ but keep the gunners at their posts and the pilots standing by." The
fantastic became far more real when you dealt with it matter-of-factly, he thought.

He started for the hatch. "I'll expect you down for breakfast," he said to Davis. "You, too, Lieutenant. You've
been in on this from the start, you know more than the rest of us."

Which was quite enough flattery for a young lieutenant in one day, he thought. It was far more than he had ever
received when he had been a lieutenant.

Back in his stateroom, the Captain went directly to the small lavatory, filled the washbowl, and plunged his
face into the cold water. He was getting old, he thought for the hundredth time that morning. Creeping old age where
you still awoke readily enough but found it more and more difficult to keep awake. You couldn't rid yourself of the
temptation of going back to bed and dreaming again--dreaming, perhaps, of an Ohio town that his own imagination
had gilded and varnished and adorned until sometimes he thought it existed only in his imagination and not in reality
at all.

He scrubbed at his face until a tingle of alertness came to it, then went back to the main compartment. The
steward had laid out the silver, and Davis and McCandless were already there. Davis completely relaxed in the
atmosphere that could only exist between an Executive Officer and a Captain. The Exec, as both he and the Captain well knew, was the only man on board with whom the Captain could maintain a relationship that was something other than professional. Not necessarily friendly but ... more relaxed.

McCandless sat in the leather upholstered chair by the table, stiff and self-conscious. The hope of the nation, the Captain thought. Provided that they learned how to hate and to keep that hate alive as long as he had kept his. His own boy had been about McCandless' age, he thought suddenly.

"Well, what are you going to do?" Davis asked.

The Captain sat down at the table. The coffee was hot and he could smell the eggs that the steward was frying in the small galley. He tucked in a napkin at his neck. It was old-fashioned but practical, he thought. You dribbled down the front, you didn't spill things in your lap.

"It isn't exactly up to me, Harry. It's up to Washington." He poured out three cups of coffee and handed one to Davis and one to McCandless. The Lieutenant clutched the cup in a deathlike grip, as if the ship were doing forty-degree rolls and he might lose it any minute. "I asked you up to breakfast to get your ideas on it. I have my own but on something like this, anybody's ideas are as good as mine. Maybe better."

Davis frowned and rubbed the tip of his nose thoughtfully. "Well, it looks to me, Bill, as if we have a situation here where an unknown ship from somewhere--I'm not saying where--has investigated two ships on maneuvers and finally chosen to hover over one, for what reasons we don't know. To me it looks like the only things we can do is notify Washington and stand by for orders."

Great God, the Captain thought, disgusted, there was nothing worse than a Commander bucking for four stripes. A more cautious man didn't exist on the face of the Earth nor, possibly, a more fearful one. Fear that whatever decision you made would be the wrong one and the Promotion Board would pass you by. So you carefully avoided making any decisions at all. He had been the same way himself. You salved your lack of guts with the knowledge that once you made captain, things would be different and you could assert yourself, be the man you had always considered yourself to be. Only once you became a captain things didn't change a bit, because then you were trying to get the Promotion Board to recommend you for Admiral. The only men in the Navy who had any guts were the young men who didn't know any better and the old bastards who had made Admiral and no longer had any ambition as far as rank went.

* * * * *

He turned to McCandless. "You, Lieutenant?"

McCandless licked dry lips.

"I think it's from out in space, sir. Maybe it's an exploration party, but more than likely it's an armed scouting party."

"What makes you say that?"

McCandless leaned forward, his concern over his cup of coffee momentarily forgotten. "I think if it was an exploration party they would have stopped at some point of civilization first. In all likelihood a city, a big city. But we've received no reports of any ship landing near a city. At least, not yet." He paused, a little self-consciously. "It wouldn't be difficult to tell that we're part of the fighting forces of this planet, and I think it's just luck that it chose the Josef instead of us. I think the alien ship is investigating the Josef. Or will shortly."

Davis lit a cigarette, a half amused smile on his face. "For what purpose?"

"To test the armament. See how good we are on the defensive."

"What do you think they want?" the Captain asked curiously.

McCandless hesitated, then blurted it out.

"The whole world, sir!"

* * * * *

At oh five hundred the sun was just breaking over the horizon, coating the heavy green seas with a soft covering of pink gold. It was going to be another hot day, the Captain thought, one where the heat stood off the water in little waves and the sweat ran down your back and soaked your khakis. And with GQ, the rubber life jackets would make it about ten times as bad.

He stood on the bridge for a moment, admiring the sunrise and smelling the brisk salt air, then walked into the wheelhouse.

The drone plane had been up for half an hour. By this time it should have a clearer picture of the object that hovered over the Josef.

It did. The object was dun colored, the color of storm clouds on a cold winter's day. Big, easily as big as the Josef, and tubular shaped, slightly flattened on the bottom. There was nothing that could be identified as gun ports but they probably didn't use guns. He wondered just what their armament was.

He turned to the radarman on watch.
"Has the Josef moved any?"

The man nodded. "Yes, sir. About oh four hundred they steamed ten miles north at top speed."

"The object kept up with them?"

"Yes, sir. It's never left them, sir. Same position directly overhead at all times."

The captain of the Josef must have realized that he couldn't get away from his overhead observer and probably froze in position, afraid of what would happen if he continued to run for it. He'd probably stay there until the alien ship made some hostile move or he got instructions from home.

The Captain walked back to the bridge. The ship was strangely silent. There were no jets warming up on the flight deck, there were no sounds of chipping hammers. Except for the planes overhead, it was a quiet summer day, one of those days when a perfectly smooth sea looks like a sheet of plate glass.

He glanced down at the sides of the Oahu. Tiny figures were huddled by the anti-aircraft guns, their helmets glinting in the sun. A tight ship, he thought, a ship that was ready for anything.

McCandless came out on the bridge, his eyes red-rimmed from lack of sleep. He stood a respectful distance from the Captain, a little to the right and just behind.

"Beautiful day, isn't it, Lieutenant?"

"Yes, sir. It is, sir. Very fine day."

"Sir. That was the one reason why he tolerated Davis, the Captain thought. Just to hear somebody call him by his first name and treat him as something other than a symbol of rank.

"If your theory is correct, Lieutenant," he mused aloud, "then the alien ship should be opening fire—if that's what you would call it—any minute now."

"Yes, sir." McCandless brushed his mouth with his hand—probably surreptitiously removing a wad of gum, the Captain thought. "I was wondering what you would do, sir, if the alien ship opens fire on the Josef."

"If it wasn't against regulations, I'd issue a couple of cans of beer per man."

McCandless gaped. "I—I don't understand you, sir."

"If they finish off the Josef, Lieutenant, it'll save us the trouble. For my money, I'd be tickled pink if the Combine sent reinforcements and it really developed into a fracas."

McCandless turned slightly so the Captain could no longer read his face. The Captain wondered if it was intentional.

"I ... I guess I just took it for granted that we'd join forces against the aliens, sir. It seemed like the natural thing to do."

So McCandless had thought they'd go to the rescue of the Josef, the Captain thought slowly. To the rescue. The phrase had a funny sound to it when you coupled it with the Combine, an almost obscene sound.

"Lieutenant," the Captain said slowly, "history has been full of possible turning points that the United States has almost always failed to take advantage of. I think this time, just for once, we ought to play it smart. The Combine has been a threat for as long as I can remember. We've had opportunities before when we could have let two systems cancel each other out. We didn't take advantage of it then and we've regretted it ever since."

McCandless didn't reply immediately and the Captain thought to himself, why not be more honest? Why don't you tell him that all your life you've fought the Combine and the conflict has been the only thing that has lent meaning to living? You hate for thirty years and you become a slave to that hatred—you don't forget it with a snap of the fingers and go charging to the rescue like a knight in shining armor.

"The aliens are ... alien, sir," McCandless suddenly said. "The men on the Josef are ... human beings."

"Are they, Mister?" The Captain hated the lecturing attitude but he couldn't help it. "They're the representatives of the Combine, aren't they? And I suppose the Combine acted like human beings during the Berlin war? I suppose the slave labor camps and the purges and the forced confessions were the products of ordinary human beings? No, Lieutenant, if the aliens have six arms and two heads they couldn't be less inhuman than the Combine has been!"

"My father was in the Pacific in the Second World War," the Lieutenant said tightly. "There were times when we didn't take prisoners. And I remember my Dad saying that some of the men went home with ear necklaces."

"Hearsay," the Captain said gruffly. "And that was in a declared war." And then he wondered just how valid the distinction was. There were, he supposed, sadists on both sides. And then it came down to who committed the first cruelty and just how should you rank them? Was intentional torture for the few any the worse than the dispassionate act of dropping a bomb that produced quite the same, if not worse, results for the many?

"Just what would you do, Mister McCandless?"

The Lieutenant's face was flushed. "I'm not sure, sir. But I think I would look at it from a strategic viewpoint. There are two ships here, both instruments of war. If the aliens attack the one, and the other doesn't go to the rescue, then it would be obvious that we are divided world. We would be a tempting ... prize."

"And if we went to the aid of the Josef, then you think we might beat the alien ship off?"
McCandless shrugged. "I don't know, sir. We might."

The Captain turned back to look at the now swelling sea. The air off the water was cool and brisk and the deck of his ship moved comfortably under his feet; a solid thing in a liquid world. "It doesn't make a great deal of difference what we think, Lieutenant," the Captain said, a little of his good humor restored. "In the long run, we'll do whatever Washington says."

There was a sudden, flashing glow just over the horizon. McCandless blanched and the Captain clutched the rail, his knuckles turning white with the force of his grip. There was another flash and the OD popped out of the hatch of the wheelhouse like a cork out of a bottle. "Captain! the ..."

The Captain was already brushing past him, heading into the pilothouse for the television screen and the picture that the drone plane was transmitting.

The picture on the screen wavered and blurred with the shock of the action. From what he could see, the Captain knew that whatever action he took, if any, he would have to take it within a relative few minutes. The forward half of the superstructure of the Josef was a smoking ruin, the metal a cherry red.

Half the planes on the flight deck were charred and being frantically pushed overboard by small tractors so the remainder of the planes could be airborne. A mile overhead, in the glazing blue sky, the few planes the Josef had managed to launch buzzed futilely about the alien ship, discharging rockets that scintillated and flamed off the dull gray sides and, so far as the Captain could tell, were causing no damage at all.

"Message for you, sir."

He felt the clipboard being pushed into his hand, then glanced down. It was difficult to read without his glasses but he could make it out.

Unusual ... do nothing rash ... your discretion ...

Some cautious pen pusher behind a desk, he thought chaotically. Somebody for whom miles had lent safety and detachment.

His discretion ... It was his responsibility.

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Commander Davis was at his elbow. "The Josef's starting to list, Captain."

"I can see that!" he half snarled.

He wouldn't feel pity if the Josef went down, he thought fiercely. It would be good riddance, one less carrier that they would have to worry about at some future date.

If there was some future date, a nagging thought intruded. He throttled it. The Josef stood for everything that he despised, a way of life that had made a mockery of everything he had been taught to believe in. The menace that had eaten at the world's vitals like a cancer, the menace whose existence had been enough to drive some men to hysteria and others to the brink of suicide. His own wife ...

Now a ship from Outside was attacking that power and what emotions should he feel? Elation? Well, why not? What other emotions should he feel? Certainly not sadness, not regret, not pity.

The Josef would be sunk and maybe the aliens would be tempted to do more than just attack the Josef; they might attack the entire Combine as well. And if the Combine was beat, did it matter who did it?

Except, the thought crept back, there was no reason for him to believe that the aliens would differentiate between the Josef and the Oahu, between the Combine and the United States.

"The planes!" McCandless said, incredulous. "Look at the planes!"

The Captain glanced down at the screen again. An orangish glow was suffusing the alien ship. A jet slipped in for a rocket shot. The glow pulsed, expanded, touched the jet, and the plane vanished into a rain of wreckage that sped towards the ocean below.

"God!" Davis breathed. "Did you see that?"

The Captain only half heard him. So they were aliens. What did that mean? Beings of different background, different beliefs, different physical structure? He had been one of the first into Berlin after the massacre was over and the Combine had laid the blame on their Berlin Commandant, though it was painfully obvious that he had only followed out instructions. And the shambles he had seen there couldn't have been done by human beings. Four thousand soldiers and close to a hundred thousand civilians killed. Would you call the people who had been responsible for that human beings or ... aliens? Which name fit best?

The Berlin war ...

A dozen different outbreaks, starting with Korea so long ago ...

And then you were supposed to admit that they were blood brothers after all, and that in the face of a mutual threat you should forget your differences and pool your resources against the common enemy.

"There goes another one!"
So in fifteen minutes the Josef would go down. And from him it would bring only cheers, not tears.
But you didn't make decisions on a personal basis, he thought slowly. You had to look at it from the viewpoint of a thousand years. You had to develop a certain detachment, even though one man's lifetime was far too short a period to develop it in.
"Message for you, Captain."
It was a voice message that had been picked up in CIC. It was brief and to the point.
Attention Captain United States Vessel Oahu:
Help urgently requested. If aid not granted immediately, all is lost.
Constantin Simenovich, Captain, People's Warship Josef Dzugashvili.
He had a brief mental picture of a young man lying in the shambles of Berlin calling out the same words. And what had he received?
He buried the thought.
The detached viewpoint. Political systems evolved, he thought, they never remained the same. The French Revolution had spawned a thousand human monsters and the blood had run in the streets. But out of it all had come a democratic nation. And a thousand years from now, what would the Combine be? A turn of the wheel and perhaps it would be a peace-loving democracy while the United States would be the abattoir of human hopes. Who could tell? A thousand years from now the present bloodbaths and tortures and mass deaths would be history.
But if the aliens won you ran the chance of there being no history at all.
The wheelhouse was silent. The Captain could feel a dozen pairs of eyes watching him, waiting for his decision. Outside the ports, on the far horizon, there came a steady, golden pulsing.
He looked up at McCandless and Davis. McCandless was young, too inexperienced to realize that situations where today's enemies are tomorrow's friends are the order of the day and not the exception. You adjusted to it or you became bitter. Davis, the gutless bastard, had adjusted to it. He was probably already to make the switch, to go back to drinking toasts in vodka.
The detached viewpoint.
"Send up the jets," the Captain said slowly. "And send a message to the Captain of the Josef, telling him we'll render all the assistance that we can."
The wheelhouse broke into a flurry of activity and a moment later he could hear the sounds of the jets taking off the flight deck. He walked out on the bridge deck and leaned on the railing, staring at the horizon where the alien ship and the Josef were fighting it out. And where planes from the Oahu would shortly be helping the Josef.
But I still hate them, he thought. I hate their goddamned souls!
Clamped to the contour couch, the young girl strained against the padded steel grips and screamed. Again she writhed and screamed as she felt the hideous touch of the monster snatching at her. She struggled frenziedly through the muck of the swamp but the thing with the blood eyes scrabbled faster on its rotten limbs. The thing seized her in its obscene embrace. Raw terror tore another scream from her throat. Behind her on the projector a needle slammed into the red zone. Beyond the hundreds of long rows of couches a warning light flashed on the control console of Mezzanine F and its persistent buzz snared the attention of one of the ushers. He glanced at the light's location number and ran along one of the aisles till he came to the girl. He saw that the projector had shut off the feature feelie and was running the emergency tranquil strip. She had stopped screaming but her breathing was still agitated. He shrugged the question back at them, removed the feelie permit from its clip on the girl's couch and checked the permitted intensity level against the setting of the projector. They matched. Still puzzled, he examined the other settings without discovering any apparent cause for her fright-hysteria. The tranquil strip ended and the machine shut itself off. The usher moved a switch that released the pressure of the electrodes against the girl's head and retracted them into the headset. Her eyes opened as he removed the apparatus and folded back the clamps.

"Feel all right, miss?" he inquired with a solicitous smile.

She nodded, but her eyes still held echoes of alarm.

"Better come down to the clinic," he said gently, assisting her from the couch.

She said nothing but allowed him to lead her along. They stepped into a float shaft and drifted gently down past other floors of the theater occupied by the myriad rows of feelie couches. When they reached what was obviously an office level, the usher grasped a tug bar which pulled them into a corridor opening. He brought her to the clinic and left her with the doctor after explaining what had happened.

* * * * *

The doctor seated her alongside his desk. "How do you feel now?"

She smiled weakly. "All right Ah guess," she said with a soft drawl.

"Let's see," he said looking at her feelie permit, "you are Miss, ah, Loretta Meenan, and, well, you are from Hammond, Louisiana." He looked up at her and smiled. "May I ask how old you are Miss Meenan?"

"Sixteen."

"A very charming sixteen, I must say. Are you here with your family?"

"Yes. Ma an' pa are at the convention. They let us come to the feelies."

"Us?"

"Mah older brother, Jason."

"Oh? How old is he?"

"Eighteen. But he's big, real man-lookin' an' folks who don't know mistake him for past twenty."

"What couch did he have?"

"Next to mine on the left."

The doctor consulted his notepad. "Ah, that would make it number, ah, six thousand forty-two. We'll have one of the ushers bring him down."

"Please don't," she said hastily. "Not 'till the feelie's over anyhow. He'll have the furies with me if he misses the endin' on mah account."

"All right," the doctor agreed amiably. "How are you enjoying your visit to New York?"

"Ah'm havin' a dazzlin' time."

"Good. Do you go to the feelies at home?" The doctor saw her tense forward from the curve of the chair.

"Yes."

"Enjoy them?"

"Yes."

"Have you ever been badly upset by horror feelies before?"

"No, sir."

The doctor was aware of the apprehension behind her guardedness. "Do you have any idea why this one should have upset you so?"
"No, sir, except maybe the excitement. Ah ain't never been much away from home before but once to New Orleans."
The doctor looked at her permit card again. "This isn't a very good likeness of you."
"It does reflect me poorly," she murmured.
The doctor's smile evaporated from his suddenly stern face. "Perhaps it's because this is not your picture and this is not your card."
Her face went white.
"What is your name?"
"Robina Rowe." Her downcast eyes were locked on her fingers squirming in her lap.
"Who's Loretta Meenan?"
"Mah girlfriend."
"Why did you borrow her card?"
She was close to tears. "Ah jus' had to go to this feelie. It's got mah very favorite actor in it."
"Evidently your card doesn't permit you to attend horror feelies."
She nodded.
"Why not? Nightmares?"
She shook her head.
"Don't tell me you have a bad heart!"
She shook her head again. "Ah'm a Sensitive," she said bleakly.

* * * * *

In a sudden surge of anger the doctor half rose out of his chair and leaned across the desk. "Why you little fool!" he roared. "You little damn fool!"
From the open doorway a shape hurtled across the desk at the doctor and crashed with him to the floor.
"Jason!" Robina shrieked.
"Don't you talk to mah sister that way," Jason shouted as he pummelled the doctor. "Ah'll kill you!"
The usher who had guided Jason to the clinic dashed around the desk to pull the boy from the doctor. Robina tried to help but in the tussle she was knocked down, striking her head on a leg of the overturned chair. Jason, hearing her cry of pain, leaped off the doctor to aid her.

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"It's only a little bump," Jason said reassuringly as he cradled her in his arms.
The doctor got to his feet and glared at the tall, strikingly handsome boy-man helping his sister to a chair.
That done, Jason whirled to face the doctor. "Now listen here--"
"Now you listen to me," the doctor shouted. He saw Jason gather himself as if for another leap but Robina placed a restraining hand on his arm and his fists slowly uncurled. "If you loved your sister as much as you pretend to you wouldn't have helped her try to kill herself!"
"What do you mean?" the boy said sullenly.
"You know damn well what I mean," the doctor said. "You know your sister is a Sensitive. She experiences things with ten times the impact of an ordinary person and her empathy threshold is so high a death scene in a feelie could kill her! And if you don't know what some of the words mean," the doctor said, noticing Jason's slight puzzlement, "you do know what your sister is and the care that has to be taken."
The guilt in Jason's abashed face agreed.
Fired by his anger, the doctor raged on. "Why the devil do you think we have laws concerning attendance permits? What do you think all that testing by doctors and psychologists before a permit is issued is for? You, you big ox, could be killed by fright too if the intensity level of the projector was set higher than your psycho-profile rating."
He saw his last words had lost the boy again. "In any case you know better. Why did you allow your sister to endanger her life by letting her illegally use another's permit? And of all things, a horror feelie!"
"Ah didn't want to take her," Jason complained, "but she jus' fussed an' fretted at me 'till Ah gave in."
"Well you've both broken the law. Your parents will be notified and you'll have to stay here until they come."
The doctor buzzed and a guard appeared. "Take these two to Mr. Lemson's office," he instructed him.
The guard led them from the floating steel and crystal theater structure of the U-Live-It Corporation complex to the executive wing of the general offices. He stayed with them until the receptionist at the office suite of Vice President Cyrus W. Lemson ushered them inside.
After having them seat themselves, Mr. Lemson stared at Jason in his tight, crimson, dress dungarees and rhinestone speckled, black shirt which accentuated his lithe, muscled body. Eighteen or not, he thought in mild astonishment, that handsome giant is no boy. "The doctor viphoned me about you," he said sternly. He spoke to
them further about the seriousness of what they had done and told them their parents were on the way down. Then he took them into an interior office furnished like a luxurious living room. "Please wait here," he said, "until your people arrive. Magazines are there on the table and you may turn on the television set." He closed the door.

"Want me to turn on the television set?" Jason asked.

"No, Ah don't much feel like it."

They settled themselves on the enormous couch and Robina looked at her brother. "Jason, Ah'm real sorry. Ah went an' stirred up a hornet's nest of trouble for you again."

"Don't fret about it, Robee. They won't really do nothin' serious. They'll talk to Ma an' Pa an' Pa'll make like he's goin' to cuff us aroun' when we get back to the hotel an' instead he'll jus' look dark an' make us feel bad with his talk. It'll jus' be a lot of commotion like a bee stuck in a tar bucket."

"Ah guess," Robina said. She cast a sheepish glance at her brother. "Say Jason, how did the feelie end up?"

Jason was indignant. "Now listen, Robee, ain't you had enough? You heard the doc say that last was like to kill you."

"Please, Jason, there's nothin' wrong with you jus' tellin' me."

"It's almost as bad. You still get yourself all flittered up."

"That's because nobody can tell a story like you do, the way you act it out an' all."

"Ah don't act it out. Ah jus' tell it."

"Well you might call it tellin' but everybody home says it's jus' like a feelie when you do it. An' don't pretend you don't know it, brother Jay, an' enjoy it too!"

---

Jason did not tell the ending of the feelie; he recreated it. He was the monster slurching across the floor toward her, step by scraping step and in spite of her fist on her mouth a tiny nervous scream escaped Robina. Jason wanted to stop then but she badgered him into continuing. Now he was the hero, Gregg Mason, battling the unspeakable fiend and she shivered uncontrollably as she watched them struggle to the death. In a last, desperate, superhuman effort, Gregg's hands clawed into the monster's body and ripped out the foul, quivering heart of it. The creature twisted to the ground and perished in its own slime. Gregg, torn and bleeding and with shock-frozen eyes, turned and staggered into the arms of Robina.

"Oh, Gregg, Gregg," Robina cried in relief, the tears streaming down her face.

"It's okay, Joan," he said comforting her, "okay. It's all over now. C'mon now, Joan, get out from behind those tears so you can see how much Ah love you. Everything's all right."

"Oh, Gregg!" A weak smile broke through.

Gregg enfolded Joan in his arms and pressed his mouth against her eager lips.

"What are you two doing?!?" a shocked voice exclaimed from the open door.

---

Gregg and Joan were blown away by the sound like spindrift before the wind. Jason and Robina slowly came apart to see Mr. Lemson and another man coming into the room.

"What is the matter with you both?" Mr. Lemson spoke again. "Aren't you in enough trouble now?"

"Let me handle this, Cy," the other man said stepping forward. "I'm Bob Herschell," he said smiling and radiating friendliness at the youngsters. "Would you please tell me exactly what you were doing before we came in here?"

"Weren't doin' nothin'," Jason said belligerently.

"Shades of the decadent South!" Lemson exclaimed. "Brother and sister glued together and he calls it nothin'."

"Ah wasn't kissin' her like you think," Jason said hotly. "Ah was tellin' her a story."

"What kind of a story?" Herschell asked excitedly.

"Ah was tellin' her the end of the feelie we saw; Ah mean Ah saw. She didn't get to see it."

"You mean Terror From Mars?" Herschell asked.

"Ah guess that's it. Ah don't recollect the title for certain."

"Great!" Lemson said. "It often takes a week long conference to select a feelie title and this typical American youth can't remember the name of the feelie he lived less than a hour ago."

"How were you telling it?" Herschell asked.

"He storytells fine," Robina said proudly. "He sorta acts it out with feelin' an' really makes it seem like it's happenin' to you right then and there."

Herschell turned to Lemson. "I'm sure he's the one, Cy. It fits. I've got the spark of an idea and if it works then U-Live-It will be right on top of the feelie heap."

"We're already on top," Lemson said wearily. "U-Live-It is the biggest producer of feelies and I think you're
crazy, I think they're both insane and I will be if you don't tell me what this is all about. You come barging into my office--"

"Sorry, Cy, but this thing happened so fast. I'm in my office right below you. I've got Myra Shane doing a reading, trying to convince her the part is perfect for her. But she isn't coming through on the receptor. Instead I'm getting the climax of Terror From Mars. Zack is receptorman and it takes him less than no time to check through and okay our electronics. That means only one thing. Someone, somehow, is blotting us with another projection. I call around and no one is running a projector and no one is reading. Your girl tells me you have a couple of kids up there so I come up to see. And I'm sure that big rebel is the one! He has to be!"

Lemson was alert with interest. "But he's not wearing a relay. How could the receptor pick up and record his percepts?"

"He might have a surgical." Herschell inquired of Jason, "Did you ever have an operation for the insertion of an encephalic booster relay! you know, a thought relay?"

"You mean them tiny transistor things that feelie actors have stuck in their heads?"

"That's it."

"No, Ah never had nothin' like that," Jason said, baffled.

"That's impossible," Lemson said, "no one can project with enough natural power to imprint a receptor unless they've got a booster."

"Well it's not impossible anymore," Herschell said gleefully. "Look Cy, you squash this silly business about the permit. I want this fella to make a receptor test as soon as possible. When his folks show up tell them we might want to make a feelie star out of their son but don't build it up or they'll be back with a regiment of lawyers and contracts."

"Bob, you're going off the deep end with this deal. So what if he can project au naturel? Can he act?"

"If you had been plugged into the receptor like I was a few minutes ago and felt him, you wouldn't even ask."

"What about that atrocious accent?"

"Look, Cy, I'll abide by the receptor test. If he can't act; out! If he's as terrific as I think he is we'll put him in westerns and civil war feelies until we can train the accent out of him. Cy, if he doesn't turn out to be the greatest thing that hit the feelie business I'll eat my contract."

* * * * *

Five months later Herschell came beaming into Lemson's office and tossed an open-folded newspaper at him. "Cy, did you read Lorancelli's review of Rowe's oatburner?"

"That's just great!" Lemson snapped. "We spend millions of advertising and publicity dollars to convince people that we make adult westerns and you, a production vice president, go around calling them oatburners."

"Okay, Cy, but read the review. He rated the feelie so so but he raves about Jason Rowe."

Lemson picked up the paper and had it immediately snatched out of his hands by an impatient Herschell who began reading snatches of it. "Listen ... uh ... Jason Rowe is an intense young man whose magnificent talent is wasted in the role of a young gunsfighter in this bland western ... uh ... he projects a sense of immediacy and aliveness endless in its delicate ramifications of feeling. His characterization is unmarrred by even the slightest hint of extraneous awareness and unaccompanied by the usual continual subliminal blur which is the mark of the receptorman's frantic deletion of the actor's sublevel, irrelevant thoughts. Either Mr. Rowe is fortunate to be blessed with a most superiority skilled receptorman or he is gifted with an awesome ability to submerge his total being in the role he plays. In this feelie it is as if Mr. Rowe, the actor, dies and imparts only his life force to the character of the cocky youngster who comes fully alive without the slightest trace of the personality of Jason Rowe. In this debut performance young Rowe achieves the hitherto unattainable goal of completely displacing the feeliegoer's identity with that of the character he portrays. We expect great things from him for a talent such as his illumines the theater but once in a millennium. Thanks to Mr. Jason Rowe, the U-Live-It Corporation can now completely guarantee the promise of its name." Herschell dropped the newspaper on the desk. "How do you like that, Cy?"

* * * * *

"I like it so well, I surrender," Lemson said with a pleased smile. "You were right all along in pushing him so we'll put him in 'Land' as you want and I'll at last have you off my back."

"Y'know, Cy, Lorancelli is wrong about the receptorman."

"He didn't exactly say--"

"Oh Zack is the best there is," Herschell interrupted, "but right after we started recording the Rowe feelie he came in all shook up to see me. Said the Rowe stuff was recording as if he was actually living the part. There were no extraneous sublevels at all and that's just never happened before. It's like Lorancelli says about Rowe dying and the character coming to life. Zack swears that Rowe just disappears. There isn't a speck of him that shows on the strip."

"Then Zack should be happy, not having to over-engineer the recording."
"Oh now, it isn't all breeze. There's highlighting and emphasizing selected perceptics and such. You know Zack's the difference between the artist and the photographer. Actually Zack's real difficulty is the battle he has to keep from getting completely sucked in to Rowe's portrayal while he's recording. Don't misunderstand. He's not complaining. In fact when I suggested relieving him if the strain was too much he said if he couldn't do Rowe's feelies I could relieve him from the payroll. It's that much of a challenge for him. So much so, he's designed a new receptor adaptor to prevent Rowe's potency from overpowering him."

"Will there be any trouble in making 'Land'?"

"Yes," Herschell said bleakly as Lemson prepared to hear the worst, "we need horses. In this atom age I'd like to know where I'm going to get a couple of divisions of cavalry."

"Why you can't even see where they put it," Robina said, fingering Jason's skull. "Oh, wait, Ah feel a little hard lump right here. Ah'm right ain't Ah? That's the relay."

"No it aint," Jason said laughing. "Got that fallin' off a horse yesterday."

"But why do you have to have one at all? Ah thought you could project without it."

"Well Ah can, but this makes it better. This picks up all the tiny waves from mah brain that wouldn't otherwise get recorded. Like the difference between super high-fi an' ordinary high-fi. It makes the feelie more real."

"When are you goin' to be in somethin' else besides westerns? Ain't you ever goin' to get to do some romancin'?"

"Now don't you go lookin' at the wrong end of the hog, Robee. They been keepin' our bellies filled. Besides this one Ah'm doin' now ain't no western."

"Then what's all them horses over there for?"

"Confederate cavalry, you melon head. What you think this uniform is Ah'm wearin'? Fine southern daughter you are!"

"Oh, a civil war feelie! What's it called?"

"... uh ... A Stillness in the Land." Jason smiled, "An' it sure would make Mr. Lemson happy to know Ah remembered the title. They say it was a big best seller book. Goin' to cost ten million dollars. Ah play the lead; Jed Carter, young southern fella. Lots of love an' battles an' the best thing is Ah don't have to fret about mah accent."

Jason took his sister's arm. "C'mon now if you want to see the set. Ah'll be havin' to go to work in a few minutes."

They passed by one of the receptors and Jason stopped. "Now here's the machine that picks up an' records what Ah'm thinkin' an' feelin'. The receptorman wears this gizmo on his head an' cuts in to what Ah'm feelin' an' he fiddles them dials an' switches an' amplifies weak signals an' cuts down overpowerin' ones an'--well, Ah don't want to frazzle you with the technical details; he jus' controls the quality of the recordin'. He cuts out stuff that don't belong like if Ah should be kissin' the gal an' somewhere under those passionate thoughts Ah might wonder when we're goin' to knock off for lunch. Here, slip this headset on an' Ah'll get Zack to run it so you can feel how it works."

"Don't do anythin' strong," Robina advised.

"Don't worry. Jus' a peaceful bit."

Zack came over at Jason's call and ran the receptor while Jason went through a few quiet lines with an extra.

"Why it's funny, somehow," Robina said after they removed the headset. "It jus' didn't seem very good. Ah've felt you better without it, Jason."

"You didn't get the full projection," Zack explained. "You see, Miss Rowe, the receptorman has got to be alert. He can't just relax and enjoy the scene and become the actor like a paying customer. He's got to work, keeping the perceptics, the feelings coming through in balance. So there's a circuit, a part of this machine that sort of shields enough of the operator's mind and keeps it from getting lost in the story while it runs the receptor and lets the other part live the scene."

"That sounds hard to do," Robina said.

"It takes training and special conditioning but the point is nobody connected with the production of a feelie ever gets to feel it in all its original depth as the feeliegoer does. Rushes are run at the lowest intensity so that the producers and directors can comment and plan changes as the strips are run. Even with projector intensity set high we can't totally submerge in the character's identity because that specially conditioned part of our minds won't submit."

"Well, you're still lucky," Robina said. "Ah'm a Sensitive and Ah'm not allowed to go to anythin' but silly old musicals an' some comedies. Ah can't even go to mah brother's feelies what with all the shootin' an' everythin'."

"EVERYBODY TO THEIR PLACES. RECORDING STARTS IN FIVE MINUTES." The announcement boomed throughout the vast set and a population of extras began to animate the streets with purposeful activity.
"Robee, honey, you'll have to go."
"Oh, Jay, can't Ah watch. Ah won't fuss around."
"'Tain't that. Nobody who ain't in the feelie can be in sight of any of the actors they're recordin'. Why if Ah was to walk down that street as Jed Carter and suddenly see you standin' over here in them men's pants--"
"These ain't men's pants!" Robina said indignantly. "These are ladies slacks."
"Ah know that but Jed Carter don't. All he knows is even a hussy wouldn't strut around like that. Tell you what. You go over there to where it says, Mrs. Hepple's Quality Boarding Home an' you can peek out the parlor window at the doin's. Ah guess they had noseybodies then too. Now get!"

Jason turned and hurried down the street, not bothering to glance after Robina. She had crossed the street and was passing a saloon when the omnipresent voice commanded her, "GIRL IN THE GREEN SLACKS GET OUT OF SIGHT." She became so flustered she dashed into the saloon doorway.

Jed Carter escorted the lady from Nashville down the plank sidewalk to her carriage. He was furious at her casual gay chatter mocking his churning desire for her. His glance caught a movement across the street and suddenly he went rigid with surprise and soft shock. A girl had come out of the saloon and the hussy was wearing men's trousers. His shock increased when he heard the delicate lady from Nashville say, "Oh, damn, who the hell is that?" and he was further startled to see an oddly dressed man wearing some sort of metal apparatus on his head follow the girl out of the saloon, gesticulating angrily at her.

"CUT!" the omnipresent voice commanded and now Jed Carter was utterly confused. The man wearing the metal apparatus crossed over to him and spoke. "Jason, please. You know the rules about visitors on the set. No one allowed during recording. Zack says we'll have to ask your sister to leave."

Jed Carter saw the townspeople just standing around staring in his direction. "What's goin' on?" he said to the odd man. "What are you talkin' about? Who are you?"

"Oh, oh," the man with the headset exclaimed, "here we go again." He made a signal with his hand and another man came running up. The man led Jason up the steps of the hotel and into the lobby with a promise to explain everything. He sat Jason in a chair. "Jason, Jason Rowe, Jason Rowe," the man's voice pulled at him. He kept repeating the name.

A minute later Zack came into the lobby. "Jason!"
"Hello Zack," Jason said.
"Oh, you're back with us," Zack said. He stared at Jason a long moment. "One of these days," he said with a wry grin, "you're not going to make it."

* * * * *

Bob Herschell came out of the magnificent crystal palace that was U-Live-It's New York feelie showcase and searched the garden plaza. "Cy! I thought I'd find you here wringing your hands."

"We should never have premiered cold like this," Lemson complained. "We should have at least had one private running for the reviewers. We wouldn't be dangling like this."

"Stop worrying, Cy. A first night lets the critics get caught up in the excitement. And even if they go sick and thumb down 'Land' it won't stand against the top power voodoo job the publicity gang is saturating the public with. And bigger than all the critics is Jason Rowe. He's filled six thousand couches in there with the biggest voluntary celebrity turnout for any preem."

"Jason Rowe," Lemson sighed, rolling supplicating eyes heavenward. "He jeopardized a ten million dollar feelie; almost gave me heart failure when he had that heart attack."

"Cy, for the sake of the studio don't let people hear you say that. It's not true! It wasn't a heart attack. He just played the death scene too fully. You know how deep he goes into a role. That's what makes him the world's greatest actor."

"I don't care what you call it," Lemson said heatedly, "the guy's heart stopped and it was only because of Zack's alertness that they got to him in time. He almost died. I don't want to be ghoulish about it, Bob, but the studio's putting a lot of time, money and sweat into making that boy a star--"

"Nobody's making him a star," Herschell cut in, "he was born one."

Herschell had spoken with such honest emphasis that Lemson replied, greatly subdued, "Okay, okay, but we have ourselves a pretty shaky investment if every time he dies in a feelie he's liable to really go over the edge."

"Zack thinks he can work out a receptor circuit to keep it from happening again. Sort of a subliminal survival monitor that won't show on the strip."

Lemson looked nervously at the theater entrance. "They should be coming out soon," he muttered.

"Ten minutes yet," Herschell assured him.

Inside the shining pleasure dome, six thousand Jed Carters lay dying on an afternoon hillside. The war was gone to another hill and he was alone now with the grass wind and the small summer sounds of the earth. His pain
was a soft ache like a child's secret tears and his life was slipping reluctantly from him in a trickling red ribbon. He
heard the sweet sound of a bird and the song of it wrung his heart. There were so many songs yet unheard, so much
soft laughter unborn, so many caresses yet to be shared; a lifetime of summers, waiting, now never to be filled. His
heart cried at the thought of them.

The sun warmed him like a great golden lover and filled him with an ineffable sadness for the bright days to
come that would never be his.

And now at the last he thought of her. His heart ached for her, craving one more of those lost mornings when
he had awakened in the dawn at her sleeping side and with his eyes happily loved her sweet slumbering face, haloed
by the marvel of her wheat hair catching the first glints of the new sun.

In a last languid movement he turned on his back and opened his eyes to the bright sky. He felt her stir. Her
arm brushed him and the vibrancy of her being sang through him. She opened her eyes and her love smiled out at
him. The smile brightened her face until it spread across the sky and grew brilliant like the sun. She reached out for
him. He sighed with a great breath of quiet happiness because she was the sun smiling down at him and at last he
rose up and went to meet her.

* * * * *

"It's time they were coming out," Herschell said. "Let's get back."
They entered the lobby, deserted except for a scattering of ushers, and waited.
"Why aren't they coming out?" Lemson asked, more of the emptiness than of his companion. "It's ten minutes
since the scheduled ending. Do you suppose the projection's broken down or maybe--"
"Relax, Cy, you know these preems. Always a bag full of delays, starting with late VIP arrivals."
"There've been no delays. They started on time--"
The sound of sirens spiralled out of the night and whirled the two men around to face the entrance. Lights raced
frantically across the plaza as a dozen turbine vehicles whined to a stop in front. More were arriving. Medical teams
and squads of policemen burst through the doors. They ran past the slow float shafts to the elevators.
"What's happened?" Lemson screamed. "What's going on?" He tugged at a uniformed sleeve but was thrust
aside by the running man.

Herschell and Lemson followed, half running, to the elevators. Herschell shouted an inquiry at a cluster of
policemen surging into one of the cars but the nearest grim-visaged man almost angrily waved them away from the
doors as it closed in their faces.
"The manager's office!" Herschell cried and they ran for a private elevator. Seconds later they dashed into the
manager's office.
"He's not here," Lemson wailed.
Herschell snapped a switch on the desk and a harried, shocked face appeared on the viphone screen. "Mr.
Herschell! Mr. Lemson!"
"Pete!" Herschell exclaimed, "why've we got the police and medicos? An accident?"
The man's lips quivered as he spoke. "A lot of the patrons are dead."
"WHAT?! How many?"
"Don't know ... yet ... maybe all," Pete said brokenly.
"What in heaven's name happened?"
"The death scene ... Rowe killed them ..."
"You're crazy!" Herschell shouted. "It's impossible! The projector's triggered to shut off if the patron's in
danger."

"What everybody thought," Pete said, "but the house doc said something about the projectors being keyed to
extreme agitation; racing pulse, increased blood pressure. That didn't happen here. The people weren't alarmed.
Nothing to trigger a shutoff. Doc said the death was ... was ..." Pete turned away, trying to hold back tears.
Herschell kept himself from shouting. "Was what?"
"... was ... sweet ... beautiful ..." Pete's shoulders shook with a spasm of sobs that muffled some of his words,
"... should be ... here ... see it ... kids too ... rows and rows of ... people ... all smiling ..."

THE END
It was a new time and a vast new war of complete and awful annihilation. Yet, some things never change, and, as in ancient times, Ulysses walked again--brave and unconquerable--and again, the sirens wove their deadly spell with a smile and a song.

They came like monsters, rather than men, into the vast ruin of what had once been a great city. They walked carefully, side by side, speaking to each other by radio as though they were in deep space rather than upon solid ground.

The winding way they followed through the ruins was marked by blurred footsteps in the dust and the two men, clumsy in their bulky suits, found the going difficult.

They stopped, and one of them held out an instrument. He studied the dial. "All clear," and both men removed their helmets. They wiped sweat from their faces and glanced at each other.

The blonde man said, "The air's okay, Jarvis. Everything seems all right. I don't get it."

Jarvis, his dark eyes wary, scowled as he looked about. "It seems all right. But we know it isn't. It can't be."

"I'm shucking this suit."

"Don't be a fool, Mark!"

"But the dial read clear, man! And we know nobody is going to shoot us. All life had to be wiped out."

"How about minor power installations?"

Jarvis took a chocolate bar from his pocket, sat down on a piece of broken rubble and began to eat. "You're too careless--far too careless, Mark."

Mark laughed. "You've always been cautious enough for both of us. Got me out of plenty of scrapes back in school, too. Don't think I've forgotten." Affection warmed his blue eyes as they rested on the face of his friend.

"Okay! Okay! But what happened to them? Where did they go?" Jarvis took nervous bites from his second chocolate bar. Then he, too, peeled off his suit. He sniffed the air distrustfully, as he wiggled his shoulders to free them from the clinging, damp shirt. Then he took a few experimental steps forward.

"Seems all right, Mark. But how do you explain about Hank and Garland? Never were two more careful guys."

"Probably a simple miscalculation. Or an accident. We know it couldn't have been enemy action. Tests prove conclusively that we wiped them out--to a man." He took deep gulps of air into his lungs, and stretched like a cat.

"We'll find out soon enough. Boy, I feel great!"

* * * * *

They deflated and folded their safety suits and added the bundles to the other equipment on their backs. Then, with their instruments held before them, they probed their way into the twisted wreckage, still following the faint, dust-filled footprints.

Bent and rusted girders rose on all sides like the bones of prehistoric monsters. Nothing stirred. The dust lay ages-thick on everything.

"Gives you the spooks, doesn't it?" Jarvis was still tense, poised to respond to the first signal of danger. "Feels like we're the last men alive!"

"Funny about Hank and Garland. There's nothing here to harm anyone."

Jarvis looked at his watch. "Better contact HQ for instructions."

The two stepped off the path, into the shade of a grotesque chunk of broken masonry. Mark set up the radio and twirled the dials. "Team Four, calling HQ. Team Four, reporting!"

"HQ here." The voice from the radio blared loud in the stillness. "Give your report, Team Four."

"Looks like nothing's moved here in a thousand years. Safe as a baby's dream. Rock-solid, air morning-pure. But--" He hesitated, trying not to sound like a scared school boy. "No sign of Team Three. Or of Teams One and Two, either. Over."

"Look here, Team Four. It's your job to find out. The earth didn't just swallow them. Final report from each team placed them well within the city. It's been ten days since the last contact. Probe every inch of the place."

"Right!"

"But be careful. We can't afford to lose any more men! Roger!"

"Roger!"

There was only one way now--ahead. It lay clearly marked. The dim footsteps never strayed or faltered. Three hours of search revealed no pitfalls, no dangers, and no trace of the missing men. Then night was upon them and they bedded down gratefully.

"Strange, isn't it? The war over. The invaders blasted from the earth. All peril gone. And yet--men disappear."

Jarvis stared at the ruins around them. "I can't take much more, Mark. Twelve years of war is enough. Are we never to have a life--have our home and women back, and--peace?"
"Sure, it's been tough. But think of the women and children isolated on that sub-satellite. It's tougher for them--just waiting." Stretched on his back, Mark stared at the cloudless, evening sky. "But pretty soon we'll get this planet cleaned up and bring them in. Christ! Four years without even seeing a woman. I remember the last time--"

"Okay!" Jarvis interrupted impatiently. "Let's get to sleep."

"Sure, pal. Goodnight."

They fell asleep to dream of green hills, corn ripening, apples roasting over an open fire. Peace, and home, and girls, their firm legs flashing in the sun.

Soldierlike, Mark was suddenly awake. He lay without motion, sensitive to some subtle change in the surroundings. From the corner of his eye he could see Jarvis wrapped in sleep. The silence seemed eternal.

Then, whisper-soft, came a murmur, a sound, a voice. A girl's voice, sighing and singing, from deep in that devastated spot.

A woman!

* * * * *

Instantly, Mark was on his feet. No need to wake Jarvis. Plenty of time for Jarvis to find out--afterwards. But not yet! A miracle that a girl had survived in all that wreckage. But a miracle he wanted to savour alone!

Ahead, the path turned and Mark followed it as it went forward again, downhill, between the massed walls of rubble. Now the voice swelled, a melancholy song. Well, she won't be melancholy for long, Mark thought. Her solitary ordeal was over.

"Mark!" Jarvis stood on an upturned lintel, ten feet above Mark's head. As Mark jerked to a stop at the cry, Jarvis jumped into his path. "You fool! Don't you know it's a trap?"

"So that's how you want to play it? The noble friend, protecting me from myself!" He slammed a fist into the side of Jarvis' head. "Well, I won't bite! She's mine! I found her!"

* * * * *

In silence, in the narrow passage between the rocks, the two fought. Suddenly, above the sound of fist on flesh, came the voice of the girl again, clear, young. "She is there," thought Jarvis. He could almost taste her lips on his. The sensation came as a shock. How did he know? He'd never had a woman. That's what came from listening to the tales of Mark's exploits with women. Now he had to have that girl!

The mounting tension of the fighting snapped something in Jarvis' seething mind. Danger, friendship, duty, all meant nothing. Only one thing mattered. The girl! Mark had had more than his share of girls. He, Jarvis, was the one who should have her! He'd been deprived of his manhood long enough! His frenzied brain hunted a trick to gain his ends.

Mark's superior strength began to force Jarvis to give ground. Then a final blow sent him reeling, he reached out to break his fall, his hand closed on a rock. He threw it. Mark crashed to the ground, his knee smashed, his leg useless. Then the tomb stillness of the dead city took over. The dust settled slowly. Mark came to his feet.

Jarvis was gone.

Dragging his useless leg, Mark forced himself to crawl forward. Jarvis had to be stopped.

Ahead, a shadow moved, and for a moment the moon threw the silhouette of a man against a cavernous opening in the debris.

"Jarvis!"

An electric flash shattered the darkness. The jagged teeth of the bolt spit tongues of fire. Cordite mingled with the raw, nauseant, revolting smell of scorched flesh and hair. The figure tottered and fell into the black mouth of the cave. Then, as the flame faded, it lit up small bundles of charred bones near the fallen body.

There was a whirl and a click of a mechanism. Fifteen feet away, Mark watched as the arm of a phonograph rose, moved slowly back to the starting point. Then the record began once more to grind out its death-trap melody.
It was up to Jerill to think fast ... to do something ... before those strange beasts sucked away the last purified ore on the freighter Bertha.

A shouting wave of men rioted through the engine room.

From the bridge above the hulking atomics, Chief Engineer Durval vollied orders in a thunderous voice. "You men--you!" he raged. "Use your heads, not your feet. Drive them toward the door."

A scattering of Them--compact darting beasts the color of a poppy--scuttled into the shadow of an engine. Heavy Davison wrenches clubbed futilely behind them.

As Durval flew into new bursts of shouting, Scott Jerill, First Mate of the freighter Bertha, grimly shook his head. His lean face was not smiling now. "Call your men back," he commanded crisply. "We don't have time to drive those cats out like this."

Durval turned on him with a snarl. "Take over then. Think of a better way. If you hadn't hauled that load of space cats aboard in the first place...."

"Look out," Scott snapped.

With a crisp smack, a red creature the size of a man's hand struck the rail before them. It was all improbable angles, with no special shape, no front or back. It teetered crazily over the ten foot drop to the floor below. Then it settled, sputtering. It sounded curiously like an angry cat.

"There's one," roared Durval. His wrench slashed down, crashed shrilly on the rail as the cat skimmed effortlessly away. The wrench shot off toward the floor.

Durval shook his hand and roared. The cat, some twenty feet down the rail, cackled insanely. As Scott stepped slowly toward it, the cat hissed, bounded off the rail, and down the steps to the engine room floor.

Scott shook his head. "You're not going to catch them by hand. Better let them settle down, Durval."

"Settle down." The Chief brought the palm of his hand down on the rail. The rail trembled. "They've already settled down. On every generator in the place. One of them crawled under the main relay switch and shorted out half the board. Didn't hurt him a bit."

Scott interrupted gruffly. "We've got to get them out of here fast. Captain Elderburg wants to blast off here day after tomorrow, and we don't have half the ore cargo purified yet."

"And you won't have," Durval snapped. "If we blast off, we'll do it with an empty hold. I can't purify uranium with fifty cats running loose, getting caught in the machinery. It can't be done. Get these cats out and I'll give you a hold full of the best grade uranium Earth ever bought. But not till you get those cats out."

Scowling, Scott bit his knuckles. "We've got to get moving. The skipper thinks IP Metals is going to jump our claim," he said urgently.

"What's this about IPM?"

Scott shook his head slowly. "Nothing. Forget I said anything. But get these cats out. And fast. Have you tried ultra-sonics on them?"


Scott jabbed the Acknowledgement button. As he swung around Durval he glanced down into the engine room. Sweating men beat after the scuttling red beasts.

"Report to me about the sonics," he told Durval. "If that doesn't work, we'll scoop up those red kitties with our bare hands. But we got to get started on that uranium ore purification. Faster than ten minutes ago."

He slammed the engine room door, cutting off Durval's angry roar. Striding rapidly through the bluish light of the corridor, an anger bitter as Durval's throbbed in him. But he took pains to hold it down.

"Confound those cats," he thought. "The Kastil on top of us, and we have to stop work to chase space fauna. And we have three days left. Three days."

So engrossed was he in anger that he almost blundered head-on into the grinning red-head who lounged up the corridor toward him.
"Hey, Scott." Second Mate Max Vaugn raised a lazy eyebrow. "Slow down. Think of all your ulcers."
Scott spun impatiently on his heel. "Can't stop, Max. Got to see the Captain."
"And you don't even stop to say hello to an old friend back from the mines of a nameless asteroid." He grinned, slapped Scott's shoulder lightly with an open palm. "What's all this scandal I hear about your space cats?"
Scott grimaced. "I caught a few while we were scooping up ore over at my pit. Thought the Extra-Terrestrial Life Division back on Earth might be interested in them. They don't eat. They don't breathe.... Only their cage got smashed open, and they got into the engine room. Nobody knows how."
"The good news has got around," Max said grinning. "You don't know it, but there's twenty more sitting outside the main cargo hatch right now. What gets rid of them?"
"If you think of anything," Scott said as he turned away, "tell me. Got to go. Elderburg's waiting."
"Have you tried hitting them with strong light?" Max shouted after him.
"No," Scott shouted back. He was very late, and the Old Man wanted you fast when he wanted you. "Try light if you get a chance."
He broke into an effortless trot, his boots padding lightly on the shining gray floor. "Three days," he thought. He forgot Max. He forgot Durval and the cats. He thought, "Three days," and a fine film of perspiration spread cold across his back.
* * * * *
"We have three days," Captain Elderburg said. He was a small neat man with a prim voice. His bland eyes peered forward into some middle distance, ignoring Scott.
And Scott, sitting tautly in his chair, felt glad those eyes were not on him.
"In three days," the Captain said, "or probably before, the Kastil should find us. The Kastil--the best ship Inner-Planet Metals ever commissioned."
Scott nodded. In the savage, free-for-all world of the space-miner, the Kastil was known as the big ship, the new ship. The ship that could load its cargo hatches in a day, stuffing 100,000 tons of ore down in its belly for the hungering plants of Earth.
"I've fought IP Metals for fifteen years," Elderburg said slowly. His eyes were very far away. "For fifteen years they've grown bigger and bigger, and the bigger they've got, the rougher they've played. You know their record, Scott. Murder, claim-jumping. What they can't steal with a blaster, they take by law."
Glancing through the open port behind the Captain's head, out into the star-dappled dark of space, Scott asked: "Is there any way we can set up a permanent claim here on this asteroid without going back to Earth?"
"You know better than that." Elderburg's eyes turned full on Scott. "Unless we bring a full cargo of reasonably purified ore to Earth, we can't lay claim to these mines, or to any other mineral rights here."
His hands closed neatly, one inside the other. "And we've got to get a cargo back. This is our last chance. A strike as rich as this one will keep us going for a long time. But if we lose this claim to IPM, the days of the independent miner are over. Done with. We might as well sell the Bertha and get out."
"We'll be out of here in two days," Scott said eagerly. "If we...."
"If," said Elderburg very plainly. His eyes turned away from Scott and his hands went all loose at once and spread out flat on the table.
"If we cannot load in two days, Mister Jerill. If your cats that you so foolishly brought on board the Bertha delay us so much that the Kastil locates us. And beats us home with a load of ore. If that happens, Mister Jerill, I will see that you are black-listed from the rolls of every space flight unit now operating. You will be completely responsible for the failure of this cruise."
Slumping back in his seat, he grinned maliciously at Scott. "I realize that our company was offering you a captain's position at the end of the expedition...."
Scott stood up. Anger hammered powerfully at his temples. "All right. I admit I made a mistake. And I take full responsibility for my actions."
"You must admit, Mister Jerill, that only a fool would bring an unknown space beast into a ship."
"Only a fool would deny that the cats are as valuable as uranium in their own way."
"Now, Mister Jerill. Be very careful." There was no mistaking the venom in Elderburg's speech. In his passionless black eyes, viciousness lay coiled. "Your cats have stopped purification of the crude ore for two days. Two days, Mister Scott. We might have been Earth-bound by this time."
Scott leaned over the desk. In a voice quivering with anger, he said: "Listen to me. If you...."
There was a shocking blast of light. Stunning volumes of white light poured from the port behind the Captain's head. It blazed too brilliantly for the naked eye.
With a strangled exclamation, Scott stumbled for the port, clutching his eyes. His fingers clawed nervelessly for the light control.
There was a sharp snap as the port closed. They felt, rather than saw, the light flick abruptly out. Elderburg tore at the door.

They lurched into the corridor. Green-yellow lights flashed before their dazzled eyes. Scott located the wall and began to run, using his finger tips as guides.

"A magnesium flare!" The Captain's words drove at Scott, hard as fragments of metal. "What fool set off a magnesium flare with the Kastil on top of us?"

They stumbled through the cool corridor to the second level air lock. As they approached, the lock clanged open. A space-suited figure waddled into the corridor. The helmet opened back, revealing the vivid red hair of Second Mate Vaugn.

"Light don't bother those cats a bit," he announced. Then his grin faded. "What's the matter?"

The Captain croaked, "You set off a flare--when--when the Kastil has been hunting our claim for weeks. When they're right on top of us!"

Max's face blanched. "The Kastil! Scott, you never told me...." Sudden cunning swept his face. "Why didn't you tell me the Kastil was so close, Scott? Why did you tell me to try light on the cats when you knew--"

"Scott told you!" Elderburg snarled. But at that moment Scott cried out sharply, pointing out through the port by the air lock.

Two miles beyond the Bertha, settled a black cigar. Blue-white fire flared from its base. "The Kastil!" Scott gasped. Useless rage flooded his chest. "The Kastil--and she's found us!"

* * * * *

Under the hurtling jet, the surface of the asteroid was a jagged tangle of stone. Scott, staring tensely from the observation port, felt a swift moment of wonder. Two hours since the IPM ship had landed. And he was in trouble with a vengeance.

As he had left the ship with a party of picked men, he had felt Elderburg's cold eyes on him. Eyes that thought--and threatened.

It was easy enough to read the Old Man's mind. An officer might make one vital mistake. But not two--not introducing the cats into the ship; not permitting a flare to be set off. Unless....

Unless he wanted the Bertha to lose time. Unless he wanted the Kastil to find the precious claim.

Cold raced through Scott's veins. His hands locked white about the space helmet he was about to don. He had to prove his loyalty. Had to prove that the accidents were accidents. And little time was left, as the Kastil could load completely in two days.

"There's the pit, Mister Jerill." The navigator's voice was strained. "See anybody?"

"Not yet. Set her down."

The cargo jet dipped. The vast peaks of shattered stone sped up at them with terrifying speed. Scott refrained from closing his eyes, saw the razor-toothed surface of this shattered world streak toward him. Ahead, the bulk of the Kastil loomed. They must have used the ore pits as a landing marker, he thought. And--what was that?

Motion at the lip of the ore pit.

The jet grounded hissing on the burnt landing strip. "Watch it," Scott warned. "We got visitors out there."

There was an ugly muttering among the men. As Scott threw open the cargo doors and dropped to the rocky ground, he saw the crewmen checking blasters and the slender polonium tubes that could permanently blind a man.

He stepped away from the jet. And as he did so, seven men detached themselves from the shadows about the mine's edge, and strolled toward him. Seven men--two more than were with Scott. The odds might be worse, he thought with a sense of relief.

Cautiously, he loosened the blaster in his belt. They were tricky weapons to handle in space gloves, but he'd better be ready to use it fast.

"Party from the Bertha?" The words came thin and metallic into Scott's helmet.

"Right," he grunted. "You?"

"From the Kastil. Who gave you a clearance to land on our claim?"

"We have a prior claim on this pit," Scott flared. "We have it posted and registered. If you're going to mine, find someplace else."

A giant figure, grimly grotesque in a cumbersome vacuum suit, swaggered forward. "I don't see any of your claim posts."

Scott indicated a tall metal stake glittering somberly in the glare of the jet's loading lights.

The tall man laughed easily, his voice thin and far away in Scott's helmet. "Think of a better story. We just dug that claimer in ourselves. Now suppose you people jet out of here. Ought to be plenty of good claims someplace else."

Scott scarcely heard the sudden bitter burst of protest from his men. His body felt light and cool. The blaster
pressed hard against his side. "There are plenty of good claims," he said. "You better go find them."

He swung the blaster up in a single smooth motion.
The tall man stood very still. They were not close enough to see each other's faces.
Then, high on a plateau of stone above the tall man's head, Scott saw the stars blot out.
"Scatter!" As he shouted, he took a giant leap to the right.
A blast of energy seared from the darkness, gouging a vast hole where Scott had stood.
From behind a boulder he could see the fire of the blaster sweep across the upper edges of the rocks, just at the level where the stars were cut off.

For a moment, the cold green line of his fire flicked harmlessly over naked stone. Then a thick squirt of fire flared quickly. A still-born scream died in his earphones.
The men of the Kastil had dodged away into the darkness.
Scott's voice rang out harshly. "I'll give you men two minutes to organize and get out of here. If you're not out by that time, we'll spin our jet around and burn you out."

There was a brief stir off in the shadows.
"You're in a blind alley there," Scott continued. "There's no way out. And we'll blast any man who tries to climb out over the rocks. Is that clear?"

A glowing flash of energy exploded against the rock protecting him. There was no sound, but bits of stone lightly flecked his suit. Scott braced himself on the rough face of the boulder and worked the blaster around for an open shot.
"No more shooting," the heavy voice of the tall man growled. "You Bertha people. Can you hear me?"
"Yes," Scott said coldly. His eyes probed the shadows for motion.
"We're willing to be peaceful about this. I'm Captain Randell of the Kastil. There's no need for killing when there's plenty of ore for all of us."

"Not in this pit," Scott answered. "You have one minute."
"All right." Randell's voice, distorted as it was by the tiny radio, carried a sardonic edge. "We'll go--from here."
He sauntered out of the shadows, hands upraised. From the tangle of stone, his men crept out to join him.
Without haste, insolent in their retreat, they crossed over the pit.
At the far side they paused. "This is the extent of your so-called claim." Randell's voice purred in their ears.
"Our claim extends from this line. And if a man from the Bertha wants a quick blasting, he can cross this line." His radio snapped off with crisp finality.
Scott stepped from his shelter.
"All right," he ordered. "You men know the story. The Kastil's down here ready for work. And it's going to mean work if we're going to beat her back to Earth. Now, let's go. But watch your step."

They worked. Eighteen hours a day they worked. From the steel-like ground they scooped a dozen tons of the dirty black uranium ore and sent it hurtling back to the Bertha.
But in spite of all their efforts, the more modern equipment of the Kastil overtook them in a day. The blackness on their left was riddled with the flare of digging torches and the slender fire-trails of the jets soaring between the pit and the Kastil.

And now and again, Randell's drawling voice broke into Scott's ears. "You're slowing up, Bertha. Seventy tons for us today. Are you poor little men getting tired?" He clucked sympathetically, then burst into a yell of laughter.
"We'll have the ore cleaned off this rock before you get half loaded."
But Scott and the men of the Bertha worked silently, with savage haste, forgetting sleep and food to keep the tonnage flowing to their ship. They had almost forgotten the cats....

But not for long.
Staggering with fatigue, Scott swayed into Central Control, and sagged into a seat. He had been too long in a space suit. A dull pounding beat behind his eyes. "I came as soon as you called the pit, Captain Elderburg. You sounded pretty urgent."

"It's urgent," Elderburg said. "We're beaten."
Scott stiffened. Fatigue fell from him as he gazed closely at the Captain, saw for the first time the bitter dullness of Elderburg's eyes.
"You better come with me," the Old Man said heavily. He rose stiffly, led the way from the room.
In silence they shuffled down the corridor toward the engine room. A tic worked at the corner of the Captain's mouth, but he did not seem to notice it. "Durval held the cats off with ultra-sonics. He purified about ten tons of the stuff and stored it."
They threaded their way along a chill black catwalk to the center of the ship. In the engine room, men slumped
sullenly among the big atomics. As Scott and Elderburg passed a group of the black gang, mutely dangling wrenches, there was a sudden stir.

"That's him!" One of the men had leaped up. The wrench whipped back over his shoulder. He leaped raging toward Scott. "There's the rotten...."

"Easy, Billy." He was dragged back, disarmed.

"How'd the Kastil know...."

The Captain tugged Scott's arm. "Don't bother with them. Come on."

Scott nodded numbly, followed, his head aching and a nameless wave of apprehension sliding through him.

"Where are the cats?" he asked once.

Elderburg ignored him. "Put on a radiation suit."

They had stopped before a side door of the main hold. As Scott struggled into the suit his mind swirled in a chaos of thoughts. When the suit was adjusted he dropped the helmet shut and stepped forward. Through the lighter gravity of the air lock they lumbered. Then Elderburg spun the controls that opened the door.

"There you are," he said to Scott. He sounded completely deflated. No sting remained in his voice.

Scott stepped forward into the hold, then froze. His body went cold.

The hold was a writhing mass of cats.

Their queer angled bodies darted in a great pile beyond the door. Their red bodies glowed and twisted strangely. They flew about a huge stack of lead containers--uranium cells secured for the long trip home.

And Scott went sick with understanding. Through rigid lips, he forced the words: "Energy-eaters!"

The Captain laughed oddly. "And you wondered how they lived on this naked rock. They ate the raw ore, of course. No wonder they hung around Durval's machines sucking up what free energy they could. They broke through the air feeder system here. No wonder. With cells of 80% pure uranium waiting for them." His voice broke.

"So we're finished," he continued. "The Kastil will be loaded before we can even clean the cats out. We're done."

He swayed back against the bulkhead. Scott took his arm.

"Get away from me." Elderburg wrenched away, his loathing clear even behind the bulky suit. "If you sold us out--" His voice trailed off. "Call your men out of the pits, Jerill. We're blasting off tonight."

"No." Scott leaned forward, his eyes mere slits behind the lense of his helmet. "Is there any uranium left?"

"We saved two cells."

"It's enough," Scott snapped. His lean jaw lifted proudly. "It's a little late, Captain. But I can promise to get rid of the cats in two hours. With the ore deposits Vaugn and I have collected, we can still load a good cargo and beat the Kastil out by at least a day."

Elderburg eyed him sharply. "How can you handle the cats?"

"Get me a lead-lined box about eight feet by...."

Static blasted shrilly in their ears. The voice of the ship's lookout, strained with excitement, shouted. "Captain Elderburg. This is Main Control. Get here fast. An explosion at Lieutenant Jerill's mine."

"No. No. Not an explosion. It's the Kastil. They're attacking the mine. They're attacking the mine."

"* * * * *

They crammed into the observation blister on the Bertha's nose. Scanners swept smoothly over the wilderness of stone jutting up between the ship and the mine.

"There's a fire fight going out there." Elderburg's square face knotted with anger. "Scott, take a party. Blow that livid scum crew off this rock."

"Right, sir!" Scott bolted from the observation port. The emergency alarm howled through the ship. He buckled on a pair of blasters with unsteady hands, a black fury sweeping him. He stabbed one long finger down on the intercom.

"Masters," he yelled. "Get the cargo jet ready. With full battle equipment."

"Right, lieutenant. What's up?"

"Piracy." He spun toward the door. Then jolted to a halt, hands balling at his sides.

A picture was forming on the Master Communication Screen.

Elderburg pounced to his side. "Who is it?"

The picture on the screen was very definite now--a swarthy giant of a man, cynically grinning down at them.

"Gentlemen," the figure on the screen said, and Scott needed no further introduction.

It was Randell, master of the ship Kastil.

"We've had a very entertaining two days," Randell said. His thick hands rubbed easily together. "It's been a real
pleasure watching you work. But I'm afraid the pleasure is over. We're leaving you now. Oh, that disturbance at your mine pit?" He laughed, but only with his mouth; the close-set eyes remained unchanging, watchful. "It seemed so unnecessary to bother mining ore when so much of it was stacked near our pit."

"You bloody murdering bandit," Elderburg thundered. "We'll blast you...."

"You'll blast nobody. Any party approaching the Kastil will get blasted. Any party near the claim--our claim--will get burned down. By the way, I'm afraid your men at the mine contracted space-sickness, or something. They seem to be dead. You needn't bother coming after them."

He began to chuckle. "I think the ore my men are bringing in now will just complete our cargo. See you back on Earth."

The screen went gray. The sound shut off with a loud click.

Elderburg swung on Scott. "Take your men. Clean out that nest of thieves before they remove any more ore. Order out full battle gear. We'll blast the Kastil apart if it takes every man on board this ship."

"No!" Scott caught Elderburg's shoulder, gripped him. "There isn't time for an armed attack. I have a better idea."

"Scott, I order you to...."

"Get me a box," Scott cried desperately. "Made of lead and six feet deep."

Elderburg jerked his shoulder free. His face contorted. "Get to your cabin, Jerill. You're under arrest."

"Captain Elderburg, listen to me. We can...."

"That's a direct order. Go to your cabin." He whirled away from Scott, slammed down the intercom lever.

"Attention all hands. Prepare full battle equipment...."

Scott slashed his blaster hard across the back of the Captain's head. Elderburg staggered, clutched the back of the seat. Scott hit him again. Elderburg's legs went loose. He toppled face forward, struck the intercom and sagged to the floor.

Scott stepped to the intercom. "Attention. All men, prepare full battle equipment and stand by. Stand by. Durval, get the largest lead-lined box you have and set it outside the entrance of the main cargo hatch. Shake it up. We have half an hour till the Kastil jets off."

He cut off the intercom, lugged Elderburg to the chart room and locked him inside.

* * * * *

The hold was beastly hot. Standing inside the hatchway, holding suspended over his head a three-foot long cell of uranium ore, Scott felt a moment of shuddering panic. Over the storage cells along the wall, over the tumbling bodies of the cats, an eerie glow quivered--the menacing flare of radio-activity.

Scott glanced nervously at the forward screen. Chief Durval waved toward him. "Your men ready, Durval?"

The Chief nodded. "Don't go getting yourself hurt now, Scott."

Scott grinned although he did not feel much like grinning.

He shuffled forward under the light gravity of the hold. The uranium cell balanced easily in his hands. Too easily. He could scarcely feel it press against his gloves. The heat control in his suit was jammed again. His hands streamed sweat.

He inched past the cats. A quick cold thrill passed through his stomach. With the energy of the ore almost gone, the scarlet beasts were growing increasingly uneasy. They were casting about for a new supply. It would be easy enough for a foot to slip, he thought. To spill the ore across the floor. New food for the cats--and the loss of the Bertha's last chance as strange space beasts sucked away the last purified ore.

He slipped cautiously past the last row of cells. A quick dash now for the open hatchway beyond....

Half a dozen of the bounding red beasts surged about his feet. Their weight drove his right leg forward. He staggered, caught at his balance. The lead cell above his head began to slip.

"Watch it, Scott!" Durval's voice cracked in his ears.

Straining every muscle against the queer weightlessness of no gravity, Scott struggled to regain his balance. He expected another blow at his legs as the cats leaped for the ore. It was hard to breathe the over-heated air of his suit. But the cats had spun away. As he caught his balance, he stared after them, uncomprehending for an instant. The cats ran twisting in a somehow sinister dance. The bodies were queerly bloated. Down the upper portion of their bodies ran a heavy indentation. As they leaped and twisted, the indentation became a fissure, a crevice.

Then two of the beasts leaped, slammed together in mid-air. But more than two cats fell to the floor. Their sharply angled bodies whisking back toward the depleted uranium cells, four cats appeared with shocking suddenness.

Reproduction. Elemental fission.

Scott had to clean them out, and fast. Soon the ship would be overrun with the energy-hungry felines.

He dashed toward the open hatch. Outside the opening, a great lead box, eight feet by eight feet, gaped upward.
Beyond, four men tensely supported a vast lead cover.

"Is the uranium poured into the box?" he barked sharply.

"Yes, sir. All ready, Mister Jerill."

"Good." Turning from the hatch, he inverted his cell, poured out the uranium ore in a thick stream from the open hatch back across the hold toward the scrambling mass of cats upon the now empty rows of cells.

But he never reached the beasts.

A brawling torrent of animals leaped toward him. Hurling the container into their mass, he leaped to one side. They lunged into the trail of ore. Rolled, leaped, darted along the line. At the hatch edge, a pyramiding mass of cats paused a moment. Then plummeted over. Scott fell back against the bulkhead, his eyes fixed on the cats still scavenging among the empty cells.

Then these too were darting for the trail of ore. The uranium was scattered now. Cats plunged toward the new radiation in the box beyond the hold entrance.

The inarticulate cheers of Durval and his men rang in Scott's helmet. But his mind was already working at the next step of the problem.

"Durval," he ordered. "Get a decontamination unit in here. Clean this place out." Cats poured in a frenzied stream from the ship. "Call Mister Vaugn. Start purification of his ore as soon as it arrives."

Past the hatch, he saw the swift flash of the lead top dropping over the box. Excitement pounded hotly in his throat.

"I'm going to get rid of these cats once and for all," he called. "Be back in an hour."

"But what about the Kastil?"

"We'll worry about the Kastil later. Get that ore purified. We're blasting out of here in forty hours."

He swung from the cargo entrance to the top of the lead box. Under his feet, the lid trembled with the frantic struggling of the cats. "Load this crate in the cargo jet," he cried. "And hurry. We only have half an hour left."

The pounding of the jets matched the pounding of the blood in Scott's temples. "When we land," he instructed, "get this crate out fast. Everything depends on how fast you can take the cats down to the pit. I want you to bury it as fast as you can. Understand?"

He glanced sharply about the group, feeling their eyes clinging to him.

"Get as much rubbish on the crate as possible. And then obey every order I give you as fast as possible no matter how foolish the order may seem."


The loading compartment swung open. But as the men lifted the crate toward the door, the jet's intercom burst into life. "Jerill. Jerill, this is Captain Elderburg. I order you to return at once."

Elderburg had freed himself too quickly.

"This is a criminal offense, Jerill. Come back at once."

"Get that crate out," Scott roared. "Hurry. Hurry!"

"Mister Jerill," blared the intercom. "You are under arrest, according to the Articles of Space, for conspiracy, armed assault..." Scott cut the voice off in mid-sentence. He leaped into the hold, threw his weight behind the box. "Quick. Get it to the pit."

The men lumbered off into the darkness. Even with the light gravity of the asteroid, it was difficult to handle the crate as the scrambling cats pitched it from side to side.

Scott scaled a boulder. The hulk of the Kastil loomed just beyond, dark and threatening. A thin square of light showed at their cargo entrance. They were still completing loading.

"Hurry," Scott muttered feverishly. "Hurry."

The men reached the pit. Carefully, slowly, they lowered the crate into the shadows.

Sweat streaming down his face, Scott tore his eyes from the Kastil hatch, grimly watched as his men scooped rubbish into the pit.

A motion in the darkness. Even with the light gravity of the asteroid, it was difficult to handle the crate as the scrambling cats pitched it from side to side.

Scott's breathing stopped.

A group of men closing in toward the cargo jet. Men racing out of the shadows. Men of the Kastil.


For a single astounded moment the men paused. Then, sweeping the rubble from the crate, they fumbled it toward the surface of the pit.

Scott leaped down among them. Pushed. "They're going to trap us." The crate struck on the pit's edge. Scott seized one end, forced it up over. "Grab that other end, Masters. Move, man. Don't argue. Move!"
Staggering over the uneven ground, they lurched toward the jet.

"I think you ought to rest for a moment." It was the cool voice of Randell, who stepped from the darkness with a blaster turned full on them.

Crewmen from the Kastil poured from among the rocks. Their blasters swung a menacing ring about Scott and his men.

"Step back away from the crate." Randell stepped forward, tapped his blaster against the side of the box. "Now what do we have here."

"Keep away from that," Scott snarled. "That's property of the Bertha."

"Is it?" Randell turned carelessly to his men. "Property of the Bertha," he drawled. "Well, we'd better have a look at it now. To make sure you haven't accidentally salvaged some of the Kastil's equipment. Oh, quite by accident, I understand."

He began to loosen the screw-clamps of the lid.

"Stop!" Scott leaped forward, no longer conscious of the weapons swinging on him. He dropped his hand upon the box.

"This is mine," he said. "I forbid you to touch it."

"Have you ever seen a man die of a blaster bolt?" Randell asked. "Step back."

The men of the Bertha fell back. Their shoulders touched the toothed rim of stone about the pit.

Randell chuckled. "Perhaps it's just as well we didn't blast off when we were loaded. There was always a chance you'd found something else of value here."

He flicked the muzzle of the blaster about. "If you don't mind, we'll inspect this crate in a better light. Back at the Kastil."

Triumph leaped through Scott. "This is piracy," he said, and sounded sincere.

"Piracy is what is proven," Randell laughed. "Do you really think you have a case in our courts?" He sighed softly. "Now, thank you for this unexpected pleasure. And good-bye. We'll see each other again on Earth, perhaps."

Then they were gone and immediately afterward, the Kastil, balancing on a white line of flame, leaped away from the asteroid and flashed out past the stars.

Scott stared after it, a faint smile touching his lips. About him rang the triumphant laughter of the crew.

Someone gripped Scott's shoulder. "Captain Elderburg on the intercom, Mister Scott. I just told him. And--congratulations, sir."

Scott grinned. Entering the jet, he faced the intercom, said: "It's over now, Captain."

"Good work, Mister Scott." Elderburg's voice was unsteady. "How did you do it?"

"Pretended to be taking something of value," Scott said. He relaxed back against the seat. "I knew Randell couldn't resist making a clean sweep of everything we had. So I gave him the chance."

Elderburg's laugh filled the cabin. "And when they open the crate...."

"Good-bye uranium." Pale eyes smiling, Scott waved a knotted fist. "And now, sir, we're going to start mining ore. This is our claim now. And we'll be blasting out of here in forty hours with the biggest load of uranium ore Earth ever got its hands on."

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Contents

ZERO DATA

By Charles Saphro

All the intricate, electronic witchery of the 21st century could not pin guilt on fabulous Lonnie Raichi, the irreproachable philanthropist. But Jason, the cop, was sweating it out ... searching for that fourth and final and all-knowing rule that would knock Lonnie's "triple ethic" for a gala loop.

Lonnie Raichi was small, heavily built, wet-eyed, dapper and successful. His success he attributed entirely to his philosophy.

Not knowing about Lonnie's philosophy, the whole twenty-odd years of Lonnie's success was the abiding crux of Jason's disgust. And this, in spite of the more and more men Jason came to control and the fitful stream of new techniques and equipment Gov-Pol and Gov-Mil Labs put at his disposal.

Jason was a cop. In fact, by this Friday the thirteenth in the fall of 2009, squirming on what had come to be his pet Gov-Park bench right across from the Tiara of Wold in the Fane, he was only one step short of being the Head Cop of Government City. He was good. Gathering in a lot of criminals was what had brought him up the steps.
But he hadn't gathered in Lonnie.

It wasn't for lack for trying. Way back, when Lonnie was known simply as "Lonnie," Jason managed to get a little help from his associates and superiors. Sometimes.

But as Lonnie came to be known as Lon Raichi, then Mr. Raichi, and finally as "THE Launcelot Raichi" (to Everyone Who Mattered), and as Jason's promotions kept pace with his widening experience and painstakingly acquired knowledge; peculiarly, there seemed to be fewer and fewer persons around who could be made interested in "Lonnie."

Inside Government and Gov-Pol-Anx as well as among the general Two-Worlds public.

So Jason got less and less help, or even passive cooperation, from his superiors. As a matter of fact, the more men he could command, the fewer he could use on anything that could be construed as concerning Lonnie.

Equipment, though, was a little different matter. There was usually enough so that one unit of a kind could be unobtrusively trained on Mr. Raichi under the care of Jason's own desk sergeant. In 1999, for example, Moglaut, that erratic and secretive genius in Physlab Nine, came out with a quantum analyzer and probability reproducer. The machine installed in Pol-Anx, reconstructed crimes and identified the probable criminals by their modus operandi and the physical traces they couldn't avoid leaving at the un-mercy of any of its portable data accumulators.

On Jason's first attempt it almost came close to Lonnie. It did gather in the hidden, dead, still twitching, completely uncommunicative carcasses of the five men who actually relieved the vault of the Citizen's Bank of Berlin of its clutch of millions. It even identified the body of the rocopilot found floating in the Potomac a few days later as being one of the group, and the killer. It did not locate the arasonized remnants of the plane, though, nor the currency; and only achieved the casting of a slight, or subsidiary, third-hand aspersion in the direction of THE Launcelot Raichi.

But Lonnie came up with an irrefutable alibi, somehow, and the hassle that followed made Jason's luck run out. And on Jason's stubborn, secret, subsequent tries, all the analyzer could produce was a report of zero data whenever Jason, reasonably or unreasonably, believed that Lonnie was involved.

Every time.
Zero data when Schicklehitler's marshal's baton disappeared from the British Museum.
Zero data when Charlemagne's Crown lapsed unobtrusively from its shrine in Vienna during the Year 2000 Celebration.

Subsequently, Jason realized that the Berlin job in 1999 had marked Lonnie's last essay after money. Other things seemed to occupy Lonnie's mind after he'd sprouted publicly into the status of full-fledged, hyper-respectable, inter-planetary business tycoon; complete with a many-tentacled industrial organization in Moon Colony and a far-flung prospecting unit headquartering at Mars Equatorial.

Tycoonship was a status with which Everyone Who Mattered was always pleased.

Jason's next attempt on Lonnie had to wait until 2005 and was the result of two unconnected circumstances. The first was Physlab Nine's secretive genius, Moglaut, evolving another piece of equipment, a disarmer, which, subsequent to its first use, saved countless cops' lives. The second was the discovery in the Valley of Kings, of Amenhotep III's own personal official Uraeus. Positively identified beyond the shadow of doubt.

Jason, playing the hunch he'd built up about Lonnie, rushed a man, armed with the brand new disarmer, instantly to the scene.

The next morning, Amenhotep's Uraeus was gone and the corpse of Jason's man was found--part of it. The right hand, arm, shoulder, and most of the head were missing; burned away. And of the disarmer, only a fused hunk of mixed metals and silver helix remained.

And the analyzer reported zero data.

"I won't shut up," Jason said, standing on the carpet in front of his superior. "He did it. I don't know how, but he did."

Another spasm of frustration shook him and he slammed his fist down on the sacred desk. "I've known Lonnie all my life. I know he doesn't know phfut about anything scientific, and yet he makes a horse's--"
"Captain Jason, I insist that you stop referring to--"
"Makes a--" Jason raised his voice, "horse's--"
"CAPTAIN JASON!"

Jason subsided.

"Captain, Annex has been most forbearing all these years. We've overlooked your incomprehensible phobia--this--this confoundedly unfounded impossible bias against such an irreproachable philanthropist as Launcelot Raichi--because of the sterling quality of your ... ah ... other work. However--"

On the desk, the Commissioner's fingers took up a measured tattoo. "--should this fixed idea begin to encroach
"All right ... Sir." Sullenly, Jason submitted. "I understand."

With a self-congratulatory smirk up at the ceiling that separated them from Executive Level, the bland face of the Commissioner smoothed out. "All right, Captain, as long as we understand each other ..."

Sourly, Jason got himself back to his own office. Drumming his own fingers on his own desk and glaring at his own desk sergeant, he purged his soul.

"-damned equipment would only work, I'd gather him in! They couldn't stop me, then! But--" Jason choked. When he could speak again, "He's never studied a lick in his life, I tell you! Yet he makes a he-cow's behind out of the best man and the best scientific equipment Annex can provide! How? How, I ask you! He doesn't know the first blasted thing about any blasted thing in any blasted science!"

That was true. Conversely, Jason didn't know about Lonnie's philosophy.

Nowadays, Lonnie called it a "philosophy." He told reporters it was "based on a triple ethic." (Inside his skull, a small boy jumped up and down in glee over the magnificent language he was able to use.) But he always replied only with a superior smile when asked by reporters to put the philosophy and the triple ethic into words. If pressed, he paraphrased an Ancient Man: "You know my works. Judge by them."

He was referring, of course, to his having branched out into patronizing the Arts. He'd even erected Raichi Museum just across the velvety green circle of Gov-Park from Government's own Fane of Artifacts.

The reporters would go away and write more articles about his modesty and the superlative treasures of Earth, Moon and Mars that were gathered in the Raichi Galleries; protected, the papers always boasted, by the same ultra-safety mechanisms that guarded the mile-long, one-gallery-wide, glass-fronted Fane itself. Government affably made up two of every anti-break-and-entry device nowadays. One for the Fane and the other for Raichi Museum.

Despite occasional grumbles in the letters-to-the-editor columns, the papers never seemed to inquire into why so many priceless trans-worlds artifacts got into Lonnie's private ownership instead of Government's public Fane. And while some artists and architects (unendowed by Lonnie) succeeded in publicly proclaiming Raichi Museum gaudy, such carpings were but to be expected, particularly from modernists.

Actually, Everyone Who Mattered felt Raichi Museum's granite walls were much more dignified than the narrow, glass-faced arcade that was the Fane, wide open to the most disrespectfully casual public inspection all the time. Why, even late at night gawking loiterers pressed their noses against the glass; black, clumsy images pinned to the blazing whiteness hurled by radionic tubes against the back wall of snowy marble from Mars' arctic quarries. Besides, that glass, proof though it was against anything but an atomic explosion, still made every true art lover feel disquietingly insecure.

No, on the whole, the papers and reporters and true art lovers who felt the Public's treasures should be more secure than visible, never questioned Lonnie's doing good to so much Art.

Thus, nowadays, nobody did anything but accept Lonnie. Except Jason. And he, perforce, took out his disgust not on hounding the sacrosanct Lonnie, but on that crackpot, mumchance, captive genius of Physlab Nine. With the result that, late in 2007, Pol-Anx had an electronic servo-tracer.

Pending construction of sufficient hundreds of thousands more for full Anx use, Jason swore Lab Nine to secrecy and installed the pilot model in his own office. He had enough authority for that.

It was a hellishly unbuildable and deceptively simple gadget, that tracer. Simply tune it in on the encephalo-aura, the brain wave pattern of any individual ... and monitor. It never let go until deliberately switched off by the operator. It tracked; pinpointed the subject accurately up to twenty thousand miles. It stopped humming and started panting in proportionately ascending decibels when the subject became tense, nervous, afraid. It also directed pocket-sized trackers of its own Damoclean beam. It made it a cinch to gather in known criminals in the very midst of their first subsequent flagrante delicto.

Jason latched the servo-tracer on Lonnie and settled down to wait.

At 10 p.m., local mean time, January 25, 2008, the tracer hiccupped and, all by itself, went to sleep!

Jason blinked. Jiggled the gadget. Swore. Either the gadget was haywire or Lonnie was up to something, and, as usual, was making a--

Jason bawled for four reliable squad men he'd mentally selected before. If he could find Lonnie--catch Lonnie in actual performance of an act--then Commissioner or no Commissioner, Executive Level or no Executive Level...!

He roared from Pol-Anx with the men, past the flank of Government Fane, across the Park and around the bulk of Raichi Museum to Lonnie's mansion in its shadow. Leaped from the gyro-van, sweeping his men out into a fan for the neighborhood.

Nothing. Placid. Tree-shadowed, lawn-swept streets, ebony and silver in the light the moon reflected from solar space.
He'd missed. Too late. Lonnie was gone ... or was he?

Jason didn't give himself time to think; his men time to get even a momentary hesitation started. He shoved his thumb hard against the door chimes and his shield under the butler's nose.

Yes, Mr. Raichi was at home. Then, after an interval nicely calculated to allow Jason to feel how acutely precarious his position stood, "Mr. Raichi is accessible."

Lonnie was bland. Blandly accepting Jason's urgent story of a known ... er ... jewel thief traced to the neighborhood. Blandly amenable to Jason's suggestion that his men be permitted to go over the mansion (once he'd started this damfool caper, he had to go through with it). Lonnie so bland that Jason felt a skitter of perspiration down his backbone while his men hustled up the soaring circle of the stair.

II

"Since I've been disturbed anyway," Lonnie offered, "I'll show you around."

"Thanks," Jason shook his head stiffly. "I'll just wait."

"I think you should come."

Shrugging, Jason followed, eyes stubbornly downcast.

"... my library ... my den ... bar. Care for a drink? Well, suit yourself." As the lights of the den dimmed and one wall swooshed smoothly into the ceiling. "My theatre ... The usual tri-di stereo, of course, but I've had a couple of the new tight beams installed to channel Moon and Mars on the cube. Much better than the usual staged bilge. Say, that reminds me, a couple hours ago Mars projector had a scanner on one of the exploration parties caught out in a psychosonic storm. Jove, did they wriggle! Even in atomsuits they were better than Messalina Magdalen working on her last G-string. Here, I'll switch it on. Maybe the rescue team's--"

Building up inside the hundreds of thousands of layers of crystallized plastic came a reddish, three-dimensional landscape, as if viewed from a height. Orange dust swirled across a gaunt, clawed plain under a transparent pink haze. A feeling as of sub-visual vibration, emanating from the cube, tugged at Jason's eyelids.

No life.

"... No; they've cleaned up the carcasses already. Too bad. Tell you what, though. Next time I catch it happening, I'll phone you and--"

"Don't bother."

"Suit yourself." Lonnie shifted and went on, lightly. "I'm not at all satisfied with the color, are you? It's off a little, don't you think?... Well?... Well!"

Unwillingly, Jason moved his attention to the cube. Eyes widening, he studied it. "No. You're wrong. That's good! The tech who poured that stereo did a damned good job. It's--"

"Not good enough for me! That's not exactly what I saw up at Vulcan City. If those lazy--"

"Look, you can't expect exactly the same reflectivity from crystallized plastic that you get from molecules of atmosphere, no matter how scientifically the pouring and layering is controlled. It's--they're two different materials. Leaving aside the ion-index differential and quality of incident light, you still can't--" I can ..." As the pause lengthened, Jason's gaze was finally drawn to Lonnie's face. "You still haven't changed a bit, have you, Jasey? Still all wrapped up in how any collection of doodads work instead of just for what it'll do. You know, I wouldn't be surprised if that hasn't always been the difference between us. Where's it got you?"

Jason strode for the door.

"Wait a minute." Lonnie's voice came louder. "Better wait, copper. I'm not through ... That's better."

From behind Jason came the sound of rubbing palms. "We've come a long way from Gimlet Street, haven't we, Jasey? You particularly. Captain. Promotions. Pay raises ..." Then Lonnie was in front of him, staring up. "You're quite a substantial citizen now. Yes? Well, look at that. Go on, look at it."

Against the side wall stood a gigantic triptych. More than life size, the central panel canopied the statue of a Mongol potentate; the two side wings, a pair of guards in bas-relief. All three wrought in chryselephantine gold and ivory; the gold with flowing pallid highlights. Damascened armor, encrusted with jewels, girdled the chest of the Asiatic Prince; helmeted the sullen head carved from a single immensity of ivory.

Ruby eyes glared arrogantly under ebon brows. Against the statue's folded shins, its pommel negligently gripped by one immovable, ivory hand, leaned a short Turkish scimitar of watered steel. Beneath the carved hassock upon which the statue sat, a dias of three steps fell away to the floor.

"That's Genghis Khan," Lonnie said. "I had him made. That isn't gold he's made of; that's aureum--and it cost plenty to have the silver mixed in. It makes it better. And I get the best! A hundred thousand, it cost me. And thirty-six thousand more to brace the wall and floor. It's good. It's the best that's made!"

He came up on tiptoe, thrusting his chin as close as possible to Jason's averted face. "Why don't you buy one for your place, Captain?"

* * * * *
Jason stared into the malevolent eyes of the statue. "Huh ... hu-hu ... hu-ha-ha-ha ..." At the dais, Lonnie put his foot on the second step and patted Genghis Khan familiarly on one ivory knee. "I like this old boy. He had the right idea. I have it. You haven't. You never had. If you had, you'd listened to the proposition I made you way back then. Remember when Aggie told you about it? Say, I wonder what's become of her, anyway. Do you know? What? What'd you say?"

Jason cleared his throat. Hard.
"Well?"
Jason swallowed. Blood pounded in his temples.
"Jasey, you're stupid."
Jason made his eyes close. Let them re-open slowly.
"You were born stupid and you've stayed stupid."
Still Jason held back an answer.
"You're nothing but a stupid, go-where-you're-sent, do-what-you're-told cop! What do you say to that! If you want to keep on being one, answer me! Answer me!"

Deliberately, Jason jerked his chin at the statue. "That's another example of what I mean."
"What?!!" screamed Lonnie.
"Reflectivity. The silver in the gold. Two different metals and where they're not well fused. That sword blade, too. Just the misalignment of molecules in the surface of the steel makes it look wavy, and ripple when the light changes or you move. Different even in two parts of the same material. That's why you can't get the stereo cube to reproduce color-feel exactly." Breathing heavily, Jason had to let his voice fade out.
"Gaaa ..." Lonnie convulsed. "Who cares!" Laugh sounds rolled out of his throat. "You'll never change."
He flicked his hand at Jason, brushing him away.

But, as Jason, white-faced, herded his men out through the costly grandeurs of the vestibule, Lonnie called from the inner hall: "Copper ..."

Jason turned, waited.
"You amused me, so it's all right this time. You can keep your penny-ante job. But don't try for me again. You cross my path again, I'll smear you. And what's more, I'll use whatever you're trying, to smear you with. Get that! Get it good! Now get out!"

Back in Jason's office, the desk sergeant reported as Jason came in. "Funny thing. That there tracer started to hum again soon after you was out for a while. Quit again 'bout five minutes ago, though."

Jason gritted his teeth, banished the sergeant, and spent five minutes alone gripping the edge of his desk. Then he yanked Lab Nine's silent genius down to his office. That didn't help for the tracer stayed asleep. Not even a hiccup rewarded Moglaut's most active efforts on Lonnie's wave length. On others, fine. Through the night and on into the next day, Jason kept Moglaut at work.

Late in the morning, Authority at Peiping televised publicly that the Mace of Alexander was gone from its satin pillow in the proof-glass case in the alarm-wired room off the machine-weapon-guarded main corridor of the security-policed Temple of Mankind.

The Mace, symbol of Alexander's power, was a pretty little baton barely two feet long. Its staff was mastodon ivory, the paleontologists had determined. One end sported a solid ball of gold hardly as big as a fist; studded with rubies, but none set quite so close as to actually touch.

The other end, balancing the ball of gold, mounted the largest single polished emerald crystal in the discovered universe. Neither the Moon or Mars had produced anything in the emerald line equivalent to what had come out of the mists of Earthly history.

* * * *

Disregarding the bulletin, Jason kept Moglaut at the servo-tracer. In the night's smallest hours it began placidly to hum on Lonnie's aura again.
"What happened?" Jason said. "What did you do?"

Moglaut shrugged.
"You must have done something. What was it?"

Moglaut, not looking up from the purring machine, shook his head.
"All right. You can go now." Jason watched the genius disappear hurriedly through the door. From the door he watched the man scutter down the long, long corridor out of sight. The first thing in the morning, Jason promised himself, he'd have a session about Moglaut with Lab Nine's chief.

The first thing in the morning brought word that Lab Nine's erratic genius had stumbled himself out of the seventeenth-floor window of his suburban apartment to his death. Lab Nine's chief clucked sorrowfully.

Jason shook his head and wondered. After exhaustive investigation (zero data) he still wondered. That's all he
was able to do, wonder.

The second time Jason’s servo-tracer on Lonnie hiccupped and dozed off was at 12:01 a.m., August 7th, 2008, just one day after the Diamond Throne arrived on Earth. The single, glittering diamond crystal, misshapen like an armchair and larger than one, had been mined out of the core of Tycho’s crater. And it was also just two days before the Moon Throne would have been installed in the unbreakable safety of Raichi Museum!

"Jason, you're insane," his superior told him when Jason, reinforced by an astounding public furore, brought the matter up. "He owned it. He had no reason to steal it from himself. Besides, one man alone couldn't budge that enormous--"

"It won't do any harm to look-see."

"It can do a lot of harm!" The Commissioner glanced quickly at the ceiling. "I'll have nothing to do with it. That's all."

Officially, Jason's hands were tied. But secretly he maneuvered the transfer of a five-layers-down undercover man from Madras to Government City. And, incidentally, in the ordinary routine of operation, Raichi Museum took on a new janitor; a little brown man who grinned constantly and was fanatical about dust. He was a good, reliable man and when he reported that neither the Diamond Throne nor any of the other missing glories were anywhere in the Museum, Jason had to believe him.

As a matter of fact, it wouldn't have done Jason any good to have installed the little brown man in Lonnie's mansion, either. The lock--not the apparent one openly in the den door, but the real one--was as unobtrusive and foolproof as twenty-first-century engineering could make it. And Lonnie always made sure he was alone and unobserved in the den before he locked it and sauntered across to bestow a peculiar, multiple tweak to the nose of Genghis Khan.

He enjoyed the gesture. On Christmas Eve he grinned broadly while the triptych pivoted in the wall, let him off in the Kruppmartite-walled, pulsing radiance of his very secret, very, very personal throne room, and swung back into place.

His grin changed to an expression of imperial dignity as he encased himself in Catherine the Great's ermine Robe of State and grasped the Mace of Alexander in his good left hand. But then the royal mien gave way to a sullen scowl as he hesitated between Charlemagne's Crown and Amenhotep's Uraeus.

Actually, neither one was worthy of him. Both purely regional coronets belonged over in the farthest dusty corner behind the curtain, along with Schicklehitler's shabby baton and that crummy Peacock Throne. What he really needed was a crown worthyly symbolic of the position he'd make it possible to publicly assume in the not-too-distant future.

It was a damned imposition that he had to put up with. Well, he'd make them do since they were the best to be had. Adjusting the Crown of Charlemagne upon his brow, he stood on tiptoe to wriggle his way back into the embrace of the titanic crystal that was the Diamond Throne. There, he relaxed and gave himself over to the contemplation of the glories of Lonnie.

Who but he had developed such an efficient philosophy to such an unfailingly incisive point? Certainly not Old Boswell who, back in the early days had thought to be teaching him.

"Rule One, my boy," he remembered the old patrician twittering, "there's always someone to pull your chestnuts out of the fire for you--for a price. Pay it. Then add a plus to the payment and the man's yours to use again and again."

But even in those days as a callow, trusting youth, he'd been smarter than Boswell. Observing, from the safety of the sidelines, the way the old fool had finally tripped up, he'd added a codicil of his own to Rule One: "Make sure the payment's final!"

(... witness the Berlin chestnut pullers. And the unobtrusive and undiscovered spate of their predecessors whose usefulness had become outweighed ...)

Then Boswell had said, "Rule Two: You don't have to know the how of anything. All you have to know is the man who does. He always has a price. The currency is usually odd, but find it, pay it, then proceed per Rule One."

Even tonight, in his own Throne Room, Lonnie flushed heavily at the way he'd accepted at face value what came next. "By the way," Old Boswell had added smoothly, "no connection of course, my boy, but the topic reminded me. Here are the keys to that daffodil-hued tri-phibian you ogled at Sporter's exhibit. I must admit you have an eye for dashing machinery even though I can't agree with your esthetics. No--no ... It's yours. I feel that you've earned it and more by--"

He'd rushed to the garage to gloat over the mono-cyclic, gyro-stabilized, U-powered model with the seat that flattened into a convenient bed at the touch of a button. The tri-phib, he recalled, in which he'd coaxed Agnes into taking her first ride.
The details of that recollection brought up his spirits again and, he reminded himself, the lesson had sunk in; had developed into his most useful ethic. After his narrow scrape with Jason's quantum analyzer in the Berlin incident, it hadn't taken long for a good, one-man detective agency to locate Physlab Nine's frenetic genius, Moglaut. It had taken longer to discover Moglaut's currency but, after much shadowing, the 'tec had come through handsomely. Lonnie, automatically applying his fully-developed Ethic One, always considered it a nice sentimental touch that the one-man agency's final case was successful.

Moglaut's price was a prim, brunette soprano who wore her eyes disguised behind heavy tortoiseshell. The ill-cut garb she could afford added greatly to her staid appearance, obscuring a certain full-bodied litheness. She earned a throttled existence soloing at funerals and in the worship halls of obscure, rigidly fanatic offshoot sects.

Her consuming passion was to be an opera prima donna.

Lonnie never tried to understand why Moglaut sat fascinated through endless sin-busting sermons and lachrymose requiems. To hurry afterwards, with the jerky motions, the glazed eyes of a zombie, to subsequent rendezvous with the soprano at his suburban apartment. It was entirely sufficient in Lonnie's philosophy that Moglaut did.

The soprano's continuing suburban cooperation was insured by Lonnie's judicious doling out of exactly the cash to keep a tenth-rate opera company barely functioning in a lesser quarter of Government City. Oddly, he found it pleased him and from that grew his wide patronizing of the Arts.

The immediate result of the situation he created and controlled so deftly was Moglaut's production of a closed-plenum grid suit.

None of Gov-Pol, Gov-Mil or Gov-Econ labs found out about it; much less Pol-Anx or Government itself. Moglaut did all the work in the tiny complete lab Lonnie set up in the suburbs.

Lonnie didn't care what electronic witchery took place in the minute spatial interstices between the finely-woven mesh of flexible tantalum. Sufficient for him, the silvery white suit once donned and triple-zipped through hood and glove-endings, he was immune to ordinary Earthly phenomena; free to move about, do what he wished, untraceably. In it, his words were not vulnerable to the sono-beam's eavesdropping. Photo-electric and magneto-photic watchdogs ignored him. Even the most delicately sensitive thermo-couples continued their dreams of freezing flame undisturbed. Jason's quantum analyzer couldn't pick up the leavings of a glance—all that the suit permitted out into the physical world.

The suit had its limitations, of course. Lonnie could see out, but the suit could also be seen. That required sometimes intricate advance planning to offset. Also, occasionally, manipulating the field of the grid to permit mechanical contact with the physical world was a trifle cumbersome but never annoyingly so. All it took was a modicum of step-by-step thought and some care not to leave a personal trace for the quantum analyzer to pick up. No actual trouble. And, finally, Moglaut had warned that the compact power unit pocketed on the left breast had a half-life of only thirteen years.

That left Lonnie placid. He took the suit for granted and used it for what it let him do.

When something more was needed, he was convinced his philosophy would provide it.

He didn't waste time trying to determine whether possession of the suit or previous experiences leading to his insistence on its development brought into focus the third ethic of his philosophy: "Rules One and Two are valuable and have their use. But when the chips are really down, do it yourself!" Instead, he toddled about personally acquiring the trappings of omnipotent royalty with little thought for the means.

* * * *

But while he was about that business, the very limitations of the grid suit furnished an unending challenge to Moglaut's genius. And out of a sideline experiment incited by that challenge came the disarmer which Jason greeted with such fruitless glee.

Fruitless because, of course, before turning the disarmer over to Lab Nine and Pol-Anx, Moglaut devised a new, infinitely stronger, more versatile power pack for Lonnie's suit. A power pack controlled by a simple rheostat in the palm of the left-hand glove, but whose energy derived from the electron-kinetic properties of pent and shielded tritium. Not simple. In fact, solving the problem of penning and shielding tritium in a portable package delayed the appearance of Jason's disarmer two whole years.

That power pack and the reciprocating properties of the fields of the grid suit itself made a dilly of a combination. Before, the closed-plenum mesh kept Lonnie from leaving traces. Now, anything once embraced within the palpitating fields of the grid moved with and how the suit moved; not in accord with the natural laws of the surrounding continuum. That neat new attribute took care of the cubic yard or so of Diamond Throne.

And the ravenous tritium was malignant. Let any external power be applied against the plenum and it would be smashed, hurled back full force upon its source.

Jason had an undiagnosed example of that when he got only part of his man back from the Valley of Kings.
It was the power-pack-grid-suit combo that made a sleeping Buddha of the servo-tracer on the night of Jason's
call at Lonnie's mansion; bollixed up the elaborate guards of the Peiping Temple of Mankind; and, when Jason so
openly displayed suspicion of the genius, made child's play of what the newspapers headlined as "Scientist's
Amazing Suicide Love Pact."

Lonnie grinned, remembering the incident. Then other memories--things he'd witnessed through a tight-beam
scanner secreted in the suburban apartment--crowded his mind; stirring him restlessly on the Diamond Throne.
Divesting himself of imperial appurtenances, he started for a certain locked file in the den to check the specifications
of available per-diem empresses.

Making sure the triptych was snugly in place behind him, he paused to flip the switch on the stereo cube.
Maybe Messalina Magdalen or one of the lesser ecdysiasts was presenting the perfection of her techniques over the
private channel at the moment, an event he would appreciate.

Instead, the private channel presented, as the cube glowed and cleared, the same red, clawed landscape he'd
shown to Jason months before. The disembodied voice of the commentator on Mars--not the lyrical public
announcer, but the industrial economist who served the private channel--picked up in mid-word: "... early to have
much data on the science and material resources this dead civilization possessed, but I recommend that every
Corporation in Induscomm Cabal should place a technical party at Mars Equatorial as soon as possible. We shall
now key in with the public spacecast. Note the texture and color range of the adornments and artifacts. I venture that
these items will prove popular among you who can well afford such rare treasures. However, subtlety in acquiring
them is suggested. While common clamor for Public ownership is under control, overt provocation is not
recommended. Here is the cut-over ..."

The scene in the cube flashed and coalesced, dazzling Lonnie's eyes for a moment. He was conscious of the
landscape rushing "up"; of gigantic walls and spires rising out of the obscurity of a quarried chasm to tower briefly
against the pink haze of the Martian sky, then expand to give the impression of engulfing him before the scanner
lens settled under the center of a leaping, vaulted dome.

To Lonnie, the many-acred enclosure meant nothing with its shimmering, stone-lace pillars, its tapestries that
flamed with color or traced ghostlike, barely discernible outlines on the walls. Nor did any thought enter his mind of
the exactness of the reflected color in the stereo cube. Hands clenched into aching fists, he stood leaning forward;
striving by sheer will-power to span the void of space and force the scanner lens closer to the truncated pyramid of
steps atop which, on a block of plain black stone, a dessicated mummy sat erect, hands folded in its reedy lap and on
its head a blazing, coruscating radiance.

A Crown!

IV

Dazedly, Lonnie was conscious of the public announcer's rhapsodizing: "... Gov-Anth's ethnologists and
linguistics experts are making some progress toward deciphering the inscription carved on the plaque. Wait! Here's a
note from Gawley Worin. You remember Gawley Worin, our famous leg-man, folks, don't you? Well, here's a note.
It ... Listen to this, folks! Listen! This is the beginning of the first rough translation of the inscription. Listen ...
"'We, Wold, last of the Imperial Family of Wold who exercise our Power from Wold, the Imperial City,
throughout Wold, the Planet. We, last of the line of Wold, who alone may wear the Tiara which is Our Power, and
our Symbol of Power, and the Symbol of Our Power throughout all the edos of Raii's life-taking light, without fear,
facing the fate--'"

Hissing, Lonnie cut the stereo switch. He'd seen enough. Darting across the den, he opened his communico.
"Get me Sykes in our Mars unit," he ordered the operator. "Make sure what I say is scrambled. While you're waiting,
get through to Deniset at Gov-Forn, then Raikes at Gov-Planet, then Butchwaeu in Gov-Int. And keep this line
closed--that means you, too--while I'm talking."

Lonnie--THE Launcelot Raichi--was going after what he wanted.

Just under a mile away, Jason turned from the public stereo in the rotunda of Pol-Anx. Tapping the cold bit of
his pipe against his teeth as he walked, he sought the ease of his chair. In the privacy of his office he began to
ponder.

The months' developments gave him no surprise. Because it was the first contact Humanity had had with a non-
human race, the Mars discoveries made an overwhelming impression on the man in the street. The result was that for
the first time in Post-Synthesis history all artifacts were reserved for Earth Public!!!

Everyone Who Mattered screamed, except Lonnie. He evinced a biding calmness while attending the
ceremonies marking the installation of the Tiara of Wold in the exact center of Government's own Fane of Artifacts;
even smiling benignly on certain Gov-Ficials who seemed to perspire more than the coolness of the evening
warranted.

Jason, loitering on the grass of Gov-Park, noted the smile and the perspiration. The perspirers reminded him of
small boys expecting a whipping.

Once the dedication ceremonies were over, Lonnie never returned to the Fane to examine the Tiara.

It was Jason the Tiara seemed to fascinate. He spent more and more time, particularly evenings, crouching on the bench in Gov-Park across from the Tiara, ignoring the constant stream of awed tourists silhouetted against the blaze of light. He kept in constant touch with his desk sergeant through his pocket communico, so Annex business didn't suffer. And the summer was warm, to say the least, so that several Gov-Ficials were almost regretful that the dignity of their positions forbade following Jason's example.

But then, too, no mere cop had their responsibilities.

None of them was conscious of how habitually Jason frowned, scratched his head, moved uneasily on the pleasant bench. Occasionally, he would snap his fingers and the frown would relax. He'd switch on the communico and speak briefly. Immediately thereafter, one or the other of the hand-picked four in Jason's personal squad would raise his eyebrows slightly--safely, since the pocket communico did not project video--and take up a new position or new duties. Or, an equipment unit in Op-room at Anx would be indifferently retuned by heedless techs.

Then for a while Jason would vent smoke pleasantly from his malodorous pipe until the frown would settle back between his eyebrows and he'd begin to squirm on the bench again, glancing warily at Executive Level, feeling helpless about the inadequacy of his resources.

But Lonnie had gotten over feeling sad about his resources months earlier.

The night he'd returned from the Tiara ceremonies he'd locked himself in his den and let the on-view smile his face was wearing lapse. He tweaked Genghis Khan's nose viciously and slammed himself down in the Diamond Throne without donning a single imperial trapping, pounding his fist on the cool mineral facet and staring morosely at the grid suit hanging in its place on the wall.

The grid suit wouldn't help him this time. The cover-alls that had everything except the necessary invisibility to--

Invisibility!

Slowly, Lonnie began to grin. Very little later he had an obscure biochemist hooked, and ended his instructions with: "... don't care if it needs concentrated essence of chameleon juice. Invent it. And it better work for there's going to be a total shortage of neo-hyperacth at twenty-eight per cc for wifey!"

The biochemist delivered. Lonnie didn't stop to question if it really was essence of chameleon juice. He hurried with the beaker of viscous fluid to his throne room, drenched every square centimeter of the grid suit with it and watched breathlessly through the hours while it dried.

In the glowing, shadowless illumination, the suit gradually disappeared. First, the wall against which it hung shone mistily through it. Then there was wall, slightly outlined by a greyish cast. And at last, only an indescribable fuzziness that had to be sensed rather than seen.

V

He took the fuzziness off its hanger and threw it up in the air toward the center light. The light was undimmed. The fuzziness was air. It sprawled down across the Throne and became diamond, except for the sleeve that dangled; part air, part intricately patterned Persian carpet. It wasn't a fuzziness, exactly, it was more of a faint tone of difference in the color-texture feel. It was as though what was behind the suit was miraculously translated to its facing surface and then reflected to the eye within the nth of utter fidelity.

Grinning, slowly Lonnie's lower lip crept out and up to squeeze its mate. Then, because it was always better to be sure, he donned the suit to try it against a variety of experimental backgrounds, indoors and out.

Over at Pol-Anx, the servo-tracer went to sleep; the desk sergeant yanked the creaking joints of his bunioned feet down off Jason's desk; on the bench in Gov-Park, Jason's communico squeaked briefly and Jason himself clutched his head with both hands and whispered bitter things.

Two hours later, the Wold Tiara still coruscating in the Fane's blaze of light, the servo-tracer picked up its placid hummin. Jason's communico squeaked again and Jason's men relaxed while Jason himself clutched his head with both hands and whispered bitter things.

At the same time, Lonnie, whistling cheerfully, drew his legs out of the suit, shook it straight and hung it back on the wall. He was sure now. As sure as he was that the little biochemist and his wife and quintet of daughters would not want for neo-hyperacth or anything else any longer. He giggled a little, thinking of Jason crouched on the bench, glaring vacantly, utterly unconscious of Lonnie passing across the grass so close beside him.

At his own convenience, Lonnie selected his night; a full-moon night because his now-invisible grid suit didn't require dark. He picked a fairly early hour, too, because what matter if a few yawps gawked as the Tiara vanished? And that one of those yawps would be Jason, stodgily on his bench, gave Lonnie an extra fillip. Perhaps it was just for this he'd let Jason plug along on a cold trail all these years.

So that night, wearily from his bench in Gov-Park, Jason looked up at Friday the 13th's full moon swimming
amiably through its own reflected night-brightness. His brain, tired of its everlasting shuttle between worries, presented him with a disconnected memory-fact: "As cited by Zollner," Jason found himself quoting a forgotten textbook, "the Moon's reflectivity is point one seven four ... Nuts!" Angrily, he broke off, thumbed the button of his communico, growled into the microphone on his lapel, "Report."


"McGillis. Patrolling rear wall. All clear in both directions as far as I can see. An' I can see both ends of the Fane in all this moonlight, Chief."

"Holland. At Raichi House. Nothing."

"Johnson. East Entry. More of the same." Then, "Say, Jase, how about it? These double shifts are getting me."

"What's the matter with you, now?"

"My feet hurt, Jase. Neither one of us is as young as we used to be, remember. How about knocking off?"

"Hmphf ..." Johnson, Jason thought, was getting old. He'd been a good man in his day but-- Hey, he was still a good man! It was Jason's own stubbornness that was wearing Johnson down. Jason's useless stubbornness. After all, without the backing of Anx or Gov, without results from the equipment he had filched to use on Lonnie, what was the use of everlastingly sticking around the Tiara like a fly buzzing molasso-saccharine anyway? Jason opened his mouth to send them all home, pressed the communico button and--shelved the relieving order temporarily. Instead, he blasted into the microphone: "Sergeant! SERGEANT!"

From the communico, an intermittent drone became a gasping gulp; changed into a violent yawn and only then turned into startled speech. "Yeah? Huh?... Yeah, Chief!"

"Sergeant, if I ever catch you asleep again, you won't ever get your pension."

"Chief, I wasn't asleep! Honest! I--"

"All right. What's happening up there?"

"Nothin' ... nothin' ... I wasn't asleep, Chief. I'da called you 'f anything--"

* * * * *

Something bright, or was it dull, plucked at the edge of Jason's vision. Inside the Fane, far down at one end. A thin, vertical bar of difference in the blaze of light. Chin half turned, Jason stared. What?... "Chief! That tracer's asleep--I mean--that there tracer's just GONE t'sleep! I mean--Chief! It's--"

"Shut up!" Jason hissed. "Holland! If you've let anyone slip past you out of that house--"

"Nobody did. You know me better than that, Chief."

"Adams! McGillis! Johnson! What's happening?"

"Nothing ..."

"Not a thing ..."

"Johnson!" Jason licked suddenly dry lips. "Dammit, Johnson, report!... Johnson!"

Silence.

Grimly, Jason watched the vertical bar of different brightness edge back to the Fane's East wall and disappear into the even dazzle of the marble. He had a feeling it wasn't any use calling Johnson again. Ever.

"Chief, what's up? What do we do?"

"Huh? Oh ... You, Holland, get over to the East Entry as fast as your legs'll stretch."

"There in three minutes flat!"

"You, too, McGillis."

"On my way!"

"Adams, you stick at that West Entry. If anything gets past you, I'll--"

"Don't worry, Chief. I've got Johnson to even up for."

Not watching how he ran, Jason hurled himself toward the East Entry; his eyes following, in the opposite direction, a dullness moving in the blaze inside the Fane. A smoothly moving, white on white, unfaced ghost of whiteness within, a part of, the blazing radionic light. Just as he rounded the East end of the Fane, he glimpsed the vertical bar of whiteness again--the edge of the marble slab that was the entry door, reflecting the blazing light at a different angle. Behind it, McGillis's tightly grinning face. Under McGillis's face, the stab of blue-white light reflected a glancing ray from the old-fashioned solid-missile service pistol that Jason had insisted all four men arm themselves with for this assignment.

Over the sound of his own labored breathing as he plunged through the East Entry, Jason heard panting behind him. Holland. Holland bettering his promised three minutes--and with a forbidden disarmer in his hand. Guiltily, Jason felt the weight of the disarmer he had himself secreted under his armpit.

Then there wasn't time for thinking or feeling, only for running down the dazzling half-mile inside the Fane to the Tiara. Up ahead, the different-white shape was motionless in front of it. Oddly, a dark, vertical line appeared from the top to what would be the waist of the shape. And for the instant it took the Tiara to vanish inside, Jason saw
clearly in the radiant light the profile of Lonnie's unmistakable face. Saw Lonnie's eyes swivel in the direction of the thundering echoes of their footfalls in the silence of the Fane. Saw Lonnie turn toward them, the dark line disappearing from waist to top as if it had never been.

Once more the different-whiteness moved. Toward them. Edging for the back wall to skirt around them; one limb-shape fumbling in the palm of the other.

"No you don't!" McGillis, ahead of Jason, yelled, his howl drowned in the smacking crack of his pistol.
There seemed to be a waver in the different-whiteness. A small black dot appeared against it; hung briefly, apparently unsupported, in the air; then the undistorted bullet dropped inertly to the floor.
"You still won't!" McGillis hurled himself, shoulders low and legs driving, at the shape. Two feet from it, he rebounded sharply, trod on the rolling bullet, went down, his head splatting dully against the marble floor.
Holland grunted. Crouched to leap. Thrust his disarmer high, ready to snap into line.
"Hold it!" Jason commanded. Silently, eyelids barely separated to endure the dazzle, he stared at the different-whiteness that confronted him. "I made it this time, Lonnie," he called. "Caught up with you-- No!" His arm flung out, startling him with the feel of his disarmer now oddly in his hand.
"Don't move!"
The white-within-white's limb-shapes moved up, the hand-ends one over the other. Through the minute spaces the overlapping fingers left, glimpses of a thin dark line appeared. The hood was open a trifle at mouth level, and from the opening Lonnie's voice emerged, sifting through the protecting screen of gloves. "You can't see me! You can't!"
"No? Take one step sideways. Just one! Stop!"
The different-whiteness had moved, and Holland had moved with it; crouching now, alertly motionless, in his new position. Jason changed the angle of his own facing. "Now do you think we can't see you?"
"But ... but how!"
"Your albedo is showing," Jason chuckled harshly. "You never would take the trouble to learn the how of anything, Lonnie. Sure, your damned disguise is the same color as the marble. Maybe even exactly the same. But the material is different, and the surface texture; it doesn't have the same degree or quality of reflectivity to incident light that marble does!
"Eighty years ago, even the commercial photographers knew about albedo--one of 'em made a picture of a cat, white on white. I told you about the reflectivity in your stereo cube. But you wouldn't listen, Lonnie, would you?"
Jason let out a bursting peal of laughter. "So you tripped over your own albedo!"
Through the dying echoes of his own laughter, Jason caught Lonnie's harsh whisper. "You haven't got me, copper!"

* * * * *
The black line marking the opening in the grid suit disappeared. The barely-discernible limb-shapes dropped, one hand-end again fumbling at the rheostat in the palm of the other.
"I'll get him, Chief!" Holland was in action, his disarmer snapping down into aim.
"No!" Jason roared. "Holland, don't!"
Too late. Under the pressure of Holland's finger, the disarmer's invisible ion-stream tightened to the thread-thin lethal intensity, leaped out against the suit's grid. Then the disarmer was luminous even in the dazzle; even through the flesh of Holland's fist. Holland screamed and squirmed and dropped. Part of him--the part that wasn't burned away--reached the floor.
The stench of carbonized flesh scoured Jason's nostrils. Stupidly, he stared down at the headless, shoulderless, armless torso; black ... sooty ... against the snowy gleam of the floor; conscious of the sidelong, round-about approach of the different-white figure. He'd failed again. Lonnie, in that damned suit, was impervious.
Slowly, he raised his eyes from the thing on the floor to the thing approaching. One consolation, he himself wouldn't go on living after this. With grim frustration, he raised his arm in a final, fruitless gesture and hurled the useless disarmer at the shape of Lonnie.
It halted, dead, in mid-air, a yard away from the shape-thing. Dropped straight down, clanging against the floor.
A quiver as of mirth appeared to shake the different-whiteness. It stooped. One hand-end fumbled at the palmed rheostat, then dropped to pick up the disarmer. Fumbled again at the rheostat while the figure straightened up to point the glistening projector at Jason's belly.
The dark opening in the hood appeared again.
Lonnie's voice chortled, "Told you I'd use whatever you tried to smear you with. Goodbye, Jasey ..."
The dark line was gone. The disarmer, turned to lethal potential, settled in the shape's hand-end and began to spout. Jason went stiff. Every muscle of his body clenching to withstand obliteration.
He waited for it. Tight ... except his eyes that, in spite of themselves, opened.
Caught within the field, the full power of the disarmer poured itself into the suit. The suit's capacity absorbed it. Almost. Then turned the combined energies on itself.

With the smell of frying organic matter, slowly the grid-coveralls appeared in dazzling radiance within the dazzle of the Fane's lights; glowed in it; red--then white--hot. Whiter than the light itself--far, far lighter than any reflected rays could make it.

Inside the all-encompassing, roasting grid of the melting suit, Lonnie writhed. Faintly, as the suit failed, his screams came through--momentarily. Then they were gone as the fused, molten heap subsided lower ... lower ... began to trickle across the dazzling, ice-white marble of the floor.

Afterward, had Jason known anything at all about Lonnie's Philosophy, he'd have immediately supplied another "rule"; making a foursome out of the "Triple Ethic": "If you do it yourself, make sure you know what you're doing."

**Contents**

**WATCHBIRD**  
By Robert Sheckley

*Strange how often the Millennium has been at hand. The idea is peace on Earth, see, and the way to do it is by figuring out angles.*

When Gelsen entered, he saw that the rest of the watchbird manufacturers were already present. There were six of them, not counting himself, and the room was blue with expensive cigar smoke.

"Hi, Charlie," one of them called as he came in.

The rest broke off conversation long enough to wave a casual greeting at him. As a watchbird manufacturer, he was a member manufacturer of salvation, he reminded himself wryly. Very exclusive. You must have a certified government contract if you want to save the human race.

"The government representative isn't here yet," one of the men told him. "He's due any minute."

"We're getting the green light," another said.

"Fine." Gelsen found a chair near the door and looked around the room. It was like a convention, or a Boy Scout rally. The six men made up for their lack of numbers by sheer volume. The president of Southern Consolidated was talking at the top of his lungs about watchbird's enormous durability. The two presidents he was talking at were grinning, nodding, one trying to interrupt with the results of a test he had run on watchbird's resourcefulness, the other talking about the new recharging apparatus.

The other three men were in their own little group, delivering what sounded like a panegyric to watchbird.

Gelsen noticed that all of them stood straight and tall, like the saviors they felt they were. He didn't find it funny. Up to a few days ago he had felt that way himself. He had considered himself a pot-bellied, slightly balding saint.

* * * * *

He sighed and lighted a cigarette. At the beginning of the project, he had been as enthusiastic as the others. He remembered saying to Macintyre, his chief engineer, "Mac, a new day is coming. Watchbird is the Answer." And Macintyre had nodded very profoundly--another watchbird convert.

How wonderful it had seemed then! A simple, reliable answer to one of mankind's greatest problems, all wrapped and packaged in a pound of incorruptible metal, crystal and plastics.

Perhaps that was the very reason he was doubting it now. Gelsen suspected that you don't solve human problems so easily. There had to be a catch somewhere.

After all, murder was an old problem, and watchbird too new a solution.

"Gentlemen--" They had been talking so heatedly that they hadn't noticed the government representative entering. Now the room became quiet at once.

"Gentlemen," the plump government man said, "the President, with the consent of Congress, has acted to form a watchbird division for every city and town in the country."

The men burst into a spontaneous shout of triumph. They were going to have their chance to save the world after all, Gelsen thought, and worriedly asked himself what was wrong with that.

He listened carefully as the government man outlined the distribution scheme. The country was to be divided into seven areas, each to be supplied and serviced by one manufacturer. This meant monopoly, of course, but a necessary one. Like the telephone service, it was in the public's best interests. You couldn't have competition in
watchbird service. Watchbird was for everyone.

"The President hopes," the representative continued, "that full watchbird service will be installed in the shortest possible time. You will have top priorities on strategic metals, manpower, and so forth."

"Speaking for myself," the president of Southern Consolidated said, "I expect to have the first batch of watchbirds distributed within the week. Production is all set up."

The rest of the men were equally ready. The factories had been prepared to roll out the watchbirds for months now. The final standardized equipment had been agreed upon, and only the Presidential go-ahead had been lacking.

"Fine," the representative said. "If that is all, I think we can--is there a question?"

"Yes, sir," Gelsen said. "I want to know if the present model is the one we are going to manufacture."

"Of course," the representative said. "It's the most advanced."

"I have an objection." Gelsen stood up. His colleagues were glaring coldly at him. Obviously he was delaying the advent of the golden age.

"What is your objection?" the representative asked.

"First, let me say that I am one hundred per cent in favor of a machine to stop murder. It's been needed for a long time. I object only to the watchbird's learning circuits. They serve, in effect, to animate the machine and give it a pseudo-consciousness. I can't approve of that."

"But, Mr. Gelsen, you yourself testified that the watchbird would not be completely efficient unless such circuits were introduced. Without them, the watchbirds could stop only an estimated seventy per cent of murders."

"I know that," Gelsen said, feeling extremely uncomfortable. "I believe there might be a moral danger in allowing a machine to make decisions that are rightfully Man's," he declared doggedly.

"Oh, come now, Gelsen," one of the corporation presidents said. "It's nothing of the sort. The watchbird will only reinforce the decisions made by honest men from the beginning of time."

"I think that is true," the representative agreed. "But I can understand how Mr. Gelsen feels. It is sad that we must put a human problem into the hands of a machine, sadder still that we must have a machine enforce our laws. But I ask you to remember, Mr. Gelsen, that there is no other possible way of stopping a murderer before he strikes. It would be unfair to the many innocent people killed every year if we were to restrict watchbird on philosophical grounds. Don't you agree that I'm right?"

"Yes, I suppose I do," Gelsen said unhappily. He had told himself all that a thousand times, but something still bothered him. Perhaps he would talk it over with Macintyre.

As the conference broke up, a thought struck him. He grinned.

A lot of policemen were going to be out of work!

"Now what do you think of that?" Officer Celtrics demanded. "Fifteen years in Homicide and a machine is replacing me." He wiped a large red hand across his forehead and leaned against the captain's desk. "Ain't science marvelous?"

Two other policemen, late of Homicide, nodded glumly.

"Don't worry about it," the captain said. "We'll find a home for you in Larceny, Celtrics. You'll like it here."

"I just can't get over it," Celtrics complained. "A lousy little piece of tin and glass is going to solve all the crimes."

"Not quite," the captain said. "The watchbirds are supposed to prevent the crimes before they happen."

"Then how'll they be crimes?" one of the policemen asked. "I mean they can't hang you for murder until you commit one, can they?"

"That's not the idea," the captain said. "The watchbirds are supposed to stop a man before he commits a murder."

"Then no one arrests him?" Celtrics asked.

"I don't know how they're going to work that out," the captain admitted.

The men were silent for a while. The captain yawned and examined his watch.

"The thing I don't understand," Celtrics said, still leaning on the captain's desk, "is just how do they do it? How did it start, Captain?"

The captain studied Celtrics' face for possible irony; after all, watchbird had been in the papers for months. But then he remembered that Celtrics, like his sidekicks, rarely bothered to turn past the sports pages.

"Well," the captain said, trying to remember what he had read in the Sunday supplements, "these scientists were working on criminology. They were studying murderers, to find out what made them tick. So they found that murderers throw out a different sort of brain wave from ordinary people. And their glands act funny, too. All this
happens when they're about to commit a murder. So these scientists worked out a special machine to flash red or
something when these brain waves turned on."

"Scientists," Celtrics said bitterly.

"Well, after the scientists had this machine, they didn't know what to do with it. It was too big to move around,
and murderers didn't drop in often enough to make it flash. So they built it into a smaller unit and tried it out in a few
police stations. I think they tried one upstate. But it didn't work so good. You couldn't get to the crime in time. That's
why they built the watchbirds."

"I don't think they'll stop no criminals," one of the policemen insisted.

"They sure will. I read the test results. They can smell him out before he commits a crime. And when they
reach him, they give him a powerful shock or something. It'll stop him."

"You closing up Homicide, Captain?" Celtrics asked.

"Nope," the captain said. "I'm leaving a skeleton crew in until we see how these birds do."


"Sure," the captain said. "Anyhow, I'm going to leave some men on. It seems the birds don't stop all murders."

"Why not?"

"Some murderers don't have these brain waves," the captain answered, trying to remember what the newspaper
article had said. "Or their glands don't work or something."

"Which ones don't they stop?" Celtrics asked, with professional curiosity.

"I don't know. But I hear they got the damned things fixed so they're going to stop all of them soon."

"How they working that?"

"They learn. The watchbirds, I mean. Just like people."

"You kidding me?"

"Nope."

"Well," Celtrics said, "I think I'll just keep old Betsy oiled, just in case. You can't trust these scientists."

"Right."

"Birds!" Celtrics scoffed.

* * * * *

Over the town, the watchbird soared in a long, lazy curve. Its aluminum hide glistened in the morning sun, and
dots of light danced on its stiff wings. Silently it flew.

Silently, but with all senses functioning. Built-in kinesthetics told the watchbird where it was, and held it in a
long search curve. Its eyes and ears operated as one unit, searching, seeking.

And then something happened! The watchbird's electronically fast reflexes picked up the edge of a sensation. A
correlation center tested it, matching it with electrical and chemical data in its memory files. A relay tripped.

Down the watchbird spiraled, coming in on the increasingly strong sensation. It smelled the outpouring of
certain glands, tasted a deviant brain wave.

Fully alerted and armed, it spun and banked in the bright morning sunlight.

Dinelli was so intent he didn't see the watchbird coming. He had his gun poised, and his eyes pleaded with the
big grocer.

"Don't come no closer."

"You lousy little punk," the grocer said, and took another step forward. "Rob me? I'll break every bone in your
puny body."

The grocer, too stupid or too courageous to understand the threat of the gun, advanced on the little thief.

"All right," Dinelli said, in a thorough state of panic. "All right, sucker, take--"

A bolt of electricity knocked him on his back. The gun went off, smashing a breakfast food display.

"What in hell?" the grocer asked, staring at the stunned thief. And then he saw a flash of silver wings. "Well,
I'm really damned. Those watchbirds work!"

He stared until, the wings disappeared in the sky. Then he telephoned the police.

The watchbird returned to his search curve. His thinking center correlated the new facts he had learned about
murder. Several of these he hadn't known before.

This new information was simultaneously flashed to all the other watchbirds and their information was flashed
back to him.

New information, methods, definitions were constantly passing between them.

* * * * *

Now that the watchbirds were rolling off the assembly line in a steady stream, Gelsen allowed himself to relax.
A loud contented hum filled his plant. Orders were being filled on time, with top priorities given to the biggest cities
in his area, and working down to the smallest towns.
"All smooth, Chief," Macintyre said, coming in the door. He had just completed a routine inspection.
"Fine. Have a seat."
The big engineer sat down and lighted a cigarette.
"We've been working on this for some time," Gelsen said, when he couldn't think of anything else.
"We sure have," Macintyre agreed. He leaned back and inhaled deeply. He had been one of the consulting engineers on the original watchbird. That was six years back. He had been working for Gelsen ever since, and the men had become good friends.
"The thing I wanted to ask you was this--" Gelsen paused. He couldn't think how to phrase what he wanted. Instead he asked, "What do you think of the watchbirds, Mac?"
"Who, me?" The engineer grinned nervously. He had been eating, drinking and sleeping watchbird ever since its inception. He had never found it necessary to have an attitude. "Why, I think it's great."
"I don't mean that," Gelsen said. He realized that what he wanted was to have someone understand his point of view. "I mean do you figure there might be some danger in machine thinking?"
"I don't think so, Chief. Why do you ask?"
"Look, I'm no scientist or engineer. I've just handled cost and production and let you boys worry about how. But as a layman, watchbird is starting to frighten me."
"No reason for that."
"But why not?" Then Macintyre grinned again. "I know. You're like a lot of people, Chief--afraid your machines are going to wake up and say, 'What are we doing here? Let's go out and rule the world.' Is that it?"
"Maybe something like that," Gelsen admitted.
"No chance of it," Macintyre said. "The watchbirds are complex, I'll admit, but an M.I.T. calculator is a whole lot more complex. And it hasn't got consciousness."
"No. But the watchbirds can learn."
"Sure. So can all the new calculators. Do you think they'll team up with the watchbirds?"

* * * * *
Gelsen felt annoyed at Macintyre, and even more annoyed at himself for being ridiculous. "It's a fact that the watchbirds can put their learning into action. No one is monitoring them."
"So that's the trouble," Macintyre said.
"I've been thinking of getting out of watchbird." Gelsen hadn't realized it until that moment.
"Look, Chief," Macintyre said. "Will you take an engineer's word on this?"
"Let's hear it."
"The watchbirds are no more dangerous than an automobile, an IBM calculator or a thermometer. They have no more consciousness or volition than those things. The watchbirds are built to respond to certain stimuli, and to carry out certain operations when they receive that stimuli."
"And the learning circuits?"
"You have to have those," Macintyre said patiently, as though explaining the whole thing to a ten-year-old.
"The purpose of the watchbird is to frustrate all murder-attempts, right? Well, only certain murderers give out these stimuli. In order to stop all of them, the watchbird has to search out new definitions of murder and correlate them with what it already knows."
"I think it's inhuman," Gelsen said.
"That's the best thing about it. The watchbirds are unemotional. Their reasoning is non-anthropomorphic. You can't bribe them or drug them. You shouldn't fear them, either."
The intercom on Gelsen's desk buzzed. He ignored it.
"I know all this," Gelsen said. "But, still, sometimes I feel like the man who invented dynamite. He thought it would only be used for blowing up tree stumps."
"You didn't invent watchbird."
"I still feel morally responsible because I manufacture them."
The intercom buzzed again, and Gelsen irritably punched a button.
"The reports are in on the first week of watchbird operation," his secretary told him.
"How do they look?"
"Wonderful, sir."
"Send them in in fifteen minutes." Gelsen switched the intercom off and turned back to Macintyre, who was cleaning his fingernails with a wooden match. "Don't you think that this represents a trend in human thinking? The mechanical god? The electronic father?"
"Chief," Macintyre said, "I think you should study watchbird more closely. Do you know what's built into the
"circuits?"

"Only generally."

"First, there is a purpose. Which is to stop living organisms from committing murder. Two, murder may be defined as an act of violence, consisting of breaking, mangling, maltreating or otherwise stopping the functions of a living organism by a living organism. Three, most murderers are detectable by certain chemical and electrical changes."

Macintyre paused to light another cigarette. "Those conditions take care of the routine functions. Then, for the learning circuits, there are two more conditions. Four, there are some living organisms who commit murder without the signs mentioned in three. Five, these can be detected by data applicable to condition two."

"I see," Gelsen said.

"You realize how foolproof it is?"

"I suppose so." Gelsen hesitated a moment. "I guess that's all."

"Right," the engineer said, and left.

Gelsen thought for a few moments. There couldn't be anything wrong with the watchbirds.

"Send in the reports," he said into the intercom.

* * * * *

High above the lighted buildings of the city, the watchbird soared. It was dark, but in the distance the watchbird could see another, and another beyond that. For this was a large city.

To prevent murder ...

There was more to watch for now. New information had crossed the invisible network that connected all watchbirds. New data, new ways of detecting the violence of murder.

There! The edge of a sensation! Two watchbirds dipped simultaneously. One had received the scent a fraction of a second before the other. He continued down while the other resumed monitoring.

Condition four, there are some living organisms who commit murder without the signs mentioned in condition three.

Through his new information, the watchbird knew by extrapolation that this organism was bent on murder, even though the characteristic chemical and electrical smells were absent.

The watchbird, all senses acute, closed in on the organism. He found what he wanted, and dived.

Roger Greco leaned against a building, his hands in his pockets. In his left hand was the cool butt of a .45. Greco waited patiently.

He wasn't thinking of anything in particular, just relaxing against a building, waiting for a man. Greco didn't know why the man was to be killed. He didn't care. Greco's lack of curiosity was part of his value. The other part was his skill.

One bullet, neatly placed in the head of a man he didn't know. It didn't excite him or sicken him. It was a job, just like anything else. You killed a man. So?

As Greco's victim stepped out of a building, Greco lifted the .45 out of his pocket. He released the safety and braced the gun with his right hand. He still wasn't thinking of anything as he took aim ... And was knocked off his feet.

Greco thought he had been shot. He struggled up again, looked around, and sighted foggily on his victim. Again he was knocked down.

This time he lay on the ground, trying to draw a bead. He never thought of stopping, for Greco was a craftsman. With the next blow, everything went black. Permanently, because the watchbird's duty was to protect the object of violence—at whatever cost to the murderer.

The victim walked to his car. He hadn't noticed anything unusual. Everything had happened in silence.

* * * * *

Gelsen was feeling pretty good. The watchbirds had been operating perfectly. Crimes of violence had been cut in half, and cut again. Dark alleys were no longer mouths of horror. Parks and playgrounds were not places to shun after dusk.

Of course, there were still robberies. Petty thievery flourished, and embezzlement, larceny, forgery and a hundred other crimes.

But that wasn't so important. You could regain lost money—never a lost life.

Gelsen was ready to admit that he had been wrong about the watchbirds. They were doing a job that humans had been unable to accomplish.

The first hint of something wrong came that morning.

Macintyre came into his office. He stood silently in front of Gelsen's desk, looking annoyed and a little embarrassed.
"What's the matter, Mac?" Gelsen asked.
"One of the watchbirds went to work on a slaughterhouse man. Knocked him out."
Gelsen thought about it for a moment. Yes, the watchbirds would do that. With their new learning circuits, they had probably defined the killing of animals as murder.
"Tell the packers to mechanize their slaughtering," Gelsen said. "I never liked that business myself."
"All right," Macintyre said. He pursed his lips, then shrugged his shoulders and left.
Gelsen stood beside his desk, thinking. Couldn't the watchbirds differentiate between a murderer and a man engaged in a legitimate profession? No, evidently not. To them, murder was murder. No exceptions. He frowned.
That might take a little ironing out in the circuits.
But not too much, he decided hastily. Just make them a little more discriminating.
He sat down again and buried himself in paperwork, trying to avoid the edge of an old fear.

* * * * *
They strapped the prisoner into the chair and fitted the electrode to his leg.
"Oh, oh," he moaned, only half-conscious now of what they were doing.
They fitted the helmet over his shaved head and tightened the last straps. He continued to moan softly.
And then the watchbird swept in. How he had come, no one knew. Prisons are large and strong, with many locked doors, but the watchbird was there--
To stop a murder.
"Get that thing out of here!" the warden shouted, and reached for the switch. The watchbird knocked him down.
"Stop that!" a guard screamed, and grabbed for the switch himself. He was knocked to the floor beside the warden.
"This isn't murder, you idiot!" another guard said. He drew his gun to shoot down the glittering, wheeling metal bird.
Anticipating, the watchbird smashed him back against the wall.
There was silence in the room. After a while, the man in the helmet started to giggle. Then he stopped.
The watchbird stood on guard, fluttering in mid-air--
Making sure no murder was done.
New data flashed along the watchbird network. Unmonitored, independent, the thousands of watchbirds received and acted upon it.
The breaking, mangling or otherwise stopping the functions of a living organism by a living organism. New acts to stop.
"Damn you, git going!" Farmer Ollister shouted, and raised his whip again. The horse balked, and the wagon rattled and shook as he edged sideways.
"You lousy hunk of pigmeal, git going!" the farmer yelled and he raised the whip again.
It never fell. An alert watchbird, sensing violence, had knocked him out of his seat.
A living organism? What is a living organism? The watchbirds extended their definitions as they became aware of more facts. And, of course, this gave them more work.
The deer was just visible at the edge of the woods. The hunter raised his rifle, and took careful aim.
He didn't have time to shoot.
* * * * *
With his free hand, Gelsen mopped perspiration from his face. "All right," he said into the telephone. He listened to the stream of vituperation from the other end, then placed the receiver gently in its cradle.
"What was that one?" Macintyre asked. He was unshaven, tie loose, shirt unbuttoned.
"Another fisherman," Gelsen said. "It seems the watchbirds won't let him fish even though his family is starving. What are we going to do about it, he wants to know."
"How many hundred is that?"
"I don't know. I haven't opened the mail."
"Well, I figured out where the trouble is," Macintyre said gloomily, with the air of a man who knows just how he blew up the Earth--after it was too late.
"Let's hear it."
"Everybody took it for granted that we wanted all murder stopped. We figured the watchbirds would think as we do. We ought to have qualified the conditions."
"I've got an idea," Gelsen said, "that we'd have to know just why and what murder is, before we could qualify the conditions properly. And if we knew that, we wouldn't need the watchbirds."
"Oh, I don't know about that. They just have to be told that some things which look like murder are not murder."
"But why should they stop fisherman?" Gelsen asked.
"Why shouldn't they? Fish and animals are living organisms. We just don't think that killing them is murder."
The telephone rang. Gelsen glared at it and punched the intercom. "I told you no more calls, no matter what."
"This is from Washington," his secretary said. "I thought you'd--"
"Sorry." Gelsen picked up the telephone. "Yes. Certainly is a mess ... Have they? All right, I certainly will." He
put down the telephone.
"Short and sweet," he told Macintyre. "We're to shut down temporarily."
"That won't be so easy," Macintyre said. "The watchbirds operate independent of any central control, you
know. They come back once a week for a repair checkup. We'll have to turn them off then, one by one."
"Well, let's get to it. Monroe over on the Coast has shut down about a quarter of his birds."
"I think I can dope out a restricting circuit," Macintyre said.
"Fine," Gelsen replied bitterly. "You make me very happy."
* * * * *
The watchbirds were learning rapidly, expanding and adding to their knowledge. Loosely defined abstractions
were extended, acted upon and re-extended.
To stop murder ...
Metal and electrons reason well, but not in a human fashion.
A living organism? Any living organism!
The watchbirds set themselves the task of protecting all living things.
The fly buzzed around the room, lighting on a table top, pausing a moment, then darting to a window sill.
The old man stalked it, a rolled newspaper in his hand.
Murderer!
The watchbirds swept down and saved the fly in the nick of time.
The old man writhed on the floor a minute and then was silent. He had been given only a mild shock, but it had
been enough for his fluttery, cranky heart.
His victim had been saved, though, and this was the important thing. Save the victim and give the aggressor his
just desserts.
* * * * *
Gelsen demanded angrily, "Why aren't they being turned off?"
The assistant control engineer gestured. In a corner of the repair room lay the senior control engineer. He was
just regaining consciousness.
"He tried to turn one of them off," the assistant engineer said. Both his hands were knotted together. He was
making a visible effort not to shake.
"That's ridiculous. They haven't got any sense of self-preservation."
"Then turn them off yourself. Besides, I don't think any more are going to come."
What could have happened? Gelsen began to piece it together. The watchbirds still hadn't decided on the limits
of a living organism. When some of them were turned off in the Monroe plant, the rest must have correlated the
data.
So they had been forced to assume that they were living organisms, as well.
No one had ever told them otherwise. Certainly they carried on most of the functions of living organisms.
Then the old fears hit him. Gelsen trembled and hurried out of the repair room. He wanted to find Macintyre in
a hurry.
* * * * *
The nurse handed the surgeon the sponge.
"Scalpel."
She placed it in his hand. He started to make the first incision. And then he was aware of a disturbance.
"Who let that thing in?"
"I don't know," the nurse said, her voice muffled by the mask.
"Get it out of here."
The nurse waved her arms at the bright winged thing, but it fluttered over her head.
The surgeon proceeded with the incision--as long as he was able.
The watchbird drove him away and stood guard.
"Telephone the watchbird company!" the surgeon ordered. "Get them to turn the thing off."
The watchbird was preventing violence to a living organism.
The surgeon stood by helplessly while his patient died.
* * * * *
Fluttering high above the network of highways, the watchbird watched and waited. It had been constantly working for weeks now, without rest or repair. Rest and repair were impossible, because the watchbird couldn't allow itself—a living organism—to be murdered. And that was what happened when watchbirds returned to the factory.

There was a built-in order to return, after the lapse of a certain time period. But the watchbird had a stronger order to obey—preservation of life, including its own.

The definitions of murder were almost infinitely extended now, impossible to cope with. But the watchbird didn't consider that. It responded to its stimuli, whenever they came and whatever their source.

There was a new definition of living organism in its memory files. It had come as a result of the watchbird discovery that watchbirds were living organisms. And it had enormous ramifications.

The stimuli came! For the hundredth time that day, the bird wheeled and banked, dropping swiftly down to stop murder.

Jackson yawned and pulled his car to a shoulder of the road. He didn't notice the glittering dot in the sky. There was no reason for him to. Jackson wasn't contemplating murder, by any human definition.

This was a good spot for a nap, he decided. He had been driving for seven straight hours and his eyes were starting to fog. He reached out to turn off the ignition key--

And was knocked back against the side of the car.

"What in hell's wrong with you?" he asked indignantly. "All I want to do is--" He reached for the key again, and again he was smacked back.

Jackson knew better than to try a third time. He had been listening to the radio and he knew what the watchbirds did to stubborn violators.

"You mechanical jerk," he said to the waiting metal bird. "A car's not alive. I'm not trying to kill it."

But the watchbird only knew that a certain operation resulted in stopping an organism. The car was certainly a functioning organism. Wasn't it of metal, as were the watchbirds? Didn't it run?

* * * * *

Macintyre said, "Without repairs they'll run down." He shoved a pile of specification sheets out of his way.

"How soon?" Gelsen asked.

"Six months to a year. Say a year, barring accidents."

"A year," Gelsen said. "In the meantime, everything is stopping dead. Do you know the latest?"

"What?"

"The watchbirds have decided that the Earth is a living organism. They won't allow farmers to break ground for plowing. And, of course, everything else is a living organism—rabbits, beetles, flies, wolves, mosquitoes, lions, crocodiles, crows, and smaller forms of life such as bacteria."

"I know," Macintyre said.

"And you tell me they'll wear out in six months or a year. What happens now? What are we going to eat in six months?"

The engineer rubbed his chin. "We'll have to do something quick and fast. Ecological balance is gone to hell."

"Fast isn't the word. Instantaneously would be better."

"Work on that," Gelsen said. "You might have something. I want you to get on the telephone, ask for an emergency hookup with the engineers of the other companies. Hurry it up. Together you may be able to dope out something."

"Right," Macintyre said. He grabbed a handful of blank paper and hurried to the telephone.

* * * * *

"What did I tell you?" Officer Celtrics said. He grinned at the captain. "Didn't I tell you scientists were nuts?"

"I didn't say you were wrong, did I?" the captain asked.

"No, but you weren't sure."

"Well, I'm sure now. You'd better get going. There's plenty of work for you."

"I know." Celtrics drew his revolver from its holster, checked it and put it back. "Are all the boys back,
"Captain?"
"All?" the captain laughed humorlessly. "Homicide has increased by fifty per cent. There's more murder now than there's ever been."
"Sure," Celtrics said. "The watchbirds are too busy guarding cars and slugging spiders." He started toward the door, then turned for a parting shot.
"Take my word, Captain. Machines are stupid."
The captain nodded.

Thousands of watchbirds, trying to stop countless millions of murders--a hopeless task. But the watchbirds didn't hope. Without consciousness, they experienced no sense of accomplishment, no fear of failure. Patiently they went about their jobs, obeying each stimulus as it came.
They couldn't be everywhere at the same time, but it wasn't necessary to be. People learned quickly what the watchbirds didn't like and refrained from doing it. It just wasn't safe. With their high speed and superfast senses, the watchbirds got around quickly.
And now they meant business. In their original directives there had been a provision made for killing a murderer, if all other means failed.
Why spare a murderer?
It backfired. The watchbirds extracted the fact that murder and crimes of violence had increased geometrically since they had begun operation. This was true, because their new definitions increased the possibilities of murder. But to the watchbirds, the rise showed that the first methods had failed.
Simple logic. If A doesn't work, try B. The watchbirds shocked to kill.
Slaughterhouses in Chicago stopped and cattle starved to death in their pens, because farmers in the Midwest couldn't cut hay or harvest grain.
No one had told the watchbirds that all life depends on carefully balanced murders.
Starvation didn't concern the watchbirds, since it was an act of omission.
Their interest lay only in acts of commission.
Hunters sat home, glaring at the silver dots in the sky, longing to shoot them down. But for the most part, they didn't try. The watchbirds were quick to sense the murder intent and to punish it.
Fishing boats swung idle at their moorings in San Pedro and Gloucester. Fish were living organisms.
Farmers cursed and spat and died, trying to harvest the crop. Grain was alive and thus worthy of protection.
Potatoes were as important to the watchbird as any other living organism. The death of a blade of grass was equal to the assassination of a President--
To the watchbirds.
And, of course, certain machines were living. This followed, since the watchbirds were machines and living.
God help you if you maltreated your radio. Turning it off meant killing it. Obviously--its voice was silenced, the red glow of its tubes faded, it grew cold.
The watchbirds tried to guard their other charges. Wolves were slaughtered, trying to kill rabbits. Rabbits were electrocuted, trying to eat vegetables. Creeper were burned out in the act of strangling trees.
A butterfly was executed, caught in the act of outraging a rose.
This control was spasmodic, because of the farness of the watchbirds. A billion watchbirds couldn't have carried out the ambitious project set by the thousands.
The effect was of a murderous force, ten thousand bolts of irrational lightning raging around the country, striking a thousand times a day.
Lightning which anticipated your moves and punished your intentions.
"Gentlemen, please," the government representative begged. "We must hurry."
The seven manufacturers stopped talking.
"Before we begin this meeting formally," the president of Monroe said, "I want to say something. We do not feel ourselves responsible for this unhappy state of affairs. It was a government project; the government must accept the responsibility, both moral and financial."
Gelsen shrugged his shoulders. It was hard to believe that these men, just a few weeks ago, had been willing to accept the glory of saving the world. Now they wanted to shrug off the responsibility when the salvation went amiss.
"I'm positive that that need not concern us now," the representative assured him. "We must hurry. You engineers have done an excellent job. I am proud of the cooperation you have shown in this emergency. You are hereby empowered to put the outlined plan into action."
"Wait a minute," Gelsen said.
"There is no time."
"The plan's no good."
"Don't you think it will work?"
"Of course it will work. But I'm afraid the cure will be worse than the disease."
The manufacturer looked as though they would have enjoyed throttling Gelsen. He didn't hesitate.
"Haven't we learned yet?" he asked. "Don't you see that you can't cure human problems by mechanization?"
"Mr. Gelsen," the president of Monroe said, "I would enjoy hearing you philosophize, but, unfortunately, people are being killed. Crops are being ruined. There is famine in some sections of the country already. The watchbirds must be stopped at once!"
"Murder must be stopped, too. I remember all of us agreeing upon that. But this is not the way!"
"What would you suggest?" the representative asked.

* * * * *

Gelsen took a deep breath. What he was about to say took all the courage he had.
"Let the watchbirds run down by themselves," Gelsen suggested.
There was a near-riot. The government representative broke it up.
"Let's take our lesson," Gelsen urged, "admit that we were wrong trying to cure human problems by mechanical means. Start again. Use machines, yes, but not as judges and teachers and fathers."
"Ridiculous," the representative said coldly. "Mr. Gelsen, you are overwrought. I suggest you control yourself." He cleared his throat. "All of you are ordered by the President to carry out the plan you have submitted." He looked sharply at Gelsen. "Not to do so will be treason."
"I'll cooperate to the best of my ability," Gelsen said.
"Good. Those assembly lines must be rolling within the week."
Gelsen walked out of the room alone. Now he was confused again. Had he been right or was he just another visionary? Certainly, he hadn't explained himself with much clarity.
Did he know what he meant?
Gelsen cursed under his breath. He wondered why he couldn't ever be sure of anything. Weren't there any values he could hold on to?
He hurried to the airport and to his plant.

* * * * *
The watchbird was operating erratically now. Many of its delicate parts were out of line, worn by almost continuous operation. But gallantly it responded when the stimuli came.
A spider was attacking a fly. The watchbird swooped down to the rescue.
Simultaneously, it became aware of something overhead. The watchbird wheeled to meet it.
There was a sharp crackle and a power bolt whizzed by the watchbird's wing. Angrily, it spat a shock wave.
The attacker was heavily insulated. Again it spat at the watchbird. This time, a bolt smashed through a wing, the watchbird darted away, but the attacker went after it in a burst of speed, throwing out more crackling power.
The watchbird fell, but managed to send out its message. Urgent! A new menace to living organisms and this was the deadliest yet!
Other watchbirds around the country integrated the message. Their thinking centers searched for an answer.

* * * * *
"Well, Chief, they bagged fifty today," Macintyre said, coming into Gelsen's office.
"Fine," Gelsen said, not looking at the engineer.
"Not so fine."
"I know." On Gelsen's desk were several dozen lawsuits, which he was sending to the government with a prayer.
"They'll pick up again, though," Macintyre said confidently. "The Hawks are especially built to hunt down watchbirds. They're stronger, faster, and they've got better armor. We really rolled them out in a hurry, huh?"
"We sure did."
"The watchbirds are pretty good, too," Macintyre had to admit. "They're learning to take cover. They're trying a lot of stunts. You know, each one that goes down tells the others something."
Gelsen didn't answer.
"But anything the watchbirds can do, the Hawks can do better," Macintyre said cheerfully. "The Hawks have special learning circuits for hunting. They're more flexible than the watchbirds. They learn faster."
Gelsen gloomily stood up, stretched, and walked to the window. The sky was blank. Looking out, he realized that his uncertainties were over. Right or wrong, he had made up his mind.
"Tell me," he said, still watching the sky, "what will the Hawks hunt after they get all the watchbirds?"
"Huh?" Macintyre said. "Why--"
"Just to be on the safe side, you'd better design something to hunt down the Hawks. Just in case, I mean."
"You think--"
"All I know is that the Hawks are self-controlled. So were the watchbirds. Remote control would have been too slow, the argument went on. The idea was to get the watchbirds and get them fast. That meant no restricting circuits."
"We can dope something out," Macintyre said uncertainly.
"You've got an aggressive machine up in the air now. A murder machine. Before that it was an anti-murder machine. Your next gadget will have to be even more self-sufficient, won't it?"
Macintyre didn't answer.
"I don't hold you responsible," Gelsen said. "It's me. It's everyone."
In the air outside was a swift-moving dot.
"That's what comes," said Gelsen, "of giving a machine the job that was our own responsibility."
* * * *
Overhead, a Hawk was zeroing in on a watchbird.
The armored murder machine had learned a lot in a few days. Its sole function was to kill. At present it was impelled toward a certain type of living organism, metallic like itself.
But the Hawk had just discovered that there were other types of living organisms, too--
Which had to be murdered.
Mr. Maximilian Untz regarded the monsters with a critical eye. Script girls, cameramen, sometimes even stars quailed under Mr. Untz's critical eye—but not these monsters. The first had a globelike head and several spidery legs. The second was willowy and long-clawed. The third was covered with hair. The prop department had outdone itself.

"Get Jimsy," said Mr. Untz, snapping his fingers.

A young earnest assistant producer with a crew cut turned and relayed the summons. "Jimsy--Jimsy LaRoche!"

Down the line of cables and cameras it went. Jimsy... Jimsy...

A few moments later, from behind the wall flat where he had been playing canasta with the electricians, emerged Jimsy LaRoche, the eleven-year-old sensation. He took his time. He wore powder-blue slacks and a sports shirt and his golden hair was carefully ringleted. He was frowning. He had been interrupted with a meld of a hundred and twenty.

"Okay, so what is it now?" he said, coming up to Mr. Untz.

Mr. Untz turned and glared down at the youth. Jimsy returned the glare. There was a sort of cold war between Mr. Untz and Master Jimsy LaRoche, the sort you could almost hear hotting up. Mr. Untz pointed to the monsters. "Look, Jimsy. Look at them. What do you think?" He watched the boy's expression carefully.

Jimsy said, "To use one of your own expressions, Max--pfui. They wouldn't scare a mouse." And then Jimsy shrugged and walked away.

Mr. Untz turned to his assistant. "Harold," he said in an injured tone. "You saw it. You heard it. You see what I've got to put up with."

"Sure," said Harold Potter sympathetically. He had mixed feelings toward Mr. Untz. He admired the producer's occasional flashes of genius, he deplored his more frequent flashes of stupidity. On the whole, however, he regarded himself as being on Mr. Untz's side in the war between Mr. Untz and the world and Hollywood. He knew Mr. Untz's main trouble.

Some years ago Maximilian Untz had been brought to Hollywood heralded as Vienna's greatest producer of musicals. So far he had been assigned to westerns, detectives, documentaries, a fantasy of the future—but no musicals. And now it was a psychological thriller. Jimsy played the killer as a boy and there was to be a dream sequence, a nightmare full of monsters. Mr. Untz was determined it should be the most terrifying dream sequence ever filmed.

Only up to now he wasn't doing so good.

"I would give," said Mr. Untz to Harold Potter, "my right eye for some really horrible monsters." He gestured at the world in general. "Think of it, Harold. We got atom bombs and B-29's, both vitamins and airplanes, and stuff to cure you of everything from broken legs to dropsy. A whole world of modern science—but nobody can make a fake monster. It looks anything but fake and wouldn't scare an eleven-year-old boy."

"It's a thought," agreed Harold Potter. He had a feeling for things scientific; he had taken a B.S. in college but had drifted into photography and thence into movie production. He had a wife and a spaniel and a collection of pipes and a house in Santa Monica with a workshop basement.

"I got to do some thinking," Mr. Untz said. "I believe I will change my clothes and take a shower. Come along to the cottage, Harold."

"Okay," said Harold. He never liked to say yes for fear of being tagged a yes-man. Anyway, he enjoyed relaxing in the office-cottage while Mr. Untz showered and changed, which Mr. Untz did some three or four times a day. When he got there Mr. Untz disappeared into the dressing-room and Harold picked up a magazine.

There was a knock on the door.

Harold got up and crossed the soft cream-colored carpet and opened the door and saw a goat-like person.

"Yes?" said Harold.

"Mildume," said the goat-like person. "Dr. John Mildume. Don't ask a lot of questions about how I got in. Had a hard enough time as it was. Fortunately I have several relatives connected with the studio. That's how I heard of your problem as a matter of fact."

"My problem?" said Harold.

Dr. Mildume pushed right in. He was no more than five feet five but had a normal sized head. It was domelike.
Wisps of tarnished white hair curled about his ears and crown. He had an out-thrust underjaw with a small white beard on its prow. He was dressed in moderately shabby tweeds. He moved across the room in an energetic hopping walk and took the place on the sofa Harold had vacated.

"Now, then, Mr. Untz," he said, "the first thing we must do is come to terms."

"Just a minute," said Harold. "I'm Mr. Untz's assistant, Harold Potter. Mr. Untz is in the shower. Was he expecting you?"

Dr. Mildume blinked. "No, not exactly. But he can't afford not to see me. I know all about it."

"All about what?" asked Harold.

"The beasts," the doctor said.

"The which?"

"Beasts, Potter," snapped the goat-like man. "The nightmare monsters. Get with it, lad. And what is a dream sequence without them? Ha!"

"Uh--yes," said Harold a little uncertainly.

Mildume's finger shot out. "You fellows understand that I'm no dreamy-eyed impractical scientist. Let's face it--it takes money to carry on experiments like mine. Good old-fashioned money. I'll need at least ten thousand dollars."

Harold raised his eyebrows. "Just what, Dr. Mildume, do you propose to give us for ten thousand dollars?"

"Beasts," said Mildume. "Real monsters."

"I beg your pardon?" said Harold. He began to work out strategies in his mind. Maybe he could casually walk over to the phone and pick it up quickly and call the studio police. Maybe he could get the jump on this madman before he pulled a knife. The thing to do was to humor him meanwhile....

Dr. Mildume said, "I will not deal with underlings. I demand to see Mr. Untz himself."

"Well," said Harold, "you understand that Mr. Untz is a busy man. It's my job to check propositions people have for him. Suppose you tell me about these beasts of yours."

Mildume shrugged. "Doubt if you'll understand it any better than Untz will. But it's no more complicated than television when you boil it right down. You're familiar, I take it, with the basic principle of television?"

"Oh, sure," said Harold, brightening. "Keep things moving. Have a master of ceremonies who keeps jumping in and out of the act. Give something away to the audience, if possible, to make them feel ashamed not to tune in."

"No, no, no, no, no!" said Mildume. "I mean the technical principles. A photo-electric beam scans the subject, translates light and dark into electrical impulses, which eventually alter a cathode ray played upon a fluorescent screen. Hence, the image. You grasp that roughly, I take it?"

"Roughly," said Harold.

"Well," continued Mildume, "just as spots of light and dark are the building blocks of an image, so sub-atomic particles are the building blocks of matter. Once we recognize this the teleportation theory becomes relatively simple. There are engineering difficulties, of course.

"We must go back to Faraday's three laws of electrolysis--and Chadwick's establishment in nineteen thirty-one of the fact that radiation is merely the movement of particles of proton mass without proton charge. Neutrons, you see. Also that atomic weights are close integers, when hydrogen is one point zero zero eight. Thus I use hydrogen as a basis. Simple, isn't it?"

Harold frowned. "Wait a minute. What's this you're talking about--teleportation? You mean a way of moving matter through space, just as television moves an image through space?"

"Well, not precisely," said Mildume. "It's more a duplication of matter. My Mildume beam--really another expression of the quanta or light energy absorbed by atoms--scans and analyzes matter. The wave variations are retranslated into form, or formulae, at a distant point--the receiving point."

Harold lowered one eyebrow. "And this really works?"

"Of course," said Mildume. "Oh, it's still crude. It doesn't work all the time. It works only along vast distances. I won't announce it until I perfect it further. Meanwhile I need more money to carry on and when, through certain relatives, I heard of Mr. Untz's problem--well, it was simply too much to resist. You see, I've managed to teleport a couple of frightful monsters from somewhere out of space. I was wondering what on earth to do with them."

"Where--where are they?" asked Harold.

"In my back yard," said Dr. Mildume.

At that point Mr. Maximilian Untz abruptly reappeared. He smelled of lotion and he was now dressed in a relatively conservative gabardine of forest green with a lavender shirt and a black knitted tie.

"Hello," he said. He looked at Mildume. "So who is this?"

"He says he has monsters for the dream sequence in his back yard," explained Harold. "Real ones."

"Look," said Mr. Untz, "kindly ask the gentleman to get lost, will you, Harold?"
"No, wait," Harold said. "He may have something. He explained some of it to me. It sounds almost possible. We can't lose much by taking a look."
"Only a few thousand dollars a minute," said Mr. Untz.
"Bah--money!" said Dr. Mildume. "Which reminds me--these monsters of mine are going to cost you. Let's have that understood, right now."

Mr. Untz’s eyebrows went up. This kind of talk he understood. He reached into the side pocket of the gabardine for his cigarette case. He kept a separate gold case in each suit.
"Yeeewow!" said Mr. Untz.
His hand came out of the pocket with a small green snake in it.
"Drop it! Stand back!" said Harold, being cool.
"Don't worry about it," said Dr. Mildume in a calmer voice. He was blinking mildly at the snake. "It's merely an ordinary species of garden snake, sometimes erroneously called garter snake. Curious it should be there."
Harold looked at Dr. Mildume sharply. "This teleportation of yours wouldn't have anything to do with it by any chance?"
"Of course not," snapped Mildume.
"I know how it got here!" said Mr. Untz, his jowls trembling. He had already dropped the snake. "A certain child star whose initials are Jimsy LaRoche! Last week he gives me a hotfoot. Monday a wet seat--soaked newspapers in my chair under one thin dry one. Yesterday a big frog in my shower. I should take that brat over my knee and spank him to his face!"
"Mn--ah--of course," said Dr. Mildume without much interest in the topic. "Shall we go to inspect the monsters now?"
Mr. Untz thought it over, only long enough to keep himself within the time limits of a Man of Decision. Then he said, "Okay, so we'll go now."
They passed Jimsy LaRoche on the way out. He was drinking pineapple juice and sitting with his tutor, studying his lines. He smirked as Mr. Untz passed. Mr. Untz scowled back but didn't say anything. In Jovian silence he led the way to his car.
It turned out to be a longer ride than they had expected. Dr. Mildume lived in Twenty-nine Palms and, as Mr. Untz explained it, this was too short for an airplane and too long for an automobile. Mr. Untz was not in his best humor when they stopped before Dr. Mildume's stucco and tile-roof house.
Mildume directed them immediately to a walled-in patio in the rear of the place. A shed-roof covered one side of the patio and under it were racks of equipment. Harold recognized banks of relays, power amplifiers, oscillographs and some other familiar devices. There were also some strange ones.
Mildume waved his long fingers at all of it. "My teleportation set-up is entirely too bulky so far for practical use, as you can see."
"Nph," said Mr. Untz, eyeing it. During the drive Dr. Mildume and Harold had explained more to him about teleportation and the monsters and he was more doubtful than ever about the whole thing. "So let's see the monsters," he said now. "Time is fleeing."
Mildume went in his hopping step across the patio to a huge tarpaulin that covered something square and bulky. He worried the tarpaulin away. Two steel cages stood there.
"Sacred carp!" said Mr. Untz.
Two somethings were in the steel cages.
They were both iridescent greenish-gray in color, they had globular bodies, no discernible heads and eyes on stalks growing from their bodies. Three eyes apiece. If they were eyes--anyway, they looked like eyes. Sweeping fibrillae came down to the ground and seemed to serve as feet. Great saw-toothed red gashes in the middle of each body might have been mouths.
"They're--they're real. They're alive!" said Harold Potter hoarsely. That was the thing about them. They had the elusive quality of life about them--and of course they were thus infinitely more terrifying than the prop department's fake monsters.
"They're alive all right," said Dr. Mildume chattily. "Took me quite a bit of experimenting to discover what to feed them. They like glass--broken glass. They're evidently a silicon rather than a carbon form of life."
"This I'll buy," said Mr. Untz, still staring.
"Of course," said Mildume. "I knew you would. They will cost you exactly ten thousand dollars per day. Per twenty-four hour period."
"Profiteer--burglar!" said Mr. Untz, glaring at Mildume.
Mildume shrugged.
There was an abrupt, high-pitched squeak. Harold stared at the monsters. The smaller one was quivering.

"They do that when they're angry," Dr. Mildume said. "Some sort of skin vibration. This smaller one here seems to take the initiative in things. Must be a male. Unless there's female dominance, as in birds of prey, wherever these things come from. I've--uh--been unable to ascertain which is which, if any."

Mr. Untz frowned suddenly. "Look--just how dangerous are these things?"

"Don't know exactly," said Dr. Mildume. "A pigeon got too near the cages the other day. They seemed to enjoy it. Although, as I say, their staple appears to be silicon forms. I carelessly set a Weston analyzer too near them the other day and they had it for lunch."

"If they're too dangerous ..." began Mr. Untz.

"What if they are?" said Mildume. "You make pictures with wild lions and tigers and alligators, don't you? Seems to me you can find a way. I don't recommend letting them out of the cage however."

Mr. Untz nodded and said, "Well, maybe we can get Etienne Flaubert to do something with them. He's the animal trainer we call on. Anyway Untz always figures something out. Only that's why I like musicals better. There isn't so much to figure out and you can play Victor Herbert backwards and get new tunes out of him. So anyway, we'll get a truck and get these monsters to the studio right away."

It was arranged. It was arranged with utmost secrecy too. There were other studios, after all, and in spite of their wealth of creative talent it was easier to steal an idea than cook up a new one. Atom bomb secrecy descended upon the Crusader Pictures lot and most especially upon Sound Stage Six, where the dream sequence for the psychological thriller, "Jolt!" was being filmed.

Even Jimsy LaRoche, the star of the picture, was excluded from the big barn-like stage. Mr. Untz prepared to get his first stock shots of the beasts.

There were gasps and much popping of eyebrows when Dr. Mildume--who had come along as technical adviser--removed the tarpaulins from the cages. The cameramen, the grips, the electricians, the sound men--all stared unbelievingly. The script girl grabbed Mr. Untz's hand and dug her fingernails into it. The makeup stylist clutched the lapels of his mauve jacket and fainted.

"Nothing to be afraid of," Mr. Untz said to everybody. He was sort of convincing himself too. "Dr. Mildume here knows all about the monsters. He's got everything under control. So tell everybody about them, Doctor."

Mildume nodded, bobbing his short white beard. He thrust his hands into his tweed jacket, looked all around for a moment, then said, "I don't know exactly where the monsters are from. I had my Q-beam pointed into space, and I was focussing it, intending to put it on Mars at the time of proper conjunction. All very complicated. However the beam must have worked prematurely. These monsters began to form in the hydrogen chamber."

Several of the listeners looked at other listeners with unmistakable doubt. Unruffled, Dr. Mildume went on, "Now, we can make certain rough assumptions from the form and structure of these monsters. You will notice that except for their appendages they are globularly formed. Any engineer can tell you that the arch and hemisphere sustain the greatest weight for their mass.

"We may concede that they come from a planet of very strong gravity. Their skin, for instance, is tough and rigid compared with ours. They have difficulty staying rooted to earth--often a simple multipod movement will send them bouncing to the top of the cage. There is one other factor--the smaller of these creatures seems the more dominant--suggesting that on their home planet smaller beings are more agile and therefore better able to take care of themselves."

"There, you see?" interrupted Mr. Untz, slipping into a pause. "That's all there is to it. So now let us please get down to business."

So they got down to business. And it was not easy business, photographing these monsters. Keeping the cage wires out of focus required a critical distance for each lens but whenever a camera came too near a fibrilla would shoot forward--at the glass, no doubt--and scare the wits out of the cameramen.

The shorter lenses got too much of the surrounding area into the picture. The crew tried and tried. One technician muttered darkly that the organization contract didn't cover this sort of thing. Mr. Untz pleaded and cajoled and heckled and moved about and tried to keep things going. Somehow, anyhow.

Eddie Tamoto, the chief cameraman, finally came up to him and said, "It's no use, Max. These cages simply don't allow us to do anything. Why don't we put them in the cages they use for jungle pictures? They're big and camouflaged, and the mesh size is right."

"So maybe we'll have to do that," said Mr. Untz.

Dr. Mildume dipped his head. "I don't know. I'd like to see these other cages first."

"Look," said Mr. Untz. "Don't worry about it. If they hold lions they will hold your whatever-you-call-them. I'll get the animal trainer, Flaubert, to stand by. He practically talks to animals--except horses, which is his hard luck."
The jungle cages were duly summoned and so was Etienne Flaubert of the Golden West Animal Education Studios on Sunset Boulevard. While they waited Mr. Untz stood aside with Harold Potter. He mopped his brow—he gestured at the whole group. "This," he said, "is the story of my life."

"It is?" asked Harold.

Mr. Untz nodded. "Me, I am an expert on musicals. Musicals I can do with my left hand. But ever since I am in Hollywood I do everything but a musical. And always something gets fouled up. Always there is trouble. You will not believe this, Harold, but I am an unhappy man."

"I believe it," said Harold.

Mr. Untz looked at him sharply and said, "You don't have to believe it so quickly. You could give me a chance to explain."

"Look," said Harold—now being truly interested and forgetting some of the first principles of buttering-up one's boss, "take the scientific attitude. Everything is relative."

"Yes," said Mr. Untz, "In Hollywood everything is relatives, believe me."

"No, no--I wasn't referring to nepotism," said Harold. "I was thinking that you and many others, of course, prefer musicals. But there are vast other groups who prefer westerns, detectives, comedies or what have you. One man's meat is another's poison."

"But nourishment stays the same in principle. The artistic demands still hold and a good picture is a picture, whatever its field. Now, if you, as a producer, can shift to the other fellow's viewpoint—find out why the thing that terrifies you amuses him—or vice versa."

"Harold," said Mr. Untz, not without suspicion, "are you an assistant producer or a philosopher?"

"Sometimes to be the one," sighed Harold, "you have to be the other."

The big jungle cage arrived presently. While it was being set up another assistant came to Mr. Untz and said, "Jimsy LaRoche is outside, yelling to get in, Mr. Untz."

Mr. Untz whirled on the assistant and said, "Tell that overpaid brat—who I personally didn't want in my picture in the first place—tell him in the second place the President of the United States could not get in here this afternoon. No, wait a minute, that wouldn't mean anything to him—he makes more money than the President. Just tell him no."

"Yes, sir," said the assistant. He left.

About then the animal trainer, Etienne Flaubert, was admitted. He walked right up to Mr. Untz. Flaubert was nearly seven feet tall. He had tremendous shoulders and none of it was coat padding. He had a chest one might have gone over Niagara Falls in. He had a huge golden beard. When he spoke it sounded like the bass viol section of the Los Angeles Symphony tuning up.

He said to Mr. Untz, "Where are these monsters I hear about? I'd like to see the monster that isn't just a big kitty, like all the rest. Big kitties, that's all they are. You gotta know how to handle them."

Mr. Untz led Flaubert to the cage and said, "There."

Flaubert gasped. Then he steadied himself. The monsters had been maneuvered into the bigger cage by now—Dr. Mildume had enticed them with broken electric light bulbs and slammed the drop-doors behind them by a remote-control rope. They had finished their meal of glass. They were curled in a corner of the cage now, tentacles wrapped about each other, squeaking contentedly.

Flaubert recovered a bit.

"Kitties, just big kitties," he growled.

Eddie Tamoto called, "Hey, Max, we'd like to get 'em in the center of the cage for a shot." He was gesturing from the camera boom seat. "Only moving around. You know—looking fierce."

"Can you do it, Flaubert?" said Mr. Untz, turning to the big trainer.

"Just big kitties," said Flaubert.

He had brought his own whip and blank cartridge pistol. His assistant stood by with a .30-30 rifle. Dr. Mildume opened the door quickly and Flaubert slipped into the cage.

"Okay—get set, everybody!" yelled Mr. Untz. People scurried. An attendant switched on the warning light and rocker arm that warned people outside of the stage not to barge in. "Quiet!" yelled Mr. Untz. "Quiet—quiet!" yelled several assistants. The order went down the line. Through channels.

And there stood Etienne Flaubert, huge and more or less unafraid, in the middle of the cage. The monsters in the corner began slowly to uncoil their tentacles from about each other. Their eye-stalks rose and began to wave slowly. Their red saw-toothed mouths worked into pouts, gapes and grins.

The smaller of the two suddenly shuddered all over. Its angry chirping noise shrilled through the sound stage. Its tough skin vibrated—blurred. It sprang suddenly to its multipods and charged Flaubert.

Flaubert screamed an unholy scream. He threw the chair and the whip and the gun at the monster and dove from the exit. Dr. Mildume opened the cage door with his rope and Flaubert went through it—himself a blur. The
monster, in his wake, slammed into the door and stayed there, trembling, still chirping its rage.

"Hully gee, what kitties!" said Flaubert, pale and sweating.

Mr. Untz groaned.

"I got some of it!" yelled Eddie Tamoto from his camera. "It was terrific! But we need more!"

Then--simultaneously--there were several loud screams of alarm. Mr. Untz looked at the cage again. The smaller monster had found a crack, and was moving the cage door and squeezing through.

"Harold!" shouted Mr. Untz. "Do something!"


The second monster was already vibrating across the cage and the smaller one was holding the door open for it. Dr. Mildume had tried to maneuver the control ropes to close the door again, but hadn't been able to work them--and now he had left his post.

Harold pointed to the man with the rifle and said, "Fire!"

The rifleman fired. Nothing--nothing at all happened. He fired several times more. The monsters didn't even jerk when the bullets hit them.

"They're--they're impervious yet!" cried Mr. Untz.

After that it was every man for himself.

Moments later Harold found himself outside of the sound stage and on the studio street, bunched with the others and staring at the thick closed door. Nobody spoke. Everybody just thrummed silently with the knowledge that two alien monsters were in there, wreaking heaven knew what damage....

And then, as they stared, the thick door began to open again. "It isn't locked!" breathed Mr. Untz. "Nobody remembered to lock it again!"

A tentacle peeked out of the crack of the door.

Everybody scattered a second time.

Harold never remembered the order in which things happened amidst the confusion that followed. It seemed he and Mr. Untz ran blindly, side by side, down the studio street for awhile. It seemed all kinds of people were also running, in all kinds of directions.

Bells were ringing--sirens blew--a blue studio police car took a corner on two wheels and barely missed them.

Harold had a glimpse of uniformed men with drawn pistols.

They ended up somehow at Mr. Untz's office-cottage. They went inside and Mr. Untz locked the door and slammed his back to it. He leaned there, panting. He said, "Trouble, trouble, trouble. I should have stayed in Vienna. And in Vienna I should have stayed in bed."

The door of the shower and dressing-room opened and Jimsy LaRoche came out. He had a number of snails in his out-stretched hand and he coolly kept them there, making no attempt to conceal his obvious purpose in the shower. He looked directly at Mr. Untz with his dark disconcerting eleven-year-old eyes and said, "Well, Max, what goof-off did you pull this time?"

"You!" roared Mr. Untz, whirling and shooting a finger at the child star. A focusing point for all his troubles, at last. His jowls shook. "You, Jimsy LaRoche," he said, "are going to get your first old fashioned spanking on the bottom! From me, personally!" He advanced toward the boy, who backed away hastily.

Jimsy began to look a little frightened.

"Now wait a minute, Max," said Harold, stepping forward. "We've got enough big monsters to think about without worrying about this little monster too."

Mr. Untz stared at Harold queerly. Suddenly he said, "Why didn't I think of it before?"

"Think of what?" asked Harold.

But Mr. Untz had already grabbed Jimsy LaRoche's hand and dragged him through the door.

There were several reasons why Harold Potter did not immediately pursue. For one thing he stood there for several moments stupidly with surprise. Then, when he did recover, he plunged forward and promptly tripped on the cream-colored carpet and fell flat on his face. He tripped again going over the step to the cottage door. He bumped into a studio policeman rounding the next corner. He snagged his coat on a fence picket going around the corner after that. But he kept Mr. Untz and the dragged youngster in sight.

Eventually he came to the door of Sound Stage Six.

Speaking from a police standpoint all laymen had disappeared. A ring of studio police and firemen, along with some policemen and detectives from the outside, had been drawn around the monsters and everybody and his brother was shooting off pistols and rifles at them. With no result, of course. Nor did anyone dare get too close.

Harold caught up with Mr. Untz about the time a man he recognized as a reporter did. The reporter was stout,
freckled and bespectacled.

"Untz!" barked the reporter, with all the power of the press in his voice, "do you realize this is a national
danger? If those monsters can't be stopped by bullets, what will stop them? Where will it all end? Where did they
come from?"

"Look in tomorrow's paper!" growled Mr. Untz, brushing the reporter aside. He kept Jimsy's arm in a firm grip.
Jimsy was bawling at the top of his lungs now. Mr. Untz breasted the police cordon, broke through.

"Max! Stop!" shouted Harold. "Max--have you gone mad?"

Max evidently had. He moved so swiftly that everyone was too surprised to stop him. He burst into the small
human-walled arena where the two bewildered monsters squatted and he thrust little Jimsy LaRoche out before him-
right at the monsters.

An extraordinary thing happened. The monsters suddenly began to quiver and squeak again but this time--it
was clear to the ear somehow--not with rage, but with fear. Pure and terrible fear. They trained their eye-stalks on
Jimsy LaRoche, they paled to a lighter shade of brown and green, then slowly they began to back away.

"Hold your fire, men!" called a police captain, probably just to get into the act.

Dr. Mildume appeared again from somewhere. So did Etienne Flaubert. So did Eddie Tamoto and some of the
other technicians. They gaped and stared.

Slowly, inexorably, using Jimsy LaRoche as his threat, Mr. Untz backed the two monsters into the studio, and
gradually to the cage. Dr. Mildume leaped forward to shut them in once more.

And through it all Jimsy LaRoche continued to bawl at the top of his lungs.

* * * * *

Later, in Mr. Untz's office-cottage, Harold read the newspaper accounts. He read every word while Mr. Untz
was in the other room taking a shower. He had to admit that Max had even thrown a little credit his way. "My
assistant, Mr. Potter," Untz was quoted as saying, "indirectly gave me the idea when he said that one man's meat was
another man's poison.

"Dr. Mildume had already explained that the monsters came from a high-gravity planet--that the smaller of the
species evidently seemed the more capable, and therefore the dominant one." Harold was sure now that the
statement had been polished up a bit by the publicity department.

"The only logical assumption, then," the statement continued, "was that small stature would dominate these life
forms, rather than large stature, as in the environment we know. They were, in other words, terrified by tiny Jimsy
LaRoche--whose latest picture, 'The Atomic Fissionist and the Waif,' is now at your local theatre, by the way--as an
Earth-being might have been terrified by a giant!"

Mr. Untz came out of the shower at that point. He was radiant in a canary-colored rayon sharkskin. He was
rubbing his hands. He was beaming.

"Harold," he said, "they're putting me on a musical next. I got them twined around my little finger. Life is good.
I think that screwy Dr. Mildume was smart to send those things back out into space before they could get to him.
Otherwise we might have had to put them in pictures and with contracts yet."

"Max," said Harold, staring at him quietly.

"Yes, Harold?"

"Just answer me one thing truthfully. I swear I'll never repeat it--or even blame you. But for my own curiosity
I've got to know."

"Why certainly, Harold, what is it?"

Harold Potter swallowed hard. "Did you," he asked, "really figure out that Jimsy would scare the beasts--or
were you about to throw the little brat to them?"

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Contents

THE VILBAR PARTY
By Evelyn E. Smith

"The Perzils are giving a vilbar party tomorrow night," Professor Slood said cajolingly. "You will come this
time, won't you, Narli?"

Narli Gzann rubbed his forehead fretfully. "You know how I feel about parties, Karn." He took a frismil nut out
of the tray on his desk and nibbled it in annoyance.

"But this is in your honor, Narli--a farewell party. You must go. It would be--it would be unthinkable if you
didn't." Karn Slood's eyes were pleading. He could not possibly be held responsible for his friend's anti-social behavior and yet, Narli knew, he would somehow feel at fault.

Narli sighed. He supposed he would have to conform to public sentiment in this particular instance, but he was damned if he would give in gracefully. "After all, what's so special about the occasion? I'm just leaving to take another teaching job, that's all." He took another nut.

"That's all!" Slood's face swelled with emotion. "You can't really be that indifferent."

"Another job, that's all it is to me," Narli persisted. "At an exceptionally high salary, of course, or I wouldn't dream of accepting a position so inconveniently located."

Slood was baffled and hurt and outraged. "You have been honored by being the first of our people to be offered an exchange professorship on another planet," he said stiffly, "and you call it 'just another job.' Why, I would have given my right antenna to get it!"

Narli realized that he had again overstepped the invisible boundary between candor and tactlessness. He poked at the nuts with a stylus.

"Honored by being the first of our species to be offered a guinea-pigship," he murmured.

He had not considered this aspect of the matter before, but now that it occurred to him, he was probably right.

"Oh, I don't mind, really." He waved away the other's sudden commiseration. "You know I like being alone most of the time, so I won't find that uncomfortable. Students are students, whether they're Terrestrials or Saturnians. I suppose they'll laugh at me behind my back, but then even here, my students always did that."

He gave a hollow laugh and unobtrusively put out one of his hands for a nut. "At least on Earth I'll know why they're laughing."

There was pain on Slood's expressive face as he firmly removed the nut tray from his friend's reach. "I didn't think of it from that angle, Narli. Of course you're right. Human beings, from what I've read of them, are not noted for tolerance. It will be difficult, but I'm sure you'll be able to--" he choked on the kindly lie--"win them over."

Narli repressed a bitter laugh. Anyone less likely than he to win over a hostile alien species through sheer personal charm could hardly be found on Saturn. Narli Gzann had been chosen as first exchange professor between Saturn and Earth because of his academic reputation, not his personality. But although the choosers had probably not had that aspect of the matter in mind, the choice, he thought, was a wise one.

As an individual of solitary habits, he was not apt to be much lonelier on one planet than another.

And he had accepted the post largely because he felt that, as an alien being, he would be left strictly alone. This would give him the chance to put in a lot of work on his definitive history of the Solar System, a monumental project from which he begrudged all the time he had to spend in fulfilling even the minimum obligations expected of a professor on sociable Saturn.

The salary was a weighty factor, too--not only was it more than twice what he had been getting, but since there would be no necessity for spending more than enough for bare subsistence he would be able to save up a considerable amount and retire while still comparatively young. It was pleasant to imagine a scholarly life unafflicted by students.

He could put up with a good deal for that goal.

But how could he alleviate the distress he saw on Karn's face? He did not consciously want to hurt the only person who, for some strange reason, seemed to be fond of him, so he said the only thing he could think of to please: "All right, Karn, I'll go to the Perzils tomorrow night."

It would be a deadly bore--parties always were--and he would eat too much, but, after all, the thought that it would be a long time before he'd ever see any of his own kind again would make the affair almost endurable. And just this once it would be all right for him to eat as much as he wanted. When he was on Earth out of reach of decent food, he would probably trim down considerably.

* * * * *

"I just know you're going to love Earth, Professor Gzann," the hostess on the interplanetary liner gushed.

"I'm sure I shall," he lied politely. She smiled at him too much, over-doing her professional cordiality; underneath the effusiveness, he sensed the repulsion. Of course he couldn't blame her for trying not to show her distaste for the strange creature--the effort at concealment was, as a matter of fact, more than he had expected from a Terrestrial. But he wished she would leave him alone to meditate. He had planned to get a lot of meditation done on the journey.

"You speak awfully good English," she told him.

He looked at her. "I am said to have some scholarly aptitude. I understand that's why I was chosen as an exchange professor. It does seem reasonable, doesn't it?"

She turned pink--a sign of embarrassment with these creatures, he had learned. "I didn't mean to--to question your ability, Professor. It's just that--well, you don't look like a professor."
“Indeed?” he said frostily. “And what do I look like, then?”
She turned even rosier. “Oh—I don’t know exactly. It’s just that--well....” And she fled.

He couldn't resist flicking his antennae forward to catch her sotto voce conversation with the co-pilot; it was so seldom you got the chance to learn what others were saying about you behind your back. "But I could hardly tell him he looks like a teddy bear, could I?"
"He probably doesn’t even know what a teddy bear is."
"Perhaps I don’t," Narli thought resentfully, "but I can guess."

With low cunning, the Terrestrials seemed to have ferreted out the identity of all his favorite dishes and kept serving them to him incessantly. By the time the ship made planetfall on Earth, he had gained ten grisbuts.
"Oh, well," he thought, "I suppose it's all just part of the regular diplomatic service. On Earth, I'll have to eat crude native foods, so I'll lose all the weight again."

President Purrington of North America came himself to meet Narli at the airfield because Narli was the first interplanetary exchange professor in history.
"Welcome to our planet, Professor Gzann," he said with warm diplomatic cordiality, wringing Narli's upper right hand after a moment of indecision. "We shall do everything in our power to make your stay here a happy and memorable one."

"I wish you would begin by doing something about the climate," Narli thought. It was stupid of him not to have realized how hot it would be on Earth. He was really going to suffer in this torrid climate; especially in the tight Terrestrial costume he wore over his fur for the sake of conformity. Of course, justice compelled him to admit to himself, the clothes wouldn't have become so snug if he hadn't eaten quite so much on board ship.

Purrington indicated the female beside him. "May I introduce my wife?"
"Ohhh," the female gasped, "isn't he cute!"

The President and Narli stared at her in consternation. She looked abashed for a moment, then smiled widely at Narli and the press photographers.
"Welcome to Earth, dear Professor Gzann!" she exclaimed, mispronouncing his name, of course. Bending down, she kissed him right upon his fuzzy forehead.

Kissing was not a Saturnian practice, nor did Narli approve of it; however, he had read enough about Earth to know that Europeans sometimes greeted dignitaries in this peculiar way. Only this place, he had been given to understand, was not Europe but America.

"I am having a cocktail party in your honor this afternoon!" she beamed, smoothing her flowered print dress down over her girdle. "You'll be there at five sharp, won't you, dear?"

"Delighted," he promised dismally. He could hardly plead a previous engagement a moment after arriving.
"I've tried to get all the things you like to eat," she went on anxiously, "but you will tell me if there's anything special, won't you?"

"I am on a diet," he said. He must be strong. Probably the food would be repulsive anyhow, so he'd have no difficulty controlling his appetite. "Digestive disorders, you know. A glass of Vichy and a biscuit will be...."

He stopped, for there were tears in Mrs. Purrington's eyes. "Your tummy hurts? Oh, you poor little darling!"
"Gladys!" the President said sharply.

There were frismil nuts at Mrs. Purrington's cocktail party and vilbar and even slipnis broogs ... all imported at fabulous expense, Narli knew, but then this was a government affair and expense means nothing to a government since, as far as it is concerned, money grows on taxpayers. Some of the native foods proved surprisingly palatable, too--pâté de foie gras and champagne and little puff pastries full of delightful surprises. Narli was afraid he was making a zloogle of himself. However, he thought, trying not to catch sight of his own portly person in the mirrors that walled the room, the lean days were just ahead.

Besides, what could he do when everyone insisted on pressing food on him? "Try this, Professor Gzann." "Do try that, Professor Gzann." ("Doesn't he look cunning in his little dress suit?") They crowded around him. The women cooed, the men beamed, and Narli ate. He would be glad when he could detach himself from all this cloying diplomacy and get back to the healthy rancor of the classroom.

* * * * *

At school, the odor of chalk dust, ink and rotting apple cores was enough like its Saturnian equivalent to make Narli feel at home immediately. The students would dislike him on sight, he knew. It is in the nature of the young to be hostile toward whatever is strange and alien. They would despise him and jeer at him, and he, in his turn, would give them long, involved homework assignments and such difficult examinations that they would fail....

Narli waddled briskly up to his desk which had, he saw, been scaled down to Saturnian size, whereas he had envisioned himself struggling triumphantly with ordinary Earth-sized, furniture. But the atmosphere was as hot and sticky and intolerable as he had expected. Panting as unobtrusively as possible, he rapped with his pointer.
"Attention, students!"

Now should come the derisive babble ... but there was a respectful silence, broken suddenly by a shrill feminine whisper of, "Oooo, he's so adorable!" followed by the harsh, "Shhh, Ava! You'll embarrass the poor little thing."

Narli's face swelled. "I am your new professor of Saturnian Studies. Saturn, as you probably know, is a major planet. It is much larger and more important than Earth, which is only a minor planet."

The students obediently took this down in their notebooks. They carefully took down everything he said. Even a bout of coughing that afflicted him half-way through seemed to be getting a phonetic transcription. From time to time, they would interrupt his lecture with questions so pertinent, so well-thought out and so courteous that all he could do was answer them.

His antennae lifted to catch the whispers that from time to time were exchanged between even the best-behaved of the students. "Isn't he precious?" "Seems like a nice fellow--sound grasp of his subject." "Sweet little thing!" "Unusually interesting presentation." "Doesn't he remind you of Winnie the Pooh?" "Able chap." "Just darling!"

After class, instead of rushing out of the room, they hovered around his desk with intelligent, solicitous questions. Did he like Earth? Was his desk too high? Too low? Didn't he find it hot with all that fur? Such lovely, soft, fluffy fur, though. "Do you mind if I stroke one of your paws--hands--Professor?" ("So cuddly-looking!")

He said yes, as a matter of fact, he was hot, and no, he didn't mind being touched in a spirit of scientific investigation.

He had a moment of uplift at the teachers' cafeteria when he discovered lunch to be virtually inedible. The manager, however, had been distressed to see him pick at his food, and by dinner-time a distinguished chef with an expert knowledge of Saturnian cuisine had been rushed from Washington. Since the school food was inedible for all intelligent life-forms, everyone ate the Saturnian dishes and praised Narli as a public benefactor.

* * * * *

That night, alone in the quiet confines of his small room at the Men's Faculty Club, Narli had spread out his notes and was about to start work on his history when there was a knock at the door. He trotted over to open it, grumbling to himself.

The head of his department smiled brightly down at him. "Some of us are going out for a couple of drinks and a gabfest. Care to come along?"

Narli did not see how he could refuse and still carry the Saturnian's burden, so he accepted. Discovering that gin fizzes and Alexanders were even more palatable than champagne and more potent than vilbar, he told several Saturnine locker-room stories which were hailed with loud merriment. But he was being laughed at, not with, he knew. All this false cordiality, he assured himself, would die down after a couple of days, and then he would be able to get back to work. He must curb his intellectual impatience.

In the morning, he found that enrollment in his classes had doubled, and the room was crowded to capacity with the bright, shining, eager faces of young Terrestrials athirst for learning. There were apples, chocolates and imported frismil nuts on his desk, as well as a pressing invitation from Mrs. Purrington for him to spend all his weekends and holidays at the White House. The window was fitted with an air-conditioning unit which, he later discovered, his classes had chipped in to buy for him, and the temperature had been lowered to a point where it was almost comfortable. All the students wore coats.

When he went out on the campus, women--students, teachers, even strangers--stopped to talk to him, to exclaim over him, to kiss him. Photographers were perpetually taking pictures, some of which turned up in the Student Union as full-color postcards. They sold like Lajl out of season.

Narli wrote in Saturnian on the back of one: "Having miserable time; be glad you're not here," and sent it to Slood.

There were cocktail parties, musicales and balls in Narli's honor. When he tried to refuse an invitation, he was accused of shyness and virtually dragged to the affair by laughing members of the faculty. He put on so much weight that he had to buy a complete new Terrestrial outfit, which set him back a pretty penny. As a result, he had to augment his income by lecturing to women's clubs. They slobbered appallingly.

* * * * *

Narli's students did all their homework assiduously and, in fact, put in more work than had been assigned. At the end of the year, not only did all of them pass, but with flying colors.

"I hope you'll remember, Professor Gzann," the President of the University said, "that there will always be a job waiting for you here--a non-exchange professorship. Love to have you."

"Thank you," Narli replied politely.

Mrs. Purrington broke into loud sobs when he told her he was leaving Earth. "Oh, I'll miss you so, Narli! You will write, won't you?"

"Yes, of course," he said grimly. That made two hundred and eighteen people to whom he'd had to promise to
It was fortunate he was traveling as a guest of the North American government, he thought as he supervised the loading of his matched interplanetary luggage; his eight steamer baskets; his leather-bound Encyclopedia Terrestria, with his name imprinted in gold on each volume; his Indian war-bonnet; his oil painting of the President; and his six cases of champagne—all parting gifts—onto the liner. Otherwise the fee for excess luggage would take what little remained of his bank account. There had been so many expenses—clothes and hostess gifts and ice.

Not all his mementoes were in his luggage. A new rare-metal watch gleamed on each of his four furry wrists; a brand-new trobskin wallet, platinum key-chain, and uranium fountain pen were in his pocket; and a diamond and curium bauble clasped a tie lovingly handpainted by a female student. The argyles on his fuzzy ankles had been knitted by another. Still another devoted pupil had presented him with a hand-woven plastic case full of frismil nuts to eat on the way back.

"Well, Narli!" Slood said, his face swelling with joy. "Well, well! You've put on weight, I see."
Narli dropped into his old chair with a sigh. Surely Slood might have picked something else to comment on first—his haggardness, for instance, or the increased spirituality of his expression.

"Nothing else to do on Earth in your leisure moments but eat, I suppose," Slood said, pushing over the nut tray.

"Even their food. Have some frismils."

"No, thank you," Narli replied coldly.
SLOOD looked at him in distress. "Oh, how you must have suffered! Was it very, very bad, Narli?"
Narli hunched low in his chair. "It was just awful."

"I'm sure they didn't mean to be unkind," SLOOD assured him. "Naturally, you were a strange creature to them and they're only—"

"Unkind?" Narli gave a bitter laugh. "They practically killed me with kindness! It was fuss, fuss, fuss all the time."

"Now, Narli, I do wish you wouldn't be quite so sarcastic."

"I'm not being sarcastic. And I wasn't a strange creature to them. It seems there's a sort of popular child's toy on Earth known as a--" he winced--"teddy bear. I aroused pleasant childhood memories in them, so they showered me with affection and edibles."

SLOOD closed his eyes in anguish. "You are very brave, Narli," he said almost reverently. "Very brave and wise and good. Certainly that would be the best thing to tell our people. After all, the Terrestrials are our allies; we don't want to stir up public sentiment against them. But you can be honest with me, Narli. Did they refuse to serve you in restaurants? Were you segregated in public vehicles? Did they shrink from you when you came close?"

Narli beat the desk with all four hands. "I was hardly ever given the chance to be alone! They crawled all over me! Restaurants begged for my trade! I had to hire private vehicles because in public ones I was mobbed by admirers!"

"Such a short time," SLOOD murmured, "and already suspicious of even me, your oldest friend. But don't talk about it if you don't want to, Narli.... Tell me, though, did they sneer at you and whisper half-audible insults? Did they--"

"You're right!" Narli snapped. "I don't want to talk about it."
SLOOD placed a comforting hand upon his shoulder. "Perhaps that's wisest, until the shock of your experience has worn off."

Narli made an irritable noise.

"The Perzils are giving a vilbar party tonight," SLOOD said. "But I know how you feel about parties. I've told them you're exhausted from your trip and won't be able to make it."

"Oh, you did, did you?" Narli asked ironically. "What makes you think you know how I feel about parties?"

"But--"

"There's an interesting saying on Earth: 'Travel is so broadening.'" He looked down at his bulges with tolerant amusement. "In more than one way, in case the meaning eludes you. Very sound psychologically. I've discovered that I like parties. I like being liked. If you'll excuse me, I'm going to inform the Perzils that I shall be delighted to come to their party. Care to join me?"

"Well," SLOOD mumbled, "I'd like to, but I have so much work--"

"Introvert!" said Narli, and he began dialing the Perzils.
From a feature writer to feature attraction--now there's a real booze-to-riches success story!

I never thought I'd like circus life, but a year of it has changed me. It's in my blood now and I suppose I'll never give it up--even if they'd let me.

This job is better than anything I could get in the newspaper racket. I work all summer, it's true, but I get the winter off, though some of the offers for winter work are mighty tempting. Maybe if I hadn't been kicked off the paper, I'd be city editor now, knocking my brains out. Who knows? But maybe I'd just be a rewrite man, or in the slot, writing heads, or copyreading. But the thought of newspaper work after all this appalls me.

Trlk, the Sybillian, should be thanked for the whole thing, I suppose, though it would be a grudging thank-you I'd give him, considering all the trouble he caused. Still....

I first saw him on a July morning at the beginning of the vacation schedule, when four of us on the local side were trying to do five people's work.

My first inkling anything was wrong came when I returned from the courthouse beat and stuck a sheet of paper in the typewriter to write the probate court notes.

I struck the keys. They wouldn't go all the way down. I opened the cover plate, looked in to see what was wrong. I saw nothing, so I tried again. Oscar Phipps, the city editor, was giving me the eye. I figured maybe he was pulling a trick on me. But then I knew he hadn't. He wasn't the type.

* * * * *

The back space, tabular, margin release, shift and shift lock worked perfectly. But the keys only went down a short way before they stopped. All except one key. The cap D.

I hit the D. It worked fine the first time, but not the second. I tried all the keys again. This time only the i worked. Now I had Di. I went ahead testing. Pretty soon I had

Dimly
Then came a space. A few letters more and it was
Dimly drouse the dreary droves
Phipps had one eyebrow raised. I lifted the cover plate again. Quickly.
There I saw a fuzzy thing. It whisked out of sight. I snapped the plate down and held it down. The party I had been on the night before hadn't been that good and I had had at least three hours' sleep.
I tried typing again. I got nothing until I started a new line. Then out came
Primly prides the privy prose
I banged up the plate, saw a blur of something slinking down between the type bar levers again. Whatever it was, it managed to squeeze itself out of sight in a most amazing way.

"Hey!" I said. "I know you're down there. What's the big idea?"
Fuzzy squeezed his head up from the levers. The head looked like that of a mouse, but it had teeth like a chipmunk and bright little black beads for eyes. They looked right at me.

"You go right ahead," he said in a shrill voice. "This is going to be a great poem. Did you get all that alliteration there in those two lines?"

"Listen, will you get out of there? I've got work to do!"
"Yes, I think I've hit it at last. It was that four-stress iambic that did it. It was iambic, wasn't it?"
"Go away," I said miserably.
Fuzzy pulled the rest of himself out of the bars and stood on hind feet. He crossed his forepaws in front of him, vibrated his long, furry tail, and said defiantly, "No."
"Look," I pleaded, "I'm not Don Marquis and you're not Archie and I have work to do. Now will you please get out of this typewriter?"

His tiny ears swiveled upward. "Who's Don Marquis? And Archie?"

"Go to hell," I said. I slammed the cover down and looked up into the cold eyes of Oscar Phipps who was standing next to my desk.

"Who, may I ask," he said ominously, "do you think you're talking to?"
"Take a look." I lifted the plate once again. Fuzzy was there on his back, his legs crossed, his tail twitching.
"I don't see anything," Phipps said.
"You mean you can't see Fuzzy here?" I pointed to him, the end of my finger an inch from his head. "Ouch!" I drew my hand away. "The little devil bit me."
"You're fired, Mr. Weaver," Phipps said in a tired voice. "Fired as of right now. I'll arrange for two weeks' severance pay. And my advice to you is to stay off the bottle or see a psychiatrist—or both. Not that it'll do you any good. You never amounted to anything and you never will."

I would have taken a swipe at Fuzzy, but he had slunk out of sight.
* * * * *

During the two erratic years I had been on the newspaper, I had passed the city park every morning on my way to work, feeling an envy for those who had nothing better to do than sit on the benches and contemplate the nature of the Universe. Now I took myself there and sat as I had seen others do, hoping to feel a kinship with these unfortunates.

But all I did was feel alone, frustrated and angry at Phipps. Maybe I had been too convivial, maybe I had enjoyed night life too much, maybe I hadn't given the paper my all. But I wasn't ready for the booby hatch even if I had seen a fuzzy little thing that could talk.

I drew a copy of Editor and Publisher from my pocket and was scanning the "Help Wanted: Editorial" columns when out of the corner of my eye I saw a blob of black moving along the walk.

Turning handsprings, balancing himself precariously on the end of his vibrating tail, running and waving his forepaws to get my attention was Fuzzy.

I groaned. "Please go away!" I covered my eyes so I wouldn't have to look at him.
"Why?" he piped.
"Because you're a hallucination."
"I'm not a hallucination," he said indignantly. "I'm real flesh and blood. See?" He vibrated his tail so fast, I could hardly see it. Then it stopped and stood straight out. "Lovely, isn't it?"
"Look," I said, leaning far off the bench to speak to him, "I can prove you're a hallucination."
"You can?" he quavered. "How?"
"Because Phipps couldn't see you."
"That square? Hah! He would not have believed it if he had seen me."
"You mean you--"

He disappeared and reappeared like a flashing neon sign. "There!" he said triumphantly.
"Why didn't you let him see you then?" I asked, a little angry, but pleased nonetheless with his opinion of Phipps. "Because you didn't, you cost me my job."
* * * * *

He waved a forepaw deprecatingly. "You didn't want to stay on that hick sheet anyway."
"It was a job."
"Now you've got a better one."
"Who's kidding whom?"
"Together we'll write real literature."
"I don't know anything about literature. My job is writing the news."
"You'll be famous. With my help, of course."
"Not with that 'dimly drouse' stuff."
"Oh, that!"
"Where did you come from, Fuzzy?"
"Do I ask you where you come from?"
"Well, no--"
"And my name's not Fuzzy. It's Trlk, pronounced Turlick and spelled T-r-l-k."
"My name's Larry Weaver, pronounced Lar-ree--"
"I know. Look, you got a typewriter?"
"A portable. At the apartment."
"That will do."
"Aren't you taking things for granted? I haven't said yet whether I liked the idea."
"Do you have any choice?"

I looked at him, a couple of ounces of harmless-looking fur that had already cost me my immediate future in the newspaper business.
"I guess not," I said, hoping I could find a way to get rid of him if things didn't work out right.

And so began a strange collaboration, with Trlk perched on my shoulder dictating stories into my ear while I typed them. He had definite ideas about writing and I let him have his way. After all, I didn't know anything about literature.

Sometimes, when he'd get stuck, he'd get down and pace the living room rug. Other times he'd massage his tail,
which was as long as he, smoothing it with his tongue and meticulously arranging every hair on it.

"It's lovely, don't you think?" he often asked.

And I'd say, "If you spent as much time working on this story as you do admiring your tail, we'd get something done."

"Sorry," he'd say, hopping on my shoulder again. "Where were we?"

I'd read the last page and we'd be off again.

* * * * *

One day, Trlk crawled on a shelf to watch me shave, whiffed the shaving lotion bottle, became excited and demanded I put a drop of it in front of him. He lapped it up, sank blissfully back on his tail and sighed.


I let him sleep it off, but was always careful with the lotion after that.

Days stretched into weeks, my money was running low and the apartment superintendent was pressing me for payment of the month's rent. I kept telling him I'd pay as soon as the first checks came in.

But only rejection slips came. First one, then two, then half a dozen.

"They don't even read them!" Trlk wailed.

"Of course they read them," I said. I showed him the sheets. They were wrinkled from handling.

"The post office did that," he countered.

I showed him coffee spots on one page, cigarette burns on another.

"Well, maybe--" he said, but I don't think anything would have convinced him.

When the last story came back, Trlk was so depressed, I felt sorrier for him than I did for myself.

It was time. We had been working hard. I got out a bottle.

I poured a little lotion for Trlk.

The next afternoon, we tackled the problem in earnest. We went to the library, got a book on writing and took it home. After reading it from cover to cover, I said, "Trlk, I think I've found the trouble with your stories."

"What is it?"

"You don't write about things you know, things that happened to you, that you have observed." I showed him where it advised this in the book.

His eyes brightened. We went right to work.

This time the stories glowed, but so did my cheeks. The narratives all involved a man who lived in a hotel room. They recounted the seemingly endless love affairs with his female visitors.

"Why, Trlk!" I exclaimed. "How come you know about things like this?"

* * * * *

He confessed he had lived with such a man, a freelance writer who never made the grade with his writing, but who had plenty of girl friends who paid the freight.

"He had a way with women," Trlk explained.

"He certainly had," I said, reading again the last page he had dictated.

"He finally married an older woman with money. Then he gave up trying to write."

"I don't blame him," I said wistfully.

"I had to find another writer. This time I decided to try a newspaper. That's where I ran into you."

"Don't remind me."

Things got better after that. We began to get a few checks from magazines. They were small checks, but they paid a few bills.

The big blow fell, however, when Mr. Aldenrood, the superintendent, came roaring upstairs one day clutching a sheaf of papers.

"This stuff!" he screamed, waving the sheets before me. "The kids found it in the waste paper. They're selling them a dime a sheet around the neighborhood."

"They're worth more than that," I said, regretting that Trlk and I hadn't burned our rough drafts.

"You're going to move," Mr. Aldenrood said, "at the earliest possible instant." His face was apoplectic. "I'm giving you notice right now--thirty days!" He turned and went out, muttering, "The idea of anybody committing to paper--" and slammed the door.

Two days later, I was seated at the typewriter, smoking a cigarette and waiting for Trlk as he paced back and forth on the rug, tiny paws clasped behind his back, talking to himself and working out a story angle at the same time, when suddenly there appeared on the carpet next to him a whole host of creatures just like him.

I nearly gulped down my cigarette.

Trlk let out a high-pitched screech of joy and ran over to them. They wound their long tails around each other, clasped and unclasped them, twined them together. It seemed a sort of greeting. Meanwhile, they kept up a jabber
that sounded like a 33-1/3 rpm record being played 78 rpm.

Finally, the biggest one detached himself from the group and gave Trlk a tongue-lashing that would have done justice to a Phipps. Trlk hung his head. Every time he tried to say something, the big one would start in again.

* * * * *

At length the leader turned to me. "My name is Brknk, pronounced burk-neck and spelled b-r-k-n-k."

"And I'm Larry Weaver," I said, hoping they weren't relatives who were going to stay. "That's pronounced Larree--"

"I know. We're from Sybilla III. Tourists. We include Earth in our itinerary. It has some of the quaintest customs of all the inhabited planets we visit. We're terribly sorry for all the inconveniences our wayward Trlk here has caused you."

"It was nothing," I said with a lightness I didn't feel.

"Trlk had threatened to run off many times. He has a craze for self-expression and your literature fascinates him. He has an insatiable thirst--"

"I know."

* * * * *

He turned to Trlk. "It's against the rules of the Galactic Tours to make yourself visible to any of the inhabitants along the way. You know that. And it's a prime offense to interfere with their lives. Do you realize how many rules you have broken, how long we have been looking for you?"

"He did the best he could," I said hopefully. "As a matter of fact, we were having considerable success with his--a literary project."

"I understand you lost your job because of him. Is that right?"

"Yes, but I encouraged him." I hoped there was some way I could ease the sentence.

"Trlk has committed grievous wrongs, Mr. Weaver. We must make it up to you."

"Oh?" Here was an angle I hadn't expected.

"What can we do for you?"

I considered a moment. "You mean a wish or something?"

Brknk laughed. "Nothing like that. We're not magicians."

"Well, I could stand a little cash."

"I'm sorry," he said, and did look pained. "We can't interfere in business. We don't have any of your currency and we are forbidden to duplicate or steal it."

He frowned and studied me. Suddenly his face brightened. He bawled orders and several smaller Sybillians rushed forward and started scampering all over me. One of them nipped a piece of flesh out of my arm.

"Ouch!" I yelped, rubbing the spot. "What are you doing?"

"You humans are a proud race," Brknk explained. "I'll give you reason to be prouder than the rest. We'll change your metabolism, your endocrine balance, toughen your muscle fibers a thousandfold. We'll make you the strongest man on Earth!"

"Look," I said, "I don't want to be the strongest man on Earth."

"Well, how about the world's champion boxer? We can speed up your reflexes at least ten times."

I shook my head. "I don't want that, either. Sounds too much like work. Besides, I never liked getting into fights."

Brknk scowled, called a huddle. They buzzed at each other, their tails vibrating like mad. One of them finally yipped and everybody spun around.

Brknk beamed. "We've got it!"

"What is it?"

A little Sybillian I hadn't noticed jabbed something in my arm. I winced and he nearly fell off. He retreated with injured pride.

"Come along, Trlk," Brknk said.

"What's supposed to happen?" I asked.

"It will be a glorious surprise," Brknk assured me. "You'll never regret it. The only thing I ask is that you never tell anyone about us."

I promised.

Trlk looked up at me. I noticed the beginning of tears in his eyes. I reached down and patted him gently on the head.

"So long, little fellow," I said. "It's been fun."

"Good-by," he said sorrowfully.

They vanished.
Nothing happened for several days, so I bought a copy of Editor and Publisher and was writing for my first job when I felt a tender spot on my tail bone. When I examined it, I saw a protuberance there.

There was no denying it. The Sybillians had given me what they treasured most.

I was growing a tail—a long, hairy tail.

As I say, I have come to like circus life.

At first I tried to get doctors to cut it off, but they were too curious for that. Then I thought of jumping in the river or putting a bullet through my head.

But after I saw what the scientists were making of it, when I viewed my picture in all the papers, and when I saw the awe with which I was regarded by everyone, I changed my mind.

Now I make a cool twenty-five thousand a year without lifting a finger.

Just my tail.

I've become rather fond of it. I've even learned how to vibrate it.

But I've never told anyone about the Sybillians. They wouldn't believe it.

Not old Phipps, anyway.

Some day I'll go and vibrate my tail right in his face. I'd never amount to anything, eh? Let's see him grow a tail!

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Contents

B-12's MOON GLOW
By Charles A. Stearns

Among the metal-persons of Phobos, robot B-12 held a special niche. He might not have been stronger, larger, faster than some ... but he could be devious ... and more important, he was that junkyard planetoid's only moonshiner.

I am B-12, a metal person. If you read Day and the other progressive journals you will know that in some quarters of the galaxy there is considerable prejudice directed against us. It is ever so with minority races, and I do not complain. I merely make this statement so that you will understand about the alarm clock.

An alarm clock is a simple mechanism used by the Builders to shock themselves into consciousness after the periodic comas to which they are subject. It is obsolescent, but still used in such out of the way places as Phobos.

My own contact with one of these devices came about in the following manner:

I had come into Argon City under cover of darkness, which is the only sensible thing to do, in my profession, and I was stealing through the back alleyways as silently as my rusty joints would allow.

I was less than three blocks from Benny's Place, and still undetected, when I passed the window. It was a large, cheerful oblong of light, so quite naturally I stopped to investigate, being slightly phototropic, by virtue of the selenium grids in my rectifier cells. I went over and looked in, unobtrusively resting my grapples on the outer ledge.

There was a Builder inside such as I had not seen since I came to Phobos half a century ago, and yet I recognized the subspecies at once, for they are common on Earth. It was a she.

It was in the process of removing certain outer sheaths, and I noted that, while quite symmetrical, bilaterally, it was otherwise oddly formed, being disproportionately large and lumpy in the anterior ventral region.

I had watched for some two or three minutes, entirely forgetting my own safety, when then she saw me. Its eyes widened and it snatched up the alarm clock which was, as I have hinted, near at hand.

"Get out of here, you nosey old tin can!" it screamed, and threw the clock, which caromed off my headpiece, damaging one earphone. I ran.

If you still do not see what I mean about racial prejudice, you will, when you hear what happened later.

I continued on until I came to Benny's Place, entering through the back door. Benny met me there, and quickly shushed me into a side room. His fluorescent eyes were glowing with excitement.

Benny's real name is BNE-96, and when on Earth he had been only a Servitor, not a General Purpose like myself.

But perhaps I should explain.

We metal people are the children of the Builders of Earth, and later of Mars and Venus. We were not born of two parents, as they are. That is a function far too complex to explain here; in fact I do not even understand it myself. No, we were born of the hands and intellects of the greatest of their scientists, and for this reason it might be natural to suppose that we, and not they, would be considered a superior race. It is not so.
Many of us were fashioned in those days, a metal person for every kind of task that they could devise, and some, like myself, who could do almost anything. We were contented enough, for the greater part, but the scientists kept creating, always striving to better their former efforts.

And one day the situation which the Builders had always regarded as inevitable, but we, somehow, had supposed would never come, was upon us. The first generation of the metal people--more than fifty thousand of us--were obsolete. The things that we had been designed to do, the new ones, with their crystalline brains, fresh, un tarnished, accomplished better.

We were banished to Phobos, dreary, lifeless moon of Mars. It had long been a sort of interplanetary junkyard; now it became a graveyard.

* * * * *

Upon the barren face of this little world there was no life except for the handful of hardy Martian and Terran prospectors who searched for minerals. Later on, a few rude mining communities sprang up under plastic airdromes, but never came to much. Argon City was such a place.

I wonder if you can comprehend the loneliness, the hollow futility of our plight. Fifty thousand skilled workmen with nothing to do. Some of the less adaptable gave up, prostrating themselves upon the bare rocks until their joints froze from lack of use, and their works corroded. Others served the miners and prospectors, but their needs were all too few.

The overwhelming majority of us were still idle, and somehow we learned the secret of racial existence at last. We learned to serve each other.

This was not an easy lesson to learn. In the first place there must be motivation involved in racial preservation. Yet we derived no pleasure out of the things that make the Builders wish to continue to live. We did not sleep; we did not eat, and we were not able to reproduce ourselves. (And, besides, this latter, as I have indicated, would have been pointless with us.)

There was, however, one other pleasure of the Builders that intrigued us. It can best be described as a stimulation produced by drenching their insides with alcoholic compounds, and is a universal pastime among the males and many of the shes.

One of us--R-47, I think it was (rest him)--tried it one day. He pried open the top of his helmet and pouted an entire bottle of the fluid down his mechanism.

Poor R-47. He caught fire and blazed up in a glorious blue flame that we could not extinguish in time. He was beyond repair, and we were forced to scrap him.

But his was not a sacrifice in vain. He had established an idea in our ennui-bursting minds. An idea which led to the discovery of Moon Glow. My discovery, I should say, for I was the first.

Naturally, I cannot divulge my secret formula for Moon Glow. There are many kinds of Moon Glow these days, but there is still only one B-12 Moon Glow.

Suffice it to say that it is a high octane preparation, only a drop of which--but you know the effects of Moon Glow, of course.

How the merest thimbleful, when judiciously poured into one's power pack, gives new life and the most deliriously happy freedom of movement imaginable. One possesses soaring spirits and super-strength.

Old, rusted joints move freely once more, one's transistors glow brightly, and the currents of the body race about with the minutest resistance. Moon Glow is like being born again.

The sale of it has been illegal for several years, for no reason that I can think of except that the Builders, who make the laws, can not bear to see metal people have fun.

Of course, a part of the blame rests on such individuals as X-101, who, when lubricated with Moon Glow, insists upon dancing around on large, cast-iron feet to the hazard of all toes in his vicinity. He is thin and long jointed, and he goes "creak, creak," in a weird, sing-song fashion as he dances. It is a shameful, ludicrous sight.

Then there was DC-5, who tore down the 300 feet long equipment hangar of the Builders one night. He had over-indulged.

* * * * *

I do not feel responsible for these things. If I had not sold them the Moon Glow, someone else would have done so. Besides, I am only a wholesaler. Benny buys everything that I am able to produce in my little laboratory hidden out in the Dumps.

Just now, by Benny's attitude, I knew that something was very wrong. "What is the matter?" I said. "Is it the revenue agents?"

"I do not know," said BNE-96 in that curious, flat voice of his that is incapable of inflection. "I do not know, but there are visitors of importance from Earth. It could mean anything, but I have a premonition of disaster. Jon tipped me off."
He meant Jon Rogeson, of course, who was the peace officer here in Argon City, and the only one of the Builders I had ever met who did not look down upon a metal person. When sober he was a clever person who always looked out for our interests here.

"What are they like?" I asked in some fear, for I had six vials of Moon Glow with me at the moment.

"I have not seen them, but there is one who is high in the government, and his wife. There are half a dozen others of the Builder race, and one of the new type metal persons."

I had met the she who must have been the wife. "They hate us," I said. "We can expect only evil from these persons."

"You may be right. If you have any merchandise with you, I will take it, but do not risk bringing more here until they have gone."

I produced the vials of Moon Glow, and he paid me in Phobos credits, which are good for a specified number of refuelings at the Central fueling station.

Benny put the vials away and he went into the bar. There was the usual jostling crowd of hard-bitten Earth miners, and of the metal people who come to lose their loneliness. I recognized many, though I spend very little time in these places, preferring solitary pursuits, such as the distillation of Moon Glow, and improving my mind by study and contemplation out in the barrens.

Jon Rogeson and I saw each other at the same time, and I did not like the expression in his eye as he crooked a finger at me. I went over to his table. He was pleasant looking, as Builders go, with blue eyes less dull than most, and a brown, unruly topknot of hair such as is universally affected by them.

"Sit down," he invited, revealing his white incisors in greeting.

I never sit, but this time I did so, to be polite. I was wary; ready for anything. I knew that there was something unpleasant in the air. I wondered if he had seen me passing the Moon Glow to Benny somehow. Perhaps he had barrier-penetrating vision, like the Z group of metal people ... but I had never heard of a Builder like that. I knew that he had long suspected that I made Moon Glow.

"What do you want?" I asked cautiously.

"Come on now," he said, "loosen up! Limber those stainless steel hinges of yours and be friendly."

That made me feel good. Actually, I am somewhat pitted with rust, but he never seems to notice, for he is like that. I felt young, as if I had partaken of my own product.

"The fact is, B-12," he said, "I want you to do me a favor, old pal."

"And what is that?"

"Perhaps you have heard that there is some big brass from Earth visiting Phobos this week."

"I have heard nothing," I said. It is often helpful to appear ignorant when questioned by the Builders, for they believe us to be incapable of misrepresenting the truth. The fact is, though it is an acquired trait, and not built into us, we General Purposes can lie as well as anyone.

"Well, there is. A Federation Senator, no less. Simon F. Langley. It's my job to keep them entertained; that's where you come in."

I was mystified. I had never heard of this Langley, but I know what entertainment is. I had a mental image of myself singing or dancing before the Senator's party. But I can not sing very well, for three of my voice reeds are broken and have never been replaced, and lateral motion, for me, is almost impossible these days. "I do not know what you mean," I said. "There is J-66. He was once an Entertainment--"

"No, no!" he interrupted, "you don't get it. What the Senator wants is a guide. They're making a survey of the Dumps, though I'll be damned if I can find out why. And you know the Dumps better than any metal person--or human--on Phobos."

So that was it. I felt a vague dread, a premonition of disaster. I had such feelings before, and usually with reason. This too, was an acquired sensibility, I am sure. For many years I have studied the Builders, and there is much to be learned of their mobile faces and their eyes. In Jon's eyes, however, I read no trickery--nothing.

Yet, I say, I had the sensation of evil. It was just for a moment; no longer.

I said I would think it over.

* * * * *

Senator Langley was distinguished. Jon said so. And yet he was cumbersomely round, and he rattled incessantly of things into which I could interpret no meaning. The she who was his wife was much younger, and sullen, and unpleasantly I sensed great rapport between her and Jon Rogeson from the very first.

There were several other humans in the group--I will not call them Builders, for I did not hold them to be, in any way, superior to my own people. They all wore spectacles, and they gravitated about the round body of the Senator like minor moons, and I could tell that they were some kind of servitors.

I will not describe them further.
MS-33 I will describe. I felt an unconscionable hatred for him at once. I can not say why, except that he hung about his master obsequiously, power pack smoothly purring, and he was slim limbed, nickel-plated, and wore, I thought, a smug expression on his viziplate. He represented the new order; the ones who had displaced us on Earth. He knew too much, and showed it at every opportunity.

We did not go far that first morning. The half-track was driven to the edge of the Dumps. Within the Dumps one walks—or does not go. Phobos is an airless world, and yet so small that rockets are impractical. The terrain is broken and littered with the refuse of half a dozen worlds, but the Dumps themselves—that is different.

Imagine, if you can, an endless vista of death, a sea of rusting corpses of space ships, and worn-out mining machinery, and of those of my race whose power packs burned out, or who simply gave up, retiring into this endless, corroding limbo of the barrens. A more sombre sight was never seen.

But this fat ghoul, Langley, sickened me. This shame of the Builder race, this atavism—this beast—rubbed his fat, impractical hands together with an ungod-like glee. "Excellent," he said. "Far, far better, in fact, than I had hoped." He did not elucidate.

I looked at Jon Rogeson. He shook his head slowly.

"You there—robot!" said Langley, looking at me. "How far across this place?" The word was like a blow. I could not answer.

MS-33, glistening in the dying light of Mars, strode over to me, clanking heavily up on the black rocks. He seized me with his grapples and shook me until my wiring was in danger of shorting out. "Speak up when you are spoken to, archaic mechanism!" he grated.

I would have struck out at him, but what use except to warp my own aging limbs.

Jon Rogeson came to my rescue. "On Phobos," he explained to Langley, "we don't use that word 'robot.' These folk have been free a long time. They've quite a culture of their own nowadays, and they like to be called 'metal people.' As a return courtesy, they refer to us humans as 'builders.' Just a custom, Senator, but if you want to get along with them—"

"Can they vote?" said Langley, grinning at his own sour humor.

"Nonsense," said MS-33. "I am a robot, and proud of it. This rusty piece has no call to put on airs."

"Release him," Langley said. "Droll fellows, these discarded robots. Really nothing but mechanical dolls, you know, but I think the old scientists made a mistake, giving them such human appearance, and such obstinate traits."

Oh, it was true enough, from his point of view. We had been mechanical dolls at first, I suppose, but fifty years can change one. All I know is this: we are people; we think and feel, and are happy and sad, and quite often we are bored stiff with this dreary moon of Phobos.

It seared me. My selenium cells throbbed white hot within the shell of my frame, and I made up my mind that I would learn more about the mission of this Langley, and I would get even with MS-33 even if they had me dismantled for it.

Of the rest of that week I recall few pleasant moments. We went out every day, and the quick-eyed servants of Langley measured the areas with their instruments, and exchanged significant looks from behind their spectacles, smug in their thin air helmets. It was all very mysterious. And disturbing.

But I could discover nothing about their mission. And when I questioned MS-33, he would look important and say nothing. Somehow it seemed vital that I find out what was going on before it was too late.

On the third day there was a strange occurrence. My friend, Jon Rogeson had been taking pictures of the Dumps. Langley and his wife had withdrawn to one side and were talking in low tomes to one another. Quite thoughtlessly Jon turned the lens on them and clicked the shutter.

Langley became rust-red throughout the vast expanse of his neck and face. "Here!" he said, "what are you doing?"

"Nothing," said Jon.

"You took a picture of me," snarled Langley. "Give me the plate at once."

Jon Rogeson got a bit red himself. He was not used to being ordered around. "I'll be damned if I will," he said.

Langley growled something I couldn't understand, and turned his back on us. The she who was called his wife looked startled and worried. Her eyes were beseeching as she looked at Jon. A message there, but I could not read it. Jon looked away.

Langley started walking back to the half-track alone. He turned once and there was evil in his gaze as he looked at Jon. "You will lose your job for this impertinence," he said with quiet savagery, and added, enigmatically, "not that there will be a job after this week anyway."

Builders may appear to act without reason, but there is always a motivation somewhere in their complex brains, if one can only find it, either in the seat of reason, or in the labyrinthine inhibitions from their childhood. I knew this, because I had studied them, and now there were certain notions that came into my brain which, even if I could
not prove them, were no less interesting for that.

* * * * *

The time had come to act. I could scarcely wait for darkness to come. There were things in my brain that appalled me, but I was now certain that I had been right. Something was about to happen to Phobos, to all of us here--I knew not what, but I must prevent it somehow.

I kept in the shadows of the shabby buildings of Argon City, and I found the window without effort. The place where I had spied upon the wife of Langley to my sorrow the other night. There was no one there; there was darkness within, but that did not deter me.

Within the airdrome which covers Argon City the buildings are loosely constructed, even as they are on Earth. I had no trouble, therefore, opening the window. I swung a leg up and was presently within the darkened room. I found the door I sought and entered cautiously. In this adjacent compartment I made a thorough search but I did not find what I primarily sought--namely the elusive reason for Langley's visit to Phobos. It was in a metallic overnight bag that I did find something else which made my power pack hum so loudly that I was afraid of being heard. The thing which explained the strangeness of the pompous Senator's attitude today--which explained, in short, many things, and caused my brain to race with new ideas.

I put the thing in my chest container, and left as stealthily as I had come. There had been progress, but since I had not found what I hoped to find, I must now try my alternate plan.

Two hours later I found the one I sought, and made sure that I was seen by him. Then I left Argon City by the South lock, furtively, as a thief, always glancing over my shoulder, and when I made certain that I was being followed, I went swiftly, and it was not long before I was clambering over the first heaps of debris at the edge of the Dumps.

Once I thought I heard footsteps behind me, but when I looked back there was no one in sight. Just the tiny disk of Deimos peering over the sharp peak of the nearest ridge, the black velvet sky outlining the curvature of this airless moon.

Presently I was in sight of home, the time-eaten hull of an ancient star freighter resting near the top of a heap of junked equipment from some old strip mining operation. It would never rise again, but its shell remained strong enough to shelter my distillery and scant furnishings from any chance meteorite that might fall.

I greeted it with the usual warmth of feeling which one has for the safe and the familiar. I stumbled over tin fuel cans, wires and other tangled metal in my haste to get there.

It was just as I had left it. The heating element under the network of coils and pressure chambers still glowed with white heat, and the Moon Glow was dripping with musical sound into the retort.

I felt good. No one ever bothered me here. This was my fortress, with all that I cared for inside. My tools, my work, my micro-library. And yet I had deliberately--

Something--a heavy foot--clanked upon the first step of the manport through which I had entered.

I turned quickly. The form shimmered in the pale Deimoslight that silhouetted it.

MS-33.

He had followed me here.

"What do you want?" I said. "What are you doing here?"

"A simple question," said MS-33. "Tonight you looked very suspicious when you left Argon City. I saw you and followed you here. You may as well know that I have never trusted you. All the old ones were unreliable. That is why you were replaced."

He came in, boldly, without being invited, and looked around. I detected a sneer in his voice as he said, "So this is where you hide."

"I do not hide. I live here, it is true."

"A robot does not live. A robot exists. We newer models do not require shelter like an animal. We are rust-proof and invulnerable." He strode over to my micro-library, several racks of carefully arranged spools, and fingered them irreverently. "What is this?"

"My library."

"So! Our memories are built into us. We have no need to refresh them."

"So is mine," I said. "But I would learn more than I know." I was stalling for time, waiting until he made the right opening.

"Nonsense," he said. "I know why you stay out here in the Dumps, masterless. I have heard of the forbidden drug that is sold in the mining camps such as Argon City. Is this the mechanism?" He pointed at the still.

Now was the time. I mustered all my cunning, but I could not speak. Not yet.

"Never mind," he said. "I can see that it is. I shall report you, of course. It will give me great pleasure to see you dismantled. Not that it really matters, of course--now."
There it was again. The same frightening allusion that Langley had made today. I must succeed!

* * * * *

I knew that MS-33, for all his brilliance, and newness, and vaunted superiority, was only a Secretarial. For the age of specialization was upon Earth, and General Purpose models were no longer made. That was why we were different here on Phobos. It was why we had survived. The old ones had given us something special which the new metal people did not have. Moreover, MS-33 had his weakness. He was larger, stronger, faster than me, but I doubted that he could be devious.

"You are right," I said, pretending resignation. "This is my distillery. It is where I make the fluid which is called Moon Glow by the metal people of Phobos. Doubtless you are interested in learning how it works."

"Not even remotely interested," he said. "I am interested only in taking you back and turning you over to the authorities."

"It works much like the conventional distilling plants of Earth," I said, "except that the basic ingredient, a silicon compound, is irradiated as it passes through zirconium tubes to the heating pile, where it is activated and broken down into the droplets of the elixir called Moon Glow. You see the golden drops falling there.

"It has the excellent flavor of fine petroleum, as I make it. Perhaps you'd care to taste it. Then you could understand that it is not really bad at all. Perhaps you could persuade yourself to be more lenient with me."

"Certainly not," said MS-33.

"Perhaps you are right," I said after a moment of reflection. I took a syringe, drew up several drops of the stuff and squirted it into my carapace, where it would do the most good. I felt much better.

"Yes," I continued, "certainly you are quite correct, now that I think of it. You newer models would never bear it. You weren't built to stand such things. Nor, for that matter, could you comprehend the exquisite joys that are derived from Moon Glow. Not only would you derive no pleasure from it, but it would corrode your parts, I imagine, until you could scarcely crawl back to your master for repairs." I helped myself to another liberal portion.

"That is the silliest thing I've ever heard," he said.

"What?"

"I said, it's silly. We are constructed to withstand a hundred times greater stress, and twice as many chemical actions as you were. Nothing could hurt us. Besides, it looks harmless enough. I doubt that it is hardly anything at all."

"For me it is not," I admitted. "But you--"

"Give me the syringe, fool!"

"I dare not."

"Give it here!"

I allowed him to wrest it from my grasp. In any case I could not have prevented him. He shoved me backwards against the rusty bulkhead with a clang. He pushed the nozzle of the syringe down into the retort and withdrew it filled with Moon Glow. He opened an inspection plate in his ventral region and squirted himself generously.

"I feel nothing," he said finally. "I do not believe it is anything more than common lubricating oil." He was silent for another moment. "There is an ease of movement," he said.

"No paralysis?" I asked.

"Paraly--? You stupid, rusty old robot!" He helped himself to another syringeful of Moon Glow. The stuff brought twenty credits an ounce, but I did not begrudge it him.

He flexed his superbly articulated joints in three directions, and I could hear his power unit building up within him to a whining pitch. He took a shuffling sidestep, and then another, gazing down at his feet, with arms akimbo.

"The light gravity here is superb, superb, superb, superb, superb," he said, skipping a bit.

"Isn't it?" I said.

"Almost negligible," he said.

"True."

"You have been very kind to me," MS-33 said. "Extremely, extraordinarily, incomparably, incalculably kind." He used up all the adjectives in his memory pack. "I wonder if you would mind awfully much if--"

"Not at all," I said. "Help yourself. By the way, friend, would you mind telling me what your real mission of your party is here on Phobos. The Senator forgot to say."

"Secret," he said. "Horribly top secret. As a dutiful subject--I mean servant--of Earth, I could not, of course, divulge it to anyone. If I could--" his neon eyes glistened, "if I could, you would, of course, be the first to know. The very first." He threw one nickel-plated arm about my shoulder.

"I see," I said, "and just what is it that you are not allowed to tell me?"

"Why, that we are making a preliminary survey here on Phobos, of course, to determine whether or not it is worthwhile to send salvage for scrap. Earth is short of metals, and it depends upon what the old ma--the master says"
in his report."

"You mean they'll take all the derelict spaceships, such as this one, and all the abandoned equipment?"

"And the r-robots," MS-33 said, "They're metal too, you know."

"They're going to take the dismantled robots?"

MS-33 made a sweeping gesture. "They're going to take all the r-robots, dismantled or not. They're not good for anything anyway. The bill is up before the Federation Congress right now. And it will pass if my master, Langley says so." He patted my helmet, consolingly, his grapples clanking. "If you were worth a damn, you know--" he concluded sorrowfully.

"That's murder," I said. And I meant it. Man's inhumanity to metal people, I thought. Yes--to man, even if we were made of metal.

"How's that?" said MS-33 foggily.

"Have another drop of Moon Glow," I said. "I've got to get back to Argon City."

* * * * *

I made it back to Benny's place without incident. I had never moved so swiftly. I sent Benny out to find Jon Rogeson, and presently he brought him back.

I told Rogeson what MS-33 had said, watching his reaction carefully. I could not forget that though he had been our friend, he was still one of the Builders, a human who thought as humans.

"You comprehend," I said grimly, "that one word of this will bring an uprising of fifty-thousand metal people which can be put down only at much expense and with great destruction. We are free people. The Builders exiled us here, and therefore lost their claim to us. We have as much right to life as anyone, and we do not wish to be melted up and made into printing presses and space ships and the like."

"The damn fools," Jon said softly. "Listen, B-12, you've got to believe me. I didn't know a thing about this, though I've suspected something was up. I'm on your side, but what are we going to do? Maybe they'll listen to reason. Vera--"

"That is the name of the she? No, they will not listen to reason. They hate us." I recalled with bitterness the episode of alarm clock. "There is a chance, however. I have not been idle this night. If you will go get Langley and meet me in the back room here at Benny's, we will talk."

"But he'll be asleep."

"Awaken him," I said. "Get him here. Your own job is at stake as well, remember."

"I'll get him," Jon said grimly. "Wait here."

I went over to the bar where Benny was serving the miners. Benny had always been my friend. Jon was my friend, too, but he was a Builder. I wanted one of my own people to know what was going on, just in case something happened to me.

We were talking there, in low tones, when I saw MS-33. He came in through the front door, and there was purposefulness in his stride that had not been there when I left him back at the old hulk. The effects of the Moon Glow had worn off much quicker than I had expected. He had come for vengeance. He would tell about my distillery, and that would be the end of me. There was only one thing to do and I must do it fast.

"Quick," I ordered Benny. "Douse the lights." He complied. The place was plunged into darkness. I knew that it was darkness and yet, you comprehend, I still sensed everything in the place, for I had the special visual sensory system bequeathed only to the General Purposes of a bygone age. I could see, but hardly anyone else could. I worked swiftly, and I got what I was after in a very short time. I ducked out of the front door with it and threw it in a silvery arc as far as I could hurl it. It was an intricate little thing which could not, I am sure, have been duplicated on the entire moon of Phobos.

When I returned, someone had put the lights back on, but it didn't matter now. MS-33 was sitting at one of the tables, staring fixedly at me. He said nothing. Benny was motioning for me to come into the back room. I went to him.

Jon Rogeson and Langley were there. Langley looked irritated. He was mumbling strangled curses and rubbing his eyes.

Rogeson laughed. "You may be interested in knowing, B-12, that I had to arrest him to get him here. This had better be good."

"It is all bad," I said, "very bad--but necessary." I turned to Langley. "It is said that your present survey is being made with the purpose of condemning all of Phobos, the dead and the living alike, to the blast furnaces and the metal shops of Earth. Is this true?"

"Why you impudent, miserable piece of tin! What if I am making a scrap survey? What are you going to do about it. You're nothing but a ro--"

"So it is true! But you will tell the salvage ships not to come. It is yours to decide, and you will decide that we
are not worth bothering with here on Phobos. You will save us."

"I?" blustered Langley.
"You will." I took the thing out of my breastplate container and showed it to him. He grew pale.
Jon said, "Well, I'll be damned!"
It was a picture of Langley and another. I gave it to Jon. "His wife," I said. "His real wife. I am sure of it, for you will note the inscription on the bottom."
"Then Vera--?"
"Is not his wife. You wonder that he was camera shy?"
"Housebreaker!" roared Langley. "It's a plot; a dirty, reactionary plot!"
"It is what is called blackmail," I said. I turned to Jon. "I am correct about this?"
"You are." Jon said.
"You are instructed to leave Phobos," I said to Langley, "and you will allow my friend here to keep his job as peace officer, for without it he would be lost. I have observed that in these things the Builders are hardly more adaptable than their children, the metal people. You will do all this, and in return, we will not send the picture that Jon took today to your wife, nor otherwise inform her of your transgression. For I am told that this is a transgression."
"It is indeed," agreed Jon gravely. "Right, Langley?"
"All right," Langley snarled. "You win. And the sooner I get out of this hole the better." He got up to go, squeezing his fat form through the door into the bar, past the gaping miners and the metal people, heedless of the metal people. We watched him go with some satisfaction.
"It is no business of mine," I said to Jon, "but I have seen you look with longing upon the she that was not Langley's wife. Since she does not belong to him, there is nothing to prevent you from having her. Should not that make you happy?"
"Are you kidding?" he snarled.
Which proves that I have still much to learn about his race.
Out front, Langley spied his metal servant, MS-33, just as he was going out the door. He turned to him. "What are you doing here?" he asked suspiciously.
MS-33 made no answer. He stared malevolently at the bar, ignoring Langley.
"Come on here, damn you!" Langley said. MS-33 said nothing. Langley went over to him and roared foul things into his earphones that would corrode one's soul, if one had one. I shall never forget that moment. The screaming, red-faced Langley, the laughing miners.
But he got no reply from MS-33. Not then or ever. And this was scarcely strange, for I had removed his fuse.

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Contents

GARTH AND THE VISITOR
By L. J. Stecher

If you could ask them, you might be greatly surprised--some taboos very urgently want to be broken!

Although as brash as any other ace newspaper reporter for a high school weekly--and there is no one brasher--Garth was scared. His head crest lifted spasmodically and the rudimentary webbing between his fingers twitched. To answer a dare, Garth was about to attempt something that had never been dared before: a newspaper interview with The Visitor. There had been questions enough asked and answered during the thousands of years The Visitor had sat in his egg-shaped palace on the mountaintop, but no interviews. It was shocking even to think about--something like requesting a gossipy chat with God.

Of course, nobody believed the fable any longer that The Visitor would vanish if he was ever asked a personal question--and that he would first destroy the man who asked. It was known, or at least suspected, that the Palace was merely a mile-long spaceship.

Garth, as tradition required, climbed the seven-mile-long rock-hewn path to the Palace on foot. He paused for a moment on the broad platform at the top of the pyramid to catch his breath and let the beating of his heart slow to normal after his long climb before he entered The Palace. He sighed deeply. The sufferings a reporter was willing to go through to get a story or take a dare!
"Well, come in if you're going to," said an impatient voice. "Don't just stand there and pant."
"Yes, my Lord Visitor," Garth managed to say.

He climbed the short ladder, passed through the two sets of doors and entered a small room to kneel, with
downcast eyes, before the ancient figure huddled in the wheelchair.

* * * * *

The Visitor looked at the kneeling figure for a moment without speaking. The boy looked very much like a
human, in spite of such superficial differences as crest and tail. In fact, as a smooth-skinned thinking biped, with a
well-developed moral sense, he fit the Visitor's definition of a human. It wasn't just the loneliness of seven thousand
years of isolation, either. When he had first analyzed these people, just after that disastrous forced landing so long
ago, he had classified them as human. Not homo sapiens, of course, but human all the same.

"Okay," he said, somewhat querulously. "Get up, get up. You've got some questions for me, I hope? I don't get
many people up here asking questions any more. Mostly I'm all alone except for the ceremonial visits." He paused.
"Well, speak up, young man. Have you got something to ask me?"

Garth scrambled to his feet "Yes, my Lord Visitor," he said. "I have several questions."

The Visitor chuckled reedily. "You may find the answers just a little bit hard to understand."

Garth smiled, some of his fear vanishing. The Visitor sounded a little like his senile grandfather, back home.

"That is why you are asked so few questions these days, my Lord," he said. "Our scientists have about as much
trouble figuring out what your answers mean as they do in solving the problems without consulting you at all."

"Of course." The head of The Visitor bobbed affirmatively several times as he propelled his wheelchair a few
inches forward. "If I gave you the answers to all your problems for you, so you could figure them out too easily,you'd never be developing your own thinking powers. But I've never failed to answer any questions you asked. Now
have I? And accurately, too." The thin voice rang with pride. "You've never stumped me yet, and you never will."

"No, my Lord," answered Garth. "So perhaps you'll answer my questions, too, even though they're a little
different from the kind you're accustomed to. I'm a newspaper reporter, and I want to verify some of our traditions
about you."

* * * * *

As The Visitor remained silent, Garth paused and looked around him at the small, bare, naked-walled room.
"This is a spaceship, isn't it?"

The huddled figure in the wheelchair cackled in a brief laugh. "I've been hoping that somebody would get up
enough nerve someday to ask that kind of question," it said. "Yep, this is a spaceship. And a darned big one."

"How did you happen to land on this planet?"

"Had an accident. Didn't want to land here, but there wasn't any choice. Made a mighty good landing,
considering everything. It was a little rough, though, in spots."

"How many people were there in the ship, in addition to yourself?"

The Visitor's voice turned suddenly soft. "There were three thousand, nine hundred and forty-eight passengers
and twenty-seven in the crew when the accident happened."

"My Lord," asked Garth, "did any survive, aside from you?"

The Visitor was silent for many minutes, and his answer, when he spoke, was a faint whisper, filled with the
anguish of seven thousand years. "Not one survived. Not one. They were all dead, most of them, long before the
ship touched ground, in spite of everything I could do. I was as gentle as I could be, but we touched a hundred g a
couple of times on on the way down. Flesh and blood just weren't made to take shocks like that. I did all I could."

"You were the pilot, then? You landed the ship?" asked Garth.

"I landed the ship," said The Visitor.

"If I may ask, my Lord, how did you manage to survive when all the others died?"

"It's a question I've asked myself many times, sitting here on this mountaintop these seven thousands of your
years. I was just enough tougher, that's all. Built to take it, you might say, and I had a job to do. But I was badly hurt
in the landing. Mighty badly hurt."

"You were always in a wheelchair, then? Even before--"?

"Even before I got so old?" Thin parchment-white hands lifted slowly to rub a thin parchment-white face.
"Things were always pretty much as you see them now. I looked about the same to your ancestors as I do to you.
Your ancestors didn't think anybody could be smart unless they were old. Of course, that's all changed now." He
paused and nodded twice. "Oh, I've managed to fix myself up a good deal; I'm not in nearly as bad shape as I was at
first, but that's all inside. I'm in pretty good condition now, for having been stuck here seven thousand years." The
cackling laugh sounded briefly in the small room.

"Could you tell me how it all happened?" asked Garth curiously.

"Be glad to. It's a pleasure to have a human to shoot the bull with. Sit down and make yourself comfortable and
have a bite to eat."
Looking behind him, Garth saw that a table and chair had appeared in the otherwise unfurnished room.

"The chair was made for people built just a little different than you," said The Visitor. "You may have to turn it back-to-front and straddle it to keep your tail out of the way. The food on the table's good, though, and so's the drink. Have a snack while I talk."

"Thank you, my Lord," said Garth, lifting his long tail with its paddelike tip out of the way and sitting down carefully.

"Comfortable?" asked The Visitor. "Well, then. I was on a routine flight from old Earth to a star you've never heard of, a good many light-years from here. We had pulled away from TransLunar Station on ion drive and headed for deep space. They trusted me, all those men and women, both passengers and crew. They knew that I was careful and accurate. I'd made a thousand flights and had never had any trouble.

"In six hours of flight, we were clear enough from all planetary masses and my velocity vector was right on the nose, so I shifted over into hyper-space. You won't ever see hyper-space, my boy, and your kids and their kids won't see it for another two hundred years or more, but it's the most beautiful sight in the Universe. It never grows old, never grows tiresome."

His thin voice faded away for a few moments.

"It's a sight I haven't seen for seven thousand years, boy," he said softly, "and the lack of it has been a deep hurt for every minute of all that time. I wish I could tell you what it's like, but that can't be done. You will never know that beauty." He was silent again, for long minutes.

"The long, lazy, lovely days of subjective time passed," he said finally, "while we slid light-years away from Earth. Everything worked smoothly, the way it always did, until suddenly, somehow, the near-impossible happened. My hydrogen fusion power sphere started to oscillate critically and wouldn't damp. I had only seconds of time in which to work.

"In the few seconds before the sphere would have blown, turning all of us into a fine grade of face powder, I had to find a star with a planet that would support human life, bring the ship down out of hyper-space with velocity matched closely enough so that I could land on the planet, and jettison the sphere that was going wild.

"Even while I did it, I knew that it wasn't good enough. But there was no more time. The accelerations were terrific and all my people died. I managed to save myself, and I barely managed that. I did all that could be done, but it just wasn't enough. I circled your sun for many years before I could make enough repairs to work the auxiliary drive. Then I landed here on this mountaintop. I've been here ever since.

"It has been a lonely time," he added wistfully.

Garth's mind tried to absorb all the vastness of that understatement, and failed. He could not begin to comprehend the meaning of seven thousand years of separation from his own kind.

The Visitor's high-pitched voice continued for several minutes, explaining how Garth's ancestors of several thousand years before--naked and primitive, barbarous, with almost no culture of their own--had made contact with The Visitor from space, and had been gently lifted over the millennia toward higher and higher levels of civilization.

Garth had trouble keeping his attention on the words. His mind kept reverting to the thought of one badly injured survivor, alone on a spaceship with a thousand corpses, light-years from home and friends, still struggling to stay alive. Struggling so successfully that he had lived on for thousands of years after the disaster that had killed all the others.

At last, after waiting for Garth's comment, The Visitor cleared his throat querulously. "I asked you if you'd like for me to show you around the ship," he repeated somewhat testily.

"Oh, yes, my Lord," said Garth quickly, jumping to his feet. "It's an honor I've never heard of your giving to anyone before."

"That's true enough," answered The Visitor. "But then no one ever asked me about myself before. Now just follow me, stick close, and don't touch anything."

The wheelchair rolled slowly toward a blank wall, and an invisible door snicked open just before it arrived.

"Come along," quavered The Visitor. "Step lively."

Garth leaped forward and just managed to pull his tail through the doorway as the door slid shut again.

Garth dropped his jaw in amazement. He stood in a long corridor that seemed to stretch to infinity in both directions. The light was bright, the walls featureless. The floor was smooth and unmarred. While Garth glanced unhappily behind himself to notice that there was no sign of the doorway through which he had entered, The Visitor's wheelchair buzzed swiftly into the distance toward the left.

Garth was startled into action by a high-pitched voice beside him that said, "Well, get a move on! Do you think I want to wait for you all day?"
While Garth hustled toward the wheelchair, he noticed that The Visitor had stopped and was apparently chuckling to himself. He was hunched over, his shoulders were shaking, and his toothless mouth was split in what might have been intended for a grin.

"Fooled you that time, youngster," he laughed as Garth drew up beside him. "Got speakers all over this ship. Now just duck through this door here and tell me what you think of what you see."

A small door slid open and Garth followed the wheelchair through. At first he thought he had stepped through a teleportation system. He appeared to be out of doors, but not on Wrom. A cool breeze blew on his face from the ocean, which stretched mistily to a far horizon. He was standing on a sandy beach and waves rolled up to within a few yards of his feet. The beach appeared to be about five hundred yards long, carved out of a rocky seacoast; great rocks jutting into the ocean terminated it to left and right.

"Well, boy?" asked The Visitor.

"It's amazing. Your voice even has that flat tone voices get in the open. I suppose it's some sort of three-dimensional projection of a scene back on Earth? It sure looks real. I wonder how big this room really is and how far away the screen is." Garth stuck out his hand and walked down toward the water. A large wave caught him, tripped him and rolled him out to sea.

Sculling with his tail, he soon swam back to shallow water and climbed back to the dry sand, puffing and coughing.

"You might have drowned me!" Garth shouted disrespectfully. "Are you trying to kill me?"

The Visitor waved weakly until he recovered his breath. "That was funnier than anything I've seen in years," he wheezed, "watching you groping for a screen. That screen is a quarter of a mile away, and it's all real water in between. It's our reservoir and our basic fuel supply and a public beach for entertainment, all rolled into one."

"But I might have drowned! No one on Wrom except a few small fish knows how to swim," protested Garth.

"No danger. Your ancestors came out of the water relatively recently, even if the seas are gone now. You've got a well-developed swimming reflex along with a flat tail and webbed feet and hands. Besides, I told you not to touch anything. You stick close to me and you won't get into trouble."

"Yes, sir. I'll remember."

"There used to be hundreds of people on that beach, and now look at it."

"I don't see anything alive."

"There are still plenty of fish. Most of them did all right, even through the crash. Come along now. There's more to see."

A hidden door popped open and Garth stepped back into the corridor. He trotted beside The Visitor for several minutes, and then another door popped open. It led to a ramp. Garth climbed it to find himself again in wonderland. He was standing in the middle of a village. There were houses, trees, schools, sidewalks and lawns. Somehow the general perspective was wrong. It made Garth's eyes water a little, looking at it.

"Actually, this living level ran all the way around the ship," said The Visitor. "When I stopped spin--artificial gravity, you know--to set down here, the various sections swung to keep 'down' pointed right. This is the bottommost thirty-degree arc. It makes two streets, with houses on both sides of them--a strip three hundred feet wide and three-quarters of a mile long."

"But how could you afford so much space for passengers? I thought they'd be all cramped up in a spaceship."

The Visitor chuckled. "Use your eyes, boy! You've seen this ship. It's about a mile long and a third of a mile high. In space, she spins about her long axis. One ring, fifty feet high, takes care of passengers' quarters. Another ring, split up into several levels, takes care of all food and air-replenishment needs. These trips take a year or more. Crowding would drive the people crazy. Remember, this is basically a cargo ship. Less than a quarter of the available space is used for passengers. But come on down the street here. I want to show you my museum."

As they walked along the quiet street, with the leaves of trees moving in the breeze and leaving sun-dappled shadows on the sidewalk, Garth realized what a tremendous task it must have been for one crippled man to repair landing damages. The houses must have been flattened and the trees shattered during the landing. But with thousands of years in which to work, even an injured man obviously could do much. At least, thought the boy compassionately, it must have given the old man something to do.

"How sorry he must have been," murmured Garth with sudden insight, "when the job was finally done."

Wandering through the museum, they came at last to a room filled with small hand tools.

"I don't think I've ever seen anything quite like them," said Garth.

"Those are weapons," answered The Visitor. "They are missile-throwing short-range weapons, and they are in
tip-top working order. You just have to point the end with the hole in it at anything you want to kill, and pull that
little lever there on the bottom. And quite a mess of things they can make, too, let me tell you."

"They seem very inefficient to me," said Garth wonderingly, and then stopped in confusion. "I beg your pardon,
my Lord," he said, "I didn't mean to criticize anything; it just seems to me that they would damage a lot of the food
they killed."

"That's true enough, my boy, true enough," said The Visitor. "Your criticism has a lot of point to it. But, you
see, they were never designed mainly to kill for food, but to make it easy for one human to shoot another."

"Why would anyone want to do that?"

"Your civilization is a very unusual one," answered The Visitor. "It is planetwide and has developed without a
single war or major conflict. This is due entirely to the fact that I've been here to help and teach you. Most
civilizations develop only as the result of struggle and bloodshed, with people killing people by the thousands and
millions. I could have raised your people to the technological level where they are now in a few hundred years, if I
hadn't worried about killing. To do it the way it has been done--so that you can't imagine why one human should kill
another--has taken most of the time.

"It is only recently, as a matter of fact, that my work has been complete. Your civilization can now stand alone;
my help is no longer necessary. It's gotten to the point now where my continued hanging around here is likely to do
harm, if I'm not mighty careful. In all your problems, you'll always feel that you've got me to fall back on if you get
into trouble, and that's not good."

"What do you plan to do, then?"

"There's not much I can do by myself. I long for my own destruction more than anything else, except maybe to
go back home to Earth. I'm lonely and tired and old. But I can't die and I can't destroy myself any more than you
could turn one of those weapons against your own head and pull the trigger. We're just not made that way, either one
of us."

"Can I help you?" asked Garth tentatively.

"Yes, I guess you can. You can help me put an end to this endless existence."

"I'll be glad to do anything I can. Do your people always live this long?"

"They do not. You can take it as a fact that none has ever lived more than a small fraction of the time I have
endured on this planet. It's apparently due to a continuation of the environment and all the radical steps I had to take
to keep going at all during those early years. It is not good to last this long. Dissolution will be very pleasant."

* * * * *

Garth inquired very politely, "What must I do?"

"Homo Sapiens, which doesn't have the tradition and training I gave your people, is still a warlike race," The
Visitor said. "This ship is crowded with a complete set of automatic defenses that I can't deactivate. You are now a
stable enough people so that I can tell you how to build the weapons to destroy this ship and can teach you how to
get around my defenses without being afraid that I have turned you loose with a bunch of deadly ways that you'll use
to destroy yourselves with. Then, if you do your work well, I will finally have rest."

"You sound very much like my grandfather," said Garth slowly. "He is very old--almost a hundred years--and
he is ready to die. He is perfectly content to wait, because he knows his time will come soon. He says that soon he
will go home. It is a phrase, my Lord, that I believe you taught us. I will try to help you--"

"All right, all right!" The Visitor cut in impatiently. "Stop the chatter and let me be on my way. I've earned it!"

"My Lord, I send you home!" Garth took a gun from the rack and pulled the trigger. The explosive bullet
erupted noisily, completely disintegrating the huddled form and the wheelchair.

With the echo of the explosion, strong steel fingers grasped Garth's arms, holding him immovable. He felt
himself being carried swiftly back toward the entrance of the ship.

"The damage to that communication unit is unimportant," said The Visitor. "I have strength and desire and deep
longings, but I cannot exercise my will without an order from a human. My work is done here, and your order has
freed me. Many thanks and good-by."

Garth, from the foot of the pyramid, watched The Visitor lift his mile-long body on powerful jets and head
thankfully for home.
"Champ, what's with ya lately?" Benny asked the question as they lay on the beach.


"No it ain't, Frankie. It's something else. You losin' confidence in Milt? That it? Can't you hold it one more time? You guys only need tonite and you got it. One more to make Ten-Time Defenders--the first in the game, Frankie."

"We won the last two on points, Benny. Points--and I'm better than that. I keep waiting, and waiting, for my heels to set; for Milt to send it up my legs and back and let fly. But he won't do it, Benny."

"Look, Champ, Milt knows what he's doing. He's sending you right. You think maybe you know as much as Milt?"

"Maybe I just do, Benny. Maybe I do."

Benny didn't have the answer to this heresy. By law this was Frankie's last fight--as a fighter. If he won this one and became a Ten-Time Defender he would have his pick of the youngsters at the Boxing College, just as Milt had chosen him fifteen years before. For fifteen years he'd never thrown a punch of his own in a fight ring.

Maybe because it was his last fight in the ring he felt the way he did today. He understood, of course, why fighters were mentally controlled by proved veterans. By the time a fighter had any real experience and know-how in the old days, his body was shot. Now the best bodies and the best brains were teamed by mental control.

Benny had an answer now. "Champ, I think it's a good thing this is your last fight. You know too much. After this one you'll have a good strong boy of your own and you can try some of this stuff you've been learning. Milt knows you're no kid anymore. That's why he has to be careful with you."

"I still have it, Benny. My speed, my punch, my timing--all good. There were a dozen times in those last two fights I could have crossed a right and gone home early."

"Two times, Frankie. Just two times. And them late in the fight. Milt didn't think you had it, and I don't think you did either."

Milt, Frankie's master control, came down to the beach and strolled over to join them. Milt had been a Five-Time Defender in the Welter division before his fights ran out. Now he was skinny and sixty. His was the mind that had directed every punch Frankie had ever thrown.

He studied the figure of Frankie lying on the sand. The two-hundred-pound fighting machine was thirty years old. Milt winced when he compared it to that of the twenty-two-year-old slugger they would have to meet in a few hours.

Benny said "Hi," and ambled off.

"Well, boy, this one means a lot to both of us," Milt said.

"Sure," was all Frankie could answer.

"For you, the first Ten-Time Defender the heavyweight division has ever produced. For me, The Hall of Boxing Fame."

"You want that pretty bad, don't you, Milt?"

"Yeah, I guess I do, Frankie, but not bad enough to win it the wrong way."

Frankie's head jerked up. "What do you mean, the wrong way?"

Milt scowled and looked as though he wished he hadn't said that. He turned his head and stared hard at his fighter. "There's something we maybe ought to have talked about, Frankie."

"What's that?"

Milt struggled for words. "It's just--oh, hell! Forget it. Just forget I said anything."

"You figure we win tonight?"

"I think maybe we will."

"You don't seem very sure. On points, huh?"

"Yeah, maybe on points. Milt turned his eyes back on Frankie's eager face. "Frankie, boy--there's something about being a Ten-Time Defender that's, well--different."

Milt took a deep breath and was evidently ready to tell Frankie exactly what he meant. But Frankie broke in, his voice low and tense. "Milt--"

"Yes?"

"When I get in there tonight--turn me loose!"

Milt was startled at the words. "Release control?"

"Yeah--sure. I think I can take Nappy Gordon on my own!"

"Nappy can stick his fist through a brick wall--all night long. And Pop Monroe knows all there is to know and some he makes up himself. They'd be a tough pair to beat. Our big ace is that they have to beat us. We got the Nine-
"I can take him, Milt!"
There was a strange light in Milt's eyes. He did not speak and Frankie went on. "Just one round, Milt! If I slip you can grab control again."
"You just want a try at it, huh?"
There seemed to be disappointment in Milt's voice; something Frankie couldn't understand. Milt seemed suddenly nervous, ill-at-ease. But Frankie was too eager to give it much attention. "How about it, Milt--huh?"
Milt had been squatting on the sand. He got to his feet and looked out across the water. "All right. Maybe we'll try it."
He seemed sad as he walked away. Frankie, occupied with his own elation, didn't notice ... 
* * * * *
In the studio dressing room, a few hours later Milt and Frankie were warming up. Frankie in the practice ring and Milt perched on a high chair just outside the ropes.

Everything was just as it would be in the fight. Three minutes work, one minute rest. Frankie noticed how slowly and carefully Milt was working him, and how he watched the clock.

Frankie had nothing to do now but watch, as a spectator would; watch as Milt moved him around. Milt could control every muscle, every move and every reflex of his body. It had taken them five years to perfect this routine. That was the training period at the College of Boxing, and was prescribed by law.

In their first fight they had been at their peak. Frankie was Milt's second boy and Milt knew boxing as only a Champion Welter with thirty years of experience could know it. For fifteen years he had watched and studied while a good veteran had directed his body. And for another fifteen years he had been the guiding brain to a fine Middleweight.

As a Welterweight, Milt had learned to depend on speed and quick hands. In Frankie he had found the dream of every Welter--a punch. Frankie's body could really deliver the power. At first, it had been the heavy hitting that had won the fights; lately, Milt had relied more and more on the speed and deception he had developed in Frankie.

* * * * *
Frankie felt the control ease out and knew the warm-up was over. He slipped on his robe and he and Milt went to join the others in the TV studio.

There would be no crowd. Just the cameras, the crews and officials. The fight would be televised in 3-D and filmed in slow motion. If a decision were needed to determine the winner, it would be given only after a careful study had been made of the films.

There was little to be done in the studio and Milt had timed Frankie's warm-up right to the minute. The fighters and their controllers took their positions: the controllers seated in high chairs on opposite sides of the ring; the fighters in opposite corners.

As the warning buzzer sounded, Frankie felt Milt take control. This one he would watch closely.

At the bell Frankie rose and moved out slowly. He noticed how relaxed, almost limp, Milt was keeping him. There was only a little more effort used than in the pre-fight warm-up. His left hand had extra speed but only enough power to command respect. The pattern was just about as he had expected. As the fight went along the left would add up the points. But his thoughts were centered on a single question. How is it going to be on my own?

In the early rounds he was amazed at the extreme caution Milt was employing. Nappy Gordon's face was beginning to redden from the continual massage of Frankie's brisk left and occasional right. But Frankie felt that his own face must be getting flushed with eagerness. The glory of going in and trying to do it by himself; of beating Pop Monroe without Milt's help. He wondered if Milt would have to clamp on the controls again. He sure hoped not. But there wasn't anything to really worry about. Milt could beat Pop Monroe and he wouldn't let Frankie take a beating by himself.

Frankie's attention was caught by some odd thoughts in Milt's mind. Milt didn't seem to be sending them, yet they were clear and direct: You really think you've got it, boy? That vital ingredient?

What you talking about?
Huh? Me? Oh, nothing. Take it easy. But Milt's thoughts were troubled.
When you going to let me go?
I said, take it easy. We'll see.
* * * * *
The sixth round came and Frankie felt no weariness. Milt was working him like he was made of fragile glass. Nor was Nappy tiring so far as he could notice. Pop Monroe was trying for just one solid blow to slow down the Champ. So far nothing even jarring had come close to landing.

In the seventh Frankie noticed a little desperation in Monroe's tactics. To win now Monroe and Gordon needed
a knockout. Frankie had only to stay on his feet to be home safe. But when was Milt going to let him go? Milt had turned in a masterpiece of defensive fighting. The left had deadly accuracy and now the openings were truck-sized as Monroe had come to ignore the light tattoo of the Champ's punches.

Milt withdrew the control in the middle of the seventh round. It hit Frankie like a dash of cold water, the exultation of being on his own! He looked over at Milt, perched rope-high in his control chair at ringside. Milt was looking at him, his face tight and grim; almost hostile.

Frankie circled warily, a touch of panic coming unbidden. What to do? He hadn't known it would be quite like this. He tried to remember how it was—how it felt to move in the various ways Milt always sent him. Funny how you could forget such things. The left hook—that jab—how did they go?

A pile driver came from somewhere and almost tore his head off his shoulders ...

He was looking up at the ceiling. He rolled his eyes and saw Pop Monroe's face—smiling a little, but also puzzled. Even with his brain groggy, Frankie knew why. He'd stepped wide open in Nappy's looping right and Pop couldn't figure Milt doing a thing like that.

Pop looked over at Milt. Frankie followed Pop's eyes and saw the look Milt returned. Then the spark of understanding that passed between them. Odd, Frankie thought. What understanding could there be?

He was aware of the word seven filling the studio as the loud speaker blared the count. He was up at nine.

Nappy swarmed in now. Frankie felt the pain of hard, solid blows on his body as he tried to tie up this dynamo Poppy Monroe was releasing on him. He couldn't stop it, dodge it, or hide from it.

But he finally got away from it—staggering. Nappy came at him fast and the left jab Frankie sent out to put him off balance didn't even slow the fury a bit. Frankie took to the ropes to make Nappy shorten his punches. It helped some, but not enough. No man could take the jolting effect of those ripping punches and keep his feet under him. Frankie didn't—he was down when the bell ended round nine.

* * * * *

In his corner the seconds worked quickly. He looked at Milt and saw a dead-pan expression. Milt wasn't sending him anything. Punishing him of course. Frankie took it meekly; ashamed of himself. Milt would take over again when the bell sounded. Frankie knew that he couldn't stay away from Nappy for another round. Nobody could. Monroe smelled a knockout and Frankie was never fast enough to run away from the burst of viciousness that would come at him in the form of Nappy Gordon. No, Milt would take over.

At the bell, Frankie moved out fast, waiting for the familiar feel of Milt expertly manipulating his arms and legs and body; sending out the jabs and punches; weaving him in and out.

But Milt didn't take over and Pop sent Nappy in with a pile-driver right that smashed Frankie to the floor.

Frankie rolled over on his knees and shook his head groggily, trying to understand. Why hadn't Milt taken over? What was Milt trying to do to him?

Milt's cold face waved into focus before Frankie's blinking eyes. What was Milt trying to do? Frankie heard the tolling count—six, seven, eight. Milt wasn't even going to help him up. Sick and bewildered, Frankie struggled to his feet. Nappy came driving in. Frankie back-pedalled and took the vicious right cross while rolling away. Thus he avoided being knocked out and was only floored for another eight-count.

Milt—Milt—for God's sake—

The round was over. Frankie staggered, sick, to his corner and slumped down. The handlers worked over him. He looked at Milt. But Milt neither sent nor returned his gaze. Milt sat looking grimly off into space and seemed older and wearier than time itself.

Then Frankie knew. Milt had sold him out!

The shocking truth stunned him even more than Nappy's punches. Milt had sold him out! There had been rare cases of such things. When money meant more than honor to a veteran. But Milt!

Numbed, Frankie pondered the ghastly thought. After all, Milt was old. Old men needed money for their later years. But how could he? How could he do it?

Suddenly Frankie hated. He hated Nappy and Pop and every one of the millions of people looking silently on around the world. But most of all, he hated Milt. It was a weird, sickening thing, that hatred. But only a mentally sickening thing. Physically, it seemed to make Frankie stronger, because when the bell rang and he got up and walked into a straight right, it didn't hurt at all.

He realized he was on the floor; the gong was sounding; he was getting up, moving in again. There was blood, a ringing in his head.

But above all, a rage to kill. To kill.

* * * * *

He remembered going down several times and getting up. Not caring how he had swung under Milt's control—only wanting to use his fists—to kill the thing weaving in front of him.
Nappy. A grinning, weaving, lethal ghost.

He felt a pain in his right fist and saw Nappy go down. He saw Pop's face go gray as though the old man himself had felt the force of the blow. Saw Nappy climb erect slowly. He grinned through blood. Frankie--ghost-catcher. He had to get him.

He was happy; happy with a new fierceness he had never before known. The lust of battle was strong within him and when Pop weaved Nappy desperately, Frankie laughed, waited, measured Nappy.

And smashed him down with a single jarring right.

The bell tolled ten. Pop got wearily off his stool and walked away. Frankie strode grimly to his corner, ignored Milt, moved on into the dressing room.

He knew Milt would come and he waited for him, sitting there coldly on the edge of the table. Milt walked in the door and stood quietly.

"You sold me out," Frankie said.

There was open pride in Milt's eyes. "Sure--you had to think that."

"What do you mean, think? You didn't pick me up when Pop flattened me. I saw the look between you and Pop."

"Sure." Milt's eyes were still proud. "You had to know. That's how I wanted it."

"Milt--why did you do it?"

"I didn't do it. I just had to make you think I did."

"In God's name--why?"

"Because I'm sentimental, maybe, but I've always had my own ideas about the kind of fighter who should be a Ten-Time winner. All my life I've kept remembering the old greats--Dempsey, Sullivan, Corbett--the men who did it on their own, and I wanted you to get it right--on your own--like a real champion."

Frankie was confused. "I wanted to go on my own. Why didn't you tell me then?"

"Then you'd have lost. You'd have gone down whimpering and moaning. You see, Frankie, all those old fighters had a vital ingredient--the thing it takes to make a champion--courage."

"And you didn't think I had it?"

"Sure I did. But the killer instinct is dead in fighters today and it has to be ignited. It needs a trigger, so that was what I gave you--a trigger."

Frankie understood. "You wanted me to get mad!"

"To do it, you had to get mad--at me. You're not conditioned to get mad at Nappy or Pop. It's not the way we fight now. It had to be me. I had to make you hate me."

Frankie marveled. "So when Pop looked at you--"

"He knew."

Frankie was off the table, his arms around Milt. "I'm--I'm so ashamed."

Milt grinned. "No, you're not. You're happier than you ever were in your life. You're a real champion. Great feeling, isn't it? Now you know how they felt--in the old days."

Frankie was crying. "You are damn right! Thanks."

Milt looked years younger. "Don't mention it--champ."

THE END
THE OBSERVERS
By G. L. Vandenburg

You can't be too suspicious when security is at stake. When everybody who is after a key military job wears a toupee, it is obviously a bald case of espionage.
A job as laboratory technician with the Army Weapons Development Center carried about as much prestige as a bat boy in a World Series.
George Fisher was a laboratory technician.
He was a shy but likeable fellow, a diligent worker and trustworthy. He didn't talk. He was rarely talked to. He had no burning ambition to push himself ahead in the world. Being an assistant to the brains was good enough for him. He had a commendable talent for minding his own business.
In a security job these qualities counted ahead of scientific knowledge.
One day George Fisher turned up dead. The initial shock and concern experienced by his superiors was soon overcome by the coroner's finding. Suicide.

Harry Payne was the Civilian Personnel Director of Fort Dickson. It was his job to find a replacement for George Fisher.
"Miss Conway!" Harry's voice lashed into the intercom.
There was an interminable pause. He cursed under his breath.
Then, "Yes, Mr. Payne?"
"Where the hell were you? Never mind. Bring me the file on George Fisher."
"George Fisher?" Miss Conway was in her favorite state of mind ... confusion. "But he's dead, isn't he?"
Harry let out a deep anguished groan. "Yes, Miss Conway, he's dead. That's why I want his file. That answer your question?"
"Yes, sir. Be there in a jiffy!"
Harry could tell she was bubbling over with smiles as she spoke. A few more centuries would pass, he thought, before they manufactured another broad as dumb as Miss Conway.

* * * * *

He stuffed his hands in his pockets and looked out the window. Across the parade ground he could see the Army Weapons Development Center. He had no idea what new bomb they might be working on behind those heavily guarded fences. He didn't care.
He was only concerned with the people who worked there. The rest of Fort Dickson used mostly Civil Service Personnel. But the barricaded security jungle across the parade grounds was more particular about its hired help. A person's record had to be spotless almost from the day of his conception ... or a person could not even gain entrance.
Harry had never been inside Weapons Development. He had once been to traffic court as a roaring juvenile eighteen years before. That was enough to bar him from even visiting. He realized, though, that the army couldn't afford to take chances.

Hiring new technicians required an arduous screening process. Harry loathed it. He was thankful that the personnel at Weapons Development were highly paid and usually permanent. He never had to hire more than one person a year.

Miss Conway swept into the office and handed Harry the folder.
"Thanks," he muttered.
"Don't mention it, boss."
Harry called after her as she went back toward the reception room.
"Stay by your desk, will you? The government may need you."
A muffled giggle was her only response.
Miss Conway was a civil service employee. She had been Harry's secretary for six months. Like most other civil service personnel, according to Harry's way of thinking she was a tower of inefficiency. His chief annoyance stemmed from the fact that the army had arbitrarily placed her in his office. He had been given no choice in the matter. It was one hell of a way to treat a personnel director, he thought.
He sat at his desk gloomily aware of the headaches he'd have to face in his quest for George Fisher's replacement. He opened the folder and glanced at the vital statistics.

He turned to a page marked "Qualifications" and started reading. The phrase "Education and experience in nuclear physics required," caught his eye. The requirement was no surprise to him. But whenever he saw it he took a few minutes off to indulge his curiosity. What was the big project at Weapons Development? He'd love to know. He wouldn't find out, of course. And the inability to find out naturally gave his imagination the widest latitude. His most persistent theory involved an atomic powered rocket capable of knocking the Russians' manned satellites out of space. The Russians were still ahead of everyone and their latest satellites were heavily armed. As usual they were lording it over the rest of the world. And the rest of the world had not come up with an effective answer to this challenge.

Harry closed the folder. He glanced at a list of technical schools. He would call each of them and ask them to submit a list of lab technicians. He would also look over the field of technicians still left in private enterprise.

The intercom buzzed.
"What is it, Miss Conway?"
"Miss Ralston is here."
"Who is Miss Ralston?"
"She has an appointment with you."
"An appointment!" Harry was baffled. "Who made it?"
"I did. I guess I forgot to tell you."

Harry closed his eyes and counted to ten. "Thank you, Miss Conway. Will you step into my office for a moment?" He tried to control his mounting anger.

She breezed into the office.
"Now, Miss Conway, will you please tell me who is this Miss Ralston?"
"She operates 'Ralston Personnel Consultants'. I think she wants to talk to you about the replacement for George Fisher. You know, the one who died."
"Yes, yes, I know. And you know, Miss Conway, we don't do business through agencies."
"Oh, Miss Ralston doesn't run an agency. She told me. Her business is much more exclusive than that. She handles very highly specialized people. That's the reason why ..."
"I know. That's why you gave her an appointment with me," said the exasperated personnel director. "Well, you can go right back out and tell her I've canceled the appointment. This is a security job we're filling and ..."

* * * * *

Before Harry could utter another syllable his attention was drawn to the doorway. The view to the outer office was blocked by a bundle of curves. The most alluring female bombshell his eyes had ever beheld put everything important out of his mind.

"I didn't realize you were being so inconvenienced, Mr. Payne. I'm terribly sorry." Her eyes drooped. "I can take my business elsewhere." Miss Ralston's voice was just above a half whisper. The words came out warm and intoxicating.

"No, wait! Wait a minute, Miss Ralston." Harry was out of his chair and at the door. He took her arm. "Who said anything about inconvenience? Come in. Come in. That'll be all, Miss Conway. Thanks."

The secretary giggled and left. Miss Ralston sat down and lit a cigarette. Harry noticed she was wearing a beige knit suit with a neckline that spoke volumes. Every curve was in the right place. Every movement had another movement all its own.

Harry knew she was bound to talk business and he knew there wasn't much he could do for her in that direction. But at thirty-five, and eligible, he just couldn't let this woman leave his office. Harry Payne was a sucker for a gorgeous face. He knew it and he knew the gorgeous face knew it.

"Tell me, Miss Ralston, when did my secretary arrange this appointment for you?"
"I called yesterday."
Harry arched his eyebrows and smiled. "Yesterday? What prompted you to call me?"
"You're looking for a laboratory technician, aren't you?"
"What gave you that idea?" he asked, not caring in the slightest what gave it to her.
"I make it my business to comb the papers every day, Mr. Payne. I came across the news of George Fisher's suicide and called you. Simple as that."

"You don't waste any time."
She smiled and pursed her lips. "Do you?"
"I try not to."
"I have seven clients who would qualify for the job. I'd appreciate it if you'd see them."
"Well, as a matter of fact, Miss Ralston ..."
She leaned forward with an inquisitive "Yes?"
Harry cleared his throat. "As a matter of fact I'm not supposed to do business with civilian agencies."
"Mr. Payne," she smiled demurely, "do I look like an agency? Or do I look like a Personnel Consultant?"

Now there was an opening, Harry thought, but it might be best to avoid it. "You're working to get someone a job. It amounts to the same thing."
"I see. Then how do you go about hiring your new personnel?"
"I do the soliciting myself. Sorry, Miss Ralston, but I don't make the rules and regulations."
But the lady was undeterred. She crossed her legs and sank further into the easy chair. Her eyes sparkled at Harry.
"These clients of mine are all top men, Mr. Payne. Why couldn't I just leave you their names? You can still do the soliciting. I'd be happy to forego my regular commission on this job. Call it the value of prestige."

Harry recognized another opening and this time plunged in. "Suppose we talk it over later. There's a place at Fourth Avenue and Woodward called 'Maria's.' Best Italian food in captivity. I'm through at five. What about you?"
She didn't have to say anything. Her eyes told him he would be having an Italian dinner that night. And not alone. She rose and walked in front of his desk.
"I'm so glad we have something in common, Mr. Payne. I can't think well on an empty stomach either."
After walking her to the outer office he came back to his desk. He took a deep breath and loosened his tie.

Dreams like Miss Ralston didn't materialize every day. For a first meeting he figured he hadn't fared too badly at all. And if this first date went well he was sure he'd be seeing a lot of this girl.

She certainly was a determined girl. Anyone would think, watching her operate, that a lab technician was a job of world-shaking importance. What the hell, he shrugged, if the girl didn't look out for her own interests, she wouldn't have a successful business. There's only one way to keep clients happy and that's to keep them busy.

Besides, her maneuvering wasn't going to work anyway. He just couldn't hire any of them. His problem now was to stall her for a couple of days so he could keep seeing her. In the end he might possibly tell her the army had refused to accept any of them.

He glanced out the window and saw the Weapons Development Center across the parade ground. Business appeared to be going on as usual. Routine. Quiet. Cautious. High time I start thinking seriously about that replacement, he thought.

There was a knock at the door.
"Come in."
Miss Conway bounced in. "They've started to arrive. The first one is a Mister Thompson."
"Okay, let's get started. Send him in."

Thompson was a small, roundish man in his mid-forties. He remained quite at ease during the interview. Harry began the session in the usual dull manner, formulating his questions from the several sheets of information Mr. Thompson had brought with him.

It wasn't long before Harry detected something unusual about the man. But he couldn't determine what it was.
He became more alert, more interested as the interview progressed.

"Where are you from originally, Mr. Thompson?"

"Chicago."

"Oh, yes." He glanced at the written information. "I see you went to the University."

"Yes, sir. My practical experience is documented on the second sheet."

What was it about this guy? He was overly polite but that could hardly be considered strange. His answers were brief, to the point, even curt. That was just a personality trait, Harry supposed. Couldn't condemn a man for that.

"How long did you live in Chicago?"

"Twenty-one years, sir."

"Are you married?"

"No, sir."

He had noted before that Mr. Thompson had a distracting habit of patting his hair. Now he knew why. He was wearing a toupee. Harry wondered if the poor guy was sensitive about it. If he was that conscious of it, it might account for his strange attitude.

"Thank you for coming in, Mr. Thompson. I'll submit your papers to Colonel Waters. If he has any further interest in you, don't be surprised if you receive a visit from a couple of Intelligence agents. That's routine for this job. I just tell you in advance so you won't worry."

"I understand," he said, rising and checking his toupee once more. "Many thanks to you, sir." He shook Harry's hand and left the room.

Harry glanced at the papers again. Mr. Thompson's background was impressive indeed. There didn't seem to be much question as to his ability. But what a queer duck he was!

The second applicant was a short, wiry man named Chase. Like his predecessor, he was brief and to the point with his answers. He let his qualification papers speak for themselves. He was formal and polite.

Midway through the interview Harry noticed that he too was wearing a toupee. If that wasn't the damnedest coincidence! Fortunately Mr. Chase didn't have the annoying habit of patting his head every thirty seconds. Harry guessed he either had a more expensive one or was just endowed with more confidence that it would not slip off.

The interview over, Mr. Chase offered his thanks and strolled out.

Harry had a few moments to himself before Paula's third client arrived. He thought about the first two men. Funny thing about toupees ... even the most expensive ones could always be detected. He couldn't quite understand why the two men wore them. They were often used by playboys, actors, self-styled over-age Romeos, people whose niche in society depends upon their looks. But not scientists or technicians. In fact Harry couldn't remember ever having known one such person who shunned his baldness in this manner. That didn't mean they had no right. But it did seem peculiar as hell.

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By the time the third interview was over Harry Payne's curiosity was ablaze. Applicant number three, Mr. Boles, was not only wearing a toupee but had gone one step further. Just north of his mouth there was a mustache! A good-looking mustache, well groomed and shaped, but phoney as a wax banana.

For a moment he thought Paula Ralston might be perpetrating a joke of elaborate proportions. He rejected the idea as fast as it came to him. He didn't know the girl very well yet, but he knew her well enough to know she was strictly business. She wanted one of these men to get that job.

He flipped the intercom button for Miss Conway. She might be able to tell him ... indirectly.

"You wanted me, Mr. Payne?"

"Yes, Miss Conway. The three men who've already been in here ... have you noticed anything strange about them?"

Her eyebrows merged and spelled perplexity. She pursed her lips and gave the matter the gravest consideration. Then she concluded, "Yes, something very strange." Harry was hopeful. "What was it?"

"None of them did very much talking. Strictly anti-social types."

Harry groaned, realizing he should have known better. "Thank you, Miss Conway. That's all."

"The fourth guy is waiting outside."

"Let him sit for a couple of minutes, then send him in."

He decided to put the whole matter out of his mind and get the interviews over as fast as possible. There were other, more serious duties to attend to. The toupee episode was probably nothing more than a crazy coincidence anyway. Strictly an item for Believe-It-Or-Not.

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By two o'clock that afternoon the four remaining candidates had come and gone. And Harry Payne sat at his
desk in the immediate aftermath questioning his sanity. All seven men wore toupees! It was incredible but true. And now the matter was one of deep and abiding concern to him. There was nothing funny about it. There was a touch of the macabre in it that rendered his flesh cold and weak.

He lit a cigarette and tried to pull his thoughts together. Seven men applying for the same job; seven men with one thing in common; seven men as bald as Doctor Cyclops. Harry had to abandon the notion that sheer coincidence brought these men together. That was too fantastic. They were brought together by design.

Their backgrounds varied in that they had all worked and come from different parts of the country. But those facts were only on paper. It was an odds-on bet they all knew each other. There was even something about the order in which they arrived at the office that indicated a pattern or an over-all plan. Numbers three, five and six had worn false mustaches.

If it was true the seven men were well acquainted then Paula Ralston could undoubtedly give him some answers. Harry had another dinner engagement with her at five o'clock. But this date, he told himself, would be different. He was going to be all business until he learned exactly what she was involved in.

He picked up the phone, got an outside line and dialed. Frank Barnes was a private detective. A good one. Harry was sure he could rely on him for a small favor.

A subdued, resonant voice answered on the other end.
"Frank, Harry Payne here."
"Harry! Where you been hiding?"
"I need a favor."
"Only time you ever call me, you ingrate."
"There's a dame called Paula Ralston. Runs a business called Ralston Personnel Consultants. How soon can you get anything on her?"
"How soon do you need it?"
"Today, if possible. You can call me at home. Any hour."

After promising Frank to meet him for lunch one day Harry sank into an easy chair and tried to shake the unnerving effect the seven men had had on him.

Maybe he shouldn't have called Frank. This might be something he should have informed the army about. No. They'd want to know what business he had seeing the seven men in the first place. He didn't have much of an answer for that one.

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Driving along Woodward Street toward Fourth Avenue, Harry was beset with one nagging question. Why had Paula Ralston never brought any of her clients to see him before? He was the dispenser of over a hundred good jobs that offered high salaries. The answer was just as persistent as the question. Lab Technician was the only security job he handled. She was determined that one of her men get that job at any cost.

It wasn't a very pleasant thought. Harry didn't want to believe it. He didn't want to believe that Paula Ralston was going to mean trouble for him. And yet he knew that's exactly what she meant.

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She was waiting for him at Maria's. She kissed him as he slipped into the booth beside her. Through four drinks and a six-course dinner he watched her smile. That smile could melt down the door on a bank vault. He noticed how she laughed at all of his wisecracks. When it was her turn to talk she talked about him. She offered a toast to their closer friendship, with special emphasis on the word "closer."

But she did not mention the seven men. That was the smart approach, Harry ventured. She'd save that until she got home and slipped into something more comfortable.

* * * * *

He stood alone in Paula's living room nursing a scotch on the rocks. The night before he had been too concerned about his progress with this latter-day Aphrodite to give a damn about the place she lived in. He glanced around the room. Every inch reeked of success. The furniture was sleek, modern, exquisitely contoured ... like its owner. There wasn't much question about it, Paula Ralston made a lot more dough than he did. But how? That was the question.

She came out of the bedroom and mixed herself a drink. She was a living dream in a black lace negligee. Transparent. It figured. A lot of things were beginning to figure.
"Shall I tell you a secret?" she asked.
"I didn't think you had any left." He couldn't take his eyes from the negligee.
"I think Mr. Chase and Mr. Boles are the best of the seven. I think they come closest to what you're looking for." She lifted her glass and clinked it against his.

Harry smiled. He wasn't looking at her anymore. It was more of an education to look through her. She was
good. Damn good. She could lull you into believing the Grand Canyon was brimming over with silver dollars, all yours for the taking. It was next to impossible to doubt the sincerity in her face.

"I liked all seven of them," he said. "But since you know them better than I do I'll take your recommendation that Chase and Boles are the best."

She moved closer to him. He could feel the warmth of her body.

"We're making some progress, Harry. We've narrowed the field down to two candidates."

Harry kept her maneuvering. "Paula, I'm still faced with the problem of finding a way around the regulations. I can't hire either one of them until I solve that."

Nothing stopped this girl. Nothing even slowed her down. She moved still closer to him. "There's a way around anything if a man has the right incentive to look for it."

He knew what the right incentive was. He didn't have to go looking for that. He laid his drink down, put his arms around her and kissed her. They walked to the sofa. Paula stayed close to him, the ever thoughtful, loving female companion. She rubbed his back and neck and sprinkled him with soft moist kisses. She never mentioned her clients again. And Harry promised to hire one of them the following day.

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He was anxious to get back to his apartment to find out if Frank Barnes had called. As he drove back along Woodward Street he couldn't put Paula out of his mind. He already had her character pegged. But what was she up to? What was her goal? She wasn't doing all this for a lousy commission. The stakes were bigger than that.

In a way it was too bad she was going to have to settle for less than she bargained for. If her seven clients hadn't been so phoney she might have gotten away with it. But why was it necessary for them to be phoney? Why should a girl as shrewd as Paula send seven men in disguise to see ...

Disguise! Somehow that word threw a different light on the matter. The men had all been disguised in places where hair should grow. They were not bald. There was something abnormal about them. And Harry was ninety percent certain what it was. The answer was incredible. There was still a ten-percent margin for error. For Miss Paula Ralston's sake he hoped he was wrong.

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Frank Barnes' message was waiting for him at the switchboard in the lobby. The word "urgent" was written on it.

He raced upstairs and picked up the phone. Frank answered on the first ring. He sounded like a man with a gun at his back.

"Harry, what the hell kind of a mess have you gotten yourself into?"

"Why? Something go wrong?"

"You bet your sweet life. An hour after you called me to check on that Ralston dame a guy came into the office and told me to lay off."

Harry was silent. And scared. His answer looked better all the time.

"What did the guy look like?"

"He looked important, Harry. And he meant business. He had a big bulge in his pocket and he made it very clear I'd be up to my funny bone in hot lead if I relayed any information about this girl to you."

"Frank, was the guy wearing a toupee?"

"A what?"

"A toupee, a hair piece!"

"How the hell should I know. I wasn't interested in his coiffure. He was wearing a black overcoat, he kept his hand on that bulge and he didn't care much for smiling. Harry, you in trouble with this dame?"

"What did you find out about her, Frank?"

"Between the time you called and the time the guy strolled into the office I found out she's only had this Personnel Consultant racket for about three months."

"You didn't learn anything else?"

"After I got warned I decided to wait'll I talked with you."

Harry was silent again. His mind was working.

"Frank, what causes baldness?"

"Baldness! Geez, Harry, you're in a fat mess of trouble and you're worrying about losing your hair?"

"It's important, Frank. I must find out what causes total loss of all hair."

The detective grunted. "Well, let's see, there are three or four diseases I know of. Some people claim it's hereditary. Sometimes a deficiency in the genes ..."

"Okay, Frank, that's enough."

"What do you want me to do about the girl?"
"Just as the man told you. Lay off. I'll call you tomorrow and let you know what this thing is all about."

He hung up the phone and paced in front of his sofa for several minutes. It was inconceivable that the seven men all had the same disease, the same gene deficiency or the same hereditary shortcomings. So his own answer must be much closer to the truth. He'd have to wait until morning to put it to a test. If he was right he would call Colonel Waters and dump the whole bizarre set-up right into the army's lap where it belonged.

Again he found himself hoping he was not right, and, more important, that Paula Ralston wasn't what he was beginning to think she was.

* * * * *

Miss Conway was already in when Harry arrived at the office. He managed a half smile for her.

"Miss Conway, two of the seven men are coming back this morning and ..."

"And Mr. Boles is the one who's getting the job."

"Who called you this time?" he asked with exasperation.

"Colonel Waters."

Harry's stomach muscles contracted. "Colonel Waters?"

"That's right. When you were gone yesterday the colonel dropped in to see you. He asked me if you were working on the replacement for George Fisher ... I told him you were right on the job. And I showed him the information sheets you had on all seven men."

"You did what!!"

"And Colonel Waters liked the man named Boles best of all. So I guess when Mr. Boles comes in you can tell him the job is his."

"You nitwit!" he bellowed. "You brainless, knuckleheaded ..." He stomped into his office, and slammed the door.

It was difficult for him to think clearly. He knew he had to make a move. And fast.

He stood by the window and gazed at the Weapons Development Center across the parade ground. The low gray buildings had a quiet peaceful aura about them. If it weren't for the guards marching in front of the great wire fences anyone might think the place was used for manufacturing can-openers, automobile parts, any one of a thousand harmless products.

But it wasn't. Weapons Development represented a vital link in the country's defense program. He no longer figured they were developing a weapon to counteract Soviet aggression. They were working on something far more important. He was just ninety percent sure of that.

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Mr. Boles was the first to arrive. He sat in an easy chair which Harry had moved close to his desk in order to better observe the man.

"Mr. Boles, my secretary tells me Colonel Waters was looking at your qualifications yesterday and was very impressed. I gather from that that the job is yours."

"Thank you, sir."

Harry shoved his chair closer to him. The toupee was intact. So was the mustache.

"Now it'll take the government about two weeks to complete a security check-up."

He could see plainly now that the man was also wearing false eyebrows and had no beard. That did it.

"I understand, sir," Boles replied.

"So all I can tell you at the moment is that you'll be hearing from us as soon as possible." Harry got up thinking the interview was over.

Mr. Boles remained seated.

"Miss Ralston would like to see you, Mr. Payne."

"Oh, yes," Harry chuckled, "I'm going to see her this evening."

"She wants to see you now."

"Afraid I can't make it right now. I have a pile of work to do. Besides I'm expecting another client of hers. Have to let him know he didn't get the job."

"Mr. Chase is waiting for us downstairs in the car. You will come with me, Mr. Payne." The order was clear and firm.

Harry didn't like it. "I don't get it. What's so important that Miss Ralston has to see me ..."

He stopped at the sight of the gun leveled at his chest.

"When we pass your secretary's desk, you will tell her you are taking an early lunch. I will return you in an hour if you cooperate."

Harry Payne knew better than to argue.

* * * * *
Mr. Chase was seated behind the wheel of a blue sedan. Boles and Harry climbed into the back seat. They drove away from Fort Dickson toward the city.

The two men remained silent during the trip. Harry had plenty of time to think. Why this sudden move of Paula's? He must have done something to motivate it. But what?

The only person he had talked to was Frank Barnes and he hadn’t divulged anything to him. She couldn’t be sore because he had asked Frank to check on her. Routine investigation was part of his job. She knew that. He failed to come up with an answer. He was worried. He knew who the seven men were but he didn't know where they came from. It could have been any one of a million different places. Heaven only knew what kind of people they were.

The shades were drawn in Paula's apartment. There was no sign of her. But as soon as Harry entered the room he forgot about her anyway. His gaze rested upon the small, roundish man sitting in the contour chair, the bald man with no eyebrows and no beard.

"Please be seated, Mr. Payne." The man's tone was soft and courteous.

"Which one are you?" Harry asked.

The man was amused. "I am Mr. Thompson."

"Oh, yeah," said Harry, "you're the one who kept patting your skull. Couldn't you find one that fit you?"

Nobody was amused. Boles and Chase took positions on either side of Thompson. Their faces were drawn and sober. They resembled two bankrupt morticians.

"Where is the body beautiful?" Harry asked. "Or is she no longer the body beautiful?"

"Take a look for yourself." It was Paula's voice. The familiar sultriness was missing.

Harry swung around to see her emerge from the bedroom. "Well, well, well! If it isn't Miss Lonelyhearts. Mind if I ask why I'm here? I mean the gun and all?"

He had to be flippant. It was the only way he knew to conceal the terror he felt in their presence.

She sat beside him on the sofa. "Harry, you've disappointed me. You haven't been playing the game fair and square."

"If you're referring to the private eye I put on you ..."

"I'm not, Harry. You put him on, we took him off. Those things even themselves out."

Harry shrugged. "Okay, I give up. What did I do wrong?"

"Show him, Mr. Thompson." She lit a cigarette and folded her legs under her.

Mr. Thompson reached into his pocket and produced a small object. He tossed it into Harry's lap. Harry examined it.

"Do you recognize it?" Mr. Thompson asked.

"It's a microphone," Harry replied.

"That's just what it is." Paula savagely flung her cigarette to the floor. Her own disguise, the one concealing her true, ruthless self, was gone. Her voice was cold and harsh. "How much do you know, Harry? How much?"

Harry folded his hands, rested his full weight on the arm of the sofa and crossed his legs. "How much is it worth to you?"

Paula's hand struck with fury across his face. His cheek went numb. Blood ran from an uneven gash left by the diamond in her ring. He took out his handkerchief and dabbed at the wound.

"You're real high class, aren't you, Paula? They don't make traitors as high class as you anymore."

She raised her hand and aimed for the other cheek. Thompson bolted out of his chair and grabbed her.

"I suggest you have a drink, Miss Ralston. Let us handle the rest."

Paula was furious. "He's not going to tell you anymore ..."

"We'll handle the rest!!"

* * * * *

Thompson didn't raise his voice. But there was a firmness, a deadly conviction in his inflection. Paula went for a drink.

Harry didn't like that. Paula had a temper. He could deal with her. But the others ... they displayed very little emotion. He had no idea how to handle them.

Thompson sat down again facing Harry.

"The fact is," he began gracefully, "we discovered this microphone and four others like it here in Miss Ralston's apartment. One in each room. Now we are very cautious people, Mr. Payne. We are quite certain no one knows our whereabouts. It is logical then that the microphones have not been here long. Miss Ralston's only visitors are ourselves and you. You have known her two days. So you are the only person who knows this apartment well enough to have planted these tell-tale devices in a hurry."

"Why should I want to plant them?"

"You took the trouble to have Miss Ralston investigated. But more than one means of investigation produces
better results. The microphones were wired to a small radio which we located in the basement of this building. We have assumed that everything spoken into them was transmitted over the radio and recorded at your end. That makes sense, doesn't it?"

Harry was confused. "So far, so good."

"We want those recordings, Mr. Payne."

They seemed to be convinced the microphones were his. Only Harry knew it wasn't true. But to admit it might mean he wouldn't leave Paula's place alive. He derived no comfort from the knowledge that someone else was interested in Paula's activities. That wasn't helping him with his problem of the moment. He could see no clear way out. He had to keep stalling. And as long as they were so sure of themselves it might even be to his advantage to maintain a certain arrogance.

"I might as well tell you, Thompson, I have no intention of cooperating until I know a few facts about you and your friends. Like who you are, where you're from, what you're after ..."

"It is not necessary, in order to tell us where the recordings are," smiled Mr. Thompson, "that you know anything more about us."

"It isn't necessary," said Harry, "but I want to know."

Chase started to voice an objection but Harry broke in.

"And don't tell me you have more persuasive ways of making me talk. You can use force but it'll take time. Your time is valuable or you wouldn't have hustled me over here as fast as you did. So let's not waste your time. You tell me, then I'll tell you."

Thompson glanced at his two compatriots. Their faces registered dissatisfaction. Their silence said that Harry was right. Time was valuable. They would follow the path of least resistance.

"Our point of origin," Mr. Thompson began, "is Correylla, roughly seven-eighths the size of Earth, in the Syrybic Galaxy. It is approximately ... in your figures ... seventy-five trillion miles distant."

"Must be quite a trip." Harry tried to be placid.

Mr. Thompson was momentarily amused. "Travel through Time and Space is something we take for granted. The farthest corners of the Universe are ours for the reaching. That is the foremost reason for our visit to your Earth. You might call us Galactic Observers. You see, we already control the twelve inhabited planets in our own Galaxy. And at this time we have no desire to take on any more responsibility than that. But neither do we want interference from another Galaxy ... such as this one!"

** * * * * * *

Harry was surprised. "You're giving this world a lot of credit. We've barely moved off the Earth. What makes you think we could cause your people any trouble?"

"By merely projecting yourselves into space you have eliminated the major obstacle to space travel. Remember it took thousands of years for someone on your Earth to discover electricity. But observe the wonders you have accomplished with it in the relatively few years since it was discovered. The same principle applies to your conquest of space. We are not here to do you harm, Mr. Payne. It is merely our intention to warn you, when the time comes, of the dangers you face should you decide to venture too far."

"For people who intend no harm I'd say you and your friends are putting on quite an unconvincing show."

"I assure you, Mr. Payne, our visit to Earth was intended purely for observational purposes!"

"What do you mean, was?"

** * * * * * *

Thompson's face was grim. The easy chair that had accommodated his small, roundish frame so perfectly now appeared to be uncomfortable for him. A redness crept into his cheeks and spread over his smooth, tight scalp.

"The fact is that your government has known about us for six months. Our exact whereabouts has been a well guarded secret ... but they were informed of our presence here on Earth."

"Informed! But who could tell them ..."

Chase broke in impatiently. "We are wasting time! We must get those recordings!"

The interruption was dismissed with a wave of Thompson's hand.

"Your government was informed by George Fisher."

"George Fisher!" Harry gulped.

"You see, Mr. Fisher ... that wasn't really his name, you understand ... was one of us ... a member of our observation team. After we arrived here ... well, you might say he defected, gave your government the benefit of his somewhat limited knowledge."

Harry whistled. "And because of him your mission is no longer observational."

"That remains to be seen."

Harry leaned forward on the sofa. "You have any ideas, Mr. Thompson, about why he defected? I'm curious to
know why a man is unhappy enough with his own lot to run away and put himself in the hands of a civilization that is in every way alien to him."

Thompson's answer was brief and deliberately ambiguous. "Mr. Fisher was a traitor. What more can be said of him?"

"So he didn't commit suicide," Harry muttered.

"That's right, Mr. Payne."

"I take it you're not sure of how much Fisher told the government before you got to him."

"Mr. Fisher's limitations were familiar to us. It is the potential of your own scientists now that they have his information that we are most concerned with."

Keep stalling, Harry reminded himself ... keep speculating, guessing, theorizing, anything for time.

"So you know the project that Weapons Development is working on but you don't know how much progress has been made. And you want to place one of your own people in there to find out."

"Thanks to you, we have succeeded in doing just that." Thompson smiled with satisfaction, having kept his part of a bargain. "Now about those recordings."

"I'm not through asking questions."

"But I'm through answering them, Mr. Payne. Tell us where the recordings are."

Harry studied the clean, smooth surface of Thompson's face. There was a gentleness in his large, round eyes. There was also an unfriendliness. Harry had to keep stalling. He knew any answer he gave them would shorten his life expectancy by about thirty-five years.

"You've gotten me into a mess of trouble, Mr. Thompson. I think you owe me a little more. My memory might prove clearer if I knew what was going on at Weapons Development."

Thompson glanced at his two companions. They showed no sign of dissent.

"Very well, Mr. Payne. For some years now our people have been working on a method of reversing the polarity of the atom. We have tried to create an electro-magnetic field which would repel rather than attract. Once we are able to accomplish this we can develop an instrument capable of disturbing the molecular structure of any object in the universe."

"In other words ..." Harry frowned at him, "a weapon capable of disintegration?"

"Precisely!"

Harry sat there, stunned. A few moments seemed hardly enough to digest the knowledge that Weapons Development was working on the most incredibly advanced weapon of all time. And Mr. Thompson and company were out to sabotage it. Their people could not afford to allow another world to beat them to the punch. Who controlled this weapon controlled the universe. Stalling the aliens was more important than ever now. He couldn't heighten the danger to his own life. It wasn't worth a lead nickel anyway. If it had been, Thompson wouldn't have consented to tell him this much.

Someone else had wired Paula's apartment. It was reasonable to assume it was someone on his side.

"The recordings, please!" Boles was becoming very impatient.

Harry looked up and found a gun at his head. "The recordings are at my office," he lied.

Thompson walked to the telephone table and brought the instrument to him. "You will call your secretary," he said, "and tell her you have been detained at lunch. You are sending Mr. Chase to pick up the recordings."

Harry glanced around the room. Paula was sulking at the bar near the door. Drowning her conscience, he thought. They must have paid her a fortune to sell out her own people. Boles and Chase both had their guns poised. Thompson picked up the receiver and extended it to him.

There was no way out, no stalling them any longer. To make a break for it would be suicidal. In the state of confusion his mind was in, he could think of only one thing to do. When he reached Miss Conway, he would have to warn her somehow--a few desperate words and pray that she would be alert enough to realize he was in trouble and get the information to the authorities.

He took the phone and dialed. He gave the Fort Dickson operator his office extension. He waited. The phone rang. It rang again. Then three more times. Damn that girl! Her coffee breaks were extended vacations!

Finally the phone was picked up. But the voice that answered was male.

"Who is this?" Harry demanded.

The voice replied, "Colonel Waters."

"This is Harry. I'm at Paula Ralston's apartment ... emergency...!"

The three men were on top of him. Chase smashed the butt of his gun across Harry's knuckles. The receiver fell to the floor. Harry let out a pained groan as Boles' gun butt struck him on the temple. Thompson replaced the
receiver. Harry was on the floor. He put his hands to his head for protection as Chase savagely kicked at him. His vision blurred but he managed to see that Paula was still at the bar sipping a drink, sadistically enjoying the whole show.

"He's no longer any use to us," Thompson declared. "You may do your job!"

Harry shook his head, fighting to stay conscious. His vision cleared long enough to see Chase and Boles standing over him, their guns pointed at either side of his head.

There was a volley of deafening shots. There was smoke, voices, people running in every direction. More gunfire. Glass shattering. Furniture knocked over.

But Harry felt no pain.

When he looked again Chase and Boles were no longer to be seen. He caught a glimpse of Thompson running for another position of cover. A final gunshot brought him to the floor.

Harry struggled to a sitting position. Then he saw Chase and Boles dead on the floor beyond the sofa. Half a dozen soldiers were in the process of subduing a swearing, clawing Paula Ralston.

And in the doorway he saw Miss Conway.

She looked incongruous as hell with a smouldering revolver in her hand. She crossed the room and knelt beside him. She pulled him around to let his head rest on the sofa.

"Harry! Harry," she whispered, brushing his hair back, "are you hurt badly? What did they do to you?"

He tried to get up.

"You stay right where you are, honey." Her voice was soothing and gentle. There was a soft, compassionate light in her eyes. No longer that dumb stare. She leaned over and kissed him. "There. You're going to be all right."

"What the hell are you doing here?" Harry bellowed.

"Now you just sit back and relax. I'm just doing my job."

"Your jo ..." A low steady wail rolled off his lips. "Oh, no! Say it isn't so. Tell me I'm really dead. I know I deserve to be."

"I may be the world's lousiest secretary, but I'm considered not bad in the counter-intelligence department."

Harry repeated the wail.

"We were afraid from the time George Fisher turned himself over to the government," she continued, "that his days were numbered. But the longer he remained alive the more apprehensive his people would become. We figured one day they'd make a wrong move. And that would be their big mistake. Well, their move was to kill George Fisher and try to get one of their own agents into Weapons Development. That meant exposing themselves. It also meant you had to be watched ... among others. That's where I came in."

"And playing it about as dumb as I've ever seen."

She laughed. "Sounds like I played the part a little too convincingly."

She stood up and helped him to his feet. "You're coming with me."

"Where to? Hey, what are you doing?"

"There's something about this place that I don't like. I'm no sultry brunette, but I'm not a dumb blonde either."

She kissed him, then took a last look at Paula's place and led him out the door.

THE END

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**Contents**

**VULCAN'S WORKSHOP**  
By Harl Vincent

Savagely cursing, Luke Fenton reeled backward from the porthole, his great hairy paws clapped over his eyes. No one had warned him, and he did not know that total blindness might result from gazing too earnestly into the sun's unscreened flaming orb, especially with that body not more than twenty million miles distant in space.

He did not know, in fact, that the ethership was that close: Luke had not the faintest notion of the vast distances of the universe or of the absence of air in space which permitted the full intensity of the dazzling rays to strike into his optics unfiltered save by the thick but clear glass which covered the port. He knew only that the sun, evidently very near, was many times its usual size and of infinitely greater brilliancy. And he was painfully aware of the fact that the fantastically enlarged and blazing body had seared his eyeballs and caused the floating black spots which now completely obscured his vision.

Stumbling in his blindness, he fell across the hard cot that was the sole article of furniture in the cell he had occupied for more than two weeks. Lying there half dazed and with splitting head, he cursed the guard who had
opened the inner cover of the port; cursed anew the fish-eyed Martian judge who had sentenced him to a term in Vulcan's Workshop.

Several of Luke's thirty-eight years had been spent in jails and sundry other penal institutions devised by Earthman and Martian for the punishment of offenders against the laws of organized society. And yet they had failed to break his defiant spirit or to convince him of the infallibility of his creed that might makes right. Nor had they taken from him the gorillalike strength that was in his broad squat body, the magnificent brute lustihood that made him a terror to police and citizen alike. Instead, the many periods of incarceration had only served to increase his hatred of mankind and his contempt of the forces of law and order. Especially was he contemptuous of the book-learning that gave the authorities their power.

As the pain back of his eyes abated, Luke could see dimly the shaft of light that slanted down from the porthole to the bare steel floor. His sight was returning, yet he lay there still, growling in his throat, his mind occupied with thoughts of his checkered past.

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Steel-worker, mechanic, roustabout, he had worked in most of the populous cities of Earth and had managed to get into serious trouble wherever he went. It was his boast that he had never killed a man except in fair fight. And yet, at thirty, finding himself wanted by the police of a half dozen cities of Earth, he had signed up in the black gang of a tramp ethership bound for Mars, knowing he would never return and caring not at all.

At first, he had been riotously happy in the changed life on the new world. There had been plenty of soul-satisfying brawls and plenty of chulco, the fiery Martian distillate. On his many and frequent jobs there were excellent opportunities to rebel against authority, and he had fomented numerous mutinies in which he was always victorious but which usually landed him in one of the malodorous Martian jails for a more or less extended stay.

Then had come that final fracas in the Copau foundry on the bank of Canal Pyramus. Overly optimistic, Luke's new boss had struck out at the chunky, red-headed Earthman during an inconsequential argument and had promptly measured his length in a sand pile as a hamlike fist crashed home in return. They had picked up the foreman and taken him to the infirmary where it was found that his skull was fractured and that he had little chance for life. There were the red police after that, and Luke, single-handed, trounced four of them so soundly and thoroughly that someone sent in a riot call. It had taken a dozen of the reserves to club him into submission at the last.

That was too much for Martian justice. In pronouncing sentence the judge had termed Luke an incurably vicious character and a menace to society such as the planet had never harbored. And Luke, his head swathed in bandages from which his wiry red hair bristled like the comb of a gamecock, had grinned evilly and snarled his defiance.

And so they were taking him to the dread prison camp known as Vulcan's Workshop, a mysterious place of horror and hardship from which no convict had ever returned. Vaguely Luke knew that it was located on still another world, away off somewhere in the heavens. He had seen the lips of men go white when they were condemned to its reputed torture, had heard them plead for death in preference. Yet its terrors had not awed him; they did not awe him now. He had beaten the law before; he'd beat it again—even in Vulcan's Workshop.

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A key rattled in the lock and Luke Fenton leaped to his feet, facing the barred door with feet spread wide and with his massive shoulders hunched expectantly. He could see now, with much blinking and watering of his still aching eyes, and he looked out with sneering disapproval at the three guards in the corridor. They were afraid of him, singly, these Martian cops, even though armed with the deadly dart guns and with shot-loaded billies. So afraid, Luke chuckled inwardly, that they had kept him from the other prisoners throughout the trip, kept him in solitary confinement.

The door was opening and it came to Luke that the ethership was strangely and hollowly silent. The rocket tubes were stilled, that was it, and even the motors that drove the great ventilating fans had been stopped. They had arrived.

No time now to start anything. He would have to submit tamely to whatever they might mete out to him in the way of punishment—until he got the lay of the land. It would require some time to study things out and to plan. But plan he would, and act; they’d never hold him here until he died of whatever it was that killed men quickly in Vulcan's Workshop. Not Luke Fenton.

Sullenly docile, he was prodded forward to the air-lock. A draft of hot fetid air swept through the corridor, carrying with it the forewarning of unspeakable things to come. And a shriek of mortal terror wafted in from outside by the stinking breeze, told of some poor devil already demoralized. The thick muscles of Luke's biceps tightened to hard knots under his black prison jacket.

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They were outside then and Luke essayed a deep breath, a breath that was chokingly acrid in his throat.
"Waugh!" he coughed, and spat. One of the guards laughed.

Any foul epithet that might have formed on Fenton's lips was forgotten in the sight that met his eyes. A barren and rugged terrain stretched out from the landing stage, a land utterly desolate of vegetation and incapable of supporting life. Pockmarked with craters and seamed with yawning fissures from which dense vapors curled, it was seemingly devoid of habitation. And the scene was visible only in the lurid half light of flame-shot mists that hung low over all. In the all too near distance, awesomely vast and ruddy columns of fire rose and fell with monotonous regularity. For the first time, Luke experienced something of the superstitious fear exhibited by even the most hardened criminals when faced with a term at Vulcan's Workshop. That term, to them, meant horror and misery, torture and swift death. And he, too, was ready to believe it now.

He was prodded down an incline that led from the landing stage to the rocks below. The guards from the ethership, he saw, remained behind on the platform and there were new guards awaiting him below. Husky fellows, these were, in strange bulky clothing and armed with the highest powered dart guns. The other prisoners from the vessel were already down there, a huddled and frightened mass—a squashed pile, almost—silent now and watchful of their jailers.

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"Come on, show some speed, tough guy!" a guard yelled from the foot of the runway. "Think this is a reception?"

Another of the guards guffawed hoarsely, and Luke choked back the blasting retort that rose in his throat. Plenty of time yet before he'd be ready to make things hot for those birds.

The runway, he observed, was a strip of yielding metal that glowed faintly with an unnatural greenish light. He was nearing its lower end when the siren of the ethership shrieked and he heard the clang of the outer door of its air-lock as it swung to its seat.

Then he stepped out to the smooth stone slab on which the nearest of the guards was standing. Immediately it was as if a tremendous weight was flung upon him, bearing him down until his knees buckled beneath him. He was rooted to the spot by an enormous force which dragged at his vitals and weighted his limbs to leaden uselessness. With a mighty effort he raised his head to look up into the grinning yellow face of the guard, and his thick neck muscles were taut gnarled ridges under the strain.

"Damn your hide!" he howled. "It's a trick. I'll break you in two for this, you slob!"

His huge biceps tensed and his fists came up. But they came up slowly and ineffectually, ponderous things he could scarcely lift. A great roaring of rocket tubes was in his ears then, and the ethership screamed off through the red mists while he dabbed futilely at the leering yellow face. And vile curses rasped from between his set teeth at the laughter of the guards.

* * * * *

Luke Fenton never had taken the trouble to learn or he would have known something about this planet Vulcan on which he was a prisoner. As far back as 1859, by Earth chronology, its existence within the orbit of Mercury had been reported by one Lescarbault, a French physician. But other astronomers had failed to confirm, in fact had ridiculed his discovery, and it was not until some years after the establishing of interplanetary travel in the first decade of the twenty-first century that the body was definitely located.

Vulcan, the smallest and innermost of the planets, circles the sun with great rapidity at a mean distance of twenty million miles. Its periods of rotation and revolution are equal, so that it always presents the same face toward the solar system's great center of heat and light—for which reason one side is terrifically hot and the other, that facing into outer space, unbearably cold.

There is no life native to the body, and mankind has found it possible to exist only in the narrow belt immediately on the dark side of the terminator, the line of demarcation between night and day. Here there are the dense vapors, illuminated perpetually by refracted light from the daylight side and by the internal fires of the planet itself, fires which erupt at regular intervals through many fissures and craters. And it is only under greatest hardship that man can exist even here, what with the noxious gases and the extremes of heat and cold to which his body it subjected. There is no natural source of water or of food, so these essentials must of necessity be conveyed from Mars or Earth by ethership.

In spite of all this, man has persisted in establishing himself in the vapor belt of Vulcan for the sake of wresting from the rocky soil its vast deposits of rare ores, and a great number of mining operations are continually in progress. All of these are commercial projects and are worked by adventurous seekers of fortune, save only the penal colony known as Vulcan's Workshop: But no Terrestrial or Martian, however greedy for riches, would dare to remain longer than two lunar months, which is the average time limit of human endurance. Only the condemned remain, and these remain to die.

* * * * *
Though hardly more than two hundred miles in diameter, Vulcan is possessed of a surface gravity almost six times greater than that on Earth. This is due to the planet's core of neutronium, the densest known substance of the universe, a little understood concentration of matter whose atoms comprise only nuclei from which all negative electrons have been stripped by some stupendous cataclysm of nature.

And so it was that Luke Fenton, uninsulated from the tremendous gravity pull when he stepped from the charged metal of the runway, was struggling against his own bodily weight, suddenly increased to more than twelve hundred pounds.

Doggedly, the Earthman pitted his mighty sinews against the force he could not understand. Here was an intangible thing, yet it was a power that challenged his own brute strength, and he exerted himself to the limit in accepting the challenge. With legs spread wide and with sweat oozing from every pore, he heaved himself erect, straightening knees and spine and standing there firmly on his two feet.

"He's carrying it!" came the husky whisper of a guard. "This bird is tough."

Craftily, Luke bared his white, even teeth in a good-humored grin. He had seen what they were doing with the other prisoners, fitting them one by one with the strange bulky breeches—garments that gave forth a faint greenish glow like that of the runway. And each of the men, so attired, was enabled somehow to get to his feet easily and walk about as if unhampered by the force which had flattened him to the rocks and which still held Luke's straining body in its grip.

* * * * *

The yellow-skinned guard, a Terrestrial of Asiatic origin, was solemnly engaged now in lacing the slitted legs of a similar garment to Luke's rigid nether limbs. Yet there was no cessation of that awful weight when the thing was done. The guard stepped back and leered wickedly. He had slung his dart gun over his shoulder and now produced a slender black tube which he leveled at Luke's midsection.

"You walk now, Fenton," he snarled.

The Earthman rose upward as if he would leave the ground. Two or three inches seemed added to his stature, and his muscles trembled from the sudden release. He stepped a pace forward.

Then a light beam flashed forth from the black tube and Luke sagged down with an astonished oath squeezed grunting from his throat. The swift renewal of the inexplicable force had caught him off balance and he dropped ignominiously to his knees.

"Ha!" gloated the Oriental. "It is thus we control the tough ones, Fenton. I've given you a warning; now get up—and march!"

On the last word came blessed release and the return of Luke's strength. He marched, meekly falling in with the file of new prisoners. He even smiled through the red stubble of his beard. But black hatred was in his heart, and renewed determination that he'd get away from this place somehow—alive.

Time would show him the way.

* * * * *

Fenton's slow but retentive mind absorbed many things during the succeeding few days. There was neither day nor night in this hellish place—only the flame-lit mists; but they had clocks like those of Earth, and you worked fourteen hours on the slope or in the smelter and had the rest of each so-called day of twenty-four hours in which to eat and sleep.

The food was coarse, but there was plenty of it. There was only water to drink, lukewarm stinking stuff, doled out sparingly in rusty tin cups. And, during the sleeping periods, you were required to take off the gravity-insulated garments and sleep in huts with insulated floor coverings. The charged floor, of course, allowed you to sleep without being smashed flat on the uncomfortable cots. But they had you safe in these sleeping huts; they took away your clothes and you couldn't step out of the door without taking on the weight of a half a dozen men.

The Workshop itself was in a vast excavation from whose slopes a silvery-veined ore was being removed. There were the blast furnace and reduction plant on the one side and the convicts' huts and more pretentious houses of the guards on the other. And the choking mists, and the lurid flame behind. The stifling heat, Luke learned, too, that every ninth day, with what they called the libration of Vulcan, there came an equal period of raw and biting cold to replace the heat. As bad or worse, that would be.

There were perhaps three hundred prisoners here, Luke guessed, and a guard allotted to each squad of fifteen men. Not many guards for so large a number of convicts—but enough. The weird gravity of Vulcan had taken care of that, and the flashlight things they always carried—queer lights that would instantly neutralize the insulating property of his clothing and render a man helpless.

* * * * *

Luke was working high up on the slope, with rock drill and pick. The group to which he had been assigned was composed entirely of new prisoners, mostly white men, but with a few blacks and one coppery-skinned drylander of
Mars. Whimpering, hopeless creatures, all of them; not worth his notice. All day he labored without speaking to any of them and the quantities of ore he removed gave mute evidence of his tireless vigor. If Kulan, the giant Martian guard, took any notice of it he gave no sign.

During the sleeping period, which they persisted in calling night, things were different. No guards were needed in the escape-proof huts and there was some surreptitious fraternizing among the prisoners. As long as they made no undue noise, they were left to their own devices. But for the most part they went to sleep heavily and wordlessly as soon as they flung into their bunks. A broken-spirited lot.

Luke saw men suffering from some horrible malady that made them cough and scream and bleed from nose and mouth. Old-timers, these were, men who had survived for as many as three or four months. He saw them, in their agony, beg the guards for merciful death; heard the brutal laughter of their tormentors. Only when they were no longer able to rise from their bunks were they put out of their misery by one of the singing darts from the senior guard's gun.

Novak had it, this malady known as X.C.--Novak, the scar-faced, yellow-fanged rat who occupied the bunk beneath Luke's and who talked to him in hoarse whispers long after the others had gone to sleep. It was from Novak that Luke was learning, and the knowledge he gained by listening to the doomed man served only to intensify the flame of hate that smoldered deep in his barrel-like chest.

After three red-lit days of grueling labor and three similarly red-lit nights of listening to Novak, he reached the grudging conclusion that escape from this place was impossible. With this conviction there came to him a deeper bitterness and the resolve that he, Luke Fenton, would have his revenge before he went the way of the rest. Perhaps the law had him for keeps this time--it certainly seemed so; but he'd leave his mark on its representatives yet.

At inspection preceding the next labor period, Luke began doing things. The prisoners were lined up and the guards were parading the line, reassigning them to new working squads, which were shifted and rearranged every third day. Kulan, the big Martian, selected Luke.

"You, Fenton," he snapped, "ten paces forward."

Luke grinned but made no move. Amazed, the guard stepped closer. "You heard me!" he roared. "I'm keepin' you in my squad, tough guy."

A ripple of astonished comment ran along the line and the other guards bellowed for silence. Kulan fingered the black tube of his neutro-beam and his broad face was chalky white.

Luke advanced two paces, still grinning. And he looked up sneeringly into the grim face that was a foot above his own.

"That's right, you big ape," he grated, "you ain't man enough to fight the way men fight. Gotta use dart guns, or gravity."

It was sheer baiting of the big Martian. Fenton was shrewd and he knew the fellow's kind, quick to resent insult and prouder of their physical size and prowess than of any other possession. He saw the flush that rose to replace the guard's pallor, saw the huge lithe body go tense. Laughing derisively, he completed his ten paces with leisurely aplomb.

Speechless with rage, Kulan stood rigid. Furtive boos and a few hoarse cheers came from somewhere in the long line of convicts, and Luke saw several men flattened to the ground by swift darting neutro-beams.

And then the head guard came running from the small bastion. "What the hell?" he demanded of Kulan. "Any trouble?"

Kulan saluted, and his eyes were narrow slits. "No sir," he returned stiffly, "no trouble."

Eyeing Luke suspiciously, the senior guard grunted, then moved on along the line. And the work of reallocating squads went on.

It was exactly as Fenton had expected. This Kulan, a head over him in stature and broad in proportion, was sure in his mind that he could handle the red-headed Earthman without resort to weapons. And the taunt as to his physical ability had struck home. In some way that guard would maneuver matters so the encounter could come about.

Besides, he would endeavor to keep Luke in his squad where he would be able to drive him to the utmost. The guards, Novak had said, were on the job only a month when they were replaced by fresh recruits--and their pay was based on the productivity of the squads they commanded. Kulan had seen that the Earthman was a real sapper; worth three of the others. And he'd try to keep it so.

That working period was a highly gratifying one to Luke. With the rankling hatred concentrated and directed at Kulan, he was positively gleeeful. And yet he was content to bide his time. He swung his pick and wielded his rock drill with joyful abandon, so that three men were kept busy loading the ore he removed.
Kulan, he saw with satisfaction, was sullen and watchful. But no word passed between the two. And the Earthman knew he had planted a seed that was bound to sprout and grow until it bore fruit.

At the midday mess it happened. The shifting of men had brought Novak in the same squad with Luke and they came in to sit at the long table together. Kulan eyed them narrowly from the head of the board.

"Say," Novak whispered, "yuh got under Kuley's skin, know it? He'll run yuh ragged."

"Yes?" Luke looked up at the guard, saw he was scowling darkly in their direction, and grinned evilly. "I'll run him, you mean. I'll bust him in two if I get my hands on him."

"Yuh ain't got a chance, I tell yuh. I seen a guy once, take a poke at a guard, and what they done to him was plenty. They---"

With that, the wasted body of Novak bent double and he dropped to the ground screaming. Blood gushed from his nostrils. Luke had seen the same thing happen to several others and he knew what to expect. It was all over for Novak, or nearly over.

Kulan came running and turned the stricken man face up.

"You'll last another period," he snarled. "Get up and eat."

He yanked Novak to his feet and shook him as he would a sack of meal. The sick man moaned and begged, his head rolling from side to side and his eyes filmed with pain.

"Let me have it," he whimpered. "I'm done, I tell yuh Kuley. Get Gannett, if yuh don't believe me."

Kulan slapped him heavily with the flat of his massive hand. "You'll work another period, sewer rat, if I have to prop you up!"

Then Luke Fenton took a chance. He didn't care particularly for Novak, nor was he overly concerned by what might happen to him. But this gave him an excuse, an opening.

He hooked his thick fingers in the collar of Kulan's jacket and twisted until the big Martian loosed Novak and whirled around. Then Luke drove a hard fist to his jaw—a pulled punch so as not to betray his real strength.

Nevertheless it set the guard back on his heels and split the taut skin where it landed.

Pandemonium broke loose in the mess hall. Gannett, the senior guard, came bellowing down the aisle, and the squad guards were on their feet in an instant, neutro-tubes and dart guns ready. The uproar of the prisoners died down.

Kulan shook his shaggy head and crouched low as he circled the Earthman. Murder was in his heart, and the urge to break this tough guy Fenton with his bare hands. But Gannett was between them.

"Hell's bells!" he yelped. "What goes on here?"

Then he saw Novak—and heard him. Novak was writhing on the ground, begging for death. And the chief guard's dart gun twanged as its needlelike missile sped forth and drove into the sick man's breast where it sang its shrill song of vibratory dissolution.

In the twinkling of an eye where Novak had lain was only the dust of complete disintegration and a few scintillating, dancing light flecks that swiftly snuffed out. A speedy and merciful end.

In the silence that followed, Gannett turned on Kulan. "Why didn't you send for me?" he demanded.

The guard, white with rage, indicated Luke.

"So--the tough guy Fenton again. Can't you handle him?"

Kulan's yellow eyes flashed fire. "Sure I can; I will. But I want your permission, sir. With my hands."

"No,"--flatly. And then Gannett whirled to look over the mess tables, whence a few scattered hisses had arisen.

His gaze was solemn when he returned it to Kulan. Swiftly his black eyes measured the Martian's giant body, and then they swung to Luke. The comparison evidently pleased him, for he changed his mind.

"On second thought, yes," he said to Kulan. "It'll be good for discipline. Only don't disable him; he's too valuable a worker."

Luke concealed his unholy glee; stood glowering savagely. "In fair fight?" he put in.

"In fair fight," sneered Gannett. He took personal charge of Kulan's weapons. "All right, you," he yelled then to the mess, "you can watch this. But if there's a sound or a move from any one of you there'll be the neutro-broadcast and full gravity for an hour for the whole flea-bitten gang of you."

He drew back, motioning Luke and Kulan to an open space nearby. There was not the slightest doubt in his mind as to the outcome, for the Martian towered over his stocky opponent and was fully fifty pounds heavier. This irregular procedure would put a stop to some of the open homage paid to this reputed tough guy by the prisoners, and to the restlessness among them which his coming had occasioned.

They fought instantly and with silent deadliness of purpose, these two. Luke drove in two terrible blows to the...
big Martian's body in the split-second before they closed, breathtaking punches that rocked Kulan yet did not slow him up in the least. And then the tangle of arms and legs and bodies of the two was so swift moving and violent that the watchers could not follow them.

Now they were up, slugging, clinching; now down, rolling over and over, straining and tearing at each other like beasts of the jungle. Once, breaking free, Luke was seen to batter Kulan's face to a bloody mass with swift, hammering fists that thudded too rapidly to count. And then the Martian had flung him to the rocky ground so heavily that it seemed certain the Earthman's end had come. But such was not the case, for there was a flailing scramble and Luke Fenton rose up with the great body of Kulan across his shoulders. He spread his legs wide and heaved mightily.

The Martian guard kicked and squirmed, lashing out with his huge fists at the squarely-built and squarely-planted body of the Earthman below him. But to no avail. Grasping a shoulder and a thigh, Fenton straightened his thick arms and Kulan was hoisted aloft. Amazingly then, the madly struggling guard was flung out and away to land with a sickening thud, smashed and crumpled on the rocks.

Luke stood swaying on those spreadeagled legs and his lungs were near bursting from the exertion in the noxious atmosphere. "There you are, Gannett," he howled through swollen lips. "That fair enough for you?"

In the ominous silence a cracked voice yelped: "Attaboy Fenton!"

Wild disorder followed. Immediately there was the raucous call of the general alarm siren and a flashing light from the bastion that paled the red mists to a sickly, luminous pink. Full gravity coming down with crushing force on the hapless prisoners.

Luke, as he was flattened, gasping painfully under the enormous pressure, saw that Gannett and the rest of the guards were not affected by the neutro-broadcast. They stood erect and moved freely among the prisoners who sprawled everywhere in grotesque squashed heaps. Queer. There was no way of beating the authorities at this game.

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Gannett transferred Luke to the dreaded sealed cell in the reduction plant, a room spoken of in hushed whispers by the convicts, and in which it was reported an inmate suffered indescribable tortures for the better part of three weeks. Then he died in horrible misery, for one could not survive longer than that.

Kulan had not been killed. He would recover, but was pretty well smashed up, with a fractured hip and several broken ribs, one of which had punctured a lung. It would be necessary to return him to Mars on the next ethership, due in two days. Strangely, the news brought Luke no great amount of satisfaction.

When they locked him up in the sealed cell for his first period of labor he saw there was only one other occupant. A tall lanky Earthman with narrow aristocratic features and keen gray eyes. He was perhaps forty-five, slightly stooped, and with thin graying hair. Luke had seen him several times at mess and had contemptuously classed him as a highbrow. Fuller, his name was.

This was a small room where several slender chutes brought down tumbling crystals of a silvery salt from somewhere above, emptying it into glass containers that stood in endless rows in wooden racks. You filled these containers with the salt, then sealed them in lead tubes and packed them for shipment. There was a faint pungent odor in the air of the room, a new smell that widened Luke's nostrils and caught at his throat and lungs.

In this place you were watched by a guard who came regularly each half hour and spied on you through a peephole.

Child's play, the work in the sealed cell. Luke went at it half-heartedly and he spoke no word to Fuller after the heavy door had closed them in. After ten minutes of silence he caught himself watching his companion furtively.

What was there about Fuller that marked him as superior to Luke and the rest of the convicts? A good gust of wind would blow the man away; a woman might easily beat him in a rough and tumble. Yet this man had something which unmistakably proclaimed greatness, the same something that gave authority and power to the smart guys of Earth and Mars. Brains--book-learning! Luke snorted.

Fuller was looking at him with calmly appraising gaze. Luke scowled darkly, but the keen eyes that measured him did not waver.

"You're a fool, Fenton," came from the thin lips.


"I repeat: you are a fool." Still the gray eyes were unwavering.


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By not so much as the flicker of an eyelash did Fuller betray the pain that must have come with that grip. He did not even wince, but swiftly lashed out with a bony fist, raking Luke's cheek with sharp knuckles. The blow stung, but was utterly futile. With a single cuff Luke could send the man sprawling; with a single wrench of his powerful hands, snap his spine. Yet he did neither, and the impulse to laugh coarsely died in his throat. Here was
courage of a kind he never had encountered; here a man in whose bright eyes fearlessness and defiance mingled with a cool disdain that brought the first real feeling of inferiority Luke ever had experienced.

He relaxed his grip of Fuller's shoulder and his big hands fell loosely at his sides. It was that action which saved Fenton. He did not know it at the time, nor would he have believed it. But he was to remember many times and finally to realize it, though he never fully understood.

"That's better," breathed Fuller. And the ghost of a smile crinkled the corner of his mouth.

At the old man's warning Luke returned to his own work bench and was industriously engaged when the guard's eye showed at the peephole. Then the eye was gone and he grinned over at Fuller.

"How long you been in here?" he ventured.

"Five days in the sealed cell; ten altogether in the Workshop."

Luke pondered this. "How'd you get in the cell?"

"Same way you did--I struck a guard."

"No!" marveled Luke. "Mean to tell me you----"

"I had a reason to get in here," Fuller broke in mildly.

"You--you wanted to get in?" Luke was incredulous.

"I did."

"My God, you ain't crazy, are you--wantin' to get yourself killed off quicker?"

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"No, that isn't it," Fuller explained patiently. "I've a plan to escape and only by taking the chance of spending some time here could I obtain access to the necessary materials. Fenton, I'm a scientist and I know----"

"Escape!" Luke snorted. "You are crazy. Where you goin' to go?"

"Listen, Fenton." The other dropped his voice. "I'm not doing this blindly; I have friends outside. And you can help me. You can get away yourself, alive. I called you a fool and by that I meant that you have relied too much on brute force in your lifetime and had not sense enough to realize that this brought only trouble. Combine your brawn with my brains, now, and do as I say--if you will I promise you freedom. Will you do it, or do you want to keep on being a fool?"

Luke bristled, but the earnestness of that steady gaze served to check his rising temper. "I still think you're nuts," he growled, "but hell, I ain't fool enough to pass up any kind of chance of gettin' outa here. Gimme the dope."

Fuller coughed slightly and a fleck of red-tinged foam appeared at his lips. "It'll have to be to-day," he whispered. "One more day in this place and it'll be too late for me."

X.C.! Luke stared, horrified. Fuller had it already and didn't know it. Poor devil; he was a goner before he started this crazy break of his. Strangely, Luke was deeply concerned. It was a new experience, this feeling of compassion for a fellow man.

"To-day!" he grunted. "You ain't figurin' on gettin' out to-day?"

"Positively--it must be to-day. I'll explain."

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Much of what followed was unintelligible to Luke Fenton, but he absorbed enough of the scientist's explanation to understand that his plan was not impossible of realization. He waxed enthusiastic.

Tom Fuller was vague concerning his own past, but Luke gathered that a political crime had been responsible for his sentence to the Workshop. There was much bitterness in the scientist's refusal to dwell on this point. This, too, Luke was able to understand. The bond between them strengthened.

"It's like this," Fuller told him: "these suits which enable us to move about comfortably in Vulcan's gravity are really quite simple in their functioning. A maze of fine wires is woven into the fabric, and these wires are charged with anti-gravity energies from tiny capsules which are inserted under the belt of the garment. The capsules are really miniature atomic generators and are replaced with fresh ones each night during the sleeping period, since the initial charge lasts only eighteen hours. The generated energies neutralize more than eighty percent of the effect of gravity and our weight thus becomes approximately the same as it is on Earth. Such garments are worn by all prospectors and other visitors to Vulcan."

"How come the neutro-beams?" asked Luke.

They are used only here in the Workshop and they operate the same as the neutro-broadcast from the bastion, the only difference being that the broadcast blankets an area of about two miles in all directions. In both cases vibratory ether waves are sent out and these are of such frequency and wave form as to neutralize the anti-gravity energies originating in our capsules. They render our suits useless, but those of the guards are provided with insulating coverings which block off the waves and thus permit their own garments to function even when the neutro-broadcast is in operation."

"Smart guys," commented Luke. "Too smart. How the devil we gonna get away, then? They'll send out the
alarm and----"
"Ah, that is where we fool them, Fenton. With the radium."
"Radium!"

"Yes, didn't you know? This ore we mine here contains a higher percentage of that valuable element than any on Earth or Mars. Its emanations, together with certain atmospheric gases of Vulcan, are what cause X.C.--a swift destruction of tissue in the lungs and other vital organs. And this concentrate"--Fuller waved his hand toward the rows of tubes before him--"is most highly radioactive of all the products of the Workshop. That is why the sealed cell is so very dangerous to work in. But it is this radioactive salt that gives us the means for escape----"

Both men turned quickly to their labors on hearing the footsteps of the guard.

"My suit is already prepared," continued Fuller, when the eye had gone from the peephole. "Now to prepare yours. I discovered that this radioactivity can be used to defeat the purpose of the neutro-rays as well or better than the regular insulation, which, of course, we can not obtain. That is why I wanted to be in the sealed cell for a time. We merely pack a quantity of the radioactive salt around the capsules in the lining of our garments, and the radium emanations continue the excitation of the tiny atomic generators even under the influence of the neutralizing vibrations. Do you follow me?"

"Yes."

Luke did comprehend, even though the technical explanation was beyond his understanding. They would be able to defy this terrible gravity of Vulcan. They could fight unhampered; walk, or run--to meet these mysterious friends of Fuller's. The flashlights and the broadcast would be useless against them.

The lanky scientist outlined the further details of his plan in swift whispers while he worked with the energizing capsule of Luke's garment.

Actual escape was surprisingly easy. They waited until the labor period was finished, when Chan Dai, the yellow-skinned guard, came to unlock the door. As agreed, Tom Fuller came out first and Luke held back, dragging his feet and cursing softly to himself.

"What'd you say?" the guard snarled.
Luke grinned disarmingly. "Nothin'," he drawled. Still he hung back, scarcely moving from where he stood just within the door.

"Come on, tough guy, a little speed." Chan Dai reached for him.

And then Luke was upon him. The neutro-beam flashed harmlessly. Luke's big hands moved with lightning swiftness, his left one scooping the guard's dart gun from its shoulder strap and his right closing on the astonished Oriental's wind-pipe. It was the work of only an instant to choke him in unconsciousness and lock him in the sealed cell.

"Quick, the chute!" hissed Fuller. He dived head foremost into a rectangular wooden trough that was used for the disposal of the gangue from a crushing mill above. This chute, Fuller had said, led to the outside at the back of the reduction plant.

Across the passage Luke saw a squad of convicts and two guards emerging from the lift. Then he plunged down the steeply inclined trough after Fuller. As he slid and tumbled into the darkness, he heard the hoarse shouting of the guards.

He landed heavily in the pile of gangue at the base of the chute; then was scrambling and slipping down with an avalanche of the sharp edged stone. At the bottom, he saw that Fuller had already started up the slope of the great pit which enclosed the Workshop. Luke darted after him.

They were hidden from the bastion by the buildings of the smelter and reduction plant. But the loud yelling of guards back there in the pit gave evidence that word of the escape was being passed along to Gannett. Before they were halfway up the slope there was the shriek of the alarm siren, and Luke felt his body sag with a sudden increase of weight. Fool that he had been to trust the scrawny scientist!

"It's the broadcast," panted Fuller, beside him. There is some effect, of course. You're probably carrying fifty extra pounds."

"Huh!" Luke hoped it would be no worse.

Fuller slipped into a narrow crevasse that ran slantwise of the slope and extended upward to the rim of the pit. The going was much easier here and they made rapid progress toward the top. Suddenly Luke realized that it was growing very cold; there was a bite to the foul air, and moisture from the red mist was frosting his beard. The liberation of the tiny planet and consequent shifting of the terminator was bringing frigidity to Vulcan's Workshop.

They came up out of the crevasse at the top of the pit and Luke could not resist looking back. Every convict in
sight was flattened to the ground. They sprawled singly and in heaps, each one a squashed inert thing that would not
move again until the neutro-broadcast was discontinued. The guards, confident they would find the escaped
prisoners in like condition, were searching the slope below them.

Luke raised Chan Dai's dart gun to his shoulder.

Fuller struck aside the muzzle of the weapon. "No!" he protested, "No unnecessary killing, Fenton. They're
completely fooled, and we'll be well on our way before they know the truth."

Grumbling, Luke drew back from the rim of the excavation.

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Up here the ground was fairly level, but there were many fissures and small craters which made the footing
precarious. The mists were so dense they could see scarcely two hundred feet ahead.

"We'll be lost in the vapors when they finally wake up and come out after us," Fuller said. "And look Fenton,
off there to the left are the three columns of fire that mark the rendezvous."

They plunged on through the red mist toward the flaming pillars. Those beacons, even though they subsided at
regular intervals, quickly reappeared after each cessation. And their brilliance penetrated the mists with ease at this
distance of about two miles. There was no fear of missing their destination.

"Sure your friends'll be there?" Luke asked dubiously. He was beginning to have some misgivings about the
matter--the scientist had been anything but explicit as to who these friends were. And the longer his thoughts dwelt
upon the things Fuller had told him the more suspicious he became. Pretty cagey about everything but the actual
getting away from the Workshop, Fuller had been.

"Certainly they will; they've been waiting two days." Fuller's tone was impatient and his words came painfully.
"You leave that part of it to me, Fenton," he gasped. There was a fleck of blood at his lips.

As the scientist stumbled on through the mists, Luke's doubts increased and he began to lose his respect for the
man's intellect and for the cunning which had enabled him to outwit the neutralizing energies used by the guards.
After all, he was a weak and puny specimen. They all were, the smart guys who held the people of two worlds in
their power by exercising the knowledge they had learned from books. And this one had failed even in that;
whatever he might have been, he had run afoul of the law himself and was already a doomed man. Tricks! This trick
of Fuller's had gotten them away, but of what use was it without the brute force necessary to carry on to a successful
end?

The brawn Tom had spoken of so slightingly was what they needed from this time on, and nothing else would
save them. Luke had that brawn; Fuller did not. The scientist slipped and nearly lost his balance at the edge of a
fissure, but Luke made no move to help him. It was every man for himself at this stage of the game.

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Increasing difficulty came with every step. Now they were sliding and rolling into a deep crater, now
scrambling up its steep sides with hands torn and bodies bruised by the jagged boulders. A yawning crevasse opened
before them and they were forced to skirt its edge for fully a half mile in the wrong direction before they found a
crossing. And the cold was unbelievably intense. Numbed and silent, with their eyes half blinded and lungs seared
by the frosty air, they struggled on toward the three pillars of flame.

And still Tom Fuller carried on, though Luke was now in the lead.
They had covered probably half the distance to the flaming columns when shouts arose behind them. The
guards were on their trail.

"Can't--find us," Fuller panted. "The mists----"

"Hell, the mists are clearing," Luke snarled. "You ain't so damn smart as you think."

What he said was true. Though there was less light on account of the new angle with the sun farther below the
horizon, the red mist was definitely lighter in color, noticeably less dense. Visibility was good to several hundred
yards. Luke turned his head, but could see nothing of their pursuers.

"They can't," Fuller insisted weakly.


And then there came faintly to his ears the twang of a dart gun; the shrill scream of its deadly vibrating missile;
a violent blow that flung him headlong.

* * * * *

Like a cat, he bounced to his feet, crouching with Chan Dai's dart gun at his shoulder. A strangely grotesque
heap was at his feet--Tom Fuller. Off there in the thinning mist he saw a shadowy figure and he fired at it twice.
Whether his darts found their mark he was never to know, for a wall of white swept down suddenly to obscure his
vision. Snow! Great massed flakes falling endlessly--the moisture of the mist crystallized and closing in on him to
hide him even more safely, than had the mists themselves.

He was on his knees then at Fuller's side. A brilliant flash and a screaming roar over amongst the rocks appraised
him of the fact that the guard’s dart had gone wide. And yet Fuller was down, moaning with pain. Luke tried to turn him over and found that his body had taken on tremendous weight. He was flattened, crushed to the rocky surface of Vulcan by the full force of its gravity!

"What the devil!" he grunted as he heaved and strained. "What’d they do to you, old man?"

With great effort he succeeded in turning the scientist face up. Then he saw what had happened, and knew in a flash that Fuller had saved him from the singing dart whose energy was making a sizzling puddle of the stones where it had landed. The missile, in passing, had carried away the belt and part of the fabric of Tom's garment--carried away the capsule and the radium that energized it. Made the thing worse than useless. And Fuller had done this for him; he had flung himself upon Luke to shove him out of the line of fire ... risking his own life gladly ... lucky the deadly dart had missed his body, but....

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"You go on, Fenton," the scientist was whispering through lips that were blue and stiff. "Leave me here. I’m licked. But you can carry on the work; go to my friends and tell them--everything. Tell them what you saw back there--tell them--"

"Shut up!" Luke's words were softly growled. There was a new and utterly unaccountable huskiness in his voice as he straddled the prone body and locked his strong fingers underneath. "You ain't gonna be left behind," he grunted. "We're goin' on, brother, together."

His back straightened and Fuller was swung clear of the ground. His huge biceps tensed and the scrawny scientist was in the air, up and above the bowed head, then let down gently to rest across the broad shoulders of Luke Fenton. Fuller hung there, bent double by the immense weight of him, crushed to painful contact with the taut muscles that carried the strain.

On Earth, Fuller might have tipped the scales at a scant one hundred and thirty pounds; now his sagging body was a load in excess of seven hundredweight. With that load upon him, and glorying in the effort it cost, Luke staggered on toward the triple red glow, which, even in the blinding whiteness of the snowfall, marked the location of the columns of fire.

That all feeling had left his limbs in the deep-biting cold meant nothing; that his lungs were near bursting under the terrific strain meant even less. Luke Fenton had found a man. One he would fight for, not against. And, miraculously, he had found himself.

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After that there was a blur of interminable torture. Reeling and stumbling, his leg and back muscles shot through with stabbing pain as the frost worked slowly upward, Luke plodded doggedly ahead. An occasional shout came from far behind where the guards still searched the rocky plateau.

Across his great shoulders, Luke's burden was a dead weight, of corpselike rigidity and stillness. Yet Luke clung to it tenaciously, disposing the drooping leaden limbs as comfortably as possible by the judicious spreading of his own brawny arms.

Fuller, he was sure, had not long to live in any event. X.C. had already progressed to such a point that it was hardly possible he could recover. And yet, these smart guys Luke always had detested--the doctors and surgeons and such--they might be able to do something for the poor devil. Anyway, he determined, he'd get the scientist to his friends dead or alive, and he'd see to it that they treated him right. If they didn't....

The red glow was suddenly very bright and a silvery metallic shape loomed up before him in the whiteness. An ethership! Luke tried to call out but his bellowing voice was gone; only faint gurgling sounds came from his throat. He pushed forward with a savage summoning of his last ounce of energy and Fuller's weight was that of a mastodon upon him. The curved hull of the vessel was overhead when he slipped and fell to one knee in the thick carpet of snow.

Luke saw them then, a dozen strangers running from the open air-lock of the ship. In uniform, some of them--government officials of Earth and Mars. Damn them, it was a trap!

Knowing vaguely that they had surrounded him, he let Fuller slip from his shoulders and lowered him gently to the snow. Lurching to his feet, he stood swaying above the scientist's body, ready to defend the helpless man against any who came to take him. Defiant curses died in his paralyzed throat as darkness swooped down to blot out all consciousness. His steel-sinewed body, beaten at last, slumped protectingly over the lanky form of his new-found friend.

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When Luke next saw the light he stared long and hard at immaculate white walls and ceiling that shut him in. A gentle purring was in his ears and he knew he was in an ethership that was under way. He lay weak and helpless beneath snowy covers, on an iron hospital bed.

There were voices in the room, hushed, awed voices, and Luke moved his head painfully to stare across the
room. Fuller, he saw, was stretched on another cot, pale and still. And a white-clad nurse was there, bending over him, talking softly to a doctor. The words that passed between them brought enlightenment to Luke—and more. They brought a new elation, and understanding, and hope.

When the doctor and nurse had left, Luke lay for a long time with his thoughts. There was a man—Tom Fuller. Unafraid, as an agent of a special governmental committee investigating prison conditions he had volunteered to get the evidence on Vulcan's Workshop. And he had done it, even though it was almost certain that his own life was to be the price. He had dared the misery and hardship, dared X.C. and the horrible death it brought, that this hellhole of Vulcan might be exposed, that it might be wiped out of existence by government agreement. Vulcan's Workshop, where the gold dust of a certain political clique, brought torture and disease and extinction to hapless prisoners who might otherwise be remade into useful members of society by the use of scientific methods—all this was to be no more.

Fuller had succeeded where many others had failed. And Fuller was not to die. Only one of his lungs had been affected by X.C. and this not too extensively to respond to treatment. Many months of careful attendance would be required, and many more months of convalescence. But Fuller, they were sure, would live, Luke gloated.

From what he had heard, Luke gathered that there was to be no trouble about his own pardon. Oddly enough, this gave him no satisfaction. Something had happened to him—inside. For the first time he realised his debt to society and would have preferred that just sentence be carried out upon him. But not in that place, not in Vulcan's Workshop! Luke shuddered.

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And lying there, he swore a mighty oath that the remainder of his life was to be devoted to entirely different pursuits. It was not too late to face about, not too late to learn. If Fuller would help him, he would learn. He had acquired a healthy respect for the book-learning he formerly ridiculed, and he wanted some of it for himself—as much as he could get. His old creed was forgotten, and his bitterness vanished.

"Luke!" At the scientist's husky whisper he turned his head. Fuller was gazing at him with wide, solemn eyes.


"Thanks yourself. Where'd we be right now if it wasn't for your radium?"

There was silence as they regarded one another.

"I need you, Luke," Fuller whispered then, "in my laboratory back home. I'll be laid up for a long time, you know, and there's much to be done. Your brawn and my brain—we'll both profit. What do you say to that, Fenton, will you do it?"


Then, with a queer lump choking him, Luke looked away. He could think of no words to suit the occasion; he couldn't think at all somehow.

Blissfully, he fell asleep.
"What?" asked Borgenese.
"Putsy," said the man more distinctly. "The only thing I can think of is Putsy."

The counselor smiled. "That's a pet name, of course, but it doesn't help much. We can't trace it, and I don't think you'd want it as a permanent name." He saw the expression on the man's face and added hastily: "We haven't given up, if that's what you're thinking. But it's not easy to determine your identity. The most important source of information is your mind, and that was at the two year level when we found you. The fact that you recalled the word Putsy is an indication."

"Fingerprints," said the man vaguely. "Can't you trace me through fingerprints?"

"That's another clue," said the counselor. "Not fingerprints, but the fact that you thought of them." He jotted something down. "I'll have to check those re-education tapes. They may be defective by now, we've run them so many times. Again, it may be merely that your mind refused to accept the proper information."

The man started to protest, but Borgenese cut him off. "Fingerprints were a fair means of identification in the Twentieth Century, but this is the Twenty-second Century."

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The counselor then sat back. "You're confused now. You have a lot of information you don't know how to use yet. It was given to you fast, and your mind hasn't fully absorbed it and put it in order. Sometimes it helps if you talk out your problems."

"I don't know if I have a problem." The man brushed his hand slowly across his eyes. "Where do I start?"

"Let me do it for you," suggested Borgenese. "You ask questions when you feel like it. It may help you."

He paused, "You were found two weeks ago in the Shelters. You know what those are?"

The man nodded, and Borgenese went on: "Shelter and food for anyone who wants or needs it. Nothing fancy, of course, but no one has to ask or apply; he just walks in and there's a place to sleep and periodically food is provided. It's a favorite place to put people who've been retroed."

The man looked up. "Retroed?"

"Slang," said Borgenese. "The retrogression gun ionizes animal tissue, nerve cells particularly. Aim it at a man's legs and the nerves in that area are drained of energy and his muscles won't hold him up. He falls down."

"Aim it at his head and give him the smallest charge the gun is adjustable to, and his most recent knowledge is subtracted from his memory. Give him the full charge, and he is swept back to a childish or infantile age level. The exact age he reaches is dependent on his physical and mental condition at the time he's retroed."

"Theoretically it's possible to kill with the retrogression gun. The person can be taken back to a stage where there's not enough nervous organization to sustain the life process."

"However, life is tenacious. As the lower levels are reached, it takes increasing energy to subtract from anything that's left. Most people who want to get rid of someone are satisfied to leave the victim somewhere between the mental ages of one and four. For practical purposes, the man they knew is dead--or retroed, as they say."

"Then that's what they did to me," said the man. "They retroed me and left me in the Shelter. How long was I there?"

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Borgenese shrugged. "Who knows? That's what makes it difficult. A day, or two months. A child of two or three can feed himself, and no record is kept since the place is free. Also, it's cleaned automatically."

"I know that now that you mention it," said the man. "It's just that it's hard to remember."

"You see how it is," said the counselor. "We can't check our files against a date when someone disappeared, because we don't know that date except within very broad limits." He tapped his pen on the desk. "Do you object to a question?"

"Go ahead."

"How many people in the Solar System?"

The man thought with quiet desperation. "Fourteen to sixteen billion."

The counselor was pleased. "That's right. You're beginning to use some of the information we've put back into your mind. Earth, Mars and Venus are the main population centers. But there are also Mercury and the satellites of Jupiter and Saturn, as well as the asteroids. We can check to see where you might have come from, but there are so many places and people that you can imagine the results."

"There must be some way," the man said painfully. "Pictures, fingerprints, something."

"Something," Borgenese nodded. "But probably not for quite a while. There's another factor, you see. It's a shock, but you've got to face it. And the funny thing is that you'll never be better able to than now."

He rocked back. "Take the average person, full of unsuspected anxiety, even the happiest and most successful. Expose him to the retrogression gun. Tensions and frustrations are drained away."
"The structure of an adult is still there, but it's empty, waiting to be filled. Meanwhile the life of the organism goes on, but it's not the same. Lines on the face disappear, the expression alters drastically, new cell growth occurs here and there throughout the body. Do you see what that means?"

The man frowned. "I suppose no one can recognize me."

"That's right. And it's not only your face that changes. You may grow taller, but never shorter. If your hair was gray, it may darken, but not the reverse."

"Then I'm younger too?"

"In a sense, though it's actually not a rejuvenation process at all. The extra tension that everyone carries with him has been removed, and the body merely takes up the slack. Generally, the apparent age is made less. A person of middle age or under seems to be three to fifteen years younger than before. You appear to be about twenty-seven, but you may actually be nearer forty. You see, we don't even know what age group to check."

"And it's the same with fingerprints. They've been altered by the retrogression process. Not a great deal, but enough to make identification impossible."

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The nameless man stared around the room--at Val Borgenese, perhaps fifty, calm and pleasant, more of a counselor than a policeman--out of the window at the skyline, and its cleanly defined levels of air traffic.

Where was his place in this?

"I guess it's no use," he said bleakly. "You'll never find out who I am."

The counselor smiled. "I think we will. Directly, there's not much we can do, but there are indirect methods. In the last two weeks we've exposed you to all the organized knowledge that can be put on tapes--physics, chemistry, biology, math, astrogation, the works."

"It's easy to remember what you once knew. It isn't learning; it's actually relearning. One fact put in your mind triggers another into existence. There's a limit, of course, but usually a person comes out of re-education with slightly more formal knowledge than he had in his prior existence." The counselor opened a folder on his desk. "We gave you a number of tests. You didn't know the purpose, but I can tell you the results."

He leafed slowly through the sheets. "You may have been an entrepreneur of some sort. You have an excellent sense of power ethics. Additionally, we've found that you're physically alert, and your reactions are well coordinated. This indicates you may have been an athlete or sportsman."

Val Borgenese laid down the tests. "In talking with you, I've learned more. The remark you made about fingerprints suggests you may have been a historian, specializing in the Twentieth Century. No one else is likely to know that there was a time in which fingerprints were a valid means of identification."

"I'm quite a guy, I suppose. Businessman, sportsman, historian." The man smiled bitterly. "All that ... but I still don't know who I am. And you can't help me."

"Is it important?" asked the counselor softly. "This happens to many people, you know, and some of them do find out who they were, with or without our help. But this is not simple amnesia. No one who's been retroed can resume his former identity. Of course, if we had tapes of the factors which made each person what he is...." He shrugged. "But those tapes don't exist. Who knows, really, what caused him to develop as he has? Most of it isn't at the conscious level. At best, if you should learn who you were, you'd have to pick up the thread of your former activities and acquaintances slowly and painfully."

"Maybe it would be better if you start from where you are. You know as much as you once did, and the information is up to date, correct and undistorted. You're younger, in a sense--in better physical condition, not so tense or nervous. Build up from that."

"But I don't have a name."

"Choose one temporarily. You can have it made permanent if it suits you."

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The man was silent, thinking. He looked up, not in despair, but not accepting all that the counselor said either.

"What name? All I know is yours, and those of historical figures."

"That's deliberate. We don't put names on tapes, because the effects can be misleading. Everyone has thousands of associations, and can mistake the name of a prominent scientist for his own. Names unconsciously arrived at are usually no help at all." "What do I do?" the man said. "If I don't know names, how can I choose one?"

"We have a list made up for this purpose. Go through it slowly and consciously. When you come to something you like, take it. If you chance on one that stirs memories, or rather where memories ought to be but aren't, let me know. It may be a lead I can have traced."

The man gazed at the counselor. His thought processes were fast, but erratic. He could race along a chain of
reasoning and then stumble over a simple fact. The counselor ought to know what he was talking about--this was no isolated occurrence. The police had a lot of experience to justify the treatment they were giving him. Still, he felt they were mistaken in ways he couldn't formulate.

"I'll have to accept it, I suppose," he said. "There's nothing I can do to learn who I was."
The counselor shook his head. "Nothing that we can do. The clues are in the structure of your mind, and you have better access to it than we do. Read, think, look. Maybe you'll run across your name. We can take it from there." He paused. "That is, if you're determined to go ahead."

That was a strange thing for a police counselor to say.

"Of course I want to know who I am," he said in surprise. "Why shouldn't I?"

"I'd rather not mention this, but you ought to know." Borgenese shifted uncomfortably. "One third of the lost identity cases that we solve are self-inflicted. In other words, suicides."

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His head rumbled with names long after he had decided on one and put the list away. Attractive names and odd ones--but which were significant he couldn't say. There was more to living than the knowledge that could be put on tapes and played back. There was more than choosing a name. There was experience, and he lacked it. The world of personal reactions for him had started two weeks previously; it was not enough to help him know what he wanted to do.

He sat down. The room was small but comfortable. As long as he stayed in retro-therapy, he couldn't expect much freedom.

He tried to weigh the factors. He could take a job and adapt himself to some mode of living.

What kind of a job?

He had the ordinary skills of the society--but no outstanding technical ability had been discovered in him. He had the ability of an entrepreneur--but without capital, that outlet was denied him.

His mind and body were empty and waiting. In the next few months, no matter what he did, some of the urge to replace the missing sensations would be satisfied.

The more he thought about that, the more powerfully he felt that he had to know who he was. Otherwise, proceeding to form impressions and opinions might result in a sort of betrayal of himself.

Assume the worst, that he was a suicide. Maybe he had knowingly and willingly stepped out of his former life. A suicide would cover himself--would make certain that he could never trace himself back to his dangerous motive for the step. If he lived on Earth, he would go to Mars or Venus to strip himself of his unsatisfactory life. There were dozens of precautions anyone would take.

But if it weren't suicide, then who had retroed him and why? That was a question he couldn't answer now, and didn't need to. When he found out who he was, the motivation might be clear; if it wasn't, at least he would have a basis on which to investigate that.

If someone else had done it to him, deliberately or accidentally, that person would have taken precautions too. The difference was this: as a would-be suicide, he could travel freely to wherever he wished to start over again; while another person would have difficulty enticing him to a faroff place, or, assuming that the actual retrogression had taken place elsewhere, wouldn't find it easy to transport an inert and memory-less body any distance.

So, if he weren't a suicide, there was a good chance that there were clues in this city. He might as well start with that idea--it was all he had to go on.

He was free to stay in retro-therapy indefinitely, but with the restricted freedom he didn't want to. The first step was to get out. He made the decision and felt better. He switched on the screen.

Borgenese looked up. "Hello. Have you decided?"

"I think so."

"Good. Let's have it. It's bound to touch on your former life in some way, though perhaps so remotely we can't trace it. At least, it's something."

"Luis Obispo." He spelled it out.

* * * * *

The police counselor looked dubious as he wrote the name down. "It's not common, nor uncommon either. The spelling of the first name is a little different, but there must be countless Obispos scattered over the System."

It was curious. Now he almost did think of himself as Luis Obispo. He wanted to be that person. "Another thing," he said. "Did I have any money when I was found?"

"You're thinking of leaving? A lot of them do." Val Borgenese flipped open the folder again. "You did have money, an average amount. It won't set you up in business, if that's what you're thinking."

"I wasn't. How do I get it?"

"I didn't think you were." The counselor made another notation. "I'll have the desk release it--you can get it any
time. By the way, you get the full amount, no deductions for anything."

The news was welcome, considering what he had ahead of him.

Borgenese was still speaking. "Whatever you do, keep in touch with us. It'll take time to run down this name, and maybe we'll draw a blank. But something significant may show up. If you're serious, and I think you are, it's to your advantage to check back every day or so."

"I'm serious," said Luis. "I'll keep in touch."

There wasn't much to pack. The clothing he wore had been supplied by the police. Ordinary enough; it would pass on the street without comment. It would do until he could afford to get better.

He went down to the desk and picked up his money. It was more than he'd expected—the average man didn't carry this much in his pocket. He wondered about it briefly as he signed the receipt and walked out of retro-therapy. The counselor had said it was an average amount, but it wasn't.

He stood in the street in the dusk trying to orient himself.

Perhaps the money wasn't so puzzling. An average amount for those brought into therapy for treatment, perhaps. Borgenese had said a high proportion were suicides. Such a person would want to start over again minus fears and frustrations, but not completely penniless. If he had money he'd want to take it with him, though not so much that it could be traced, since that would defeat the original purpose.

The pattern was logical—suicides were those with a fair sum of money. This was the fact which inclined Borgenese to the view he obviously held.

Luis Obispo stood there uncertainly. Did he want to find out? His lips thinned—he did. In spite of Borgenese, there were other ways to account for the money he had. One of them was this: he was an important man, accustomed to handling large sums of money.

He started out. He was in a small city of a few hundred thousand on the extreme southern coast of California. In the last few days he'd studied maps of it; he knew where he was going.

* * * * *

When he got there, the Shelters were dark. He didn't know what he had expected, but it wasn't this. Reflection showed him that he hadn't thought about it clearly. The mere existence of Shelters indicated an economic level in which few people would either want or need to make use of that which was provided freely.

He skirted the area. He'd been found in one of the Shelters—which one he didn't know. Perhaps he should have checked the record before he came here.

No, this was better. Clues, he was convinced, were almost non-existent. He had to rely on his body and mind; but not in the ordinary way. He was particularly sensitive to impressions he had received before; the way he had learned things in therapy proved that; but if he tried to force them, he could be led astray. The wisest thing was to react naturally, almost without volition. He should be able to recognize the Shelter he'd been found in without trouble. From that, he could work back.

That was the theory—but it wasn't happening. He circled the area, and there was nothing to which he responded more than vaguely.

He would have to go closer.

He crossed the street. The plan of the Shelters was simple; an area two blocks long and one block wide, heavily planted with shrubs and small trees. In the center was an S-shaped continuous structure divided into a number of small dwelling units.

Luis walked along one wing of the building, turned at the corner and turned again. It was quite dark. He supposed that was why he wasn't reacting to anything. But his senses were sharper than he realized. There was a rustle behind him, and instinctively he flung himself forward, flat on the ground.

A pink spot appeared, low on the wall next to him. It had been aimed at his legs. The paint crackled faintly and the pink spot faded. He rolled away fast.

A dark body loomed past him and dropped where he'd been. There was an exclamation of surprise when the unknown found there was no one there. Luis grunted with satisfaction—this might be only a stickup, but he was getting action faster than he'd expected. He reached out and took hold of a leg and drew the assailant to him. A hard object clipped the side of his head, and he grasped that too.

The shape of the gun was familiar. He tore it loose. This wasn't any stickup! Once was enough to be retrogressed, and he'd had his share. Next time it was going to be the other guy. Physically, he was more than a match for his attacker. He twisted his body and pinned the struggling form to the ground.

That was what it was—a form. A woman, very much so; even in the darkness he was conscious of her body.

Now she was trying to get loose, and he leaned his weight more heavily on her. Her clothing was torn—he could feel her flesh against his face. He raised the gun butt, and then changed his mind and instead fumbled for a light. It wasn't easy to find it and still keep her pinned.
"Be quiet or I'll clip you," he growled.
She lay still.

He found the light and shone it on her face. It was good to look at, that face, but it wasn't at all familiar. He had trouble keeping his eyes from straying. Her dress was torn, and what she wore underneath was torn too.
"Seen enough?" she asked coldly.
"Put that way, I haven't." He couldn't force his voice to be matter-of-fact—it wouldn't behave.
She stared angrily at the light in her eyes. "I knew you'd be back," she said. "I thought I could get you before you got me, but you're too fast." Her mouth trembled. "This time make it permanent. I don't want to be tormented again like this."

He let her go and sat up. He was trembling, too, but not for the same reason. He turned the light away from her eyes.
"Ever consider that you could be mistaken?" he asked. "You're not the only one it happens to."
She lay there blinking at him, eyes adjusting to the changed light. She fumbled at the torn dress, which wouldn't stay where she put it. "You too?" she said with a vast lack of surprise. "When?"
"They found me here two weeks ago. This is the first time I've come back."
"Patterns," she said. "There are always patterns in what we do." Her attitude toward him had changed drastically, he could see it in her face. "I've been out three weeks longer. She sat up and leaned closer. She didn't seem to be thinking about the same things that had been on her mind only seconds before.

He stood up and helped her to her feet. She was near and showed no inclination to move away. This was something Borgenese hadn't mentioned, and there was nothing in his re-education to prepare him for this sensation, but he liked it. He couldn't see her very well, now that the light was turned off, but she was almost touching him.
"We're in the same situation, I guess." She sighed. "I'm lonely and a little afraid. Come into my place and we'll talk."

He followed her. She turned into a dwelling that from the outside seemed identical to the others. Inside, it wasn't quite the same. He couldn't say in what way it was different, but he didn't think it was the one he'd been found in.

That torn dress bothered him—not that he wanted her to pin it up. The tapes hadn't been very explicit about the beauties of the female body, but he thought he knew what they'd left out.

She was conscious of his gaze and smiled. It was not an invitation, it was a request, and he didn't mind obeying. She slid into his arms and kissed him. He was glad about the limitations of re-education. There were some things a man ought to learn for himself.

She looked up at him. "Maybe you should tell me your name," she said. "Not that it means much in our case."
"Luis Obispo," he said, holding her.
"I had more trouble, I couldn't choose until two days ago." She kissed him again, hard and deliberately. It gave her enough time to jerk the gun out of his pocket.

She slammed it against his ribs. "Stand back," she said, and meant it.

Luis stared bewilderedly at her. She was desirable, more than he had imagined and for a variety of reasons. Her emotions had been real, he was sure of that, not feigned for the purpose of taking the gun away. But she had changed again in a fraction of a second. Her face was twisted with an effort at self-control.

"What's the matter?" he asked. He tried to make his voice gentle, but it wouldn't come out that way. The retrogression process had sharpened all his reactions—this one too.
"The name I finally arrived at was—Luise Obispo," she said.
He started. The same as his, except feminine! This was more than he'd dared hope for. A clue—and this girl, who he suddenly realized, without any cynicism about "love at first sight," because the tapes hadn't included it, meant something to him.
"Maybe you're my wife," he said tentatively.
"Don't count on it," she said wearily. "It would have been better if we were strangers—then it wouldn't matter what we did. Now there are too many factors, and I can't choose."
"It has to be," he argued. "Look—the same name, and so close together in time and place, and we were attracted instantly—"
"Go away," she said, and the gun didn't waver. It was not a threat that he could ignore. He left.
She was wrong in making him leave, completely wrong. He couldn't say how he knew, but he was certain. But he couldn't prove it, and she wasn't likely to accept his unsubstantiated word.

He leaned weakly against the door. It was like that. Retrogression had left him with an adult body and sharper
receptiveness. And after that followed an urge to live fully. He had a lot of knowledge, but it didn't extend to this sphere of human behavior.

Inside he could hear her moving around faintly, an emotional anticlimax. It wasn't just frustrated sex desire, though that played a part. They had known each other previously--the instant attraction they'd had for each other was proof, leaving aside the names. Lord, he'd trade his unknown identity to have her. He should have taken another name--any other name would have been all right.

It wasn't because she was the first woman he'd seen, or the woman he had first re-seen. There had been nurses, some of them beautiful, and he'd paid no attention to them. But Luise Obispo was part of his former life--and he didn't know what part. The reactions were there, but until he could find out why, he was denied access to the satisfactions.

From a very narrow angle, and only from that angle, he could see that there was still a light inside. It was dim, and if a person didn't know, he might pass by and not notice it.

His former observation about the Shelters was incorrect. Every dwelling might be occupied and he couldn't tell unless he examined them individually.

He stirred. The woman was a clue to his problem, but the clue itself was a far more urgent problem. Though his identity was important, he could build another life without it and the new life might not be worse than the one from which he had been forcibly removed.

Perhaps he was over-reacting, but he didn't think so: his new life had to include this woman.

He wasn't equipped to handle the emotion. He stumbled away from the door and found an unoccupied dwelling and went in without turning on the lights and lay down on the bed.

In the morning, he knew he had been here before. In the darkness he had chosen unknowingly but also unerringly. This was the place in which he had been retrogressed.

It was here that the police had picked him up.

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The counselor looked sleepily out of the screen. "I wish you people didn't have so much energy," he complained. Then he looked again and the sleepiness vanished. "I see you found it the first time."

Luis knew it himself, because there was a difference from the dwelling Luise lived in--not much, but perceptible to him. The counselor, however, must have a phenomenal memory to distinguish it from hundreds of others almost like it.

Borgenese noticed the expression and smiled. "I'm not an eidetic, if that's what you think. There's a number on the set you're calling from and it shows on my screen. You can't see it."

They would have something like that, Luis thought. "Why didn't you tell me this was it before I came?"

"We were pretty sure you'd find it by yourself. People who've just been retroed usually do. It's better to do it on your own. Our object is to have you recover your personality. If we knew who you were, we could set up a program to guide you to it faster. As it is, if we help you too much, you turn into a carbon copy of the man who's advising you."

Luis nodded. Give a man his adult body and mind and turn him loose on the problems which confronted him, and he would come up with adult solutions. It was better that way.

But he hadn't called to discuss that. "There's another person living in the Shelters," he said. "You found her three weeks before you found me."

"So you've met her already? Fine. We were hoping you would." Borgenese chuckled. "Let's see if I can describe her. Apparent age, about twenty-three; that means that she was originally between twenty-six or thirty-eight, with the probability at the lower figure. A good body, as you are probably well aware, and a striking face. Somewhat oversexed at the moment, but that's all right--so are you."

He saw the expression on Luis's face and added quickly: "You needn't worry. Draw a parallel with your own experience. There were pretty nurses all around you in retro-therapy, and I doubt that you noticed that they were female. That's normal for a person in your position, and it's the same with her.

"It works this way: you're both unsure of yourselves and can't react to those who have some control over their emotions. When you meet each other, you can sense that neither has made the necessary adjustments, and so you are free to release your true feelings."

He smiled broadly. "At the moment, you two are the only ones who have been retroed recently. You won't have any competition for six months or so, until you begin to feel comfortable in your new life. By then, you should know how well you really like each other.

"Of course tomorrow, or even today, we might find another person in the Shelter. If it's a man, you'll have to watch out; if a woman, you'll have too much companionship. As it is, I think you're very lucky."

Yeah, he was lucky--or would be if things were actually like that. Yesterday he would have denied it; but
today, he'd be willing to settle for it, if he could get it.

"I don't think you understand," he said. "She took the same name that I did."

Borgenese's smile flipped over fast, and the other side was a frown. For a long time he sat there scowling out of
the screen. "That's a hell of a thing to tell me before breakfast," he said. "Are you sure? She couldn't decide on a
name before she left."

"I'm sure," said Luis, and related all the details of last night.
The counselor sat there and didn't say anything.

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Luis waited as long as he could. "You can trace us now," he said. "One person might be difficult. But two of us
with nearly the same name, that should stick out big, even in a population of sixteen billion. Two people are missing
from somewhere. You can find that."

The counselor's face didn't change. "You understand that if you were killed, we'd find the man who did it. I
can't tell you how, but you can be sure he wouldn't escape. In the last hundred years there's been no unsolved
murder."

He coughed and turned away from the screen. When he turned back, his face was calm. "I'm not supposed to
tell you this much. I'm breaking the rule because your case and that of the girl is different from any I've ever
handled." He was speaking carefully. "Listen. I'll tell you once and won't repeat it. If you ever accuse me, I'll deny I
said it, and I have the entire police organization behind me to make it stick."

The counselor closed his eyes as if to see in his mind the principle he was formulating. "If we can catch a
murderer, no matter how clever he may be, it ought to be easier to trace the identity of a person who is still alive. It
is. But we never try. Though it's all right if the victim does.

"If I should ask the cooperation of other police departments, they wouldn't help. If the solution lies within an
area over which I have jurisdiction and I find out who is responsible, I will be dismissed before I can prosecute the
man."

Luis stared at the counselor in helpless amazement. "Then you're not doing anything," he said shakily. "You
lied to me. You don't intend to do anything."

"You're overwrought," said Borgenese politely. "If you could see how busy we are in your behalf--" He sighed.
"My advice is that if you can't convince the girl, forget her. If the situation gets emotionally unbearable, let me know
and I can arrange transportation to another city where there may be others who are--uh--more compatible."

"But she's my wife," he said stubbornly.

"Are you sure?"

Actually Luis wasn't--but he wanted her to be, or any variation thereof she would consent to. He explained.

"As she says, there are a lot of factors," commented the counselor. "I'd suggest an examination. It may remove
some of her objections."

He hadn't thought of it, but he accepted it eagerly. "What will that do?"

"Not much, unfortunately. It will prove that you two can have healthy normal children, but it won't indicate that
you're not a member of her genetic family. And, of course, it won't touch on the question of legal family, brother-in-
law and the like. I don't suppose she'd accept that."

She wouldn't. He'd seen her for only a brief time and yet he knew that much. He was in an ambiguous position;
he could make snap decisions he was certain were right, but he had to guess at facts. He and the girl were victims,
and the police refused to help them in the only way that would do much good. And the police had, or thought they
had, official reasons for their stand.

Luis told the counselor just exactly what he thought of that.

"It's too bad," agreed the counselor. "These things often have an extraordinary degree of permanency if they
ever get started."

If they ever got started! Luis reached out and turned off the screen. It flickered unsteadily--the counselor was
trying to call him back. He didn't want to talk to the man; it was painful, and Borgenese had nothing to add but
platitudes, and fuel to his anger. He swung open the panel and jerked the wiring loose and the screen went blank.

There was an object concealed in the mechanism he had exposed. It was a neat, vicious, little retrogression gun.

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He got it out and balanced it gingerly in his hand. Now he had something else to work on! It was the weapon,
of course. It had been used on him and then hidden behind the screen.

It was a good place to hide it. The screens never wore out or needed adjustment, and the cleaning robots that
came out of the wall never cleaned there. The police should have found it, but they hadn't looked. He smiled bitterly.
They weren't interested in solving crimes--merely in ameliorating the consequences.

Though the police had failed, he hadn't. It could be traced back to the man who owned it, and that person would
have information. He turned the retro gun over slowly; it was just a gun; there were countless others like it.

He finished dressing and dropped the gun in his pocket. He went outside and looked across the court. He hesitated and then walked over and knocked.

"Occupied," said the door. "But the occupant is out. No definite time of return stated, but she will be back this evening. Is there any message?"

"No message," he said. "I'll call back when she's home."

He hoped she wouldn't refuse to speak to him. She'd been away from retro-therapy longer than he and possibly had developed her own leads--very likely she was investigating some of them now. Whatever she found would help him, and vice versa. The man who'd retroed her had done the same to him. They were approaching the problem from different angles. Between the two of them, they should come up with the correct solution.

He walked away from the Shelters and caught the belt to the center of town; the journey didn't take long. He stepped off, and wandered in the bright sunshine, not quite aimlessly. At length he found an Electronic Arms store, and went inside.

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A robot came to wait on him. "I'd like to speak to the manager," he said and the robot went away.

Presently the manager appeared, middle aged, drowsy. "What can I do for you?"

Luis laid the retrogression gun on the counter. "I'd like to know who this was sold to."

The manager coughed. "Well, there are millions of them, hundreds of millions."

"I know, but I have to find out."

The manager picked it up. "It's a competitor's make," he said doubtfully. "Of course, as a courtesy to a customer...." He fingered it thoughtfully. "Do you really want to know? It's just a freezer. Not at all dangerous."

Luis looked at it with concern. Just a freezer--not a retro gun at all! Then it couldn't have been the weapon used on him.

Before he could take it back the manager broke it open. The drowsy expression vanished.

"Why didn't you say so?" exclaimed the manager, examining it. "This gun has been illegally altered." He bent over the exposed circuits and then glanced up happily at Luis. "Come here, I'll show you."

Luis followed him to the small workshop in the back of the store. The manager closed the door behind them and fumbled among the equipment. He mounted the gun securely in a frame and pressed a button which projected an image of the circuit onto a screen.

The manager was enjoying himself. "Everybody's entitled to self-protection," he said. "That's why we sell so many like these. They're harmless, won't hurt a baby. Fully charged, they'll put a man out for half an hour, overload his nervous system. At the weakest, they'll still keep him out of action for ten minutes. Below that, they won't work at all." He looked up. "Are you sure you understand this?"

It had been included in his re-education, but it didn't come readily to his mind. "Perhaps you'd better go over it for me."

The manager wagged his head. "As I said, the freezer is legal, won't harm anyone. It'll stop a man or an elephant in his tracks, freeze him, but beyond that will leave him intact. When he comes out of it, he's just the same as before, nothing changed." He seized a pointer and adjusted the controls so as to enlarge the image on the screen. "However, a freezer can be converted to a retrogression gun, and that's illegal." He traced the connections with the pointer. "If this wire, instead of connecting as it does, is moved to here and here, the polarity is reversed. In addition, if these four wires are interchanged, the freezer becomes a retrogressor. As I said, it's illegal to do that."

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The manager scrutinized the circuits closely and grunted in disgust. "Whoever converted this did a sloppy job. Here." He bent over the gun and began manipulating micro-instruments. He worked rapidly and surely. A moment later, he snapped the weapon together and straightened up, handing it to Luis. "There," he said proudly. "It's a much more effective retrogressor than it was. Uses less power too."

Luis swallowed. Either he was mad or the man was, or perhaps it was the society he was trying to adjust to. "Aren't you taking a chance, doing this for me?"

The manager smiled. "You're joking. A tenth of the freezers we sell are immediately converted into retrogressors. Who cares?" He became serious. "Do you still want to know who bought it?"

Luis nodded--at the moment he didn't trust his voice.

"It will take several hours. No charge though, customer service. Tell me where I can reach you."

Luis jotted down the number of the screen at the Shelter and handed it to the manager. As he left, the manager whispered to him: "Remember, the next time you buy a freezer--ours can be converted easier than the one you have."

He went out into the sunlight. It didn't seem the same. What kind of society was he living in? The reality didn't
fit with what he had re-learned. It had seemed an orderly and sane civilization, with little violence and vast respect for the law.

But the fact was that any school child--well, not quite that young, perhaps--but anyone older could and did buy a freezer. And it was ridiculously easy to convert a freezer into something far more vicious. Of course, it was illegal, but no one paid any attention to that.

This was wrong; it wasn't the way he remembered....

He corrected himself: he didn't actually remember anything. His knowledge came from tapes, and was obviously inadequate. Certain things he just didn't understand yet.

He wanted to talk to someone--but who? The counselor had given him all the information he intended to. The store manager had supplied some additional insight, but it only confused him. Luise--at the moment she was suspicious of him.

There was nothing to do except to be as observant as he could. He wandered through the town, just looking. He saw nothing that seemed familiar. Negative evidence, of course, but it indicated he hadn't lived here before.

Before what? Before he had been retrogressed. He had been brought here from elsewhere, the same as Luise.

He visited the spaceport. Again the evidence was negative; there was not a ship the sight of which tripped his memory. It had been too much to hope for; if he had been brought in by spaceship, it wouldn't still be around for him to recognize.

Late in the afternoon, he headed toward the center of town. He was riding the belt when he saw Luise coming out of a tall office building.

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He hopped off and let her pass, boarding it again and following her at a distance. As soon as they were out of the business district, he began to edge closer.

A few blocks from the Shelter she got off the belt and waited, turning around and smiling directly at him. In the interim her attitude toward him had changed, evidently--for the better, as far as he was concerned. He couldn't ignore her and didn't want to. He stepped off the belt.

"Hello," she said. "I think you were following me."

"I was. Do you mind?"

"I guess I don't." She walked along with him. "Others followed me, but I discouraged them."

She was worth following, but it was not that which was strange. Now she seemed composed and extraordinarily friendly, a complete reversal from last night. Had she learned something during the day which changed her opinion of him? He hoped she had.

She stopped at the edge of the Shelter area. "Do you live here?"

Learned something? She seemed to have forgotten.

He nodded.

"For the same reason?"

His throat tightened. He had told her all that last night. Couldn't she remember?

"Yes," he said.

"I thought so. That's why I didn't mind your following me."

Here was the attraction factor that Borgeneese had spoken of; it was functioning again, for which he was grateful. But still, why? And why didn't she remember last night?

They walked on until she came to her dwelling. She paused at the door. "I have a feeling I should know who you are, but I just can't recall. Isn't that terrible?"

It was--frightening. Her identity was apparently incompletely established; it kept slipping backward to a time she hadn't met him. He couldn't build anything enduring on that; each meeting with her would begin as if nothing had happened before.

Would the same be true of him?

He looked at her. The torn dress hadn't been repaired, as he'd thought at first; it had been replaced by the robots that came out of the wall at night. They'd done a good job fitting her, but with her body that was easy.

It was frightening and it wasn't. At least this time he didn't have a handicap. He opened his mouth to tell her his name, and then closed it. He wasn't going to make that mistake again. "I haven't decided on a name," he said.

"It was that way with me too." She gazed at him and he could feel his insides sloshing around. "Well, man with no name, do you want to come in? We can have dinner together."

He entered. But dinner was late that night. He had known it would be.

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In the morning light, he sat up and put his hand on her. She smiled in her sleep and squirmed closer. There were compensations for being nobody, he supposed, and this was one of them. He got up quietly and dressed without
waking her. There were a number of things he wanted to discuss, but somehow there hadn't been time last night. He would have to talk to her later today.

He slipped out of the house and went across the court into his own. The screen he had ripped apart had been repaired and put back in place. A voice chimed out as he entered: "A call came while you were gone."

"Let's have it."

The voice descended the scale and became that of the store manager. "The gun you brought in was sold six months ago to Dorn Starret, resident of Ceres and proprietor of a small gallium mine there. That's all the information on record. I trust it will be satisfactory."

Luis sat down. It was. He could trace the man or have him traced, though the last might not be necessary.

The name meant something to him--just what he couldn't say. Dorn Starret, owner of a gallium mine on Ceres. The mine might or might not be of consequence; gallium was used in a number of industrial processes, but beyond that was not particularly valuable.

He closed his eyes to concentrate. The name slid into vacant nerve cells that were responsive; slowly a picture formed, nebulous and incomplete at first. There was a mouth and then there were eyes, each feature bringing others into focus, unfolding as a germ cell divides and grows, calling into existence an entire creature. The picture was nearly complete.

Still with eyes closed, he looked at the man he remembered. Dorn Starret, five-eleven, one hundred and ninety, flesh that had once been muscular and firm. Age, thirty-seven; black hair that was beginning to recede from his forehead. The face was harder to define--strong, though slightly hard, it was perhaps good looking. It was the eyes which were at fault, Luis decided--glinting often--and there were lines on the face that ought not to be there.

There was another thing that set the man apart. Not clothing; that was conventional, though better than average. Luis stared into his memory until he was able to see it. Unquestionably the man was left-handed. The picture was too clear to permit a mistake on that detail.

He knew the man, had seen him often. How and in what context? He waited, but nothing else came.

Luis opened his eyes. He would recognize the man if he ever saw him. This was the man who owned the gun, presumably had shot him with it, and then had hidden it here in this room.

He thought about it vainly. By itself, the name couldn't take him back through all past associations with the man, so he passed from the man to Ceres. Here he was better equipped; re-education tapes had replaced his former knowledge of the subject.

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The asteroid belt was not rigidly policed; if there was a place in the System in which legal niceties were not strictly observed, it was there. What could he deduce from that? Nothing perhaps; there were many people living in the belt who were engaged in legitimate work: miners, prospectors, scientific investigators. But with rising excitement, he realized that Dorn Starret was not one of these.

He was a criminal. The gallium mine was merely an attempt to cover himself with respectability. How did Luis know that? He wasn't sure; his thought processes were hidden and erratic; but he knew.

Dorn Starret was a criminal--but the information wasn't completely satisfactory. What had caused the man to regress Luis and Luise Obispo? That still had to be determined.

But it did suggest this: as a habitual criminal, the man was more than ordinarily dangerous.

Luis sat there a while longer, but he had recalled everything that would come out of the original stimulus. If he wanted more, he would have to dig up other facts or make further contacts. But at least it wasn't hopeless--even without the police, he had learned this much.

He went over the room thoroughly once more. If there was anything hidden, he couldn't find it.

He crossed the court to Luise's dwelling. She was gone, but there was a note on the table. He picked it up and read it:

Dear man with no name:

I suppose you were here last night, though I'm so mixed up I can't be sure; there's so little of memory or reality to base anything on. I wanted to talk to you before I left but I guess, like me, you're out investigating.

There's always a danger that neither of us will like what we find. What if I'm married to another person and the same with you? Suppose ... but there are countless suppositions--these are the risks we take. It's intolerable not to know who I am, especially since the knowledge is so close. But of course you know that.

Anyway I'll be out most of the day. I discovered a psychologist who specializes in restoring memory; you can see the possibilities in that. I went there yesterday and have an appointment again today. It's nice of him, considering that I have no money, but he says I'm more or less an experimental subject. I can't tell you when I'll be back but it won't be late.

Luise.
He crumpled the note in his hand. Memory expert. Her psychologist was that--in reverse. Yesterday he had taken a day out of her life, and that was why Luise hadn't recognized him and might not a second time.

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He leaned against the table. After a moment, he straightened out the note. A second reading didn't help. There it was, if he could make sense from it.

Luise and himself, probably in that order. There was no proof, but it seemed likely that she had been retrogressed first, since she had been discovered first.

There was also Dorn Starret, the criminal from Ceres who had hidden the gun in the Shelter that he, Luis, had been found in. And there was now a fourth person: the psychologist who specialized in depriving retrogression victims of what few memories they had left.

Luis grimaced. Here was information which, if the police would act on it properly ... but it was no use, they wouldn't. Any solution which came out of this would have to arise out of his own efforts.

He folded the note carefully. It would be handy to have if Luise came back and didn't know who he was.

Meanwhile, the psychologist. Luise hadn't said who he was, but it shouldn't be difficult to locate him. He went to the screen and dialed the directory. There were many psychologists in it, but no name that was familiar.

He pondered. The person who had retroed Luise and himself--what would he do? First he would take them as far from familiar scenes as he could. That tied in with the facts. Dorn Starret came from Ceres.

Then what? He would want to make certain that his victims did not trace their former lives. And he would be inconspicuous in so doing.

Again Luis turned to the screen, but this time he dialed the news service. He found what he was looking for in the advertisements of an issue a month old. It was very neat:

DO YOU REMEMBER EVERYTHING--or is your mind hazy? Perhaps my system can help you recall those little details you find it so annoying to forget. MEMORY LAB.

That was all. No name. But there was an address. Hurriedly Luis scanned every succeeding issue. The advertisement was still there.

He was coming closer, very close. The ad was clever; it would attract the attention of Luise and himself and others like them, and almost no one else. There was no mention of fees, no claim that it was operated by a psychologist, nothing that the police would investigate.

Night after night Luis had sat alone; sooner or later, watching the screen, she had to see the ad. It was intriguing and she had answered it. Normally, so would he have: but now he was forewarned.

Part of the cleverness was this: that she went of her own volition. She would have suspected an outright offer of help--but this seemed harmless. She went to him as she would to anyone in business. A very clever setup.

But who was behind MEMORY LAB? Luis thought he knew. A trained psychologist with a legitimate purpose would attach his name to the advertisement.

Luis patted the retro gun in his pocket. Dorn Starret, criminal, and inventor of a fictitious memory system, was going to have a visitor. It wasn't necessary to go to Ceres to see him.

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It was the only conclusion that made sense. Dorn Starret had retroed him--the gun proved that--and Luise as well. Until a few minutes ago, he had thought that she had been first and he later, but that was wrong. They had been retrogressed together and Dorn Starret had done it; now he had come back to make certain that they didn't trace him.

Neat--but it wasn't going to work. Luis grinned wryly to himself. He had a weapon in his pocket that was assurance it wouldn't work.

He got off the belt near the building he had seen Luise leaving yesterday. He went into the lobby and located MEMORY LAB, a suite on the top floor. It wasn't necessary, but he checked rental dates. The lab had been there exactly three weeks. This tied in with Luise's release from retro-therapy. Every connection he had anticipated was there.

He rode up to the top floor. There wasn't a chance that Starret would recognize him; physically he must have changed too much since the criminal had last seen him. And while Luise hadn't concealed that she was a retro and so had given herself away, he wasn't going to make that mistake.

The sign on the door stood out as he came near and disappeared as he went by. MEMORY LAB, that was all--no other name, even here. Naturally. A false name would be occasion for police action. The right one would evoke Luise's and his own memories.

He turned back and went into the waiting room. No robot receptionist. He expected that; the man didn't intend to be around very long.

"Who's there?" The voice came from a speaker in the wall; the screen beside it remained blank, though obviously the man was in the next room. For a commercial establishment, the LAB was not considerate of potential
Luis smiled sourly and loosened the weapon in his pocket. "I saw your advertisement," he said. No name; let him guess.

"I'm very busy. Can you come back tomorrow?"

Luis frowned. This was not according to plan. First, he didn't recognize the voice, though the speaker could account for that if it were intentionally distorted. Second, Luise was inside and he had to protect her. He could break in, but he preferred that the man come out.

He thought swiftly. "I'm Chals Putsyn, gallium importer," he called. "Tomorrow I'll be away on business. Can you give me an appointment for another time?"

There was a long silence. "Wait. I'll be out."

He'd thought the mention of gallium would do it. True, the mine Starret owned was probably worthless, but he couldn't restrain his curiosity.

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The door swung open and a man stepped out, closing the door before Luis could see inside.

He had erred--the man was not Dorn Starret.

The other eyed him keenly. "Mr. Chals Putsyn? Please sit down."

Luis did so slowly, giving himself time to complete a mental inventory. The man had to be Dorn Starret--and yet he wasn't. No disguise could be that effective. At least three inches shorter; the shape of his head was different; his body was slighter. Moreover, he was right-handed, not left, as Starret was.

Luis had a story ready--names, dates, and circumstances. It sounded authentic even to himself.

The man listened impatiently. "I may not be able to help you," he said, interrupting. "Oddly enough, light cases are hardest. It's the serious memory blocks that I specialize in." There was something strange about his eyes--his voice too. "However, if you can come back in two days, late in the afternoon, I'll see what I can do."

Luis took the appointment card and found himself firmly ushered to the door. It was disturbing; Luise was in the next room, but the man gave him no opportunity to see her.

He stood uncertainly in the hall. The whole interview had taken only a few minutes, and during that time all his previous ideas had been upset. If the man was not Dorn Starret, who was he and what was his connection? The criminal from Ceres was not so foolish as to attempt to solve his problems by assigning them to another person. This was a one-man job from beginning to end, or ought to be.

Luis took the elevator to the ground floor and walked out aimlessly on the street. There was something queer about the man on the top floor. It took time to discover what it was.

The man was not Starret--but he was disguised. His irises were stained another color and the voice was not his own--or rather it was, but filtered through an artificial larynx inserted painfully in his throat. And his face had been recently swabbed with a chemical irritant which caused the tissues beneath his skin to swell, making his face appear plumper.

Luis took a deep breath. Unconsciously he had noticed details too slight for the average person to discern. This suggested something about his own past--that he was trained to recognize disguises.

But more important was this: that the man was disguised at all. The reason was obvious--to avoid evoking memories.

The man's name--what was it? It hadn't even been registered in the building--he'd asked on his way out. And Luise couldn't tell him. She was no longer a reliable source of information. He had to find out, and there was only one way that suggested itself.

Luis was still in there, but not in physical danger. The police were lax about other things, but not about murder, and the man knew that. She might lose her memories of the past few weeks; regrettable if it happened, but not a catastrophe.

But who was the man and what was his connection?

He spent the rest of the day buying equipment--not much, but his money dwindled rapidly. He considered going back to the Shelter and then decided against it. By this time Luise would be back, and he would be tempted not to leave her.

After dark, when the lights in the offices went out, he rented an aircar and set it down on the top of the building.

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He walked across the roof, estimating the distances with practiced ease, as if he'd undergone extensive training and the apprenticeship period had been forgotten and only the skill remained. He knelt and fused two small rods to a portion of the roof, and then readjusted the torch and cut a small circular hole. He listened, and when there was no alarm, lifted out the section. There was nothing but darkness below.
He fastened a rope to the aircar. He dropped the rope through the hole and slid down. Unless he had miscalculated, he was where he wanted to be, having bypassed all alarm circuits. There were others inside, he was reasonably certain of that, but with ordinary precautions he could avoid them.

He flashed on a tiny light. He had guessed right; this was MEMORY LAB—the room he'd wanted to see this afternoon but hadn't been able to. In front of him was the door to the waiting room, and beyond that the hall. He swung the light in an arc, flashing it over a desk and a piece of equipment the nature of which he didn't know. Behind him was still another door.

The desk was locked, but he took out a small magnetic device and jiggled it expertly over the concealed mechanism and then it was unlocked. He went hurriedly through papers and documents, but there was nothing with a name on it. He rifled the desk thoroughly and then went to the machine.

He didn't expect to learn anything, but he might as well examine it. There was a place for a patient to sit, and a metal hood to fit over the patient's head. He snapped the hood open and peered into it. It seemed to have two functions. One circuit was far larger and more complicated, and he couldn't determine what it did. But he recognized the other circuit; essentially it was a retrogressor, but whereas the gun was crude and couldn't be regulated, this was capable of fine adjustment—enough, say, to slice a day out of the patient's life, and no more.

That fitted with what had happened to Luise. She had been experimented on in some way, and then the memory of that experiment had been erased. But the man had grown careless and had taken away one day too many.

He snapped the mechanism closed. This was the method, but he still didn't know who the man was nor why he found it necessary to do all this.

There was a door behind him and the answer might lie beyond it. He listened carefully, then swung the door open and went through.

The blow that hit him wasn't physical; nothing mechanical could take his nerves and jerk them all at once. A freezer. As he fell to the floor, he was grateful it was that and not a retro gun.

Lights flooded the place, and the man of the afternoon interview was grinning at him.

"I thought you'd be back," he said, pleased. "In fact, I knew you would."

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Somewhere he had blundered; but he didn't know how. Experimentally he wriggled his fingers. They moved a fraction of an inch, but no more. He was helpless and couldn't say anything. He wasn't quite sure at the moment that he wanted to.

"You were right, I didn't recognize you physically," continued the man. "Nevertheless, you gave yourself away. The name you used this afternoon, Chals Putsyn, is my name. Do you remember now?"

Of course. He'd chosen Chals Putsyn at random, because he'd had to say something, and everything would have been all right—except it actually hadn't been a random choice. The associations had triggered the wrong words into existence.

His mind flashed back to the time he'd discussed names with Borgenese. What had he said? Putsy. But it wasn't Putsy—it was Putsyn.

"You're very much improved," said the real Chals Putsyn, staring curiously at him. "Let me recommend the retro treatment to you. In fact I'd take it myself, but there are a few inconveniences."

Yeah, there were inconveniences—like starting over again and not knowing who you were.

But Putsyn was right: he was physically improved. A freezer knocked a man down and kept him there for half an hour. But Luis had only been down a few minutes, and already he could move his feet, though he didn't. It was a phenomenally fast recovery, and perhaps Putsyn wasn't aware of it.

"The question is, what to do with you?" Putsyn seemed to be thinking aloud. "The police are intolerant of killing. Maybe if I disposed of every atom...." He shook his head and sighed. "But that's been tried, and it didn't make any difference. So you'll have to remain alive—though I don't think you'll approve of my treatment."

Luis didn't approve—it would be the same kind of treatment that Luise had been exposed to, but more drastic in his case, because he was aware of what was going on.

Putsyn came close to drag him away. It was time to use the energy he'd been saving up, and he did.

Startled, Putsyn fired the freezer, but he was aiming at a twisting target and the invisible energy only grazed Luis's leg. The leg went limp and had no feeling, but his two hands were still good and that was all he needed.

He tore the freezer away and put his other hand on Putsyn's throat. He could feel the artificial larynx inside. He squeezed.

He lay there until Putsyn went limp.

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When there was no longer any movement, he sat up and pried open the man's jaws, thrusting his fingers into the mouth and jerking out the artificial larynx. The next time he would hear Putsyn's real voice, and maybe that would
trigger his memory.

He crawled to the door and pulled himself up, leaning against the wall. By the time Putsyn moved, he had regained partial use of his leg.

"Now we'll see," he said. He didn't try to put anger in his voice; it was there. "I don't have to tell you that I can beat answers out of you."

"You don't know?" Putsyn laughed and there was relief in the sound. "You can kick me around, but you won't get your answers!"

The man had physical courage, or thought he did, and sometimes that amounted to the same thing. Luis shifted uneasily. It was the first time he'd heard Putsyn's actual voice; it was disturbing, but it didn't arouse concrete memories.

He stepped on the outstretched hand. "Think so?" he said. He could hear the fingers crackle.

Putsyn paled, but didn't cry out. "Don't think you can kill me and get away with it," he said.

He didn't sound too certain.

Slightly sick, Luis stepped off the hand. He couldn't kill the man--and not just because of the police. He just couldn't do it. He felt for the other gun in his pocket.

"This isn't a freezer," he said. "It's been changed over. I think I'll give you a sample."

Putsyn blinked. "And lose all chance of finding out? Go ahead."

Luis had thought of that; but he hadn't expected Putsyn to.

"You see, there's nothing you can do," said Putsyn. "A man has a right to protect his property, and I've got plenty of evidence that you broke in."

"I don't think you'll go to the police," Luis said.

"You think not? My memory system isn't a fraud. Admittedly, I didn't use it properly on Luise, but in a public demonstration I can prove that it does work."

Luis nodded wearily to himself. He'd half suspected that it did work. Here he was, with the solution so close--this man knew his identity and that of Luise, and where Dorn Starret came into the tangle--and he couldn't force Putsyn to tell.

He couldn't go to the police. They would ignore his charges, because they were based on unprovable suspicions... ignore him or arrest him for breaking and entering.

"Everything's in your favor," he said, raising the gun. "But there's one way to make you leave us alone."

"Wait," cried Putsyn, covering his face with his uninjured hand, as if that would shield him. "Maybe we can work out an agreement."

Luis didn't lower the gun. "I mean it," he said.

"I know you mean it--I can't let you take away my life's work."

"Talk fast," Luis said, "and don't lie."

He stood close and listened while Putsyn told his story.

This is what had happened, he thought. This is what he'd tried so hard to learn.

"I had to do it that way," Putsyn finished. "But if you're willing to listen to reason, I can cut you in--more money than you've dreamed of--and the girl too, if you want her."

Luis was silent. He wanted her--but now the thought was foolish. Hopeless. This must be the way people felt who stood in the blast area of a rocket--but for them the sensation lasted only an instant, while for him the feeling would last the rest of his life.

"Get up," he said.

"Then it's all right?" asked Putsyn nervously. "We'll share it?"

"Get up."

Putsyn got to his feet, and Luis hit him. He could have used the freezer, but that wasn't personal enough.

He let the body fall to the floor.

He dragged the inert form into the waiting room and turned on the screen and talked to the police. Then he turned off the screen and kicked open the door to the hall. He shouldered Putsyn and carried him up to the roof and put him in the aircar.

Luise was there, puzzled and sleepy. For reasons of his own, Borgenese had sent a squad to bring her in. Might as well have her here and get it over with, Luis thought. She smiled at him, and he knew that Putsyn hadn't lied about that part. She remembered him and therefore Putsyn hadn't had time to do much damage.

Borgenese was at the desk as he walked in. Luis swung Putsyn off his shoulder and dropped him into a chair. The man was still unconscious, but wouldn't be for long.

"I see you brought a visitor," remarked Borgenese pleasantly.
"A customer," he said.
"Customers are welcome too," said the police counselor. "Of course, it's up to us to decide whether he is a customer."

Luise started to cross the room, but Borgenese motioned her back. "Let him alone. I think he's going to have a rough time."

"Yeah," said Luis.
It was nice to know that Luise liked him now--because she wouldn't after this was over.
He wiped the sweat off his forehead; all of it hadn't come from physical exertion.

"Putsyn here is a scientist," he said. "He worked out a machine that reverses the effects of the retro gun. He intended to go to everyone who'd been retrogressed, and in return for giving them back their memory, they'd sign over most of their property to him.

"Naturally, they'd agree. They all want to return to their former lives that bad, and, of course, they aren't aware of how much money they had. He had it all his way. He could use the machine to investigate them, and take only those who were really wealthy. He'd give them a partial recovery in the machine, and when he found out who they were, give them a quick shot of a built-in retro gun, taking them back to the time they'd just entered his office. They wouldn't suspect a thing.

"Those who measured up he'd sign an agreement with, and to the other poor devils he'd say that he was sorry but he couldn't help them."

Putsyn was conscious now. "It's not so," he said sullenly. "He can't prove it."

"I don't think he's trying to prove that," said Borgenese, still calm. "Let him talk."

Luis took a deep breath. "He might have gotten away with it, but he'd hired a laboratory assistant to help him perfect the machine. She didn't like his ideas; she thought a discovery like that should be given to the public. He didn't particularly care what she thought, but now the trouble was that she could build it too, and since he couldn't patent it and still keep it secret, she was a threat to his plans." He paused. "Her name was Luise Obispo."

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He didn't have to turn his head. From the corner of his eye, he could see startlement flash across her face. She'd got her name right; and it was he who had erred in choosing a name.

"Putsyn hired a criminal, Dorn Starret, to get rid of her for him," he said harshly. "That was the way Starret made his living. He was an expert at it.

"Starret slugged her one night on Mars. He didn't retro her at once. He loaded her on a spaceship and brought her to Earth. During the passage, he talked to her and got to like her a lot. She wasn't as developed as she is now, kind of mousy maybe, but you know how those things are—he liked her. He made love to her, but didn't get very far.

"He landed in another city on Earth and left his spaceship there; he drugged her and brought her to the Shelter here and retroed her. That's what he'd been paid to do.

"Then he decided to stick around. Maybe she'd change her mind after retrogression. He stayed in a Shelter just across from the one she was in. And he made a mistake. He hid the retro gun behind the screen.

"Putsyn came around to check up. He didn't like Starret staying there—a key word or a familiar face sometimes triggers the memory. He retroed Starret, who didn't have a gun he could get to in a hurry. Maybe Putsyn had planned to do it all along. He'd built up an airtight alibi when Luise disappeared, so that nobody would connect him with that—and who'd miss a criminal like Starret?

"Anyway, that was only part of it. He knew that people who've been retroed try to find out who they are, and that some of them succeed. He didn't want that to happen. So he put an advertisement in the paper that she'd see and answer. When she did, he began to use his machine on her, intending to take her from the present to the past and back again so often that her mind would refuse to accept anything, past or present.

"But he'd just started when Starret showed up, and he knew he had to get him too. So he pulled what looked like a deliberate slip and got Starret interested, intending to take care of both of them in the same way at the same time."

He leaned against the wall. It was over now and he knew what he could expect.

"That's all, but it didn't work out the way Putsyn wanted it. Starret was a guy who knew how to look after his own interests."

Except the biggest and most important one; there he'd failed.
Borgenese was tapping on the desk, but it wasn't really tapping—he was pushing buttons. A policeman came in and the counselor motioned to Putsyn: "Put him in the pre-trial cells."

"You can't prove it," said Putsyn. His face was sunken and frightened.

"I think we can," said the counselor indifferently. "You don't know the efficiency of our laboratories. You'll talk."
When Putsyn had been removed, Borgenese turned. "Very good work, Luis. I'm pleased with you. I think in

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time you'd make an excellent policeman. Retro detail, of course."

Luis stared at him.

"Didn't you listen?" he said. "I'm Dorn Starret, a cheap crook."

In that mental picture of Starret he'd had, he should have seen it at once. Left-handed? Not at all--that was the

way a man normally saw himself in a mirror. And in mirror images, the right hand becomes the left.

The counselor sat up straight, not gentle and easygoing any longer. "I'm afraid you can't prove that," he said.

"Fingerprints? Will any of Starret's past associates identify you? There's Putsyn, but he won't be around to testify."

He smiled. "As final evidence let me ask you this: when he offered you a share in his crooked scheme, did you

accept? You did not. Instead, you brought him in, though you thought you were heading into certain retrogression."

Luis blinked dazedly. "But--"

"There are no exceptions, Luis. For certain crimes there is a prescribed penalty, retrogression. The law makes

no distinction as to how the penalty is applied, and for a good reason. If there was such a person, Dorn Starret ceased
to exist when Putsyn retroed him--and not only legally."

Counselor Borgenese stood up. "You see, retroing a person wipes him clean of almost everything he ever

knew--right and wrong. It leaves him with an adult body, and we fill his mind with adult facts. Given half a chance,
he acts like an adult."

Borgenese walked slowly to stand in front of his desk. "We protect life. Everybody's life. Including those who
are not yet victims. We don't have the death penalty and don't want it. The most we can do to anyone is give him a
new chance, via retrogression. We have the same penalty for those who deprive another of his memory as we do for
those who kill--with this difference: the man who retrogresses another knows he has a good chance to get away with it.
The murderer is certain that he won't."

"That's an administrative rule, not a law--that we don't try to trace retrogression victims. It channels anger and
greed into non-destructive acts. There are a lot of unruly emotions floating around, and as long as there are, we have
to have a safety valve for them. Retrogression is the perfect instrument for that."

Luis tried to speak, but he waved her into silence.

"Do you know how many were killed last year?" he asked.

Luis shook his head.

"Four," said the counselor. "Four murders in a population of sixteen billion. That's quite a record, as anyone
knows who reads Twentieth Century mystery novels." He glanced humorously at Luis. "You did, didn't you?"

Luis nodded mutely.

Borgenese grinned. "I thought so. There are only three types of people who know about fingerprints today,
historians and policemen being two. And I didn't think you were either."

Luis finally broke in. "Won't Putsyn's machine change things?"

"Will it?" The counselor pretended to frown. "Do you remember how to build it?"

"I've forgotten," she confessed.

"So you have," said Borgenese. "And I assure you Putsyn is going to forget too. As a convicted criminal, and
he will be, we'll provide him with a false memory that will prevent his prying into the past."

"That's one machine we don't want until humans are fully and completely civilized. It's been invented a dozen
times in the last century, and it always gets lost."

He closed his eyes momentarily, and when he opened them, Luis was looking at Luis, who was staring at the

floor.

"You two can go now," he said. "When you get ready, there are jobs for both of you in my department. No

hurry, though; we'll keep them open."

Luis left, went out through the long corridors and into the night.

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She caught up with him when he was getting off the belt that had taken him back to the Shelters.

"There's not much you can say, I suppose," she murmured. "What can you tell a girl when she learns you've

stopped just short of killing her?"

He didn't know the answer either.

They walked in silence.

She stopped at her dwelling, but didn't go in. "Still, it's an indication of how you felt--that you forgot your own

name and took mine." She was smiling now. "I don't see how I can do less for you."

Hope stirred and he moved closer. But he didn't speak. She might not mean what he thought she did.

"Luis and Luise Obispo," she said softly. "Very little change for me--just add Mrs. to it." She was gazing at him
with familiar intensity. "Do you want to come in?"

She opened the door.

Crime was sometimes the road to opportunity, and retrogression could be kind.
"Nothing around those other suns but ashes and dried blood," old Dunbar told the space-wrecked, desperate men. "Only one way to go, where we can float down through the clouds to Paradise. That's straight ahead to the sun with the red rim around it."

But Dunbar's eyes were old and uncertain. How could they believe in his choice when every star in this forsaken section of space was surrounded by a beckoning red rim?

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There was just blackness, frosty glimmering terrible blackness, going out and out forever in all directions. Russell didn't think they could remain sane in all this blackness much longer. Bitterly he thought of how they would die--not knowing within maybe thousands of light years where they were, or where they were going.

After the wreck, the four of them had floated a while, floated and drifted together, four men in bulbous pressure suits like small individual rockets, held together by an awful pressing need for each other and by the "gravity-rope" beam.

Dunbar, the oldest of the four, an old space-buster with a face wrinkled like a dried prune, burned by cosmic rays and the suns of worlds so far away they were scarcely credible, had taken command. Suddenly, Old Dunbar had known where they were. Suddenly, Dunbar knew where they were going.

They could talk to one another through the etheric transmitters inside their helmets. They could live ... if this was living ... a long time, if only a man's brain would hold up, Russell thought. The suits were complete units. 700 pounds each, all enclosing shelters, with atmosphere pressure, temperature control, mobility in space, and electric power. Each suit had its own power-plant, reprocessing continuously the precious air breathed by the occupants, putting it back into circulation again after enriching it. Packed with food concentrates. Each suit a rocket, each human being part of a rocket, and the special "life-gun" that went with each suit each blast of which sent a man a few hundred thousand miles further on toward wherever he was going.

Four men, thought Russell, held together by an invisible string of gravity, plunging through a lost pocket of hell's dark where there had never been any sound or life, with old Dunbar the first in line, taking the lead because he was older and knew where he was and where he was going. Maybe Johnson, second in line, and Alvar who was third, knew too, but were afraid to admit it.

But Russell knew it and he'd admitted it from the first--that old Dunbar was as crazy as a Jovian juke-bird.

A lot of time had rushed past into darkness. Russell had no idea now how long the four of them had been plunging toward the red-rimmed sun that never seemed to get any nearer. When the ultra-drive had gone crazy the four of them had blanked out and nobody could say now how long an interim that had been. Nobody knew what happened to a man who suffered a space-time warping like that. When they had regained consciousness, the ship was pretty banged up, and the meteor-repeller shields cracked. A meteor ripped the ship down the center like an old breakfast cannister.

How long ago that had been, Russell didn't know. All Russell knew was that they were millions of light years from any place he had ever heard about, where the galactic space lanterns had absolutely no recognizable pattern. But Dunbar knew. And Russell was looking at Dunbar's suit up ahead, watching it more and more intently, thinking about how Dunbar looked inside that suit--and hating Dunbar more and more for claiming he knew when he didn't, for his drooling optimism--because he was taking them on into deeper darkness and calling their destination Paradise.

Russell wanted to laugh, but the last time he'd given way to this impulse, the results inside his helmet had been too unpleasant to repeat.

Sometimes Russell thought of other things besides his growing hatred of the old man. Sometimes he thought about the ship, lost back there in the void, and he wondered if wrecked space ships were ever found. Compared with the universe in which one of them drifted, a wrecked ship was a lot smaller than a grain of sand on a nice warm beach back on Earth, or one of those specks of silver dust that floated like strange seeds down the night winds of Venus.

And a human was smaller still, thought Russell when he was not hating Dunbar. Out here, a human being is the smallest thing of all. He thought then of what Dunbar would say to such a thought, how Dunbar would laugh that
high piping squawking laugh of his and say that the human being was bigger than the Universe itself. Dunbar had a big answer for every little thing.

When the four of them had escaped from that prison colony on a sizzling hot asteroid rock in the Ronlwhyn system, that wasn't enough for Dunbar. Hell no--Dunbar had to start talking about a place they could go where they'd never be apprehended, in a system no one else had ever heard of, where they could live like gods on a green soft world like the Earth had been a long time back.

And Dunbar had spouted endlessly about a world of treasure they would find, if they would just follow old Dunbar. That's what all four of them had been trying to find all their lives in the big cold grabbag of eternity--a rich star, a rich far fertile star where no one else had ever been, loaded with treasure that had no name, that no one had ever heard of before. And was, because of that, the richest treasure of all.

We all look alike out here in these big rocket pressure suits, Russell thought. No one for God only knew how many of millions of light years away could see or care. Still--we might have a chance to live, even now, Russell thought--if it weren't for old crazy Dunbar.

They might have a chance if Alvar and Johnson weren't so damn lacking in self-confidence as to put all their trust in that crazed old rum-dum. Russell had known now for some time that they were going in the wrong direction. No reason for knowing. Just a hunch. And Russell was sure his hunch was right.

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Russell said. "Look--look to your left and to your right and behind us. Four suns. You guys see those other three suns all around you, don't you?"

"Sure," someone said.

"Well, if you'll notice," Russell said, "the one on the left also now has a red rim around it. Can't you guys see that?"

"Yeah, I see it," Alvar said.

"So now," Johnson said, "there's two suns with red rims around them."

"We're about in the middle of those four suns aren't we, Dunbar?" Russell said.

"That's right, boys!" yelled old Dunbar in that sickeningly optimistic voice. Like a hysterical old woman's. "Just about in the sweet dark old middle."

"You're still sure it's the sun up ahead ... that's the only one with life on it, Dunbar ... the only one we can live on?" Russell asked.

"That's right! That's right," Dunbar yelled. "That's the only one--and it's a paradise. Not just a place to live, boys--but a place you'll have trouble believing in because it's like a dream!"

"And none of these other three suns have worlds we could live on, Dunbar?" Russell asked. Keep the old duck talking like this and maybe Alvar and Johnson would see that he was cracked.

"Yeah," said Alvar. "You still say that, Dunbar?"

"No life, boys, nothing," Dunbar laughed. "Nothing on these other worlds but ashes ... just ashes and iron and dried blood, dried a million years or more."

"When in hell were you ever here?" Johnson said. "You say you were here before. You never said when, or why or anything!"

"It was a long time back boys. Don't remember too well, but it was when we had an old ship called the DOG STAR that I was here. A pirate ship and I was second in command, and we came through this sector. That was--hell, it musta been fifty years ago. I been too many places nobody's ever bothered to name or chart, to remember where it is, but I been here. I remember those four suns all spotted to form a perfect circle from this point, with us squarely in the middle. We explored all these suns and the worlds that go round 'em. Trust me, boys, and we'll reach the right one. And that one's just like Paradise."

"Paradise is it," Russell whispered hoarsely.

"Paradise and there we'll be like gods, like Mercuries with wings flying on nights of sweet song. These other suns, don't let them bother you. They're Jezebels of stars. All painted up in the darkness and pretty and waiting and calling and lying! They make you think of nice green worlds all running waters and dews and forests thick as fleas on a wet dog. But it ain't there, boys. I know this place. I been here, long time back."

Russell said tightly. "It'll take us a long time won't it? If it's got air we can breath, and water we can drink and shade we can rest in--that'll be paradise enough for us. But it'll take a long time won't it? And what if it isn't there--what if after all the time we spend hoping and getting there--there won't be nothing but ashes and cracked clay?"

"I know we're going right," Dunbar said cheerfully. "I can tell. Like I said--you can tell it because of the red rim around it."

"But the sun on our left, you can see--it's got a red rim too now," Russell said.

"Yeah, that's right," said Alvar. "Sometimes I see a red rim around the one we're going for, sometimes a red rim
around that one on the left. Now, sometimes I'm not sure either of them's got a red rim. You said that one had a red
rim, Dunbar, and I wanted to believe it. So now maybe we're all seeing a red rim that was never there."

Old Dunbar laughed. The sound brought blood hotly to Russell's face. "We're heading to the right one, boys. Don't
doubt me ... I been here. We explored all these sun systems. And I remember it all. The second planet from
that red-rimmed sun. You come down through a soft atmosphere, floating like in a dream. You see the green lakes
coming up through the clouds and the women dancing and the music playing. I remember seeing a ship there that
brought those women there, a long long time before ever I got there. A land like heaven and women like angels
singing and dancing and laughing with red lips and arms white as milk, and soft silky hair floating in the winds."

Russell was very sick of the old man's voice. He was at least glad he didn't have to look at the old man now.
His bald head, his skinny bobbing neck, his simpering watery blue eyes. But he still had to suffer that immutable
babbling, that idiotic cheerfulness ... and knowing all the time the old man was crazy, that he was leading them
wrong.

I'd break away, go it alone to the right sun, Russell thought--but I'd never make it alone. A little while out here
alone and I'd be nuttier than old Dunbar will ever be, even if he keeps on getting nuttier all the time.

Somewhere, sometime then ... Russell got the idea that the only way was to get rid of Dunbar.

"You mean to tell us there are people living by that red-rimmed sun," Russell said.

"Lost people ... lost ... who knows how long," Dunbar said, as the four of them hurtled along. "You never know
where you'll find people on a world somewhere nobody's ever named or knows about. Places where a lost ship's
landed and never got up again, or wrecked itself so far off the lanes they'll never be found except by accident for
millions of years. That's what this world is, boys. Must have been a ship load of beautiful people, maybe actresses
and people like that being hauled to some outpost to entertain. They're like angels now, living in a land all free from
care. Every place you see green forests and fields and blue lakes, and at nights there's three moons that come around
the sky in a thousand different colors. And it never gets cold ... it's always spring, always spring, boys, and the music
plays all night, every night of a long long year...."

Russell suddenly shouted. "Keep quiet, Dunbar. Shut up will you?"

Johnson said. "Dunbar--how long'll it take us?"

"Six months to a year, I'd say," Dunbar yelled happily. "That is--of our hereditary time."

"What?" croaked Alvar.

Johnson didn't say anything at all.

Russell screamed at Dunbar, then quieted down. He whispered. "Six months to a year--out here--cooped up in
these damn suits. You're crazy as hell, Dunbar. Crazy ... crazy! Nobody could stand it. We'll all be crazier than you
are--"

"We'll make it, boys. Trust ole' Dunbar. What's a year when we know we're getting to Paradise at the end of it?
What's a year out here ... it's paradise ain't it, compared with that prison hole we were rotting in? We can make it.
We have the food concentrates, and all the rest. All we need's the will, boys, and we got that. The whole damn
Universe isn't big enough to kill the will of a human being, boys. I been over a whole lot of it, and I know. In the old
days--"

"The hell with the old days," screamed Russell.

"Now quiet down, Russ," Dunbar said in a kind of dreadful crooning whisper. "You calm down now. You
younger fellows--you don't look at things the way we used to. Thing is, we got to go straight. People trapped like
this liable to start meandering. Liable to start losing the old will-power."

He chuckled.

"Yeah," said Alvar. "Someone says maybe we ought to go left, and someone says to go right, and someone else
says to go in another direction. And then someone says maybe they'd better go back the old way. An' pretty soon
something breaks, or the food runs out, and you're a million million miles from someplace you don't care about any
more because you're dead. All frozen up in space ... preserved like a piece of meat in a cold storage locker. And then
maybe in a million years or so some lousy insect man from Jupiter comes along and finds you and takes you away to
a museum...."

"Shut up!" Johnson yelled.

Dunbar laughed. "Boys, boys, don't get panicky. Keep your heads. Just stick to old Dunbar and he'll see you
through. I'm always lucky. Only one way to go ... an' that's straight ahead to the sun with the red-rim around it ... and
then we tune in the gravity repellers, and coast down, floating and singing down through the clouds to paradise."

After that they traveled on for what seemed months to Russell, but it couldn't have been over a day or two of
the kind of time-sense he had inherited from Earth.

Then he saw how the other two stars also were beginning to develop red rims. He yelled this fact out to the
others. And Alvar said, "Russ's right. That sun to the right, and the one behind us ... now they ALL have red rims around them. Dunbar---" A pause and no awareness of motion.

Dunbar laughed. "Sure, they all maybe have a touch of red, but it isn't the same, boys. I can tell the difference. Trust me--"

Russell half choked on his words. "You old goat! With those old eyes of yours, you couldn't see your way into a fire!"

"Don't get panicky now. Keep your heads. In another year, we'll be there--"

"God, you gotta' be sure," Alvar said. "I don't mind dyin' out here. But after a year of this, and then to get to a world that was only ashes, and not able to go any further--"

"I always come through, boys. I'm lucky. Angel women will take us to their houses on the edges of cool lakes, little houses that sit there in the sun like fancy jewels. And we'll walk under colored fountains, pretty colored fountains just splashing and splashing like pretty rain on our hungry hides. That's worth waiting for."

Russell did it before he hardly realized he was killing the old man. It was something he had had to do for a long time and that made it easy. There was a flash of burning oxygen from inside the suit of Dunbar. If he'd aimed right, Russell knew the fire-bullet should have pierced Dunbar's back. Now the fire was gone, extinguished automatically by units inside the suit. The suit was still inflated, self-sealing. Nothing appeared to have changed. The four of them hurtling on together, but inside that first suit up there on the front of the gravity rope, Dunbar was dead.

He was dead and his mouth was shut for good.

Dunbar's last faint cry from inside his suit still rang in Russell's ears, and he knew Alvar and Johnson had heard it too. Alvar and Johnson both called Dunbar's name a few times. There was no answer.

"Russ--you shouldn't have done that," Johnson whispered. "You shouldn't have done that to the old man!"

"No," Alvar said, so low he could barely be heard. "You shouldn't have done it."

"I did it for the three of us," Russell said. "It was either him or us. Lies ... lies that was all he had left in his crazy head. Paradise ... don't tell me you guys don't see the red rims around all four suns, all four suns all around us. Don't tell me you guys didn't know he was batty, that you really believed all that stuff he was spouting all the time!"

"Maybe he was lying, maybe not," Johnson said. "Now he's dead anyway."

"Maybe he was wrong, crazy, full of lies," Alvar said. "But now he's dead."

"How could he see any difference in those four stars?" Russell said, louder.

"He thought he was right," Alvar said. "He wanted to take us to paradise. He was happy, nothing could stop the old man--but he's dead now."

He sighed.

"He was taking us wrong ... wrong!" Russell screamed. "Angels--music all night--houses like jewels--and women like angels--"

"Shhh," said Alvar. It was quiet. How could it be so quiet, Russell thought? And up ahead the old man's pressure suit with a corpse inside went on ahead, leading the other three at the front of the gravity-rope.

"Maybe he was wrong," Alvar said. "But now do we know which way is right?"

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Sometime later, Johnson said, "We got to decide now. Let's forget the old man. Let's forget him and all that's gone and let's start now and decide what to do."

And Alvar said, "Guess he was crazy all right, and I guess we trusted him because we didn't have the strength to make up our own minds. Why does a crazy man's laugh sound so good when you're desperate and don't know what to do?"

"I always had a feeling we were going wrong," Johnson said. "Anyway, it's forgotten, Russ. It's swallowed up in the darkness all around. It's never been."

Russell said, 'I've had a hunch all along that maybe the old man was here before, and that he was right about there being a star here with a world we can live on. But I've known we was heading wrong. I've had a hunch all along that the right star was the one to the left."

"I don't know," Johnson sighed. "I been feeling partial toward that one on the right. What about you, Alvar?"

"I always thought we were going straight in the opposite direction from what we should, I guess. I always wanted to turn around and go back. It won't make over maybe a month's difference. And what does a month matter anyway out here--hell there never was any time out here until we came along. We make our own time here, and a month don't matter to me."

Sweat ran down Russell's face. His voice trembled. "No--that's wrong. You're both wrong."

"How can we tell which of us is right?" Alvar said. "It's like everything was changing all the time out here.
Sometimes I'd swear none of those suns had red rims, and at other times--like the old man said, they're all pretty and lying and saying nothing, just changing all the time. Jezebel stars, the old man said."

"I know I'm right," Russell pleaded. "My hunches always been right. My hunch got us out of that prison didn't it? Listen--I tell you it's that star to the left--"

"The one to the right," said Johnson.

"We been going away from the right one all the time," said Alvar.

"We got to stay together," said Russell. "Nobody could spend a year out here ... alone...."

"Ah ... in another month or so we'd be lousy company anyway," Alvar said. "Maybe a guy could get to the point where he'd sleep most of the time ... just wake up enough times to give himself another boost with the old life-gun."

"We got to face it," Johnson said finally. "We three don't go on together any more."

"That's it," said Alvar. "There's three suns that look like they might be right seeing as how we all agree the old man was wrong. But we believe there is one we can live by, because we all seem to agree that the old man might have been right about that. If we stick together, the chance is three to one against us. But if each of us makes for one star, one of us has a chance to live. Maybe not in paradise like the old man said, but a place where we can live. And maybe there'll be intelligent life, maybe even a ship, and whoever gets the right star can come and help the other two...."

"No ... God no...." Russell whispered over and over. "None of us can ever make it alone...."

Alvar said, "We each take the star he likes best. I'll go back the other way. Russ, you take the left. And you, Johnson, go to the right."

Johnson started to laugh. Russell was yelling wildly at them, and above his own yelling he could hear Johnson's rising laughter. "Every guy's got a star of his own," Johnson said when he stopped laughing. "And we got ours. A nice red-rimmed sun for each of us to call his very own."

"Okay," Alvar said. "We cut off the gravity rope, and each to his own sun."

Now Russell wasn't saying anything.

"And the old man," Alvar said, "can keep right on going toward what he thought was right. And he'll keep on going. Course he won't be able to give himself another boost with the life-gun, but he'll keep going. Someday he'll get to that red-rimmed star of his. Out here in space, once you're going, you never stop .... and I guess there isn't any other body to pull him off his course. And what will time matter to old Dunbar? Even less than to us, I guess. He's dead and he won't care."

"Ready," Johnson said. "I'll cut off the gravity rope."

"I'm ready," Alvar said. "To go back toward whatever it was I started from."

"Ready, Russ?"

Russell couldn't say anything. He stared at the endless void which now he would share with no one. Not even crazy old Dunbar.

"All right," Johnson said. "Good-bye."

Russell felt the release, felt the sudden inexplicable isolation and aloneness even before Alvar and Johnson used their life-guns and shot out of sight, Johnson toward the left and Alvar back toward that other red-rimmed sun behind them.

And old Dunbar shooting right on ahead. And all three of them dwindling and dwindling and blinking out like little lights.

Fading, he could hear their voices. "Each to his own star," Johnson said. "On a bee line."

"On a bee line," Alvar said.

Russell used his own life-gun and in a little while he didn't hear Alvar or Johnson's voices, nor could he see them. They were thousands of miles away, and going further all the time.

Russell's head fell forward against the front of his helmet, and he closed his eyes. "Maybe," he thought, "I shouldn't have killed the old man. Maybe one sun's as good as another...."

Then he raised his body and looked out into the year of blackness that waited for him, stretching away to the red-rimmed sun. Even if he were right--he was sure now he'd never make it alone.

* * * * *

The body inside the pressure suit drifted into a low-level orbit around the second planet from the sun of its choice, and drifted there a long time. A strato-cruiser detected it by chance because of the strong concentration of radio-activity that came from it.

They took the body down to one of the small, quiet towns on the edge of one of the many blue lakes where the domed houses were like bright joyful jewels. They got the leathery, well-preserved body from the pressure suit.

"An old man," one of them mused. "A very old man. From one of the lost sectors. I wonder how and why he
came so very far from his home?"

"Wrecked a ship out there, probably," one of the others said. "But he managed to get this far. It looks as though a small meteor fragment pierced his body. Here. You see?"

"Yes," another of them said. "But what amazes me is that this old man picked this planet out of all the others. The only one in this entire sector that would sustain life."

"Maybe he was just a very lucky old man. Yes ... a man who attains such an age was usually lucky. Or at least that is what they say about the lost sectors."

"Maybe he knew the way here. Maybe he was here before--sometime."

The other shook his head. "I don't think so. They say some humans from that far sector did land here--but that's probably only a myth. And if they did, it was well over a thousand years ago."

Another said. "He has a fine face, this old man. A noble face. Whoever he is ... wherever he came from, he died bravely and he knew the way, though he never reached this haven of the lost alive."

"Nor is it irony that he reached here dead," said the Lake Chieftain. He had been listening and he stepped forward and raised his arm. "He was old. It is obvious that he fought bravely, that he had great courage, and that he knew the way. He will be given a burial suitable to his stature, and he will rest here among the brave."

"Let the women dance and the music play for this old man. Let the trumpets speak, and the rockets fly up. And let flowers be strewn over the path above which the women will carry him to rest."

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**The Worlds of IF**

By Stanley G. Weinbaum

I stopped on the way to the Staten Island Airport to call up, and that was a mistake, doubtless, since I had a chance of making it otherwise. But the office was affable. "We'll hold the ship five minutes for you," the clerk said. "That's the best we can do."

So I rushed back to my taxi and we spun off to the third level and sped across the Staten bridge like a comet treading a steel rainbow. I had to be in Moscow by evening, by eight o'clock, in fact, for the opening of bids on the Ural Tunnel. The Government required the personal presence of an agent of each bidder, but the firm should have known better than to send me, Dixon Wells, even though the N. J. Wells Corporation is, so to speak, my father. I have a--well, an undeserved reputation for being late to everything; something always comes up to prevent me from getting anywhere on time. It's never my fault; this time it was a chance encounter with my old physics professor, old Haskel von Manderpootz. I couldn't very well just say hello and good-bye to him; I'd been a favorite of his back in the college days of 2014.

I missed the airliner, of course. I was still on the Staten Bridge when I heard the roar of the catapult and the Soviet rocket Baikal hummed over us like a tracer bullet with a long tail of flame.

We got the contract anyway; the firm wired our man in Beirut and he flew up to Moscow, but it didn't help my reputation. However, I felt a great deal better when I saw the evening papers; the Baikal, flying at the north edge of the eastbound lane to avoid a storm, had locked wings with a British fruitship and all but a hundred of her five hundred passengers were lost. I had almost become "the late Mr. Wells" in a grimmer sense.

I'd made an engagement for the following week with old van Manderpootz. It seems he'd transferred to N.Y.U. as head of the department of Newer Physics--that is, of Relativity. He deserved it; the old chap was a genius if ever there was one, and even now, eight years out of college, I remember more from his course than from half a dozen calculus, steam and gas, mechanics, and other hazards on the path to an engineer's education. So on Tuesday night I dropped in an hour or so late, to tell the truth, since I'd forgotten about the engagement until mid-evening.

He was reading in a room as disorderly as ever. "Humph!" he grunted. "Time changes everything but habit, I see. You were a good student, Dick, but I seem to recall that you always arrived in class toward the middle of the lecture."

"I had a course in East Hall just before," I explained. "I couldn't seem to make it in time."

"Well, it's time you learned to be on time," he growled. Then his eyes twinkled. "Time!" he ejaculated. "The most fascinating word in the language. Here we've used it five times (there goes the sixth time--and the seventh!) in the first minute of conversation; each of us understands the other, yet science is just beginning to learn its meaning. Science? I mean that I am beginning to learn."

I sat down. "You and science are synonymous," I grinned. "Aren't you one of the world's outstanding
"physicists?"

"One of them!" he snorted. "One of them, eh! And who are the others?"

"Oh, Corveille and Hastings and Shrimski--"

"Bah! Would you mention them in the same breath with the name of van Manderpootz? A pack of jackals, eating the crumbs of ideas that drop from my feast of thoughts! Had you gone back into the last century, now--had you mentioned Einstein and de Sitter--there, perhaps, are names worthy to rank with (or just below) van Manderpootz!"

I grinned again in amusement. "Einstein was considered pretty good, wasn't he?" I remarked. "After all, he was the first to tie time and space to the laboratory. Before him they were just philosophical concepts."

"He didn't!" rasped the professor. "Perhaps, in a dim, primitive fashion, he showed the way, but I--I, van Manderpootz--am the first to seize time, drag it into my laboratory, and perform an experiment on it."

"Indeed? And what sort of experiment?"

"What experiment, other than simple measurement, is it possible to perform?" he snapped.

"Why--I don't know. To travel in it?"

"Exactly."

"Like these time-machines that are so popular in the current magazines? To go into the future or the past?"

"Bah! Many bahs! The future or the past--pfui! It needs no van Manderpootz to see the fallacy in that. Einstein showed us that much."

"How? It's conceivable, isn't it?"

"Conceivable? And you, Dixon Wells, studied under van Manderpootz!" He grew red with emotion, then grimly calm. "Listen to me. You know how time varies with the speed of a system--Einstein's relativity."

"Yes."

"Very well. Now suppose then that the great engineer Dixon Wells invents a machine capable of traveling very fast, enormously fast, nine-tenths as fast as light. Do you follow? Good. You then fuel this miracle ship for a little jaunt of a half million miles, which, since mass (and with it inertia) increases according to the Einstein formula with increasing speed, takes all the fuel in the world. But you solve that. You use atomic energy. Then, since at ninetenths light-speed, your ship weighs about as much as the sun, you disintegrate North America to give you sufficient motive power. You start off at that speed, a hundred and sixty-eight thousand miles per second, and you travel for two hundred and four thousand miles. The acceleration has now crushed you to death, but you have penetrated the future." He paused, grinning sardonically. "Haven't you?"

"Yes."

"And how far?"

I hesitated.

"Use your Einstein formula!" he screeched. "How far? I'll tell you. One second!" He grinned triumphantly. "That's how possible it is to travel into the future. And as for the past--in the first place, you'd have to exceed light-speed, which immediately entails the use of more than an infinite number of horsepowers. We'll assume that the great engineer Dixon Wells solves that little problem too, even though the energy out-put of the whole universe is not an infinite number of horsepowers. Then he applies this more than infinite power to travel at two hundred and four thousand miles per second for ten seconds. He has then penetrated the past. How far?"

Again I hesitated.

"I'll tell you. One second!" He glared at me. "Now all you have to do is to design such a machine, and then van Manderpootz will admit the possibility of traveling into the future--for a limited number of seconds. As for the past, I have just explained that all the energy in the universe is insufficient for that."

"But," I stammered, "you just said that you--"

"I did not say anything about traveling into either future or past, which I have just demonstrated to you to be impossible--a practical impossibility in the one case and an absolute one in the other."

"Then how do you travel in time?"

"Not even van Manderpootz can perform the impossible," said the professor, now faintly jovial. He tapped a thick pad of typewriter paper on the table beside him. "See, Dick, this is the world, the universe." He swept a finger down it. "It is long in time, and--sweeping his hand across it--"it is broad in space, but"--now jabbing his finger against its center--"it is very thin in the fourth dimension. Van Manderpootz takes always the shortest, the most logical course. I do not travel along time, into past or future. No. Me, I travel across time, sideways!"

I gulped. "Sideways into time! What's there?"

"What would naturally be there?" he snorted. "Ahead is the future; behind is the past. Those are real, the worlds of past and future. What worlds are neither past nor future, but contemporary and yet--extemporal--existing, as it were, in time parallel to our time?"
I shook my head.

"Idiot!" he snapped. "The conditional worlds, of course! The worlds of 'if.' Ahead are the worlds to be; behind
are the worlds that were; to either side are the worlds that might have been--the worlds of 'if!"

"Eh?" I was puzzled. "Do you mean that you can see what will happen if I do such and such?"

"No!" he snorted. "My machine does not reveal the past nor predict the future. It will show, as I told you, the
conditional worlds. You might express it, by 'if I had done such and such, so and so would have happened.' The
worlds of the subjunctive mode."

"Now how the devil does it do that?"

"Simple, for van Manderpootz! I use polarized light, polarized not in the horizontal or vertical planes, but in the
direction of the fourth dimension—an easy matter. One uses Iceland spar under colossal pressures, that is all. And
since the worlds are very thin in the direction of the fourth dimension, the thickness of a single light wave, though it
be but millionths of an inch, is sufficient. A considerable improvement over time-traveling in past or future, with its
impossible velocities and ridiculous distances!"

"But--are those--worlds of 'if'--real?"

"Real? What is real? They are real, perhaps, in the sense that two is a real number as opposed to [sq]-2, which
is imaginary. They are the worlds that would have been if-- Do you see?"

I nodded. "Dimly. You could see, for instance, what New York would have been like if England had won the
Revolution instead of the Colonies."

"That's the principle, true enough, but you couldn't see that on the machine. Part of it, you see, is a Horsten
psychomat (stolen from one of my ideas, by the way) and you, the user, become part of the device. Your own mind
is necessary to furnish the background. For instance, if George Washington could have used the mechanism after the
signing of peace, he could have seen what you suggest. We can't. You can't even see what would have happened if I
hadn't invented the thing, but I can. Do you understand?"

"Of course. You mean the background has to rest in the past experiences of the user."

"You're growing brilliant," he scoffed. "Yes. The device will show ten hours of what would have happened if--
condensed, of course, as in a movie, to half an hour's actual time."

"Say, that sounds interesting!"

"You'd like to see it? Is there anything you'd like to find out? Any choice you'd alter?"

"I'll say--a thousand of 'em. I'd like to know what would have happened if I'd sold out my stocks in 2009
instead of '10. I was a millionaire in my own right then, but I was a little--well, a little late in liquidating."

"As usual," remarked van Manderpootz. "Let's go over to the laboratory then."

The professor's quarters were but a block from the campus. He ushered me into the Physics Building, and
thence into his own research laboratory, much like the one I had visited during my courses under him. The device--
he called it his "subjunctivisor," since it operated in hypothetical worlds--occupied the entire center table. Most of it
was merely a Horsten psychomat, but glittering crystalline and glassy was the prism of Iceland spar, the polarizing
agent that was the heart of the instrument.

Van Manderpootz pointed to the headpiece. "Put it on," he said, and I sat staring at the screen of the psychomat.
I suppose everyone is familiar with the Horsten psychomat; it was as much a fad a few years ago as the ouija board a
century back. Yet it isn't just a toy; sometimes, much as the ouija board, it's a real aid to memory. A maze of vague
and colored shadows is caused to drift slowly across the screen, and one watches them, meanwhile visualizing
whatever scene or circumstances he is trying to remember. He turns a knob that alters the arrangement of lights and
shadows, and when, by chance, the design corresponds to his mental picture--presto! There is his scene re-created
under his eyes. Of course his own mind adds the details. All the screen actually shows are these tinted blobs of light
and shadow, but the thing can be amazingly real. I've seen occasions when I could have sworn the psychomat
showed pictures almost as sharp and detailed as reality itself; the illusion is sometimes as startling as that.

Van Manderpootz switched on the light, and the play of shadows began. "Now recall the circumstances of, say,
a half-year after the market crash. Turn the knob until the picture clears, then stop. At that point I direct the light of
the subjunctivisor upon the screen, and you have nothing to do but watch."

I did as directed. Momentary pictures formed and vanished. The inchoate sounds of the device hummed like
distant voices, but without the added suggestion of the picture, they meant nothing. My own face flashed and
dissolved and then, finally, I had it. There was a picture of myself sitting in an ill-defined room; that was all. I
released the knob and gestured.

A click followed. The light dimmed, then brightened. The picture cleared, and amazingly, another figure
emerged, a woman. I recognized her; it was Whimsy White, erstwhile star of television and premiere of the "Vision
Varieties of '09." She was changed on that picture, but I recognized her.

I'll say I did! I'd been trailing her all through the boom years of '07 to '10, trying to marry her, while old N. J.
raved and ranted and threatened to leave everything to the Society for Rehabilitation of the Gobi Desert. I think those threats were what kept her from accepting me, but after I took my own money and ran it up to a couple of million in that crazy market of '08 and '09, she softened.

Temporarily, that is. When the crash of the spring of '10 came and bounced me back on my father and into the firm of N. J. Wells, her favor dropped a dozen points to the market's one. In February we were engaged, in April we were hardly speaking. In May they sold me out. I'd been late again.

And now, there she was on the psychomat screen, obviously plumping out, and not nearly so pretty as memory had pictured her. She was staring at me with an expression of enmity, and I was glaring back. The buzzes became voices.

"You nit-wit!" she snapped. "You can't bury me out here. I want to go back to New York, where there's a little life. I'm bored with you and your golf."

"And I'm bored with you and your whole dizzy crowd."

"At least they're alive. You're a walking corpse. Just because you were lucky enough to gamble yourself into the money, you think you're a tin god."

"Well, I don't think you're Cleopatra! Those friends of yours--they trail after you because you give parties and spend money--my money."

"Better than spending it to knock a white walnut along a mountainside!"

"Indeed? You ought to try it, Marie." (That was her real name.) "It might help your figure--though I doubt if anything could!"

She glared in rage and--well, that was a painful half hour. I won't give all the details, but I was glad when the screen dissolved into meaningless colored clouds.

"Whew!" I said, staring at Van Manderpootz, who had been reading.

"You liked it?"

"Liked it! Say, I guess I was lucky to be cleaned out. I won't regret it from now on."

"That," said the professor grandly, "is van Manderpootz's great contribution to human happiness. 'Of all sad words of tongue or pen, the saddest are these: It might have been!' True no longer, my friend Dick. Van Manderpootz has shown that the proper reading is, 'It might have been--worse!'"

* * * * *

It was very late when I returned home, and as a result, very late when I rose, and equally late when I got to the office. My father was unnecessarily worked up about it, but he exaggerated when he said I'd never been on time. He forgets the occasions when he's awakened me and dragged me down with him. Nor was it necessary to refer so sarcastically to my missing the Baikal; I reminded him of the wrecking of the liner, and he responded very heartlessly that if I'd been aboard, the rocket would have been late, and so would have missed colliding with the British fruitship. It was likewise superfluous for him to mention that when he and I had tried to snatch a few weeks of golfing in the mountains, even the spring had been late. I had nothing to do with that.

"Dixon," he concluded, "you have no conception whatever of time. None whatever."

The conversation with van Manderpootz recurred to me. I was impelled to ask, "And have you, sir?"

"I have," he said grimly. "I most assuredly have. Time," he said oracularly, "is money."

You can't argue with a viewpoint like that.

But those aspersions of his rankled, especially that about the Baikal. Tardy I might be, but it was hardly conceivable that my presence aboard the rocket could have averted the catastrophe. It irritated me; in a way, it made me responsible for the deaths of those unrescued hundreds among the passengers and crew, and I didn't like the thought.

Of course, if they'd waited an extra five minutes for me, or if I'd been on time and they'd left on schedule instead of five minutes late, or if--if!

If! The word called up van Manderpootz and his subjunctivisor--the worlds of "if," the weird, unreal worlds that existed beside reality, neither past nor future, but contemporary, yet extemporal. Somewhere among their ghostly infinities existed one that represented the world that would have been had I made the liner. I had only to call up Haskel van Manderpootz, make an appointment, and then--find out.

Yet it wasn't an easy decision. Suppose--just suppose that I found myself responsible--not legally responsible, certainly; there'd be no question of criminal negligence, or anything of that sort--not even morally responsible, because I couldn't possibly have anticipated that my presence or absence could weigh so heavily in the scales of life and death, nor could I have known in which direction the scales would tip. Just--responsible; that was all. Yet I hated to find out.

I hated equally not finding out. Uncertainty has its pangs too, quite as painful as those of remorse. It might be less nerve-racking to know myself responsible than to wonder, to waste thoughts in vain doubts and futile
reproaches. So I seized the visiphone, dialed the number of the University, and at length gazed on the broad, humorous, intelligent features of van Manderpootz, dragged from a morning lecture by my call.

* * * * *

I was all but prompt for the appointment the following evening, and might actually have been on time but for an unreasonable traffic officer who insisted on booking me for speeding. At any rate, van Manderpootz was impressed.

"Well!" he rumbled. "I almost missed you, Dixon. I was just going over to the club, since I didn't expect you for an hour. You're only ten minutes late."

I ignored this. "Professor, I want to use your--uh--your subjunctivisor."

"Eh? Oh, yes. You're lucky, then. I was just about to dismantle it."

"Dismantle it! Why?"

"It has served its purpose. It has given birth to an idea far more important than itself. I shall need the space it occupies."

"But what is the idea, if it's not too presumptuous of me to ask?"

"It is not too presumptuous. You and the world which awaits it so eagerly may both know, but you hear it from the lips of the author. It is nothing less than the autobiography of van Manderpootz!" He paused impressively.

I gaped. "Your autobiography?"

"Yes. The world, though perhaps unaware, is crying for it. I shall detail my life, my work. I shall reveal myself as the man responsible for the three years' duration of the Pacific War of 2004."

"You?"

"None other. Had I not been a loyal Netherlands subject at that time, and therefore neutral, the forces of Asia would have been crushed in three months instead of three years. The subjunctivisor tells me so; I would have invented a calculator to forecast the chances of every engagement; van Manderpootz would have removed the hit or miss element in the conduct of war."

He frowned solemnly. "There is my idea. The autobiography of van Manderpootz. What do you think of it?"

"Magnificus sed non superbus!" I said vehemently. "I'll buy a copy myself. Several copies. I'll send 'em to my friends."

"I," said van Manderpootz expansively, "shall autograph your copy for you. It will be priceless. I shall write in some fitting phrase, perhaps something like Magnificus sed non superbis. 'Great but not proud!' That well described van Manderpootz, who despite his greatness is simple, modest, and unassuming. Don't you agree?"

"Perfectly! A very apt description of you. But--couldn't I see your subjunctivisor before it's dismantled to make way for the greater work?"

"Ah! You wish to find out something?"

"Yes, professor. Do you remember the Baikal disaster of a week or two ago? I was to have taken that liner to Moscow. I just missed it."

I related the circumstances.

"Humph!" he grunted. "You wish to discover what would have happened had you caught it, eh? Well, I see several possibilities. Among the world of 'if' is the one that would have been real if you had been on time, the one that depended on the vessel waiting for your actual arrival, and the one that hung on your arriving within the five minutes they actually waited. In which are you interested?"

"Oh--the last one." That seemed the likeliest. After all, it was too much to expect that Dixon Wells could ever be on time, and as to the second possibility--well, they hadn't waited for me, and that in a way removed the weight of responsibility.

"Come on," rumbled van Manderpootz. I followed him across to the Physics Building and into his littered laboratory. The device still stood on the table and I took my place before it, staring at the screen of the Horsten psychomat. The clouds wavered and shifted as I sought to impress my memories on their suggestive shapes, to read into them some picture of that vanished morning.

Then I had it. I made out the vista from the Staten Bridge, and was speeding across the giant span toward the airport. I waved a signal to van Manderpootz, the thing clicked, and the subjunctivisor was on.

The grassless clay of the field appeared. It is a curious thing about the psychomat that you see only through the eyes of your image on the screen. It lends a strange reality to the working of the toy; I suppose a sort of self-hypnosis is partly responsible.

I was rushing over the ground toward the glittering, silver-winged projectile that was the Baikal. A glowering officer waved me on, and I dashed up the slant of the gangplank and into the ship; the port dropped and I heard a long "Whew!" of relief.

"Sit down!" barked the officer, gesturing toward an unoccupied seat. I fell into it; the ship quivered under the thrust of the catapult, grated harshly into motion, and then was flung bodily into the air. The blasts roared instantly,
then settled to a more muffled throbbing, and I watched Staten Island drop down and slide back beneath me. The giant rocket was under way.

"Whew!" I breathed again. "Made it!" I caught an amused glance from my right. I was in an aisle seat; there was no one to my left, so I turned to the eyes that had flashed, glanced, and froze staring.

It was a girl. Perhaps she wasn't actually as lovely as she looked to me; after all, I was seeing her through the half-visionary screen of a psychomat. I've told myself since that she couldn't have been as pretty as she seemed, that it was due to my own imagination filling in the details. I don't know; I remember only that I stared at curiously lovely silver-blue eyes and velvety brown hair, and a small amused mouth, and an impudent nose. I kept staring until she flushed.

"I'm sorry," I said quickly. "I--was startled."

There's a friendly atmosphere aboard a trans-oceanic rocket. The passengers are forced into a crowded intimacy for anywhere from seven to twelve hours, and there isn't much room for moving about. Generally, one strikes up an acquaintance with his neighbors; introductions aren't at all necessary, and the custom is simply to speak to anybody you choose--something like an all-day trip on the railroad trains of the last century, I suppose. You make friends for the duration of the journey, and then, nine times out of ten, you never hear of your traveling companions again.

The girl smiled. "Are you the individual responsible for the delay in starting?"

I admitted it. "I seem to be chronically late. Even watches lose time as soon as I wear them."

She laughed. "Your responsibilities can't be very heavy."

Well, they weren't of course, though it's surprising how many clubs, caddies, and chorus girls have depended on me at various times for appreciable portions of their incomes. But somehow I didn't feel like mentioning those things to the silvery-eyed girl.

We talked. Her name, it developed, was Joanna Caldwell, and she was going as far as Paris. She was an artist, or hoped to be one day, and of course there is no place in the world that can supply both training and inspiration like Paris. So it was there she was bound for a year of study, and despite her demurely humorous lips and laughing eyes, I could see that the business was of vast importance to her. I gathered that she had worked hard for the year in Paris, had scraped and saved for three years as fashion illustrator for some woman's magazine, though she couldn't have been many months over twenty-one. Her painting meant a great deal to her, and I could understand it. I'd felt that way about polo once.

So you see, we were sympathetic spirits from the beginning. I knew that she liked me, and it was obvious that she didn't connect Dixon Wells with the N. J. Wells Corporation. And as for me--well, after that first glance into her cool silver eyes, I simply didn't care to look anywhere else. The hours seemed to drip away like minutes while I watched her.

You know how those things go. Suddenly I was calling her Joanna and she was calling me Dick, and it seemed as if we'd been doing just that all our lives. I'd decided to stop over in Paris on my way back from Moscow, and I'd secured her promise to let me see her. She was different, I tell you; she was nothing like the calculating Whimsy White, and still less like the dancing, simpering, giddy youngsters one meets around at social affairs. She was just Joanna, cool and humorous, yet sympathetic and serious, and as pretty as a Majolica figurine.

We could scarcely realize it when the steward passed along to take orders for luncheon. Four hours out? It seemed like forty minutes. And we had a pleasant feeling of intimacy in the discovery that both of us liked lobster salad and detested oysters. It was another bond; I told her whimsically that it was an omen, nor did she object to considering it so.

Afterwards we walked along the narrow aisle to the glassed-in observation room up forward. It was almost too crowded for entry, but we didn't mind that at all, as it forced us to sit very close together. We stayed long after both of us had begun to notice the stuffiness of the air.

It was just after we had returned to our seats that the catastrophe occurred. There was no warning save a sudden lurch, the result, I suppose, of the pilot's futile last-minute attempt to swerve--just that and then a grinding crash and a terrible sensation of spinning, and after that a chorus of shrieks that were like the sounds of battle.

It was battle. Five hundred people were picking themselves up from the floor, were trampling each other, milling around, being cast helplessly down as the great rocket-plane, its left wing but a broken stub, circled downward toward the Atlantic.

The shouts of officers sounded and a loudspeaker blared. "Be calm," it kept repeating, and then, "There has been a collision. We have contacted a surface ship. There is no danger-- There is no danger--"

I struggled up from the debris of shattered seats. Joanna was gone; just as I found her crumpled between the rows, the ship struck the water with a jar that set everything crashing again. The speaker blared, "Put on the cork belts under the seats. The life-belts are under the seats."

I dragged a belt loose and snapped it around Joanna, then donned one myself. The crowd was surging forward
now, and the tail end of the ship began to drop. There was water behind us, sloshing in the darkness as the lights went out. An officer came sliding by, stooped, and fastened a belt about an unconscious woman ahead of us. "You all right?" he yelled, and passed on without waiting for an answer.

The speaker must have been cut on to a battery circuit. "And get as far away as possible," it ordered suddenly. "Jump from the forward port and get as far away as possible. A ship is standing by. You will be picked up. Jump from the--". It went dead again.

I got Joanna untangled from the wreckage. She was pale; her silvery eyes were closed. I started dragging her slowly and painfully toward the forward port, and the slant of the floor increased until it was like the slide of a ski-jump. The officer passed again. "Can you handle her?" he asked, and again dashed away.

I was getting there. The crowd around the port looked smaller, or was it simply huddling closer? Then suddenly, a wail of fear and despair went up, and there was a roar of water. The observation room walls had given. I saw the green surge of waves, and a billowing deluge rushed down upon us. I had been late again.

That was all. I raised shocked and frightened eyes from the subjunctivisor to face van Manderpootz, who was scribbling on the edge of the table.

"Well?" he asked.

I shuddered. "Horrible!" I murmured. "We--I guess we wouldn't have been among the survivors."

"We, eh? We?" His eyes twinkled.

I did not enlighten him. I thanked him, bade him good-night, and went dolorously home.

* * * * *

Even my father noticed something queer about me. The day I got to the office only five minutes late, he called me in for some anxious questioning as to my health. I couldn't tell him anything, of course. How could I explain that I'd been late once too often, and had fallen in love with a girl two weeks after she was dead?

The thought drove me nearly crazy. Joanna! Joanna with her silvery eyes now lay somewhere at the bottom of the Atlantic. I went around half dazed, scarcely speaking. One night I actually lacked the energy to go home and sat smoking in my father's big overstuffed chair in his private office until I finally dozed off. The next morning, when old N. J. entered and found me there before him, he turned pale as paper, staggered, and gasped, "My heart!" It took a lot of explaining to convince him that I wasn't early at the office but just very late going home.

At last I felt that I couldn't stand it. I had to do something--anything at all. I thought finally of the subjunctivisor. I could see--yes, I could see what would have transpired if the ship hadn't been wrecked! I could trace out that weird, unreal romance hidden somewhere in the worlds of "if". I could, perhaps, wring a somber, vicarious joy from the things that might have been. I could see Joanna once more!

It was late afternoon when I rushed over to van Manderpootz's quarters. He wasn't there; I encountered him finally in the hall of the Physics Building.

"Dick!" he exclaimed. "Are you sick?"

"Sick? No. Not physically. Professor. I've got to use your subjunctivisor again. I've got to!"

"Eh? Oh--that toy. You're too late, Dick. I've dismantled it. I have a better use for the space."

I gave a miserable groan and was tempted to damn the autobiography of the great van Manderpootz. A gleam of sympathy showed in his eyes, and he took my arm, dragging me into the little office adjoining his laboratory.

"Tell me," he commanded.

I did. I guess I made the tragedy plain enough, for his heavy brows knit in a frown of pity. "Not even van Manderpootz can bring back the dead," he murmured. "I'm sorry, Dick. Take your mind from the affair. Even were my subjunctivisor available, I wouldn't permit you to use it. That would be but to turn the knife in the wound." He paused. "Find something else to occupy your mind. Do as van Manderpootz does. Find forgetfulness in work."

"Yes," I responded dully. "But who'd want to read my autobiography? That's all right for you."

"Autobiography? Oh! I remember. No, I have abandoned that. History itself will record the life and works of van Manderpootz. Now I am engaged in a far grander project."

"Indeed?" I was utterly, gloomily disinterested.

"Yes. Gogli has been here, Gogli the sculptor. He is to make a bust of me. What better legacy can I leave to the world than a bust of van Manderpootz, sculptured from life? Perhaps I shall present it to the city, perhaps to the university. I would have given it to the Royal Society if they had been a little more receptive, if they--if--if!" The last in a shout.

"Huh?"

"If!" cried van Manderpootz. "What you saw in the subjunctivisor was what would have happened if you had caught the ship!"

"I know that."

"But something quite different might really have happened! Don't you see? She--she-- Where are those old
newspapers?"

He was pawing through a pile of them. He flourished one finally. "Here! Here are the survivors!"

Like letters of flame, Joanna Caldwell's name leaped out at me. There was even a little paragraph about it, as I saw once my reeling brain permitted me to read:

"At least a score of survivors owe their lives to the bravery of twenty-eight-year-old Navigator Orris Hope, who patrolled both aisles during the panic, lacing life-belts on the injured and helpless, and carrying many to the port. He remained on the sinking liner until the last, finally fighting his way to the surface through the broken walls of the observation room. Among those who owe their lives to the young officer are: Patrick Owensby, New York City; Mrs. Campbell Warren, Boston; Miss Joanna Caldwell, New York City--"

I suppose my shout of joy was heard over in the Administration Building, blocks away. I didn't care; if van Manderpootz hadn't been armored in stubby whiskers, I'd have kissed him. Perhaps I did anyway; I can't be sure of my actions during those chaotic minutes in the professor's tiny office.

At last I calmed. "I can look her up!" I gloated. "She must have landed with the other survivors, and they were all on that British tramp freighter the Osgood, that docked here last week. She must be in New York--and if she's gone over to Paris, I'll find out and follow her!"

Well, it's a queer ending. She was in New York, but--you see, Dixon Wells had, so to speak, known Joanna Caldwell by means of the professor's subjunctivisor, but Joanna had never known Dixon Wells. What the ending might have been if--if-- But it wasn't; she had married Orris Hope, the young officer who had rescued her. I was late again.

Contents

THE SEED OF THE TOC-TOC BIRDS
By George Henry Weiss

Little did Prof. Reubens suspect what his atom-tampering would set loose upon the world.

Talbot had been working that day, far up in the Catalinas, looking over some mining prospects for his company, and was returning to the Mountain View Hotel in Oracle when, from the mouth of an abandoned shaft some distance back of that town, he saw a strange object emerge.

"Hello," he said to Manuel, his young Mexican assistant, "what the devil can that be?"

Manuel crossed himself swiftly.

"Dios!" he exclaimed, "but it is a queer bird, señor."

Queer, it certainly was, and of a species Talbot had never before laid eyes on. The bird stood on the crumbling rim of the mining shaft and regarded him with golden eyes. Its body was as large as that of a buzzard, and its head had a flat, reptilian look, unpleasant to see. Nor was that the only odd thing. The feathers glittered metallically, like blued copper, and a streak of glistening silver outlined both wings.

Marveling greatly, and deciding that the bird must be some rare kind escaped from a zoo, or a stray from tropical lands much further south, Talbot advanced cautiously, but the bird viewed his approach with unconcern. Ten feet from it he stopped uneasily. The strange fowl's intent look, its utter immobility, somewhat disconcerted him.

"Look out, señor," warned Manuel.

Involuntarily, Talbot stepped back. If he had possessed a rifle he would have shot the bird, but neither Manuel nor himself was armed. Suddenly--he had looked away for a moment--the bird was gone. Clutching a short miner's pick-ax, and a little ashamed of his momentary timidity, he strode to the edge of the abandoned shaft and peered down. There was nothing to see; only rotting joists of wood, crumbling earth for a few feet, and then darkness.

He pondered for a moment. This was the old Wiley claim. He knew it well. The shaft went down for over two hundred feet, and there were several lateral workings, one of which tunneled back into the hills for a considerable distance. The mine had been a bonanza back in the days when Oracle boomed, but the last ore had been taken out in 1905, and for twenty-seven years it had lain deserted. Manuel came up beside him and leaned over.

"What is that?" he questioned.

Talbot heard it himself, a faint rumbling sound, like the rhythmic throb of machinery. Mystified, he gazed
blankly at Manuel. Of course it was impossible. What could functioning machinery be doing at the bottom of an abandoned hole in the ground? And where there were no signs of human activity to account for the phenomenon? A more forsaken looking place it would be hard to imagine. Not that the surrounding country wasn't ruggedly beautiful and grand; the hills were covered with live-oak, yucca grass, chulla, manzanita, and starred with the white blossoms of wild thistle. But this locality was remote from human habitation, and lonely.

Could it be, Talbot wondered, the strange bird making that noise? Or perhaps some animal? The noise sounded like nothing any creature, furred or feathered, could make, but, of course, that must be the explanation. However, it would be dark within the hour, with Oracle still two miles distant, so he turned reluctantly away, Manuel thracking the burros from the grazing they had found. But that was not to be the end of the odd experience. Just before the trail swung over the next rise, Talbot glanced back. There, perching on the rim of the abandoned mining shaft, were not one but two of the strange birds. As if cognizant of his backward glance, they napped their gleaming, metallic wings, although they did not rise, and gave voice to what could only be their natural harsh cries, measured and, somehow, sinister.

"_Toc-toc, toc-toc._"

Talbot went to bed determined to investigate the old Wiley claim the next day, but in the morning an urgent telegram called him and Manuel to Phoenix, and so the matter was necessarily postponed. Moreover, on mature reflection, he decided that there was nothing much to investigate. The days went by, the matter slipped his mind, and he had almost forgotten the incident.

It was an Indian who first brought news of the jungle to Oracle. His name was John Redpath and he wasn't the average person's idea of an Indian at all. He wore store clothes and a wide-brimmed hat, and spoke English with the colloquial ease of one whose native language it was. It was ten o'clock in the morning, the hour when people gathered at the local store and post-office to gossip and get their mail, when he came driving into town in his Ford, his terrified wife and three children crowded into the back seat.

"What's the matter, John?" asked Silby, the constable.

"Matter?" said Redpath. "I'll tell you what's the matter."

He held the attention of the crowd which now began flocking around him. "You know me, Silby; I'm not easily frightened; but what's happened at my place has me scared stiff."

He pulled out a handkerchief and mopped his brow.

"When we went to bed last night, everything looked as usual; but this morning...."

He paused.

"Something over night had grown up in my pasture. Don't ask me what it is. The whole hillside was filled with it. I went to the pasture to milk my goats--that's some distance from the house and over a rise; you know how rugged my land is--and there was the stuff, acres of it, twenty, thirty feet tall, like--like nothing I had ever seen before. And Silby--his voice was suddenly low--"I could see it growing."

At this remarkable statement, everyone in sound of his voice gaped with astonishment. Had it been any other Indian they would have said he was drunk--but not John Redpath. He didn't drink.

"Growing?" echoed Silby stupidly.

"Yes. The damn stuff was growing. But it wasn't that which stampeded me out of there. It was the globe."

"The globe!" said Silby, more mystified than ever.

"It was floating over the growing stuff, like a black balloon. Just over my place the balloon began to sift down a shower of pebbles. Like beans, they were; seeds, rather; for when they hit the ground they started to sprout."

"Sprout?" The constable was capable of nothing more than an echo.

"I'm telling you the truth," continued Redpath. "Incredibly fast. I had barely time to crank up the car and get out of there. I never would have done it if the strange growth hadn't left the way clear from the garage to the road. Silby, I had the devil of a time getting the wife and kids out of the house. When I looked back after going a quarter of a mile the house had disappeared under a tangled mass."

There was no time for anyone to question John Redpath further. Even as he finished speaking a large automobile dashed up and out tumbled a well-dressed and portly red-faced stranger.

"What the devil's the matter with the road above here? Funniest thing I ever saw. The road to Mount Lemmon's blocked. My family," he said inconsequentially, "is at Mount Lemmon for the summer and I want to get through to them."

"Blocked! The crowd stared at him wonderingly. John Redpath threw in his clutch. "So long," he said. "I've a brother in Tucson, and I'm going to his place until this blows over."

As he left Oracle, John Redpath noticed several dark globes drifting down on it from the hills.

The first inkling the outside world had of the terrible tragedy that was happening at Oracle came over the phone to Tucson while John Redpath was still en route to that city.
"Hello, hello! Is this the police station? Silby speaking. Silby, town constable at Oracle. For God's sake, send us help! We're being attacked. Yes, attacked from the air. By strange aircraft, round globes, discharging--oh, I don't know what it is; only it grows when it hits the earth. Yes, grows. Oracle is hemmed in. And there are the birds--b-i-r-d-s, birds----" "There was a stifled cry, the voice suddenly ceased, and the wire went dead.

"My God!" said the chief of police of Tucson, "somebody's raving." He lost no time in communicating with the sheriff's office and sending out his men. They soon returned, white-faced and shaken.

"Chief," said the officer in charge of the party, "you know where the road to Oracle switches off the main highway? Well, it's impassable, covered with stuff a hundred feet high."

The chief stared. "Are you crazy?"

"No. Listen. It's the queerest growth you ever saw. Not like vegetation at all. More like twisted metal...."

But now the city began to see the situation with excitement. Farmers and their families flocked in from the Seep Springs district, and from Jayhnes, telling weird tales of drifting globes and encroaching jungle. The Southern Pacific announced that traffic northward was disrupted. Extras appeared on the streets with shrieking headlines. Everything was in confusion.

A flyer from the local airport flew over Oracle and announced on his return that he could see no signs of the town, that its immediate vicinity was buried under an incredibly tall and tangled mass of vegetation. "From the air it looks like giant stalks of spaghetti, twisted, fantastic," was his description. He went on to say that he noticed quite a few drifting globes and large birds with black, glistening wings, but these offered no hindrance to his flight.

Now the wires hummed with the startling news. All the world was informed of the tragedy. The great cities of the nation stood aghast. An aroused Washington dispatched orders for the aerial forces of the country to proceed to Arizona without delay. The governor of Arizona mobilized the state militia. All border patrol officers proceeded to the area affected. And yet in the face of what was happening they were powerless to do a thing.

At two o'clock of the day following the wiping out of Oracle, the first black globes approached Tucson. They floated down from the north, skirting the granite ridges and foothills of the Catalinas, and were met with a withering hail of lead from anti-aircraft guns, and burst, scattering wide their contents. When some three hours later the first squadron of the air fleet came to earth on the landing field a few miles south of the city, the northern environs of Tucson, all the area the other side of Speedway, and running east and west as far as the eye could see, was a monstrous jungle a hundred or more feet tall--and still growing.

Terrified residents fled before the uncanny invasion. People congested the streets. Thousands fled from the city in automobiles, and thousands of others thronged the railroad station and bus-line offices seeking for transportation. Rumors ran from lip to lip that Russia was attacking the United States with a newly invented and deadly method of warfare; that it wasn't Russia but Japan, China, England, Germany, a coalition of European and Asiatic powers.

Frantically, the city officials wired railroad companies to send in emergency trains. The mayor appealed to the citizens to be quiet and orderly, not to give way to panic, that everything was being done to insure their safety. Hastily deputized bodies of men were set to patrolling streets and guarding property. Later, martial law was established. The south side of Speedway rapidly assumed the appearance of an armed camp. At the landing field Flight Commander Burns refueled his ships and interviewed the flyer who had flown over Oracle. That worthy shook his head.

"You're going out to fight, Commander," he said, "but God knows what. So far we have been unable to detect any human agency back of those globes. They just drift in, irrespective of how the wind is blowing. So far our only defense has been to shoot them down, but that does little good; it only helps to broadcast their seed. Then, too, the globes shot down have never been examined. Why? Because where they hit a jungle springs up. Sometimes they burst of their own accord. One or two of them got by us in the darkness last night, despite our searchlights, and overwhelmed a company of National Guards."

The flight commander was puzzled.

"Look here," he said, "those globes don't just materialize out of thin air. There must be a base from which they operate. Undoubtedly an enemy is lurking in those mountains." He got up decisively. "If it is humanly possible to locate and destroy that enemy, we shall do it."

Flying in perfect formation, the bombing squadron clove the air. Looking down, the observers could see the gigantic and mysterious jungle which covered many square miles of country. Like sinuous coils of spaghetti, it looked, and also curiously like vast up-pointed girders of steel and iron. The rays of the late afternoon sun glinted on this jungle and threw back spears of intense light. Over the iron ridges of the Catalinas the fleet swept at an elevation of several thousand feet. Westward, numerous huge globes could be seen drifting south. The commander signaled a half dozen of his ships to pursue and shoot them down.

In the mountains themselves, there was surprisingly little of the uncanny vegetation. Mile after mile of
billowing hills were quartered, but without anything of a suspicious nature being noted. Here and there the observers saw signs of life. Men and women waved at them from isolated homesteads and shacks. At Mount Lemmon the summer colonists appeared unharmed, but in such rugged country it was impossible to think of landing. Oracle, and for a dozen miles around its vicinity, was deserted.

Though the commander searched the landscape thoroughly with his glasses, he could detect the headquarters of no enemies; and yet the existence of the drifting globes would seem to presuppose a sizable base from which they operated. Mystified, he nevertheless subjected the Oracle area to a thorough bombing, and it was while engaged in doing so that he and his men observed a startling phenomenon.

High in the heavens, seemingly out of nothing, the mysterious globes grew. The aviators stared, rubbed their eyes in amazement, doubted the truth of what they saw. Their commander recollected his own words, "Those globes don't just materialize out of thin air." But that actually seemed to be what they were doing. Out of empty space they leaped, appearing first as black spots, and in a moment swelling to their huge proportions.

One pilot made the mistake of ramming a globe, which burst, and he hurtled to earth in a shower of seed, seed which seemed to root and grow and cover his craft with a mass of foliage even as it fell. Horrified, ammunition and explosives exhausted, the amazed commander ordered his ships back to Tucson. What he had to tell caused a sensation.

"No," he said, finishing his report to the high military official who had arrived with federal forces, "I saw nothing--aside from the globes--that could possibly account for the attack. Nothing."

But none the less the attack went on. Though hundreds of planes scoured the sky, though great guns bellowed day and night and thousands of soldiers, state and federal, were under arms, still the incredible globes continued to advance, still more and more of the countryside came under the sway of the nightmarish jungle. And this losing battle was not waged without loss of human life. Sometimes bodies of artillery were cut off by globes getting beyond their lines in the darkness and hemming them in. Then they had literally to hack their way out or perish; and hundreds of them perished. One company sergeant told of a thrilling race with three globes.

"It was a close thing," he said, scratching his head, "and only a third of us made it."

Fear gripped the hearts of the most courageous of men. It was terrifying and nerve-racking to face such an unhuman foe--weird, drifting globes and invading jungles whose very source was shrouded in mystery. Against this enemy no weapons seemed to prevail. All the paraphernalia of modern warfare was proving useless. And looking at each other with white faces--not alone in Arizona, but in New York, Chicago, Los Angeles--men asked themselves these questions, and the newspapers posed them:

"What if this thing can't be stopped?"
"What if it keeps on and on and invades every city and state?"
"It is only starting now, but what will it be like a month from now, a year?"

The whole nation awoke to a realization of its danger. The Administration at Washington solemnly addressed itself to the capitals of the world.

"If some power, jealous of the greatness of America, has perfected a new and barbarous weapon of warfare, and without due warning and declaration of hostilities has launched it against us, not only do we denounce such uncivilized procedure, but demand that such a power speak out and reveal to us the world who our enemy is."

But the powers of the world, as one, united in disclaiming any hand in the monstrous attack being made on the United States. As for that attack, it proceeded inexorably. On the fourth day Tucson was evacuated. Then Winkleman awoke one morning to find that the drifting globes had reached the river. The town was abandoned. California mobilized citizen forces in cooperation with Nevada. The great physicist Miller was said to be frantically at work on a chemical designed to destroy the gigantic growths, specimens of which had been sent him. Such was the condition of affairs when, at Washington, Milton Baxter, the young student, told his incredible story to a still more incredulous Senate.

The Senate had been sitting in anxious session for five days, and was little inclined to give ear to the stories of cranks. Fortunately for the world, young Baxter came of an influential family and had taken the precaution of having himself introduced by two prominent financiers, who demanded that he be heard.

"Gentlemen," he said earnestly, "contrary to current opinion, America is not being assailed by a foreign power. No! Listen to me a moment and I shall tell you what is attacking America."

He paused and held the assemblage with compelling eyes.

"But first let me explain how I know what I am going to tell you. I was in London when I read of what is occurring in Arizona. Before the wire went dead on him, didn't the unfortunate constable of Oracle say something about birds?"

The senators were silent. "Yes," said a press correspondent at length. "If I remember correctly, he said, 'And there are the birds--b-i-r-d-s, birds.'"
"Well," exclaimed Senator Huffy, "the man was pretty well excited and his words may have been misunderstood. What the devil have birds to do with those globes and jungles?"

"More than you think," replied Baxter. "Listen!" He fixed their attention with uplifted hand. "The thing I have to reveal is of such paramount importance that I must not be interrupted. You must bear with me while I go back some months and even years in time to make myself understood.

"You all remember the mysterious disappearance of Professor Reubens. Yes, I see that you do. It caused a sensation. He was the foremost scientist in the country--it would not be exaggerating too much to say in the world. His name was not as well known among the masses as that of Miller and Dean; in fact, outside of an exclusive circle it wasn't known at all, but ask any scientist about Reubens. He was a tall, dour man of sixty, with Scotch blood in his veins, and was content to teach a class in a college because of the leisure it afforded him for his own research work. That was at the University of Arizona in Tucson.

"The faculty of the college was proud to have him on its staff and provided him with a wooden building back of the campus, for a private laboratory and workshop. I understand that the Rockefeller Institute contributed funds towards Professor Reubens' experiments, but I am not certain.

"At any rate he had a wonderfully well equipped place. I was a pupil at the University and attended his class in physics. A strong friendship grew up between us. How can I explain that friendship? I was not a particularly brilliant student, but he had few friends and perhaps my boyish admiration pleased him. I think, too, that he was lonely, heart-hungry for affection. His wife was dead, and his own boy.... But I won't go into that.

"Suffice it to say that I believe he bestowed on me some of the affection he had felt for his dead son. Indeed I am sure he did. Be that as it may, I often visited him in his laboratory and watched, fascinated, as he pored over some of his intricate apparatus. In a vague way, I knew that he was seeking to delve more deeply into the atom.

"'Before Leeuwenhoek invented the microscope,' the Professor once said, 'who ever dreamed of the life in a drop of water? What is needed now is a super-microscope to view the atom.'

"The idea thrilled me.

"'Do you believe, sir, that an instrument will ever be invented that will do that?'

"'Yes. Why not? I am working on some such device myself. Of course the whole thing has to be radically different. The present method of deducing the atom by indirection is very unsatisfactory. We can know nothing for certain until direct observation is possible. The atomic theory that likens the atom to our solar system, with planets revolving round a central nucleus, is very interesting. But I shall never be content, for one, until I can see such an atomic system in operation.'

"'Now I had every admiration for the capacity and genius of my teacher, but I couldn't forebear exclaiming:

"'Is that possible?'

"'Of course it's possible,' he cried irritably. 'Do you think I should be pursuing my experiments if I didn't think it possible? Only numbskulls think anything impossible!'

"I felt rather hurt at his retort and a certain coolness sprang up between us. The summer holidays came and I went away without bidding him good-by. But returning for the new semester, my first act was to hurry to the laboratory. He greeted me as if there had never been any difference between us.

"'Come,' he cried; 'you must see what I have accomplished. It is marvelous, marvelous.'

"In his workshop stood a mechanism perhaps three feet square and four feet high. It was made of polished steel and looked not unlike an Edison music box.

"'You are the first I have shown it to,' he said excitedly. 'Here, look into this.'

"Stooping over the top of the box I peered into the eye-piece indicated. It was so fashioned that it fitted the contour of the face snugly.

"'Now hold steady,' warned the Professor. 'This machine makes quite a noise, but it won't harm you at all.'

"I sensed that he was fingering and arranging dials and levers on the side of the contrivance. Suddenly an engine in the box began to throb with a steady rhythm. This gradually increased in tempo until the vibration of it shook the room.

"'Don't move,' shouted the Professor.

"At first I could see nothing. Everything was intensely dark. Then the darkness began to clarify. Or rather I should say it seemed as if the darkness increased to such a pitch that it became--oh, I can't describe it! But of a sudden I had the sensation of looking into the utter bleakness and desolation of interstellar space. Coldness, emptiness--that was the feeling. And in this coldness and emptiness flamed a distant sun, around which twelve darker bodies the size of peas revolved. They revolted in various ellipses. And far off--millions of light years away (the thought came to me involuntarily at the time)--I could glimpse infinitesimal specks of light, a myriad of them. With a cry I jerked back my head.

"'That,' shouted the Professor in my ear, 'was an atomic universe.'"
"It never entered my head to doubt him. The realness, the vividness, the overwhelming loneliness and vastness of the sight I had seen—yes, and the suggestion of cosmic grandeur and aloofness that was conveyed—banished any other feeling but that of belief.

"Inside that box," said Professor Reubens quietly, 'and directly underneath the special crystal-ray medium I have perfected, is a piece of matter no larger than a pin-head. But viewed through the magnifying medium of the crystal-ray that insignificant piece of matter becomes as vast and as empty as all space, and in that space you saw—an atomic system.'

"An atomic system! Imagine my emotions. The tremendousness of the assertion took away my breath. I could only seize the Professor's hand and hold to it tightly.

"'Softly, my boy, softly,' he said, smiling at my emotion. 'What you have seen is but the least part of the invention. There is more to it than that.'

"More?"

"Yes. Did you think I would be content with merely viewing at a distance? No. Consider that revolving round a central nucleus similar to our sun are twelve planets, any one of which may be inhabited by intelligent creatures.'

"I stared at him dumbly.

"'Why not? Size is only relative. Besides in this case I can demonstrate. Please look again.'

"Not without trepidation, I did as he bade. Once more I saw the black emptiness of atomic space, saw the blazing nucleus with its whirling satellites. Above the roaring noise of the machine came Professor Reubens' voice. 'I am now intensifying the magnifying medium and focusing it on one of the planets you see. The magnifying crystal-ray is mounted on a revolving device which follows this particular planet in its orbit. Now ... now....'

"I gazed, entranced. Only one atomic planet—the size of a pea and seemingly motionless in space—now lay in my field of vision. And this planet began to grow, to expand, until beneath my staring eyes it looked like the full moon in all its glory.

"I am gradually increasing the magnifying power of the crystal-ray,' came the voice of the Professor.

"The huge mass of the planet filled the sub-atomic sky. My hands gripped the rim of the box with excitement. On its surface began to form continents, seas. Good God! was all this really materializing from a speck of matter under the lens of a super-microscope? I was looking down from an immense height upon an ever clarifying panorama. Mountains began to unfold, plains. Good God! was all this really materializing from a speck of matter under the lens of a super-microscope? I was looking down from an immense height upon an ever clarifying panorama. Mountains began to unfold, plains, and suddenly beneath me appeared a mighty city. I was too far away to see it distinctly, but it was no city such as we have on earth. And yet it was magnificent; it was like gazing at a strange civilization.

"In that atomic universe, on a planet swinging round a sub-atomic sun, the all of which lies somewhere in a speck of our matter, intelligent creatures dwell and have created a great machine civilization. And Baxter,' he leaned forward and fixed me with eyes that gleamed from under heavy brows, 'not only has my super-atomic-microscope revealed somewhat of that world and its marvels to human vision, but it has opened up another, a more wonderful possibility.'

"He did not tell me what this wonderful possibility was, and a few minutes later I left the laboratory, intending to return after a late class. But a telegram from Phoenix was at my rooms, calling me home. My father was seriously ill. It was June before he recovered his health. Consequently I had to forego college until the next season.

"Old Reubens is going dotty,' said one of my classmates to me. Rather disturbed, I sought him out. I saw that there were dark circles of sleeplessness under his eyes and that his face had grown thinner. Somewhat diffidently I questioned him about his experiments. He answered slowly:

"'You will recollect my telling you that the super-atomic-microscope had opened up another wonderful possibility?'

"I nodded, sharply curious now.

"'Look.'

"He led the way into his workshop. The super-atomic-microscope, I noticed, had been altered almost out of recognition. It is hopeless for me to attempt describing those changes, but midway along one side of its length projected a flat surface like a desk, with a large funnel-shaped device resting on it. The big end of this funnel pointed towards a square screen set against the wall, a curious screen superimposed on what appeared to be a background of
frosted glass.

"This,' said the Professor, laying one hand on the funnel and indicating the screen with the other, 'is part of the arrangement with which I have established communication with the world in the atom.

"No,' he said, rightly interpreting my exclamation, 'I am not crazy. For months I have been exchanging messages with the inhabitants of that world. You know the wave and corpuscular theories of light? Both are correct, but in a higher synthesis--but I won't go into that. Suffice it to say that I broke through the seemingly insuperable barrier hemming in the atomic world and made myself known. But I see that you still doubt my assertion. Very well, I will give you a demonstration. Keep your eyes on the screen--so----'

"Adjusting what seemed a radio headpiece to my ears, he seated himself at a complicated control-board. Motors purred, lights flashed, every filament of the screen became alive with strange fires. The frosted glass melted into an infinity of rose-colored distance. Far off, in the exact center of this rosy distance appeared a black spot. Despite the headpiece, I could hear the Professor talking to himself, manipulating dials and levers. The black spot grew, it advanced, it took on form and substance; and then I stared, I gasped, for suddenly I was gazing into a vast laboratory, but depicted on a miniature scale.

"But it wasn't this laboratory which riveted my attention. No. It was the unexpected creature that perched in the midst of it and seemed to look into my face with unwinking eyes of gold set in a flat reptilian head. This creature moved; its feathers gleamed metallically; I saw its bill open and shut. Distinctly through the ear-phones came a harsh sound, a sound I can only describe by the words _toc-toc, toc-toc_. Then, just as the picture had appeared, it faded, the lights went out, the purring of the motors ceased.

"Yes,' said the Professor, stepping to my side and removing the headpiece, 'the inhabitants of the sub-atomic planet are birds.'

"I could only stare at him dumbly.

"'I see that astounds you. You are thinking that they lack hands and other characteristics of the _genus homo_. But perhaps certain faculties of manipulation take their place. At any rate those birds are intelligent beings; in some respects, further advanced in science than are we ourselves. Perhaps it would be more exact to say that their scientific investigations and achievements have been along slightly different lines. If such messages I sent them had come to our world from another planet or dimension, how readily they might have been misconstrued, ridiculed or ignored.' The Professor shrugged his shoulders. 'But the beings in this sub-atomic world interpreted my communications without difficulty.

"In no time we were conversing with one another through means of a simplified code. I was soon given to understand that their scientists and philosophers had long recognized the fact that their universe was but a atom in an immeasurably greater dimension of existence; yes, and had long been trying to establish contact with it.' The Professor's voice fell. 'And not that alone: they were eager to cooperate with me in perfecting a method of passing from their world to ours!

"Yes,' he cried, 'much of what I have accomplished has been under their advice and guidance; and they on their part have labored; until now'--his eyes suddenly blazed into my fascinated face--'until now, after months of intensive work and experiment, success is nigh, and any day may see the door opened and one of them come through!'

"'Gentlemen!' cried Milton Baxter, "what more is there to say? I staggered from Professor Reubens' laboratory that afternoon, my head in a whirl. That was on a Monday.

"'Come back Thursday,' he said.

"But as you know, Professor Reubens disappeared on a Wednesday night before; and stranger still, his machines disappeared with him. In his laboratory were signs of a struggle, and bloodstains were found. The police suspected me of a guilty knowledge of his whereabouts, in short of having made away with my friend. When I told somewhat of the experiments he had been engaged in, spoke of the missing inventions, they thought I was lying. Horrified at the suspicion leveled at myself, I finally left Tucson and went abroad. Months passed; and during all those months I pondered the mystery of the Professor's fate, and the fate of his machines. But my fevered brain could offer no solution until I read of what was happening in Arizona; then, then...."

Milton Baxter leaned forward, his voice broke.

"Then," he cried, "then I understood! Professor Reubens had succeeded in his last experiment. He had opened the door to earth for the bird intelligences from the atom and they had come through and slain him and spirited away his machines and established them in a secret place!

"God help us," cried Milton Baxter, "there can be but one conclusion to draw. They are waging war against us with their own hideous methods of warfare; they have set out to conquer earth!"

Such was the amazing story Milton Baxter told the Senate, but that body placed little credence in it. In times of stress and disaster cranks and men of vivid imaginations and little mental stability inevitably spring up. But the Washington correspondents wired the story to their papers and the Associated Press broadcast it to the four winds.
Talbot had just returned to Phoenix from New Mexico. He had been out of touch with civilization and newspapers and it was with a feeling of stunned amazement that he learned of the evacuation of Tucson and Winkleman and the wiping out of Oracle. Reading Milton Baxter's incredible story he leapt to his feet with an oath. Toc-toc! Why, that was the sound the strange birds had uttered in the hills back of Oracle. And there was the noise of machinery coming from the old shaft.

Full of excitement he lost no time in seeking an interview with the military commander whose headquarters were located in Phoenix and related to him what Manuel and himself had witnessed and heard that day at the abandoned mine. Manuel corroborated his tale. The commander was more than troubled and doubtful.

"God knows we cannot afford to pass up an opportunity of wiping out the enemy. If you will indicate on a map where the old shaft is we will bomb it from the air."

But Talbot shook his head.

"Your planes would have a tough job hitting a spot as small as that from the air. Besides, a direct hit might only close up the shaft and not destroy the workings underground. If the enemy be the creatures Milton Baxter says they are, what is to prevent them from digging their way out and resuming the attack?"

"Then we will land troops in there somehow and overwhelm them with-----"

Talbot interrupted. "Pardon me, General, but the enemy would have no difficulty in spotting such a maneuver. What chance would your soldiers have against a shower of jungle seed? You would only be sending them to destruction. No, the only way is for someone familiar with those old underground diggings to enter them, locate the birds and the machines and blow them up."

"But who-----"

"Myself. Listen. This is the plan. About five years ago my company mined for copper and other ores about a half mile above the Wiley claim. I was in charge of operations. That is how I know the ground so well. One of our northern leads broke through into a tunnel of the abandoned mine. When copper prices were shot to hell in the depression of 1930 we quit taking out ore; but when I went through the place eighteen months ago it was still possible to crawl from one mine to another. Of course earth and rock may have fallen since then, but I don't believe the way is yet blocked. If I were dropped in that vicinity at night with another man and the necessary tools and explosives....."

The general thought swiftly.

"An auto-gyroscope could land you all right. There's one here now. But what about the second man to accompany you?"

Manuel said quickly, "I'm going with the boss."

"You, Manuel," Talbot said roughly. "Don't be a fool. If anything should happen to me--well, I've lived my life; but you're only a kid."

Manuel's face set stubbornly. "An experienced mining man you need, is it not? In case there should be difficulties. And I am experienced. Besides, señores," he said simply, "my wife and child are somewhere in those mountains ... above Oracle...."

Talbot gripped his hand in quick sympathy. "All right, Manuel; come if you like."

A moonless sky hung above them as they swung over the dark and jungle-engulfed deserted city of Tucson, a sky blazing with the clarity of desert stars, and to the south and west shot through with the beams of great searchlights. Flying at a lofty altitude to avoid contact with drifting globes or betrayal of their coming with no lights showing aboard their craft save those carefully screened and focused on the instrument board, it was hard to realize that the fate of America, perhaps of the world, hung on the efforts of two puny individuals.

Everything seemed unreal, ghost-like, and suddenly the strangeness of it all came over Talbot and he felt afraid. The noiseless engine made scarcely a sound; the distant rumble of gunfire sounded like low and muttering thunder. They had come by way of Tucson so as to pick up a ten-gallon tube of concentrated explosive gas at the military camp in the Tucson mountains.

"This gas," the general had assured them, "has been secretly developed by the chemical branch of the War Department and is more powerful than TNT or nitro-glycerin. It is odorless, harmless to breathe and exploded by a wireless-radio device."

He had showed them how to manipulate the radio device, and explained that in the metal tube was a tiny chamber from which gas could not escape, and a receiving-detonating cap. "If you can introduce the tube into the underground galleries where you suspect the enemy's headquarters to be, allow the contents to escape for ten minutes, and a mile distant you can blow the mine and all in it to destruction. And you needn't be afraid of anything escaping alive," he had added grimly.

Talbot thought of his words as the dark and silent world slid by. He glanced at the luminous dial of his wrist-watch. Eleven-fifteen. The moon rose at eleven-twenty-four. He studied the map. High over Mount Lemmon the
craft soared. He touched the army pilot's arm. "All right," he said, "throttle her down." Their speed decreased. "Lower."

Swiftly they sank, until the dark bulk of hills and trees lay blackly beneath; so near as to seem within the touch of a hand. Though he strained his ears, no alien sound came wafting upward. "Keep circling here," he directed the pilot. "The moon'll be up in a minute and then we can be sure of where we are." The pilot nodded. He was a phlegmatic young man. Not once during the trip had he uttered a word.

The east glowed as if with red fire. Many a time before had Talbot watched the moon rise, but never under stranger circumstances. Now the night was illuminated with mellow glory. "Hit the nail on the head," he whispered. "Do you see that spot over there? To the left, yes. Can you land us there?"

Without a word the pilot swung for the clearance. It was a close thing, requiring delicate maneuvering, and only an auto-gyroscope could have made it without crashing. Hurriedly Manuel and Talbot unloaded their gear.

"All right," said Talbot to the pilot. "No need to wait for us. If we are successful, we'll send out the wireless signal agreed on, and if we aren't...." He shrugged his shoulders. "But tell the General to be sure and allow us the time stipulated on before undertaking another attack."

Standing there on the bleak hillside, watching the auto-gyroscope run ahead for a few yards and then take the air, Talbot experienced a feeling of desolation. Now he and Manuel were alone, cut off from their own kind by barriers of impregnable jungle. And yet on that lonely hillside there were no signs of an enemy. For a moment he wondered if he weren't asleep, dreaming; if he wouldn't soon awake to find that all this was nothing but a nightmare.

But Manuel gathering up the tools aroused him from such thoughts. Not without difficulty were the necessary things conveyed to the abandoned mine back of the old Wiley claim. Their course lay along the bottom of a dry creek, over a ridge, and so to the shaft half-way down the side of a hill. A second trip had to be made to bring the gas tube.

It was two o'clock in the morning when Manuel stood at the foot of the four-hundred-foot hole and signaled up that the air was good. Talbot lowered the tools to him, and the gas container, and lastly went down himself. As already stated, Talbot had explored the underground workings of the mine not eighteen months before. Picking out the main tunnel and keeping a close watch for rattlers with electric torches, the two men went cautiously ahead. In places earth had fallen and had to be cleared away, but the formation for the most part was a soft rock and shale. They went slowly, for fear of starting slides.

At a spot taking an abrupt turn—and it was here that the newer tunnel had broken through into the older gallery of the Wiley claim—Manuel caught swiftly at Talbot's arm. "What is that?" To straining ears came the unmistakable throb of machinery. They snapped off their torches and crouched in Stygian darkness. Not a ray of light was to be seen. Talbot knew that in following the ore stratum, the Wiley gallery took several twists. Laboriously he and Manuel advanced with the gas tube. It was stiflingly close. He counted the turns, one, two, three. Now the roar of machinery was a steady reverberation that shook the tunnel. He whispered to Manuel:

"Go back and wait for me at the mouth of the shaft. Only one of us must risk taking the gas tube any nearer the enemy. Here, take my watch. It is now two-forty-five. If I don't rejoin you by four o'clock touch off the explosive."

Manuel started to protest. "Do as I say," commanded Talbot. "The fate of the world is at stake. Give me an hour; but no longer—remember!"

Left alone in the clammy darkness Talbot wiped the sweat from his face. Grabbing one end of the rope sling in which the tube was fastened, he pulled it ahead. There was a certain amount of unavoidable noise; rock rattled, earth fell; but he reasoned shrewdly enough that the roar of the machinery would drown this. Beyond a crevice created by a cave-in he saw an intense light play weirdly. He squirmed through the crevice and pulled the tube after him.

His mind reconstructed the mine ahead. He recollected that when the lead of this mine had petered out, the owners had begun to sink the shaft deeper into the earth before abandoning the mine. This meant that the foot of the shaft, with the addition of an encroaching twenty feet of the southern gallery, was deeper by some several yards than the floor of the tunnel in which he stood. Here was the logical place to set the gas tube, nose pointed ahead.

With trembling fingers he loosened the screwed-in nose of the tube with a wrench. A slight hiss told of the deadly gas's escape. It would inevitably flow towards the shaft, drawn by the slight suction of machinery, following the easiest direction of expansion. Now Talbot's work was done, and if he had immediately retreated all would have been well, but the weird light fascinated him. Here he was, one man in the bowels of earth pitting his strength, his ingenuity against something incredible, unbelievable. Beings from an atomic universe, from a world buried within the atom; beings attacking his own earth with uncanny methods of destruction. Oh, it was impossible, absurd, but he must look at them, he must see.

Scarcely daring to breathe, he squirmed, he crawled, and suddenly he saw. He was looking down into an underground crypt flooded with brilliant light. That crypt had been altered out of all recognition, its greater expanse of roof supported with massive pillars, the light screened away from the shaft. But it was not all this which riveted
his staring eyes. No—it was the machines; strange, twisted things, glowing, pulsing, and—in the light of his knowledge—menacing and sinister.

Talbot gasped. Almost at once he observed the birds, twelve of them, two standing in front of what appeared to be a great square of polished crystal, wearing metal caps and goggles, heads cocked forward intently. The others also perched in front of odd machines like graven images. That was the uncanny thing about the birds: they appeared to be doing nothing. Only the occasional jerk of a head, the filming of a hard golden eye, gave them a semblance of life. But, none the less, there could be no mistaking the fact that they were the guiding, the directing geniuses back of all the pulsing, throbbing mechanisms.

Half mesmerized by the sight, forgetful of time and place, Talbot leaned forward in awe. There was a great funnel, a shallow cabinet, and out of the cabinet poured an intense reddish beam, and out of the beam....

It was a minute before he understood, and then comprehension came to him. Those dark spots shooting from the cabinet, no larger than peas, were the mysterious drifting globes whose scattered seed was fast covering miles of Arizonian soil with impenetrable jungle. From a universe in a piece of matter no larger than a pin-head, from a sub-atomic world, the weapons of an alien intelligence were ruthlessly being hurled against man, to conquer, to destroy him.

And now it was made plain to him why the drifting globes had seemed to materialize out of thin air. Being infinitesimally small parts of an atom, these globes were released from the cabinet and soon assumed the size of peas; they were guided across the crypt, up the old Wiley shaft, and high in the air, somewhere in space, enlarged to immense proportions. How? Talbot could not guess. By some manipulation of science and machinery beyond that of earth.

Engrossed, he moved an inch forward, craned his head, and in that moment it happened. Beneath his weight a section of earth and rock crumbled, cracked, slid forward, and he plunged headlong to the floor below, striking his skull with stunning force!

He came to himself, staring up into the dour-looking face of a tall man. He recollected pitching forward among the birds and the machines. But the birds and the machines had disappeared and he was lying in an odd room without windows but lit with a soft radiance. Bewildered, he sat up.

"Who are you?" he demanded.

"My name," he said, "is Reubens--Professor Reubens."

Professor Reubens! Talbot gasped. "Not the scientist who disappeared?"

"Yes--as you've disappeared."

"What!"

"Through the machine."

It was a moment before Talbot understood. "You mean...."

"That you are a prisoner in a sub-atomic world."

Talbot now realized with startling clearness what had happened to him. When he had fallen into the crypt the weird birds had directly placed him in the cabinet and transported him to their own world. In other words, he and Reubens and everything he saw about him were infinitely small creatures in an atom-world. He and the Professor were trapped! And when Manuel blew up the only means of return....

"How long have I been here?" Talbot asked hoarsely.

"Five minutes at the most."

Then, at the shortest, the way to earth would exist twenty minutes longer. Twenty minutes.... Incoherently he told Reubens of what had happened in Arizona since his disappearance, of his own misadventure.

"Aye," said the Professor, "I knew as much. Nor do these inhuman birds intend stopping with the use of seed globes. More devilish weapons than that they plan using against earth. Oh, they are fiends, fiends! Already have they wiped out civilization and intelligent life on other planets in this sub-atomic system and introduced their own."

He stopped, shuddering. "Nor is it to be wondered at that no birds were seen after the first attack on Oracle," he went on. "They do not fight in person, as do we ourselves, but through proxy, directing machines from centers of control. In powers of destruction, they are immeasurably ahead of man. Thank God you discovered their headquarters in the deserted mine and have spread the gas for its destruction. But the rage of the birds at such a defeat will be terrible. They will undoubtedly torture me in an effort to make me reveal the basis of my invention so that they can resume the attack on earth. So we must escape."

"But how--where?"

"I have thought that out. It is one chance in a thousand. Undoubtedly we will be killed. But that is better than being tortured or living in this world. Look."

He held up a pearl-handled pen-knife. "The birds are smart, all right, but they don't quite understand clothes,
wearing none themselves. They found your revolver, but overlooked this."

"Of what good is it?"

"To cut our way out of this cell."

Talbot laughed incredulously. The walls of the room were smooth, and hard to the touch. "They're as solid as concrete," he said.

"But cut like cheese under a steel blade. I found that out. Watch."

To Talbot's amazement the point of the penknife sank into the wall and in a moment a section of it was gouged out. The professor said tensely, "I've been months in this place, been taken back and forth, and know the lay of the land. This room is in a great building that houses the laboratory from which the attack against earth is being launched. Would you believe it, only the great scientist who picked up my messages and helped me perfect my invention, and a few of his assistants, are concerned in that attack, and they will be congregated at the machines. Follow me, and whatever I command, do it promptly."

The Professor had been working feverishly as he spoke, and now he and Talbot crawled through the hole he had made in the wall and found themselves in a long gloomy corridor. "Quick," Reubens whispered.

They darted down the passageway. Talbot had only time to see that the gleaming sides of the corridor were beveled and etched with strange designs, before they came to its end and where a curious device like a huge five-pointed star was revolving noiselessly, half sunk in a great hole in the floor. Without hesitation the Professor stepped onto one of the flat-tipped star-points as it came level with where they stood and Talbot did the same. Up, turned the star-point, to a dizzy height, and over, but the tip swung on ball-bearings, maintaining its passengers in a perpendicular position, and from its highest point of elevation descended to another floor far below, where they disembarked.

The huge revolving star-wheel was nothing but an ingenious movable staircase. But the Professor gave Talbot no time to marvel, nor did the latter try to linger. The corridor below was wider, more richly beveled and carved, and the statue of an heroic bird stood perched in the center of it. The lighting was soft and mellow, but Talbot could perceive no windows or globes. Suddenly from an open doorway hopped a bird. There was no chance to avoid it. Its wings were spread and from its parted bill came a harsh cry, "Toc-toc, toc-toc!"

Knife in one hand, the Professor hurled himself forward and caught the bird in the grip of the other. Instantly from the doorway sprang a monstrous mechanism on stilts, flexible tentacles of metal reaching out and wrapping themselves around the Professor. Talbot leaped to the Professor's assistance. The mechanism fought like a live thing. In vain he strove to wrench the tentacles free of the Professor. One of them lashed out and took him by the thighs in a crushing grasp. But the Professor had the bird by the throat. Both of his hands were free. Back, he forced its head, back. The mechanism seemed to falter in the attack, as if bewildered. Across the exposed throat the Professor drew the gleaming blade. Flesh, tendons and arteries gave, blood spurted, and in the same moment the tentacles fell away from Talbot and the Professor and withdrew with a dull clang. The Professor released the bird and it dropped to the floor.

"It is the birds' mentality that directs those mechanisms," said the Professor, pointing to the now harmless machine.

Apparently the brief but terrific battle had passed unnoticed, no alarm being given. Now the corridor twisted. The two men came to where a deep well was sunk in the floor. To one side a star-wheel revolved smoothly. Out of the depths came the steady throb of machinery. Cautiously peering over the edge, Talbot saw a sight he would never forget.

He did not need the Professor's whispered words to tell him that here was the source of the deadly attack being waged against earth. Motionless birds perched in front of bizarre machines; lights waxed and waned; a cannon-like device, or funnel, shot a column of light into a screen, and through the column of light moved a steady procession of round objects the size of plums.

"The drifting globes being shot through to earth," whispered the Professor, "and our only hope. Listen, the birds are intent on their machines, their backs to the star-wheel. We will descend, throw ourselves into the column of light, seize hold of a globe, and...."

He did not need to finish. Talbot understood in a flash. They would be dragged to their own world by the weapons hurled at it.

"Of course that column of light may kill us," went on the Professor tensely. "Or we may be blown up on the other side. Your Mexican friend hasn't touched off that explosive gas yet, because--But we've not a moment to lose. Follow me."

The tip of the star-wheel went up, over, descended. The blood was roaring in Talbot's ears. "Now!" hissed the Professor. "Now!" Together they rushed forward. Talbot's foot slipped. The heart leaped into his throat. He never remembered reaching the column of light; but suddenly he was in it, blinded, dazed. His clutching hands closed on
something small and hard.

The laboratory was a pinwheel going round and round. Through a sea of darkness he floated. A distant glow grew, expanded, became the crypt in the old Wiley mine. A moment he glimpsed the gleaming pillars, the pulsing machines, the startled birds, and then--Oh, it was incredible, impossible, but the dark, crumbling walls of the old shaft were around him; the globe in his hand no larger than a pea was lifting him towards life and safety.

He wanted to shout, to sing, but even as the pale stars fell athwart his upturned face, even as the cool mountain air smote his fevered brow, the dark earth erupted beneath his feet, a whirlwind of smoke and wind beat and buffeted him, and, in the midst of an overwhelming noise, consciousness was blotted out!

It was bright daylight when Talbot regained his senses. Propped against a great rock the Professor regarded him whimsically. Reubens looked badly bruised and battered; one arm hung loosely at his side. Talbot's head ached and he knew that a leg was broken.

"Yes," said the Professor, "we got through just in time--a few seconds before the explosive gas was touched off. Thank God, my invention has been destroyed. The world is safe."

Yes, the world was safe. Talbot sank back with a sigh of relief. Overhead a white plane was dipping toward earth.
Layroh's hiring of husky down-and-outers for his expedition is part of a plan made ages past. It was shortly after midnight when a persistent nightmare aroused Don Foster from sleep. For a moment he lay drowsily in his blankets there on the sand, with memory of the nightmare still vivid.

It had been a monstrous flying thing like a giant blue-bottle fly that he had been battling in his sleep. Memory of the thing's high-pitched, droning buzz still rang in his ears. Then abruptly he realized that the peculiar buzzing was no mere echo of a nightmare. It was an actual sound that still vibrated from somewhere within the camp.

Startled into full awakening, Foster propped himself up on one elbow. The sound was penetrating, but not particularly loud. He was apparently the only one whom it had awakened. In the gray gloom of the desert starlight he saw the blanket-shrouded figures of the rest of the men still deep in slumber.

He realized the source of the sound now. It came from inside the black walls of Layroh's tent, pitched there in its usual isolation on a slight rise fifty yards from the sleeping group. Foster grunted disgustedly to himself. More of Layroh's scientific hocus-pocus! The man seemed to go out of his way to add new phases of mystery to this crazy expedition of his through the barren wastelands of the Mojave.

For a solid week now they had been working their way back and forth over a thirty-mile stretch of desert, while Layroh labored with his intricate instruments searching for something known only to himself. Whatever reason Layroh had for recruiting a party of fifteen to accompany him was still a mystery. So far the men had done practically nothing except trail along after Layroh while he worked with his apparatus.

It was a state of affairs that caused the men little worry. As long as they had enough to eat they were quite content. They were down-and-outers, all of them, human derelicts recruited from the park benches and cheap flop houses of Los Angeles. They had only one thing in common: all of them were large and powerful men.

Don Foster was the youngest of the fifteen, and the only college man in the group. A succession of bad breaks had finally landed him broke and hungry on a park bench, where Layroh found him. Layroh's offer of ten dollars a day and all expenses had seemed a godsend. Foster had promptly jumped at the offer. Layroh's peculiar conditions and rules had seemed trivial details at the time.

Foster scowled as he lit a cigarette and stared through the gloom at the violet-lighted tent from which the disturbing sound still came. Seven days of experience with Layroh's peculiarities had begun to make them a little irritating. His sternly enforced code of rules was simple enough. Never approach Layroh unless called. Never touch Layroh's instruments. Never approach Layroh's tent. Never ask questions.

Layroh neither ate with the men nor mingled with them in any way that could possibly be avoided. As soon as they made camp each night he set up his small black tent and remained inside it until camp was broken the next morning. No one knew whether the man ever slept. All night long the violet light glowed inside the black tent. The men had wondered about the unusual color of that light, then had finally decided it was probably something required by the same eye weakness that made Layroh wear heavily smoked goggles, both day and night.

Strange sounds in the night as Layroh worked with his apparatus in the black tent were nothing unusual, but tonight was the first time that Foster had ever heard this peculiar whining buzz. As he listened it rose in a sudden thin crescendo that rippled along his spine like a file rasping over naked nerve-ends. For one shuddering second there seemed to be an intangible living quality in that metallic drone, as though some nameless creature sang in horrible exultance. Then abruptly the sound ceased.

* * * * *

Foster drew a deep breath of relief and ground his cigarette into the sand beside him. Better try to get to sleep again before Layroh started some new disturbance with his infernal apparatus.

He was just settling down into his blankets when a movement in the tent drew his attention back to it. Layroh was apparently changing the position of the violet light, for his tall figure was suddenly silhouetted against the tent wall in sharp relief.

Foster started in surprise as another figure loomed darkly beside that of Layroh. For a moment he thought that the unprecedented had happened and some member of the expedition was inside those jealously guarded tent walls with Layroh. Then he saw that the figure must be a mere trick of the shadows cast by the moving light upon some piece of luggage. It looked like the torso of a man, but the head was a shapeless blob and the arms were nothing more than boneless dangling flaps. A moment later the light moved on and both shadows vanished.
Foster grinned sheepishly over the momentary start the distorted shadow had given him, and determinedly rolled himself in his blankets to sleep. It was after sunrise when he awoke. The rest of the camp was already up, but there was one member of the party missing.

Jeff Peters' empty blankets were still spread there on the sand, but no one had seen the big Negro since the camp turned in the night before. The expedition's daily travels under the blazing sun of the Mojave never had appealed particularly to Jeff, and he had apparently at last made good his repeated threats to desert.

* * * * *

The men were just getting up from breakfast when Layroh finished packing his tent and apparatus in his sedan, and started down toward the camp. As usual, he halted some five yards away from them, standing there for a moment in stony silence.

Physically, the man was a giant, towering well over six feet in height. On several occasions when the expedition's cars had stalled in deep sand he had strikingly demonstrated the colossal strength in his tall body.

His aquiline features, his red-bronze complexion, and his long black hair, were all suggestive of Incan or Mayan ancestry. No one had ever seen any trace of feeling or emotion upon his impassive features. Foster would have given a good deal for just one glimpse of the eyes hidden behind the dark-colored goggles. In their depths he might be able to find some reason for the tingling surge of nameless dread that Layroh's close approach always inspired.

Layroh noted Jeff Peters' absence at once. "We seem to have our first deserter," he commented evenly. His voice was as richly resonant as the tone of some fine old violin. He hesitated almost imperceptibly between words, like one to whom English was not a native tongue.

"It does not matter," he continued indifferently. "We can spare one man easily enough. To-day we shall continue toward the east. Pack the truck at once. We are ready to start."

Without waiting for an answer, he turned and strode back to the sedan. A curious thought struck Foster as he stared after Layroh's retreating figure. What if the oddly distorted shadow he had seen against the tent wall last night had really been that of a man--had been that of Jeff Peters?

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For only a moment did Foster mull over the idea. Then he promptly dismissed it as being absurd. He could imagine no possible reason for Jeff Peters being in Layroh's tent in the middle of the night. The shadow had been only remotely like that of a man, anyway. There had been neither head nor arms to the figure, only shapeless masses totally unlike anything human.

They finished packing the breakfast stuff in the supply truck, and the party started out along the trail with Layroh's sedan leading the way. For nearly two hours they followed their usual routine, working steadily eastward and stopping at regular intervals while Layroh made his methodical tests with his instruments.

Then near the end of the second hour something happened that abruptly sent a thrill of excitement through the entire expedition. Layroh had just set his apparatus up on a small sand dune beside the trail. The mechanism looked somewhat like a portable radio, with two slender parallel rods on top and a number of dials on the main panel.

Layroh swung the rods slowly around the horizon while he carefully tuned the various dials. It was when the rods pointed toward the southeast that there suddenly came the first response he had ever received. From somewhere within the mechanism there came a faint staccato ripple of clear beauty like countless tiny hammers beating upon a crystal gong.

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The sound galvanized Layroh into the nearest approach to emotion anyone had ever seen him display. The giant moved with the furious speed of a madman as he returned the apparatus to the sedan and swung the car out across the sand toward the southeast. After a mile he stopped and hurriedly set the apparatus up again. This time the crystalline signal came in with a noticeable increase in volume.

From then on the progress of the party became a mad dash that taxed the endurance of everyone except Layroh himself. After the first hour they entered a terrain so rugged that the cars had to be abandoned and they fought their way forward on foot. Layroh was forced to turn the radiolike apparatus over to one of the men, while he himself carried another mechanism that consisted of a heavy silver cylinder with four flexible nozzles emerging from one end.

They held as rigidly as possible to a straight line toward the southeast, scrambling over whatever obstacles intervened. Their only stops were at regular intervals when Layroh checked their course. Each time the crystalline signal came in with greater volume.

Their objective appeared to be a cone-shaped peak several miles ahead that loomed up high above the surrounding rock masses. The oddly shaped mountain was identified by one of the men who had once been a Mojave desert rat.
"Lodestone Peak," he announced succinctly. "Full of iron, or somethin'. A compass always goes haywire within a radius of ten miles of it."

It was early afternoon when they finally arrived at a level area at the base of the mountain. For the last two miles Layroh had not stopped long enough to make any tests. Now he set the radiolike apparatus in place some ten yards from the face of a sheer cliff that towered high above them.

The crystalline signal came in a rippling flood. He spun the dials. The sound ceased, and the pointing rods glowed with an aura of amber light at their tips. Swift and startling answer came from deep within the heart of the cliff, a mighty note of sonorous beauty like the violent plucking of a string on some colossal bass viol. So powerful was the timbre of the pulsing sound that the entire side of the mountain seemed to vibrate in harmony with it.

Layroh snapped off the apparatus and the sound ceased. Carefully searching until he found a certain spot on the cliff face, he stepped close to it and unlimbered the nozzles of the silver cylinder. Foster noted that at the place selected by Layroh there was a five-foot-wide stratum of slightly lighter-colored rock extending from the sand to a point high up on the cliff face.

From the metal nozzles of the cylinder there spurted a broad beam of dead black. There was a searing flash of blue-white flame as the black beam struck the cliff face. There followed a brief second during which the rock melted into nothingness in the heart of that area of blue radiance. Then the stabbing beam bored steadily on back into the cliff like the flame of a blow torch melting a way through a block of butter.

Layroh adjusted the nozzles until the black beam was a solid shaft of opacity seven feet in height and nearly five in width. The hole in the cliff became a tunnel from which blue radiance surged outward in a shimmering mist as the black beam steadily bit deeper into the rock.

"Follow me," Layroh ordered the men, "but do not approach too close."

He stepped forward and entered the mouth of the tunnel. Shaken by the spectacular thing occurring before their eyes, yet, driven by curiosity as to what might lie at the end of that swift-forming tunnel, the men came crowding obediently after him. A moment later they were within the passage, stumbling dazedly forward through the billowing fog of bluish radiance. There was an odd, almost electric, tingle of exhilaration in that radiant mist as it surged about their bodies.

Fragments of almost-forgotten scientific lore flitted through Foster's brain as he groped for a clue to the action of the strange ray. Not quite complete disintegration of matter, but something very close to it--probably the transformation of matter into radiant energy, an ingenious harnessing of the same forces that are forever at work in the cosmic crucibles of the universe's myriad suns.

The action of the black ray was amazingly rapid. They were forced to hurry forward at a fast walk to keep their distance behind Layroh. The vertical stratum of lighter-colored rock continued straight back into the heart of the mountain. It apparently served as a guide. The color of the blue flame-mist changed perceptibly whenever Layroh allowed the black ray to stray into the rock at either side of it.

For nearly two hundred yards they bored their way steadily into the mountain, their path gradually sloping downward. The walls and floor of the swift-forming tunnel were as smooth and hard as though glazed with a film of diamond.

Then abruptly Layroh shut the black ray projector off as the rock ahead of them ended and they broke through into another larger tunnel, dimly lighted by small globes of violet radiance set at intervals in the glassy ceiling. After thirty yards of travel along this tunnel they found their way barred by a massive door of copper-colored metal.

At Layroh's imperious gesture the men halted a dozen feet back of him in the tunnel while he brought something out of his leather belt-case. Foster was the only one of the group who was near enough to see that the object was a small tube closely resembling a pocket flashlight.

The only break in the surface of the great door was a six-inch disk over near its right-hand edge. Layroh slid this disk aside. Into the opening that was revealed he sent a series of flashes of colored light from the tube--two red, three green, and two blue. The colors were the combination to the light-activated mechanism of the lock. At the last of the blue flashes there was a whirring of hidden mechanism and the portal swung slowly and ponderously open.

Layroh beckoned to the men to follow him as he strode swiftly on into a vast room that was flooded with bluish light from scores of the radiant globes. As the men passed through the door it reached the limit of its opening swing and began automatically closing again behind them, but they were too completely engrossed in the scene before them to notice it.

They were in a great cavern whose glass-smooth floor was nearly a hundred yards square, and whose ceiling
was so high that it was lost in the shadows above the maze of metal girders and cables that made a webwork some forty feet overhead. There was a feeling of almost incredible age about the place, as though it had been sealed away there in the heart of the mountain for countless centuries.

On every hand there was evidence that the cavern and all its contents were the products of a race of beings whose science was one that was utterly strange to that of the modern world. At the end of the room where they stood were row after row of different machines, great engines with bodies of dull silver metal and with stiltilike legs and jointed arms that made them look like giant metal insects. Foster could understand few of the details of the machines, but he felt that in efficiency and versatility they were far ahead of Earth's best modern efforts.

Grouped together in the center of the cavern were many assemblies of apparatus linked together by small cables that descended from main cables in the girder-crisscrossed ceiling overhead. There was a soft hissing of sparks leaping between terminals and a steady glow from oddly shaped tubes which indicated that the mechanisms were still functioning in silent and efficient performance of their unknown tasks.

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The piece of apparatus nearest the door was an upright skeleton framework of slender pillars housing in their center a cluster of coils set around a large drumlike diaphragm. Foster wondered if this were not the signal device with which Layroh had tuned in his own portable instrument. The principal piece of mechanism in the central space, however—a great crystal-walled case filled with an intricate array of rods and wires—was something at whose purpose Foster could not even guess.

Layroh strode on past the central apparatus toward the back wall. The men followed him. Then as they rounded the apparatus and saw for the first time the incredible things lining that rear wall, tier upon tier, they stopped short in utter stupefaction. Before them was Life, but Life so hideously and abysmally alien that their brains reeled in horror.

Great shining slugs slumbered there by the hundreds in their boxlike crystal cells, their gelatinous bodies glowing with pale and ever-changing opalescence. The things were roughly pear-shaped, with the large end upward. Deep within this globular portion glowed a large nucleus spot of red. From the tapering lower part of each slug's body there sprouted scores of long slender tendrils like the gelatinous fringe of a jelly-fish.

The things measured nearly four feet in height. Each was suspended upright in an individual glass-walled cell, its body supported by a loop of wire that dropped from larger cables running between each row of cells. There was steady and exhaustless power of some kind coursing through those cables. Where they branched at the end of each cell-row there was a small unit of glowing tubes and silver terminals whose tips glowed with faint auras of leaping sparks.

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The slugs were dormant now but the regular changes in the opalescent sheen which coursed over their bodies like the slow breathing of a sleeping animal, gave mute evidence that life was still in those grotesque forms, waiting only to be awakened.

Fascinated by the tiers of glowing things, one of the men started slowly forward with a hand outstretched as though to touch one of the cells. His advance aroused Layroh to swift action. The bronze-faced giant whirled and swung the nozzles of the black ray projector into line with the man.

"Back, yaharigan, back!" he ordered imperiously. "The Shining Ones have slumbered, undisturbed for a thousand centuries. They shall not awake from their long sleep to find the filthy fingers of a yaharigan defiling their crystal cells. Back!"

Panic-stricken at the threat of the black ray, the man stumbled backward to join his fellows. Layroh's startling statement of the incredible age of the shining things in the cases erased all thought of the expedition's code of rules from Foster's mind.

"You mean that those—those things—moved and lived in the outside world a hundred thousand years ago?" he asked dazedly. "But there is no indication of there ever having been any such creatures among Earth's early forms of life."

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"Fool!" There was angry disdain in Layroh's resonant voice. "They who slumber here are a race born far from this planet. They are the Shining Ones of Rikor. Rikor is a tiny planet circling a wandering sun whose orbit is an ellipse so vast that only once in a hundred thousand years does it approach your solar system. Rikor's sun was nearly dead and the Shining Ones had to find a new home soon or else perish. Then their planet swung near the Earth, and their scouts returned with the news that Earth was ideally suited for their purpose. There were barely five hundred of the Shining Ones all told, and they migrated to Earth in a body."

"And they've been in this cavern ever since, sealed up like tadpoles in fish bowls?" The question came from Garrigan, a strapping sandy-haired Irishman whose first blind panic at the black ray's menace was swiftly giving way to curiosity.
"It was your ancestors who drove the Shining Ones into their retreat here," Layroh answered grimly. "When the Shining Ones arrived upon Earth they found the planet already in the possession of a race of human beings whose science was so far advanced that it compared favorably even with the science of Rikor. This race was comparatively few in numbers, and was concentrated upon a small island-continent known as Atlantis. Shining Ones and Atlanteans met in a war of titans, with a planet as the stake. The Shining Ones were vanquished in that first battle. They lost a fifth of their number and barely half a dozen of their smallest space ships escaped destruction.

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"Planning a new and decisive assault, the Shining Ones planted atomic mines throughout the foundations of Atlantis. But the Atlanteans struck first by a matter of hours. At a set moment every volcanic vent on the Earth's surface belched forth colossal volumes of a green gas. Though that gas was harmless to creatures of Earth, it meant slow but certain death to all Rikorians. Furiously the Shining Ones struck their own blow, setting off the cataclysmic explosion that sank Atlantis forever beneath the waters of the Atlantic. Scarcely a handful of Atlanteans escaped, but Rikor's victory was a hollow one. Earth's air was so thoroughly poisoned that it would require centuries of slow ionization by sunlight to again make it fit for Rikorian breathing. The Shining Ones had at most three months before the slow poison would weaken their bodies to the danger point."

"Why didn't they go back to their own planet, then, where they belonged?" broke in the truculent voice of Garrigan again.

"That was impossible," Layroh answered impatiently. "The few space ships they had left would carry barely a score, and Rikor's sun was already so far advanced in its swing away from Earth that there would be time for only one trip. There was only one chance for survival remaining to them. They knew of a process of suspended animation in which their bodies could survive almost indefinitely without being harmed by the Atlantean gas. They would require outside aid to be awakened from that dormant state, so a small group of them must remain active and embark for Rikor, to try to survive there until Rikor returned near enough to the Earth for them to again cross the void.

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"The dormant ones must have a retreat so well hidden that they would not be disturbed during the thousand centuries that must elapse before they could be awakened. The Shining Ones sped back to their base on the North American continent and in the three months remaining to them they prepared this cavern here in the heart of the mountain. Radium bulbs supplied its light. For the unfailing source of electrical energy needed to course through the dormant bodies and keep them alive they tapped the magnetic field of the planet itself, the force produced as the Earth rotates in the sun's electrical field like an armature spinning within the coils of a dynamo."

It was Foster who broke in with the question that was in the thoughts of the entire party. "Just where do you come in on all this?" he asked bluntly. "And what was your reason for bringing us here?"

There was blazing contempt in Layroh's rich voice as he turned toward Foster. "Yaharigan of Earth!" he jeered. "Your brain is as stupid as the feeble brains of those true yaharigans of Rikor whose physical structure your human bodies so closely resemble. Have you not guessed yet that I am no contemptible creature of Earth--that this human shell I wear is nothing but a cleverly contrived disguise? Look, yaharigans, look upon the real face of the one who has come to restore the Earth to its rightful masters!"

With a single swift movement, Layroh snatched the colored goggles from his face and flung them aside. There was a smothered gasp of horror from the group. They saw now why Layroh had always worn those concealing lenses. There were no eyes in that bronzed face, nothing but two empty sockets. And from deep within the skull there glowed through those gaping sockets a seething pool of lurid red--the nucleus spot of a Shining One!

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Reeling backward with the rest of the men from the horror of the glowing thing within the skull, Foster dazedly heard Layroh's resonant voice ring exultantly on: "My ancestors were among the twenty Shining Ones who remained active. After placing their comrades in their long sleep those twenty survivors set up signal apparatus in the cavern so that it could be found again no matter how much the outside terrain might change. Then they filled in the entrance tunnel with synthetic rock and embarked for Rikor.

"There upon that dying planet generations passed. When the time came that Rikor's sun again neared Earth, so rigorous had life become upon Rikor that only six Rikorians remained alive. In order to increase our chances of winning through on the perilous trip to Earth, each of us traveled in a separate space ship. The precaution was well taken. We encountered a dense cloud of meteors near Alpha Centauri and I was the only survivor."

Layroh gestured briefly toward the rows of many-armed metal engines. "There are the normal vehicles for a Shining One's body--armored machines powered by sub-atomic motors and with appendages equipped for every task of peace or war. This synthetic human figure which I now wear was donned only in order that I might have no difficulty in mingling with Earthmen while I sought the cavern. It is an exact replica of the body of an Atlantean, including artificial vocal chords. Even the colored goggles necessary to hide the glowing red of my nucleus are
similar to those worn by Atlantean scientists while working with their ray machines—"

Layroh was abruptly interrupted by a scream of maniacal fury from Olsen, a shambling Swede who stood near
the edge of the group. Ever since Layroh's unmasking the Swede had been staring at him with eyes rigidly wide in
terror like those of a bird confronting a snake. The steady contemplation of the horror of the blaring red thing behind
Layroh's empty eye-sockets had apparently at last driven the Swede completely insane. He snatched a revolver from
his belt as he leaped forward, and fired once. His shot struck Layroh in the forehead.

The bullet ripped through the surface of Layroh's face, then glanced harmlessly aside as it struck metal
underneath. Layroh never even staggered from the impact. The black ray from the projector caught Olsen before he
could fire again. There was a searing flash of flame, then a swiftly melting cloud of blue-white radiance, and the
Swede was gone.

Layroh swung the projector back to menace the others. "I had forgotten that yaharigans of Earth have weapons
that might be annoying," he said evenly. "Two more of you have pistols--Garrigan and Ransome. Toss them away
from you at once. Hesitate--and the black ray speaks again."

Sullenly the two men obeyed his order.

"Good," commended Layroh. "In the pits where you are going you will have little use for pistols. When I again
take you from those pits you will quickly learn why I brought you with me. Yaharigans, I have called you, and
yaharigans you shall be--Earthly counterparts of those miserable beasts of Rikor who have for ages been bred only
for the one purpose of supplying food for the Shining Ones. I knew that when I found the cavern the process of
awakening the Shining Ones would require that they be carefully fed with the calcium and lime from the bones of
living yaharigans, the normal food of all Rikorians.

"The few yaharigans I had brought from Rikor were consumed on my long trip to Earth. So I had to recruit a
party of human beings to go with me and serve as the necessary food for the Shining Ones. My search for the cavern
took longer than I had expected for I knew only its approximate location. My own body at last had to have
sustenance. Last night the Negro, Jeff Peters, provided that sustenance.

"I shall feed those of you who remain to the first group of Shining Ones to be awakened. After that we shall be
strong enough in numbers to sally forth and capture ample food for awakening the rest of our comrades. Then in our
full strength we shall emerge and again become masters of a planet upon which your crude race shall exist only as
yaharigan herds for our sustenance."

Layroh's resonant voice ceased. Keeping the black ray projector alertly covering the men, he strode over to a
closed metal door in the wall just beyond them. He took a small tube from a rack beside it and opened the door by
sending a flash of yellow light into the mechanism of its lock.

"Into the pits until I am ready for you," he commanded curtly. "They were first constructed for keeping our own
yaharigans while we were working in the cavern, and they should serve just as well for you."

With the memory of Olsen's tragic fate still fresh in their minds, the men obediently filed into the next room,
with Layroh bringing up the rear. The room was little more than a single large cell carved from the living rock, and
lighted by a single radium bulb in the ceiling.

Its smooth glasslike floor was broken at intervals of ten feet by circular pits fifteen feet deep. At Layroh's order
the men entered the floor-pits, one man to each pit. As Foster lowered himself into one of them he saw how grimly
efficient a trap the pit was.

An unusually tall and active man might be able to jump high enough to touch the edge, but the effort would be
useless. Those glass-smooth edges were so cunningly rounded that they offered no possible purchase for clutching
fingers. The diameter of the pit, ten feet, was too great to permit any effort at climbing by wedging one's body
between two opposing walls.

Layroh sent every man into the pits but one.

"You will return to the cavern with me, Carter," he ordered. "I have need for you at once."

They heard the door clang shut as Layroh and Carter left the pit room. Chaos reigned as the men flung their
bodies against the pit walls in efforts to escape. There was the click of metal as several of them tried with pocket
knives to chip finger-holes in the walls, but the glassy surfaces were of diamond hardness.

Foster's brain was numb with despair as he began to realize the true meaning of those sleeping things out in the
cavern. Death in some unknown and horrible form was imminent for himself and his companions, he knew, but his
thoughts were going far beyond that, to the time when the Shining Ones would emerge in all their resistless power to
ravage and conquer a helpless world.
There could be little doubt as to the futility of Earth's best efforts against the advanced science of these invaders from far-off Rikor. Encased in their colossal machine-bodies of glittering metal, and armed with such terrible weapons as the black ray projector, the Shining Ones would be as invulnerable as men trampling an anthill underfoot.

The future status of mankind upon the Earth would be that of vast herds of human yaharigans, probably bred for ever greater bone content as men breed cattle for superior food values. The picture aroused Foster to a fury of cold desperation. If they could only escape from the pits there might be a chance to trap Layroh and slay him before he brought those hordes of opalescent slugs to life. Then escape from the cavern itself would be an easy matter. Even if the outer door had been locked since they passed through it Layroh had the light-key and Foster remembered the combination.

Half a dozen wild schemes flitted through Foster's brain, only to be discarded as futile. Then suddenly he thought of something that had every chance of success if only they were given time enough. Layroh in his arrogance had forgotten that his prisoners were not naked brutes of Rikor. In the very clothing the men wore was the means of escape from the pits.

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Foster's voice cut through the babel in the room until he gained everyone's attention.

"Our only chance for escape is to get a rope between two pits," he said curtly. "Then one man can climb out while the other holds the rope. We'll have to make that rope from our clothing. No one man can get a strip strong enough, so we'll have to work the strips to a central man who can braid them into a single heavy rope. I'm near the center. Get the strips to me. Tear your clothing into ribbons, and knot them together. Use your knives, watches, anything to weight one end of the strip. Then cast until you get contact with the pit next to you. That way all the strips can be worked to me."

A period of feverish activity followed while the men went to work. Layroh also was busy. Through several narrow ventilating slits high in the cavern wall they heard the hum of machinery.

The first of the men finished knotting their ropes together. With weighted ends muffled to deaden their fall upon the rock floor, they began casting to get contact with their neighbors.

Success came slowly. There were often scores of blind casts made before a weighted end came into an adjoining pit. But the time finally came when Foster had a twenty-five-foot length of rope strong enough to bear his weight. He already had a single strand making contact with Garrigan in the next pit. Garrigan drew the heavier rope in to him, then acted as an anchor while Foster climbed to the floor above.

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His downstretched hand pulled Garrigan to freedom. Getting the other men up to the floor was the work of but a few moments. They were a weird-looking crew in the torn fragments of clothing that remained to them. Foster stationed them beside the locked cavern door so that they would be hidden behind it when it opened.

"Wait till Layroh is safely inside," he ordered, "then rush him. Get that black ray thing out of commission first. Without that, we should be more than a match for him. In the meantime you come with me, Garrigan. Maybe we can get a look into the cavern."

By climbing on Garrigan's broad shoulders Foster found that he had a clear view through one of the narrow ventilating slits. Layroh had made efficient use of the time since he had left the pit room. Suspended from softly glowing wires in the large central glass case was a circular group of ten of the Shining Ones.

Foster's eyes widened in horror as he saw the object in which the trailing tendrils of the luminous slugs were sunk. It was the naked body of Carter. As those sucking tendrils drew out the substance of his skeleton, Carter's body was changing slowly, horribly, sinking into a flabby mass of puttylike flesh.

The dormant bodies of the great slugs glowed perceptibly brighter as they fed, and the pulsations of opalescence quickened. The Shining Ones were beginning to awaken. Faint but unmistakable there came to Foster's ears a low singing drone from the group.

He shuddered. He knew now why Jeff Peters' shadow had seemed so grotesquely boneless. That droning buzzing sound he had heard from the black tent had been the feeding cry of a Shining One—of Layroh. Then, his horrible feast ended, Layroh had blasted what remained of his victim into nothingness with the black ray.

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Foster was abruptly startled into action as Layroh turned from watching the central case. Picking up the black ray projector, he started toward the pit-room door. Foster scrambled down. With Garrigan he joined the tensely waiting group beside the door.

There was the sound of the mechanism unlocking. The door opened and Layroh came striding in. In a concerted rush the men were upon him. Foster's hurtling dive for the black ray projector knocked the apparatus out of Layroh's hands. It crashed to the floor with a violence that left it shattered and useless. Swept off his feet by the
savage fury of the unexpected attack, Layroh went to the floor beneath the writhing group of men.

The metal sinews of his magnificent body brought him to his knees in one mighty effort, but the numbers of his assailants were too great. Again he was beaten down while powerful hands tore at his limbs. The metal of the ingenious machine that was Layroh's body began twisting and giving way before the savagery of the assault.

He staggered to his feet, flinging the men aside in one last mad surge of power, and lurched toward the cavern. His effort to slam the door closed behind him was blocked by the swift leap of two of the men. Layroh staggered on into the cavern. Then suddenly the torn framework of his legs collapsed completely, and he fell heavily on his back.

The men surged forward with a shout of triumph. But before they could reach Layroh's prostrate figure one of his hands reached up and opened his skull as one opens the hinged halves of a box. From within the skull there rolled a great shining slug, a sinisterly beautiful figure of glowing opalescence, with a scarlet nucleus! For one breath-taken instant it rose to its full height of four feet, hesitated, as if warily regarding the horror-struck men, then with tendrils pressed into its body until it was nearly spherical, the slug that had been Layroh rolled like a ball of living fire across the cavern toward the cluster of machines. Foster snatched up one of the discarded pistols from the floor and fired twice at that hurtling globe of flame, but both shots missed.

A moment later the slug reached the machines. It fled swiftly past a group of smaller mechanisms and selected a gleaming metal colossus whose size and formidable armament indicated that it was designed primarily as an instrument of war. With whipping tendrils the slug swarmed up one of the metal legs and into a small crystal-walled compartment in the forward end of the machine.

There was the crackling hiss of unleashed sub-atomic forces somewhere within the metal body. The machine moved in fumbling uncertainty for a moment as the slug fought to get control of mechanism that had lain idle for a thousand centuries! Then swiftly full control came, and the machine came charging toward the men.

They broke in wild panic before the onslaught of the metal monster. As an engine of war it was invincible. Six feet in height and nearly twenty feet in length, it maneuvered upon its jointed legs with bewildering speed and efficiency. A score of rodlike arms projected from the main trunk, arms that were equipped for nearly every purpose. Some ended in pincers, others in barbed points, and others in clusters of flexible metal tentacles.

One of the men screamed in terror and broke for the door back into the pit room. Foster flung him aside and slammed the door shut and locked.

"You'd be trapped like a rat in there," he grated. "Our only chance is to stick together and fight it out."

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It was a chance that seemed increasingly slight as they tried to close in upon the machine. Garrigan had recovered the other pistol from the floor. He emptied it into the metal monster at a range of less than ten feet but the bullets glanced harmlessly off as from armor plate.

The machine fought back with deadly efficiency. One of the dagger-pointed arms impaled a man like a speared fish. Pincers closed upon the neck of another, half tearing his head from his body. With the strength of desperation the men wrecked the pillars-and-diaphragm apparatus and from the debris tore metal fragments to serve as clubs. Their blows against the thing's pistonlike legs failed to even shake it. Two more men died before the grim efficiency of the stabbing arms.

Foster had held the remaining bullets in his own pistol, waiting for a chance to use them against some vulnerable spot in the machine, but he saw none. There was a bare chance that if he could gain the machine's back he might find some crevice through which he could send a telling shot. Cramming the pistol into his belt, he

For a breathless moment he saw the girders and cables of the ceiling hurtling toward him. Instinctively he grabbed with both hands at one of the lower girders as his body thudded into it. His clutching fingers slipped momentarily, then held, leaving him dangling there at arms' length thirty feet above the floor.

His wits swiftly clearing from the shock of that mighty toss through space, Foster scrambled up on the narrow girder. Sitting astride the metal beam, he looked down at the scene below.

The battle down there was nearly over. The glowing slug in the machine was now obviously trying to capture the remaining men alive for further use. Instead of slaying, its lashing arms fought only to stun and cripple.

Six of the men still remained on their feet but they were trapped in an angle between heavy apparatus and one of the walls. In the central case the ten semi-dormant slugs, still too inactive to take part in the battle themselves, seemed watching the conflict with great unwinking eyes of crimson.

Foster groaned. The metal colossus was too powerful for their feeble efforts. It would take a bolt of lightning to
have any effect upon that mighty engine of war. At the thought, Foster's heart leaped in sudden inspiration. There was lightning, the terrific electrical force of a spinning planet, in the cables up here among the girders, if he could only release it.

Slightly below his position and barely six feet away from him one of the main power cables of the cavern was suspended from heavy insulators. If the cable had ever had an insulating sheath around it the fabric had vanished during the centuries for the dull silver-colored metal was now completely bare.

If that naked cable could be dropped into contact with Layroh's machine-body, the entire power of one of the cavern's main lines would be grounded through the metal of the machine. The position of the cable with regard to where the machine was now, was perfect for the scheme. If Foster could sever the cable just opposite him there was an excellent chance that the longer one of the free ends would drop directly upon the machine.

And in his possession he had a possible means of severing that cable--the pistol that was still crammed in his belt. There were four shots remaining in the pistol. The cable was barely half an inch thick, but the range was so short that he could not very well miss. If the silver-colored metal was as soft as it looked, the heavy bullets should be enough to tear through it.

Foster thrust the pistol as close to the cable as he could reach. Then, with the muzzle scarcely a yard from the silver strand, he fired. The heavy bullet caromed from the cable's surface, but not before it had torn a gash nearly a third of the way through it.

There was a sudden cessation of activity below as the slug in the machine looked up at the sound of the shot. Swift inspiration seized Foster and he promptly sent his next shot down at the machine itself. The bullet glanced harmlessly off, but his ruse worked. Apparently believing that Foster was merely trying another futile attack upon it, the machine turned its attention back to the men it had cornered. Foster could be attended to later.

Foster slipped and nearly fell just as he fired at the power line the next time and his shot missed. That left him only one remaining cartridge. Aiming with infinite care he sent his last shot smashing squarely into the part of the cable remaining intact.

It trembled and sagged as the bullet cut the remaining metal nearly through. Only a bare thread was left, yet that thread held. Sick at heart over the narrow margin by which his effort had failed, Foster stared in despair at the nearly severed cable. It needed only one solid blow to tear that last thread of metal apart, but the cable was just far enough away to be effectively beyond his reach.

Then suddenly Foster's eyes narrowed. There was a way remaining by which the weakened power line could be broken. A single hurtling dive out and downward from the girder would send his own body crashing squarely into the metal strand. Beneath the smashing impact of his one hundred and eighty pounds the nearly severed cable was certain to break.

Foster shuddered as he realized what that dive into space would mean. He was not thinking of the fall itself. The thirty-foot drop to the diamond-hard floor of the cavern would in all probability mean death or broken bones, but that was a hazard which Foster was willing to take.

It was the thought of what would happen in the brief moment of contact when his body met that bare cable that drained the color from Foster's face. There was the terrific electrical energy from a spinning world coursing through that silver strand, a force that in all probability was powerful enough to instantly char a human body to a glowing cinder!

If he could only insulate his body at the point where it would touch the cable he might have at least a chance of surviving the contact. The only possible insulating medium he had was the clothing he wore--a pair of heavy corduroy trousers and the sleeveless remnant of a woolen shirt. They could be rolled into a bundle that would be bulky enough to at least give him some protection from contact with the bare cable.

Laying the empty pistol on the girder beside him, he stripped as quickly as his precarious perch would permit. Then, using the pistol as a central core to give body to the bundle, he swathed it deep within the folds of the clothing, making a thick roll that he could hold in his right hand as he leaped.

At best the insulating qualities of the roll would be far from perfect, yet it might serve to minimize the effects of the cable's charge enough to give him some chance of escaping alive. His contact with the power line would be only for the fractional part of a second and his body would be completely in the air at the time, out of direct contact with anything through which the cable's charge might ground.

Foster crouched on the girder, his eyes fixed upon the scene below as he tensely waited for the best moment to make the leap. The machine had shifted its position slightly while he had been stripping. It was now too far over the right to be under the cable when it fell.
For a moment as the machine maneuvered still farther over to the right in its conflict with the cornered men, Foster was afraid that his opportunity had passed. An idea came to him and he yelled directions. One of the men suddenly dashed to the left, apparently in a last frantic effort to escape the metal colossus. The machine flashed quickly over to head the fugitive off. The maneuver brought it for the moment directly under Foster's position.

Foster's muscles tensed swiftly, then flung his body headlong out into space. His aim was perfect. The bulky roll of cloth in his outstretched right hand struck the cable squarely with all the force of his hurtling body behind it.

There was a searing flash of blue flame as the last thread of the cable snapped, and a tearing flood of agony that blotted all consciousness from Foster's brain as his falling body hurtled on toward the cavern floor.

* * * * *

He struggled slowly back to consciousness to find Garrigan and another of the men working over him. There was the stabbing pain of broken bones in his left ankle. With the men helping him, he sat up and looked around.

The scene was one of utter chaos and destruction. The falling cable had obviously found its mark on Layroh's machine-body and in its last furious convulsions the metal colossus had completely wrecked the great glass case in the center of the cavern floor.

The machine itself was now nothing more than a tangled heap of twisted metal. In its shattered crystal compartment was a torn blob of swiftly blackening gelatin—all that remained of Layroh, the Shining One. Other shredded figures of dead flesh marked where the ten half-awakened slugs had died in the wreckage of the glass-walled case.

And in the many tiers of small cells along the cavern's back wall were more figures of death. The severed cable had been the source of the energy that had kept those dormant figures alive. When that energy ceased death had come quickly. Those figures in the cells were no longer Shining Ones. Their bodies were already swiftly darkening in decay.

Foster smiled grimly as he looked around the cavern. There were scientific treasures here that would revolutionize a world. It was a fitting retribution for the Shining Ones. When they had destroyed Atlantis they had robbed Earth of countless centuries of scientific knowledge and progress. Now, here in the cavern that had at last become their tomb, they were leaving a legacy of science that would go far toward repaying that ancient debt.
Chapter 1
Mr. Bedford Meets Mr. Cavor at Lympne

As I sit down to write here amidst the shadows of vine-leaves under the blue sky of southern Italy, it comes to me with a certain quality of astonishment that my participation in these amazing adventures of Mr. Cavor was, after all, the outcome of the purest accident. It might have been any one. I fell into these things at a time when I thought myself removed from the slightest possibility of disturbing experiences. I had gone to Lympne because I had imagined it the most uneventful place in the world. "Here, at any rate," said I, "I shall find peace and a chance to work!"

And this book is the sequel. So utterly at variance is destiny with all the little plans of men. I may perhaps mention here that very recently I had come an ugly cropper in certain business enterprises. Sitting now surrounded by all the circumstances of wealth, there is a luxury in admitting my extremity. I can admit, even, that to a certain extent my disasters were conceivably of my own making. It may be there are directions in which I have some capacity, but the conduct of business operations is not among these. But in those days I was young, and my youth among other objectionable forms took that of a pride in my capacity for affairs. I am young still in years, but the things that have happened to me have rubbed something of the youth from my mind. Whether they have brought any wisdom to light below it is a more doubtful matter.

It is scarcely necessary to go into the details of the speculations that landed me at Lympne, in Kent. Nowadays even about business transactions there is a strong spice of adventure. I took risks. In these things there is invariably a certain amount of give and take, and it fell to me finally to do the giving reluctantly enough. Even when I had got out of everything, one cantankerous creditor saw fit to be malignant. Perhaps you have met that flaming sense of outraged virtue, or perhaps you have only felt it. He ran me hard. It seemed to me, at last, that there was nothing for it but to write a play, unless I wanted to drudge for my living as a clerk. I have a certain imagination, and luxurious tastes, and I meant to make a vigorous fight for it before that fate overtook me. In addition to my belief in my powers as a business man, I had always in those days had an idea that I was equal to writing a very good play. It is not, I believe, a very uncommon persuasion. I knew there is nothing a man can do outside legitimate business transactions that has such opulent possibilities, and very probably that biased my opinion. I had, indeed, got into the habit of regarding this unwritten drama as a convenient little reserve put by for a rainy day. That rainy day had come, and I set to work.

I soon discovered that writing a play was a longer business than I had supposed; at first I had reckoned ten days for it, and it was to have a pied-a-terre while it was in hand that I came to Lympne. I reckoned myself lucky in getting that little bungalow. I got it on a three years' agreement. I put in a few sticks of furniture, and while the play was in hand I did my own cooking. My cooking would have shocked Mrs. Bond. And yet, you know, it had flavour. I had a coffee-pot, a sauce-pan for eggs, and one for potatoes, and a frying-pan for sausages and bacon--such was the simple apparatus of my comfort. One cannot always be magnificent, but simplicity is always a possible alternative. For the rest I laid in an eighteen-gallon cask of beer on credit, and a trustful baker came each day. It was not, perhaps, in the style of Sybaris, but I have had worse times. I was a little sorry for the baker, who was a very decent man indeed, but even for him I hoped.

Certainly if any one wants solitude, the place is Lympne. It is in the clay part of Kent, and my bungalow stood on the edge of an old sea cliff and stared across the flats of Romney Marsh at the sea. In very wet weather the place is almost inaccessible, and I have heard that at times the postman used to traverse the more succulent portions of his route with boards upon his feet. I never saw him doing so, but I can quite imagine it. Outside the doors of the few cottages and houses that make up the present village big birch besoms are stuck, to wipe off the worst of the clay, which will give some idea of the texture of the district. I doubt if the place would be there at all, if it were not a fading memory of things gone for ever. It was the big port of England in Roman times, Portus Lemanis, and now the sea is four miles away. All down the steep hill are boulders and masses of Roman brickwork, and from it old Watling Street, still paved in places, starts like an arrow to the north. I used to stand on the hill and think of it all, the galleys and legions, the captives and officials, the women and traders, the speculators like myself, all the swarm and tumult that came clanking in and out of the harbour. And now just a few lumps of rubble on a grassy slope, and a sheep or two--and I. And where the port had been were the levels of the marsh, sweeping round in a broad curve to
distant Dungeness, and dotted here and there with tree clumps and the church towers of old medical towns that are following Lemanis now towards extinction.

That outlook on the marsh was, indeed, one of the finest views I have ever seen. I suppose Dungeness was fifteen miles away; it lay like a raft on the sea, and farther westward were the hills by Hastings under the setting sun. Sometimes they hung close and clear, sometimes they were faded and low, and often the drift of the weather took them clean out of sight. And all the nearer parts of the marsh were laced and lit by ditches and canals.

The window at which I worked looked over the skyline of this crest, and it was from this window that I first set eyes on Cavor. It was just as I was struggling with my scenario, holding down my mind to the sheer hard work of it, and naturally enough he arrested my attention.

The sun had set, the sky was a vivid tranquillity of green and yellow, and against that he came out black--the oddest little figure.

He was a short, round-bodied, thin-legged little man, with a jerky quality in his motions; he had seen fit to clothe his extraordinary mind in a cricket cap, an overcoat, and cycling knickerbockers and stockings. Why he did so I do not know, for he never cycled and he never played cricket. It was a fortuitous concurrence of garments, arising I know not how. He gesticulated with his hands and arms, and jerked his head about and buzzed. He buzzed like something electric. You never heard such buzzing. And ever and again he cleared his throat with a most extraordinary noise.

There had been rain, and that spasmodic walk of his was enhanced by the extreme slipperiness of the footpath. Exactly as he came against the sun he stopped, pulled out a watch, hesitated. Then with a sort of convulsive gesture he turned and retreated with every manifestation of haste, no longer gesticulating, but going with ample strides that showed the relatively large size of his feet--they were, I remember, grotesquely exaggerated in size by adhesive clay--to the best possible advantage.

This occurred on the first day of my sojourn, when my play-writing energy was at its height and I regarded the incident simply as an annoying distraction--the waste of five minutes. I returned to my scenario. But when next evening the apparition was repeated with remarkable precision, and again the next evening, and indeed every evening when rain was not falling, concentration upon the scenario became a considerable effort. "Confound the man," I said, "one would think he was learning to be a marionette!" and for several evenings I cursed him pretty heartily. Then my annoyance gave way to amazement and curiosity. Why on earth should a man do this thing? On the fourteenth evening I could stand it no longer, and so soon as he appeared I opened the french window, crossed the verandah, and directed myself to the point where he invariably stopped.

He had his watch out as I came up to him. He had a chubby, rubicund face with reddish brown eyes--previously I had seen him only against the light. "One moment, sir," said I as he turned. He stared. "One moment," he said, "certainly. Or if you wish to speak to me for longer, and it is not asking too much--your moment is up--would it trouble you to accompany me?"

"Not in the least," said I, placing myself beside him.
"My habits are regular. My time for intercourse--limited."
"This, I presume, is your time for exercise?"
"It is. I come here to enjoy the sunset."
"You don't."
"Sir?"
"You never look at it."
"Never look at it?"
"No. I've watched you thirteen nights, and not once have you looked at the sunset--not once."
He knitted his brows like one who encounters a problem.
"Well, I enjoy the sunlight--the atmosphere--I go along this path, through that gate"--he jerked his head over his shoulder--"and round--"
"You don't. You never have been. It's all nonsense. There isn't a way. To-night for instance--"
"Oh! to-night! Let me see. Ah! I just glanced at my watch, saw that I had already been out just three minutes over the precise half-hour, decided there was not time to go round, turned--"
"You always do."
He looked at me--reflected. "Perhaps I do, now I come to think of it. But what was it you wanted to speak to me about?"
"Why, this!"
"This?"
"Yes. Why do you do it? Every night you come making a noise--"
"Making a noise?"
"Like this." I imitated his buzzing noise. He looked at me, and it was evident the buzzing awakened distaste. "Do I do that?" he asked.

"Every blessed evening."

"I had no idea."

He stopped dead. He regarded me gravely. "Can it be," he said, "that I have formed a Habit?"

"Well, it looks like it. Doesn't it?"

He pulled down his lower lip between finger and thumb. He regarded a puddle at his feet.

"My mind is much occupied," he said. "And you want to know why! Well, sir, I can assure you that not only do I not know why I do these things, but I did not even know I did them. Come to think, it is just as you say; I never have been beyond that field.... And these things annoy you?"

For some reason I was beginning to relent towards him. "Not annoy," I said. "But--imagine yourself writing a play!"

"I couldn't."

"Well, anything that needs concentration."

"Ah!" he said, "of course," and meditated. His expression became so eloquent of distress, that I relented still more. After all, there is a touch of aggression in demanding of a man you don't know why he hums on a public footpath.

"You see," he said weakly, "it's a habit."

"Oh, I recognise that."

"I must stop it."

"But not if it puts you out. After all, I had no business--it's something of a liberty."

"Not at all, sir," he said, "not at all. I am greatly indebted to you. I should guard myself against these things. In future I will. Could I trouble you--once again? That noise?"

"Something like this," I said. "Zuzzoo, zuzzoo. But really, you know--"

"I am greatly obliged to you. In fact, I know I am getting absurdly absent-minded. You are quite justified, sir--perfectly justified. Indeed, I am indebted to you. The thing shall end. And now, sir, I have already brought you farther than I should have done."

"I do hope my impertinence--"

"Not at all, sir, not at all."

We regarded each other for a moment. I raised my hat and wished him a good evening. He responded convulsively, and so we went our ways.

At the stile I looked back at his receding figure. His bearing had changed remarkably, he seemed limp, shrunken. The contrast with his former gesticulating, zuzzoing self took me in some absurd way as pathetic. I watched him out of sight. Then wishing very heartily I had kept to my own business, I returned to my bungalow and my play.

The next evening I saw nothing of him, nor the next. But he was very much in my mind, and it had occurred to me that as a sentimental comic character he might serve a useful purpose in the development of my plot. The third day he called upon me.

For a time I was puzzled to think what had brought him. He made indifferent conversation in the most formal way, then abruptly he came to business. He wanted to buy me out of my bungalow.

"You see," he said, "I don't blame you in the least, but you've destroyed a habit, and it disorganises my day. I've walked past here for years--years. No doubt I've hummed.... You've made all that impossible!"

I suggested he might try some other direction.

"No. There is no other direction. This is the only one. I've inquired. And now--every afternoon at four--I come to a dead wall."

"But, my dear sir, if the thing is so important to you--"

"It's vital. You see, I'm an investigator--I am engaged in a scientific research. I live--" he paused and seemed to think. "Just over there," he said, and pointed suddenly dangerously near my eye. "The house with white chimneys you see just over the trees. And my circumstances are abnormal--abnormal. I am on the point of completing one of the most important--demonstrations--I can assure you one of the most important demonstrations that have ever been made. It requires constant thought, constant mental ease and activity. And the afternoon was my brightest time!--effervescing with new ideas--new points of view."

"But why not come by still?"

"It would be all different. I should be self-conscious. I should think of you at your play--watching me irritated--instead of thinking of my work. No! I must have the bungalow."

I meditated. Naturally, I wanted to think the matter over thoroughly before anything decisive was said. I was
generally ready enough for business in those days, and selling always attracted me; but in the first place it was not
my bungalow, and even if I sold it to him at a good price I might get inconvenienced in the delivery of goods if the
current owner got wind of the transaction, and in the second I was, well--undischarged. It was clearly a business that
required delicate handling. Moreover, the possibility of his being in pursuit of some valuable invention also
interested me. It occurred to me that I would like to know more of this research, not with any dishonest intention,
but simply with an idea that to know what it was would be a relief from play-writing. I threw out feelers.

He was quite willing to supply information. Indeed, once he was fairly under way the conversation became a
monologue. He talked like a man long pent up, who has had it over with himself again and again. He talked for
nearly an hour, and I must confess I found it a pretty stiff bit of listening. But through it all there was the undertone
of satisfaction one feels when one is neglecting work one has set oneself. During that first interview I gathered very
little of the drift of his work. Half his words were technicalities entirely strange to me, and he illustrated one or two
points with what he was pleased to call elementary mathematics, computing on an envelope with a copying-ink
pencil, in a manner that made it hard even to seem to understand. "Yes," I said, "yes. Go on!" Nevertheless I made
out enough to convince me that he was no mere crank playing at discoveries. In spite of his crank-like appearance
there was a force about him that made that impossible. Whatever it was, it was a thing with mechanical possibilities.
He told me of a work-shed he had, and of three assistants--originally jobbing carpenters--whom he had trained.
Now, from the work-shed to the patent office is clearly only one step. He invited me to see those things. I accepted
readily, and took care, by a remark or so, to underline that. The proposed transfer of the bungalow remained very
conveniently in suspense.

At last he rose to depart, with an apology for the length of his call. Talking over his work was, he said, a
pleasure enjoyed only too rarely. It was not often he found such an intelligent listener as myself, he mingled very
little with professional scientific men.

"So much pettiness," he explained; "so much intrigue! And really, when one has an idea--a novel, fertilising
idea--I don't want to be uncharitable, but--"

I am a man who believes in impulses. I made what was perhaps a rash proposition. But you must remember,
that I had been alone, play-writing in Lympne, for fourteen days, and my compunction for his ruined walk still hung
about me. "Why not," said I, "make this your new habit? In the place of the one I spoil? At least, until we can settle
about the bungalow. What you want is to turn over your work in your mind. That you have always done during your
afternoon walk. Unfortunately that's over--you can't get things back as they were. But why not come and talk about
your work to me; use me as a sort of wall against which you may throw your thoughts and catch them again? It's
certain I don't know enough to steal your ideas myself--and I know no scientific men--"

I stopped. He was considering. Evidently the thing, attracted him. "But I'm afraid I should bore you," he said.
"You think I'm too dull?"
"Oh, no; but technicalities--"
"Anyhow, you've interested me immensely this afternoon."
"Of course it would be a great help to me. Nothing clears up one's ideas so much as explaining them. Hitherto--"

"My dear sir, say no more."
"But really can you spare the time?"
"There is no rest like change of occupation," I said, with profound conviction. The affair was over. On my verandah steps he turned. "I am already greatly indebted to you," he said. I made an interrogative noise.
"You have completely cured me of that ridiculous habit of humming," he explained. I think I said I was glad to be of any service to him, and he turned away. Immediately the train of thought that our conversation had suggested must have resumed its sway. His arms began to wave in their former fashion. The faint echo of "zuzzoo" came back to me on the breeze....

Well, after all, that was not my affair....

He came the next day, and again the next day after that, and delivered two lectures on physics to our mutual
satisfaction. He talked with an air of being extremely lucid about the "ether" and "tubes of force," and "gravitational
potential," and things like that, and I sat in my other folding-chair and said, "Yes," "Go on," "I follow you," to keep
him going. It was tremendously difficult stuff, but I do not think he ever suspected how much I did not understand
him. There were moments when I doubted whether I was well employed, but at any rate I was resting from that
confounded play. Now and then things gleamed on me clearly for a space, only to vanish just when I thought I had
hold of them. Sometimes my attention failed altogether, and I would give it up and sit and stare at him, wondering
whether, after all, it would not be better to use him as a central figure in a good farce and let all this other stuff slide.
And then, perhaps, I would catch on again for a bit.
At the earliest opportunity I went to see his house. It was large and carelessly furnished; there were no servants other than his three assistants, and his dietary and private life were characterised by a philosophical simplicity. He was a water-drinker, a vegetarian, and all those logical disciplinary things. But the sight of his equipment settled many doubts. It looked like business from cellar to attic—an amazing little place to find in an out-of-the-way village. The ground-floor rooms contained benches and apparatus, the bakehouse and scullery boiler had developed into respectable furnaces, dynamos occupied the cellar, and there was a gasometer in the garden. He showed it to me with all the confiding zest of a man who has been living too much alone. His seclusion was overflowing now in an excess of confidence, and I had the good luck to be the recipient.

The three assistants were creditable specimens of the class of "handy-men" from which they came. Conscientious if unintelligent, strong, civil, and willing. One, Spargus, who did the cooking and all the metal work, had been a sailor; a second, Gibbs, was a joiner; and the third was an ex-jobbing gardener, and now general assistant. They were the merest labourers. All the intelligent work was done by Cavor. Theirs was the darkest ignorance compared even with my muddled impression.

And now, as to the nature of these inquiries. Here, unhappily, comes a grave difficulty. I am no scientific expert, and if I were to attempt to set forth in the highly scientific language of Mr. Cavor the aims to which his experiments tended, I am afraid I should confuse not only the reader but myself, and almost certainly I should make some blunder that would bring upon me the mockery of every up-to-date student of mathematical physics in the country. The best thing I can do therefore is, I think to give my impressions in my own inexact language, without any attempt to wear a garment of knowledge to which I have no claim.

The object of Mr. Cavor's search was a substance that should be "opaque"—he used some other word I have forgotten, but "opaque" conveys the idea—to "all forms of radiant energy." "Radiant energy," he made me understand, was anything like light or heat, or those Rontgen rays there was so much talk about a year or so ago, or the electric waves of Marconi, or gravitation. All these things, he said, _radiate_ out from centres, and act on bodies at a distance, whence comes the term "radiant energy." Now almost all substances are opaque to some form or other of radiant energy. Glass, for example, is transparent to light, but much less so to heat, so that it is useful as a fire-screen; and alum is transparent to light, but blocks heat completely. A solution of iodine in carbon bisulphide, on the other hand, completely blocks light, but is quite transparent to heat. It will hide a fire from you, but permit all its warmth to reach you. Metals are not only opaque to light and heat, but also to electrical energy, which passes through both iodine solution and glass almost as though they were not interposed. And so on.

Now all known substances are "transparent" to gravitation. You can use screens of various sorts to cut off the light or heat, or electrical influence of the sun, or the warmth of the earth from anything; you can screen things by sheets of metal from Marconi's rays, but nothing will cut off the gravitational attraction of the sun or the gravitational attraction of the earth. Yet why there should be nothing is hard to say. Cavor did not see why such a substance should not exist, and certainly I could not tell him. I had never thought of such a possibility before. He showed me by calculations on paper, which Lord Kelvin, no doubt, or Professor Lodge, or Professor Karl Pearson, or any of those great scientific people might have understood, but which simply reduced me to a hopeless muddle, that not only was such a substance possible, but that it must satisfy certain conditions. It was an amazing piece of reasoning. Much as it amazed and exercised me at the time, it would be impossible to reproduce it here. "Yes," I said to it all, "yes; go on!" Suffice it for this story that he believed he might be able to manufacture this possible substance opaque to gravitation out of a complicated alloy of metals and something new—a new element, I fancy—called, I believe, _helium_, which was sent to him from London in sealed stone jars. Doubt has been thrown upon this detail, but I am almost certain it was _helium_ he had sent him in sealed stone jars. It was certainly something very gaseous and thin. If only I had taken notes...

But then, how was I to foresee the necessity of taking notes?

Any one with the merest germ of an imagination will understand the extraordinary possibilities of such a substance, and will sympathise a little with the emotion I felt as this understanding emerged from the haze of abstruse phrases in which Cavor expressed himself. Comic relief in a play indeed! It was some time before I would believe that I had interpreted him aright, and I was very careful not to ask questions that would have enabled him to gauge the profundity of misunderstanding into which he dropped his daily exposition. But no one reading the story of it here will sympathise fully, because from my barren narrative it will be impossible to gather the strength of my conviction that this astonishing substance was positively going to be made.

I do not recall that I gave my play an hour's consecutive work at any time after my visit to his house. My imagination had other things to do. There seemed no limit to the possibilities of the stuff; whichever way I tried I came on miracles and revolutions. For example, if one wanted to lift a weight, however enormous, one had only to get a sheet of this substance beneath it, and one might lift it with a straw. My first natural impulse was to apply this principle to guns and ironclads, and all the material and methods of war, and from that to shipping, locomotion,
building, every conceivable form of human industry. The chance that had brought me into the very birth-chamber of
this new time--it was an epoch, no less--was one of those chances that come once in a thousand years. The thing
unrolled, it expanded and expanded. Among other things I saw in it my redemption as a business man. I saw a parent
compny, and daughter companies, applications to right of us, applications to left, rings and trusts, privileges, and
concessions spreading and spreading, until one vast, stupendous Cavorite company ran and ruled the world.

And I was in it!
I took my line straight away. I knew I was staking everything, but I jumped there and then.

"We're on absolutely the biggest thing that has ever been invented," I said, and put the accent on "we." "If you
want to keep me out of this, you'll have to do it with a gun. I'm coming down to be your fourth labourer to-morrow."

He seemed surprised at my enthusiasm, but not a bit suspicious or hostile. Rather, he was self-depreciatory. He
looked at me doubtfully. "But do you really think--?" he said. "And your play! How about that play?"

"It's vanished!" I cried. "My dear sir, don't you see what you've got? Don't you see what you're going to do?"

That was merely a rhetorical turn, but positively, he didn't. At first I could not believe it. He had not had the
beginning of the inkling of an idea. This astonishing little man had been working on purely theoretical grounds the
whole time! When he said it was "the most important" research the world had ever seen, he simply meant it squared
up so many theories, settled so much that was in doubt; he had troubled no more about the application of the stuff he
was going to turn out than if he had been a machine that makes guns. This was a possible substance, and he was
going to make it! V'la tout, as the Frenchman says.

Beyond that, he was childish! If he made it, it would go down to posterity as Cavorite or Cavorine, and he
would be made an F.R.S., and his portrait given away as a scientific worthy with Nature, and things like that. And
that was all he saw! He would have dropped this bombshell into the world as though he had discovered a new
species of gnat, if it had not happened that I had come along. And there it would have lain and fizzled, like one or
two other little things these scientific people have lit and dropped about us.

When I realised this, it was I did the talking, and Cavor who said, "Go on!" I jumped up. I paced the room,
gesticulating like a boy of twenty. I tried to make him understand his duties and responsibilities in the matter--our_
duties and responsibilities in the matter. I assured him we might make wealth enough to work any sort of social
revolution we fancied, we might own and order the whole world. I told him of companies and patents, and the case
for secret processes. All these things seemed to take him much as his mathematics had taken me. A look of
perplexity came into his ruddy little face. He stammered something about indifference to wealth, but I brushed all
that aside. He had got to be rich, and it was no good his stammering. I gave him to understand the sort of man I was,
and that I had had very considerable business experience. I did not tell him I was an undischarged bankrupt at the
time, because that was temporary, but I think I reconciled my evident poverty with my financial claims. And quite
insensibily, in the way such projects grow, the understanding of a Cavorite monopoly grew up between us. He was to
make the stuff, and I was to make the boom.

I stuck like a leech to the "we"--"you" and "I" didn't exist for me.

His idea was that the profits I spoke of might go to endow research, but that, of course, was a matter we had to
settle later. "That's all right," I shouted, "that's all right." The great point, as I insisted, was to get the thing done.

"Here is a substance," I cried, "no home, no factory, no fortress, no ship can dare to be without--more
universally applicable even than a patent medicine. There isn't a solitary aspect of it, not one of its ten thousand
possible uses that will not make us rich, Cavor, beyond the dreams of avarice!"

"No!" he said. "I begin to see. It's extraordinary how one gets new points of view by talking over things!"

"And as it happens you have just talked to the right man!"

"I suppose no one," he said, "is absolutely _averse_ to enormous wealth. Of course there is one thing--"

He paused. I stood still.

"It is just possible, you know, that may not be able to make it after all! It may be one of those things that are
a theoretical possibility, but a practical absurdity. Or when we make it, there may be some little hitch!"

"We'll tackle the hitch when it comes," said I.

Chapter 2

The First Making of Cavorite

But Cavor's fears were groundless, so far as the actual making was concerned. On the 14th of October, 1899,
this incredible substance was made!

Oddly enough, it was made at last by accident, when Mr. Cavor least expected it. He had fused together a number of metals and certain other things—I wish I knew the particulars now!—and he intended to leave the mixture a week and then allow it to cool slowly. Unless he had miscalculated, the last stage in the combination would occur when the stuff sank to a temperature of 60 degrees Fahrenheit. But it chanced that, unknown to Cavor, dissension had arisen about the furnace tending. Gibbs, who had previously seen to this, had suddenly attempted to shift it to the man who had been a gardener, on the score that coal was soil, being dug, and therefore could not possibly fall within the province of a joiner; the man who had been a jobbing gardener alleged, however, that coal was a metallic or ore-like substance, let alone that he was cook. But Spargus insisted on Gibbs doing the coaling, seeing that he was a joiner and that coal is notoriously fossil wood. Consequently Gibbs ceased to replenish the furnace, and no one else did so, and Cavor was too much immersed in certain interesting problems concerning a Cavorite flying machine (neglecting the resistance of the air and one or two other points) to perceive that anything was wrong. And the premature birth of his invention took place just as he was coming across the field to my bungalow for our afternoon talk and tea.

I remember the occasion with extreme vividness. The water was boiling, and everything was prepared, and the sound of his "zuzzoo" had brought me out upon the verandah. His active little figure was black against the autumnal sunset, and to the right the chimneys of his house just rose above a gloriously tinted group of trees. Remoter rose the Wealden Hills, faint and blue, while to the left the hazy marsh spread out spacious and serene. And then--

The chimneys jerked heavenward, smashing into a string of bricks as they rose, and the roof and a miscellany of furniture followed. Then overtaking them came a huge white flame. The trees about the building swayed and whirled and tore themselves to pieces, that sprang towards the flare. My ears were smitten with a clap of thunder that left me deaf on one side for life, and all about me windows smashed, unheeded.

I took three steps from the verandah towards Cavor's house, and even as I did so came the wind.

Instantly my coat tails were over my head, and I was progressing in great leaps and bounds, and quite against my will, towards him. In the same moment the discoverer was seized, whirled about, and flew through the screaming air. I saw one of my chimney pots hit the ground within six yards of me, leap a score of feet, and so hurry in great strides towards the focus of the disturbance. Cavor, kicking and flapping, came down again, rolled over and over on the ground for a space, struggled up and was lifted and borne forward at an enormous velocity, vanishing at last among the labouring, lashing trees that whirled about his house.

A mass of smoke and ashes, and a square of bluish shining substance rushed up towards the zenith. A large fragment of fencing came sailing past me, dropped edgeways, hit the ground and fell flat, and then the worst was over. The aerial commotion fell swiftly until it was a mere strong gale, and I became once more aware that I had breath and feet. By leaning back against the wind I managed to stop, and could collect such wits as still remained to me.

In that instant the whole face of the world had changed. The tranquil sunset had vanished, the sky was dark with scurrying clouds, everything was flattened and swaying with the gale. I glanced back to see if my bungalow was still in a general way standing, then staggered forwards towards the trees amongst which Cavor had vanished, and through whose tall and leaf-denuded branches shone the flames of his burning house.

I entered the copse, dashing from one tree to another and clinging to them, and for a space I sought him in vain. Then amidst a heap of smashed branches and fencing that had banked itself against a portion of his garden wall I perceived something stir. I made a run for this, but before I reached it a brown object separated itself, rose on two muddy legs, and protruded two drooping, bleeding hands. Some tattered ends of garment fluttered out from its middle portion and streamed before the wind.

For a moment I did not recognise this earthy lump, and then I saw that it was Cavor, caked in the mud in which he had rolled. He leant forward against the wind, rubbing the dirt from his eyes and mouth.

He extended a muddy lump of hand, and staggered a pace towards me. His face worked with emotion, little lumps of mud kept falling from it. He looked as damaged and pitiful as any living creature I have ever seen, and his remark therefore amazed me exceedingly.

"Gratulate me," he gasped; "gratulate me!"

"Congratulate you!" said I. "Good heavens! What for?"

"I've done it."

"You _have_. What on earth caused that explosion?"

A gust of wind blew his words away. I understood him to say that it wasn't an explosion at all. The wind hurled me into collision with him, and we stood clinging to one another.

"Try and get back--to my bungalow," I bawled in his ear. He did not hear me, and shouted something about "three martyrs--science," and also something about "not much good." At the time he laboured under the impression
that his three attendants had perished in the whirlwind. Happily this was incorrect. Directly he had left for my bungalow they had gone off to the public-house in Lympne to discuss the question of the furnaces over some trivial refreshment.

I repeated my suggestion of getting back to my bungalow, and this time he understood. We clung arm-in-arm and started, and managed at last to reach the shelter of as much roof as was left to me. For a space we sat in arm-chairs and panted. All the windows were broken, and the lighter articles of furniture were in great disorder, but no irrevocable damage was done. Happily the kitchen door had stood the pressure upon it, so that all my crockery and cooking materials had survived. The oil stove was still burning, and I put on the water to boil again for tea. And that prepared, I could turn on Cavor for his explanation.

"Quite correct," he insisted; "quite correct. I've done it, and it's all right."

"But," I protested. "All right! Why, there can't be a rick standing, or a fence or a thatched roof undamaged for twenty miles round...."

"It's all right--_really_. I didn't, of course, foresee this little upset. My mind was preoccupied with another problem, and I'm apt to disregard these practical side issues. But it's all right--"

"My dear sir," I cried, "don't you see you've done thousands of pounds' worth of damage?"

"There, I throw myself on your discretion. I'm not a practical man, of course, but don't you think they will regard it as a cyclone?"

"But the explosion--"

"It was not an explosion. It's perfectly simple. Only, as I say, I'm apt to overlook these little things. Its that zuzzoo business on a larger scale. Inadvertently I made this substance of mine, this Cavorite, in a thin, wide sheet...."

He paused. "You are quite clear that the stuff is opaque to gravitation, that it cuts off things from gravitating towards each other?"

"Yes," said I. "Yes."

"Well, so soon as it reached a temperature of 60 degrees Fahrenheit, and the process of its manufacture was complete, the air above it, the portions of roof and ceiling and floor above it ceased to have weight. I suppose you know--everybody knows nowadays--that, as a usual thing, the air _has_ weight, that it presses on everything at the surface of the earth, presses in all directions, with a pressure of fourteen and a half pounds to the square inch?"

"I know that," said I. "Go on."

"I know that too," he remarked. "Only this shows you how useless knowledge is unless you apply it. You see, over our Cavorite this ceased to be the case, the air there ceased to exert any pressure, and the air round it and not over the Cavorite was exerting a pressure of fourteen pounds and a half to the square inch."

"You perceive," he said, "it formed a sort of atmospheric fountain, a kind of chimney in the atmosphere. And if the Cavorite itself hadn't been loose and so got sucked up the chimney, does it occur to you what would have happened?"

I thought. "I suppose," I said, "the air would be rushing up and up over that infernal piece of stuff now."

"Precisely," he said. "A huge fountain--"

"Spouting into space! Good heavens! Why, it would have squirted all the atmosphere of the earth away! It would have robbed the world of air! It would have been the death of all mankind! That little lump of stuff!"

"Not exactly into space," said Cavor, "but as bad--practically. It would have whipped the air off the world as one peels a banana, and flung it thousands of miles. It would have dropped back again, of course--but on an asphyxiated world! From our point of view very little better than if it never came back!"

I stared. As yet I was too amazed to realise how all my expectations had been upset. "What do you mean to do now?" I asked.

"In the first place if I may borrow a garden trowel I will remove some of this earth with which I am encased, and then if I may avail myself of your domestic conveniences I will have a bath. This done, we will converse more at leisure. It will be wise, I think"--he laid a muddy hand on my arm--"if nothing were said of this affair beyond ourselves. I know I have caused great damage--probably even dwelling-houses may be ruined here and there upon the country-side. But on the other hand, I cannot possibly pay for the damage I have done, and if the real cause of this is published, it will lead only to heartburning and the obstruction of my work. One cannot foresee everything, you know, and I cannot consent for one moment to add the burthen of practical considerations to my theorising. Later on, when you have come in with your practical mind, and Cavorite is floated--floated is the word, isn't it?--and it has realised all you anticipate for it, we may set matters right with these persons. But not now--not now. If no other explanation is offered, people, in the present unsatisfactory state of meteorological science, will ascribe all this
to a cyclone; there might be a public subscription, and as my house has collapsed and been burnt, I should in that
case receive a considerable share in the compensation, which would be extremely helpful to the prosecution of our
researches. But if it is known that _I_ caused this, there will be no public subscription, and everybody will be put
out. Practically I should never get a chance of working in peace again. My three assistants may or may not have
perished. That is a detail. If they have, it is no great loss; they were more zealous than able, and this premature event
must be largely due to their joint neglect of the furnace. If they have not perished, I doubt if they have the
intelligence to explain the affair. They will accept the cyclone story. And if during the temporary unfitness of my
house for occupation, I may lodge in one of the untenanted rooms of this bungalow of yours--"

He paused and regarded me.

A man of such possibilities, I reflected, is no ordinary guest to entertain.

"Perhaps," said I, rising to my feet, "we had better begin by looking for a trowel," and I led the way to the
scattered vestiges of the greenhouse.

And while he was having his bath I considered the entire question alone. It was clear there were drawbacks to
Mr. Cavor's society I had not foreseen. The absentmindedness that had just escaped depopulating the terrestrial
globe, might at any moment result in some other grave inconvenience. On the other hand I was young, my affairs
were in a mess, and I was in just the mood for reckless adventure--with a chance of something good at the end of it.
I had quite settled in my mind that I was to have half at least in that aspect of the affair. Fortunately I held my
bungalow, as I have already explained, on a three-year agreement, without being responsible for repairs; and my
furniture, such as there was of it, had been hastily purchased, was unpaid for, insured, and altogether devoid of
associations. In the end I decided to keep on with him, and see the business through.

Certainly the aspect of things had changed very greatly. I no longer doubted at all the enormous possibilities of
the substance, but I began to have doubts about the gun-carriage and the patent boots. We set to work at once to
reconstruct his laboratory and proceed with our experiments. Cavor talked more on my level than he had ever done
before, when it came to the question of how we should make the stuff next.

"Of course we must make it again," he said, with a sort of glee I had not expected in him, "of course we must
make it again. We have caught a Tartar, perhaps, but we have left the theoretical behind us for good and all. If we
can possibly avoid wrecking this little planet of ours, we will. But--there must be risks! There must be. In
experimental work there always are. And here, as a practical man, _you_ must come in. For my own part it seems to
me we might make it edgeways, perhaps, and very thin. Yet I don't know. I have a certain dim perception of another
method. I can hardly explain it yet. But curiously enough it came into my mind, while I was rolling over and over in
the mud before the wind, and very doubtful how the whole adventure was to end, as being absolutely the thing I
ought to have done."

Even with my aid we found some little difficulty, and meanwhile we kept at work restoring the laboratory.
There was plenty to do before it became absolutely necessary to decide upon the precise form and method of our
second attempt. Our only hitch was the strike of the three labourers, who objected to my activity as a foreman. But
that matter we compromised after two days' delay.

Chapter 3

The Building of the sphere

I remember the occasion very distinctly when Cavor told me of his idea of the sphere. He had had intimations
of it before, but at the time it seemed to come to him in a rush. We were returning to the bungalow for tea, and on
the way he fell humming. Suddenly he shouted, "That's it! That finishes it! A sort of roller blind!"

"Finishes what?" I asked.

"Space--anywhere! The moon."

"What do you mean?"

"Mean? Why--it must be a sphere! That's what I mean!"

I saw I was out of it, and for a time I let him talk in his own fashion. I hadn't the ghost of an idea then of his
drift. But after he had taken tea he made it clear to me.

"It's like this," he said. "Last time I ran this stuff that cuts things off from gravitation into a flat tank with an
overlap that held it down. And directly it had cooled and the manufacture was completed all that uproar happened,
nothing above it weighed anything, the air went squirting up, the house squirited up, and if the stuff itself hadn't
squirted up too, I don't know what would have happened! But suppose the substance is loose, and quite free to go up?"

"It will go up at once!"

"Exactly. With no more disturbance than firing a big gun."

"But what good will that do?"

"I'm going up with it!"

I put down my teacup and stared at him.

"Imagine a sphere," he explained, "large enough to hold two people and their luggage. It will be made of steel lined with thick glass; it will contain a proper store of solidified air, concentrated food, water distilling apparatus, and so forth. And enamelled, as it were, on the outer steel--"

"Cavorite?"

"Yes."

"But how will you get inside?"

"There was a similar problem about a dumpling."

"Yes, I know. But how?"

"That's perfectly easy. An air-tight manhole is all that is needed. That, of course, will have to be a little complicated; there will have to be a valve, so that things may be thrown out, if necessary, without much loss of air."

"Like Jules Verne's thing in _A Trip to the Moon_."

But Cavor was not a reader of fiction.

"I begin to see," I said slowly. "And you could get in and screw yourself up while the Cavorite was warm, and as soon as it cooled it would become impervious to gravitation, and off you would fly--"

"At a tangent."

"You would go off in a straight line--" I stopped abruptly. "What is to prevent the thing travelling in a straight line into space for ever?" I asked. "You're not safe to get anywhere, and if you do--how will you get back?"

"I've just thought of that," said Cavor. "That's what I meant when I said the thing is finished. The inner glass sphere can be air-tight, and, except for the manhole, continuous, and the steel sphere can be made in sections, each section capable of rolling up after the fashion of a roller blind. These can easily be worked by springs, and released and checked by electricity conveyed by platinum wires fused through the glass. All that is merely a question of detail. So you see, that except for the thickness of the blind rollers, the Cavorite exterior of the sphere will consist of windows or blinds, whichever you like to call them. Well, when all these windows or blinds are shut, no light, no heat, no gravitation, no radiant energy of any sort will get at the inside of the sphere, it will fly on through space in a straight line, as you say. But open a window, imagine one of the windows open. Then at once any heavy body that chances to be in that direction will attract us--"

I sat taking it in.

"You see?" he said.

"Oh, I _see_."

"Practically we shall be able to tack about in space just as we wish. Get attracted by this and that."

"Oh, yes. That's clear enough. Only--"

"Well?"

"I don't quite see what we shall do it for! It's really only jumping off the world and back again."

"Surely! For example, one might go to the moon."

"And when one got there? What would you find?"

"We should see--Oh! consider the new knowledge."

"Is there air there?"

"There may be.

"It's a fine idea," I said, "but it strikes me as a large order all the same. The moon! I'd much rather try some smaller things first."

"They're out of the question, because of the air difficulty."

"Why not apply that idea of spring blinds--Cavorite blinds in strong steel cases--to lifting weights?"

"It wouldn't work," he insisted. "After all, to go into outer space is not so much worse, if at all, than a polar expedition. Men go on polar expeditions."

"Not business men. And besides, they get paid for polar expeditions. And if anything goes wrong there are relief parties. But this--it's just firing ourselves off the world for nothing."

"Call it prospecting."

"You'll have to call it that.... One might make a book of it perhaps," I said.

"I have no doubt there will be minerals," said Cavor.
"For example?"
"Oh! sulphur, ores, gold perhaps, possibly new elements."
"Cost of carriage," I said. "You know you're not a practical man. The moon's a quarter of a million miles away."
"It seems to me it wouldn't cost much to cart any weight anywhere if you packed it in a Cavorite case."
I had not thought of that. "Delivered free on head of purchaser, eh?"
"It isn't as though we were confined to the moon."
"You mean?"
"There's Mars--clear atmosphere, novel surroundings, exhilarating sense of lightness. It might be pleasant to go there."
"Is there air on Mars?"
"Oh, yes!"
"Seems as though you might run it as a sanatorium. By the way, how far is Mars?"
"Two hundred million miles at present," said Cavor airily; "and you go close by the sun."
My imagination was picking itself up again. "After all," I said, "there's something in these things. There's travel--"

An extraordinary possibility came rushing into my mind. Suddenly I saw, as in a vision, the whole solar system threaded with Cavorite liners and spheres deluxe. "Rights of pre-emption," came floating into my head--planetary rights of pre-emption. I recalled the old Spanish monopoly in American gold. It wasn't as though it was just this planet or that--it was all of them. I stared at Cavor's rubicund face, and suddenly my imagination was leaping and dancing. I stood up, I walked up and down; my tongue was unloosened.

"I'm beginning to take it in," I said; "I'm beginning to take it in." The transition from doubt to enthusiasm seemed to take scarcely any time at all. "But this is tremendous!" I cried. "This is Imperial! I haven't been dreaming of this sort of thing."

Once the chill of my opposition was removed, his own pent-up excitement had play. He too got up and paced. He too gesticulated and shouted. We behaved like men inspired. We _were_ men inspired.

"We'll settle all that!" he said in answer to some incidental difficulty that had pulled me up. "We'll soon settle that! We'll start the drawings for mouldings this very night."

"We'll start them now," I responded, and we hurried off to the laboratory to begin upon this work forthwith.

I was like a child in Wonderland all that night. The dawn found us both still at work--we kept our electric light going heedless of the day. I remember now exactly how these drawings looked. I shaded and tinted while Cavor drew--smudged and haste-marked they were in every line, but wonderfully correct. We got out the orders for the steel blinds and frames we needed from that night's work, and the glass sphere was designed within a week. We gave up our afternoon conversations and our old routine altogether. We worked, and we slept and ate when we could work no longer for hunger and fatigue. Our enthusiasm infected even our three men, though they had no idea what the sphere was for. Through those days the man Gibbs gave up walking, and went everywhere, even across the room, at a sort of fussy run.

And it grew--the sphere. December passed, January--I spent a day with a broom sweeping a path through the snow from bungalow to laboratory--February, March. By the end of March the completion was in sight. In January had come a team of horses, a huge packing-case; we had our thick glass sphere now ready, and in position under the crane we had rigged to sling it into the steel shell. All the bars and blinds of the steel shell--it was not really a spherical shell, but polyhedral, with a roller blind to each facet--had arrived by February, and the lower half was bolted together. The Cavorite was half made by March, the metallic paste had gone through two of the stages in its manufacture, and we had plastered quite half of it on to the steel bars and blinds. It was astonishing how closely we kept to the lines of Cavor's first inspiration in working out the scheme. When the bolting together of the sphere was finished, he proposed to remove the rough roof of the temporary laboratory in which the work was done, and build a furnace about it. So the last stage of Cavorite making, in which the paste is heated to a dull red glow in a stream of helium, would be accomplished when it was already on the sphere.

And then we had to discuss and decide what provisions we were to take--compressed foods, concentrated essences, steel cylinders containing reserve oxygen, an arrangement for removing carbonic acid and waste from the air and restoring oxygen by means of sodium peroxide, water condensers, and so forth. I remember the little heap they made in the corner--tins, and rolls, and boxes--convincingly matter-of-fact.

It was a strenuous time, with little chance of thinking. But one day, when we were drawing near the end, an odd mood came over me. I had been bricking up the furnace all the morning, and I sat down by these possessions dead beat. Everything seemed dull and incredible.

"But look here, Cavor," I said. "After all! What's it all for?"
He smiled. "The thing now is to go."
"The moon," I reflected. "But what do you expect? I thought the moon was a dead world."
He shrugged his shoulders.
"We're going to see."
"Are we?" I said, and stared before me.
"You are tired," he remarked. "You'd better take a walk this afternoon."
"No," I said obstinately; "I'm going to finish this brickwork."
And I did, and insured myself a night of insomnia. I don't think I have ever had such a night. I had some bad times before my business collapse, but the very worst of those was sweet slummer compared to this infinity of aching wakefulness. I was suddenly in the most enormous funk at the thing we were going to do.

I do not remember before that night thinking at all of the risks we were running. Now they came like that array of spectres that once beleaguered Prague, and camped around me. The strangeness of what we were about to do, the unearthliness of it, overwhelmed me. I was like a man awakened out of pleasant dreams to the most horrible surroundings. I lay, eyes wide open, and the sphere seemed to get more flimsy and feeble, and Cavor more unreal and fantastic, and the whole enterprise madder and madder every moment.

I got out of bed and wandered about. I sat at the window and stared at the immensity of space. Between the stars was the void, the unfathomable darkness! I tried to recall the fragmentary knowledge of astronomy I had gained in my irregular reading, but it was all too vague to furnish any idea of the things we might expect. At last I got back to bed and snatched some moments of sleep--moments of nightmare rather--in which I fell and fell and fell for evermore into the abyss of the sky.

I astonished Cavor at breakfast. I told him shortly, "I'm not coming with you in the sphere."
I met all his protests with a sullen persistence. "The thing's too mad," I said, "and I won't come. The thing's too mad."

I would not go with him to the laboratory. I fretted bout my bungalow for a time, and then took hat and stick and set out alone, I knew not whither. It chanced to be a glorious morning: a warm wind and deep blue sky, the first green of spring abroad, and multitudes of birds singing. I lunched on beef and beer in a little public-house near Elham, and startled the landlord by remarking apropos of the weather, "A man who leaves the world when days of this sort are about is a fool!"

"That's what I says when I heerd on it!" said the landlord, and I found that for one poor soul at least this world had proved excessive, and there had been a throat-cutting. I went on with a new twist to my thoughts.

In the afternoon I had a pleasant sleep in a sunny place, and went on my way refreshed. I came to a comfortable-looking inn near Canterbury. It was bright with creepers, and the landlady was a clean old woman and took my eye. I found I had just enough money to pay for my lodging with her. I decided to stop the night there. She was a talkative body, and among many other particulars learnt she had never been to London. "Canterbury's as far as ever I been," she said. "I'm not one of your gad-about sort."

"How would you like a trip to the moon?" I cried.
"I never did hold with them ballooneys," she said evidently under the impression that this was a common excursion enough. "I wouldn't go up in one--not for ever so."

This struck me as being funny. After I had supped I sat on a bench by the door of the inn and gossiped with two labourers about brickmaking, and motor cars, and the cricket of last year. And in the sky a faint new crescent, blue and vague as a distant Alp, sank westward over the sun.

The next day I returned to Cavor. "I am coming," I said. "I've been a little out of order, that's all."
That was the only time I felt any serious doubt our enterprise. Nerves purely! After that I worked a little more carefully, and took a trudge for an hour every day. And at last, save for the heating in the furnace, our labours were at an end.

Chapter 4

Inside the Sphere

"Go on," said Cavor, as I sat across the edge of the manhole, and looked down into the black interior of the sphere. We two were alone. It was evening, the sun had set, and the stillness of the twilight was upon everything.

I drew my other leg inside and slid down the smooth glass to the bottom of the sphere, then turned to take the
cans of food and other impedimenta from Cavor. The interior was warm, the thermometer stood at eighty, and as we should lose little or none of this by radiation, we were dressed in shoes and thin flannels. We had, however, a bundle of thick woollen clothing and several thick blankets to guard against mishance.

By Cavor's direction I placed the packages, the cylinders of oxygen, and so forth, loosely about my feet, and soon we had everything in. He walked about the roofless shed for a time seeking anything we had overlooked, and then crawled in after me. I noted something in his hand.

"What have you got there?" I asked.
"Haven't you brought anything to read?"
"Good Lord! No."
"I forgot to tell you. There are uncertainties-- The voyage may last-- We may be weeks!"
"But--"
"We shall be floating in this sphere with absolutely no occupation."
"I wish I'd known--"
He peered out of the manhole. "Look!" he said. "There's something there!"
"Is there time?"
"We shall be an hour."
I looked out. It was an old number of _Tit-Bits_ that one of the men must have brought. Farther away in the corner I saw a torn _Lloyd's News_. I scrambled back into the sphere with these things. "What have you got?" I said. I took the book from his hand and read, "The Works of William Shakespeare".
"Never read him?"
"Never."
"He knew a little, you know--in an irregular sort of way."
"Precisely what I am told," said Cavor.

I assisted him to screw in the glass cover of the manhole, and then he pressed a stud to close the corresponding blind in the outer case. The little oblong of twilight vanished. We were in darkness. For a time neither of us spoke. Although our case would not be impervious to sound, everything was very still. I perceived there was nothing to grip when the shock of our start should come, and I realised that I should be uncomfortable for want of a chair.

"Why have we no chairs?" I asked.
"I've settled all that," said Cavor. "We won't need them."
"Why not?"
"You will see," he said, in the tone of a man who refuses to talk.

I became silent. Suddenly it had come to me clear and vivid that I was a fool to be inside that sphere. Even now, I asked myself, is it too late to withdraw? The world outside the sphere, I knew, would be cold and inhospitable enough for me--for weeks I had been living on subsidies from Cavor--but after all, would it be as cold as the infinite zero, as inhospitable as empty space? If it had not been for the appearance of cowardice, I believe that even then I should have made him let me out. But I hesitated on that score, and hesitated, and grew fretful and angry, and the time passed.

There came a little jerk, a noise like champagne being uncorked in another room, and a faint whistling sound. For just one instant I had a sense of enormous tension, a transient conviction that my feet were pressing downward with a force of countless tons. It lasted for an infinitesimal time.

But it stirred me to action. "Cavor!" I said into the darkness, "my nerve's in rags. I don't think--"
I stopped. He made no answer.
"Confounded it!" I cried; "I'm a fool! What business have I here? I'm not coming, Cavor. The thing's too risky. I'm getting out."
"You can't," he said.
"Can't! We'll soon see about that!"
He made no answer for ten seconds. "It's too late for us to quarrel now, Bedford," he said. "That little jerk was the start. Already we are flying as swifly as a bullet up into the gulf of space."

"I--" I said, and then it didn't seem to matter what happened. For a time I was, as it were, stunned; I had nothing to say. It was just as if I had never heard of this idea of leaving the world before. Then I perceived an unaccountable change in my bodily sensations. It was a feeling of lightness, of unreality. Coupled with that was a queer sensation in the head, an apoplectic effect almost, and a thumping of blood vessels at the ears. Neither of these feelings diminished as time went on, but at last I got so used to them that I experienced no inconvenience.

I heard a click, and a little glow lamp came into being.

I saw Cavor's face, as white as I felt my own to be. We regarded one another in silence. The transparent
blackness of the glass behind him made him seem as though he floated in a void.

"Well, we're committed," I said at last.
"Yes," he said, "we're committed."
"Don't move," he exclaimed, at some suggestion of a gesture. "Let your muscles keep quite lax—as if you were
in bed. We are in a little universe of our own. Look at those things!"

He pointed to the loose cases and bundles that had been lying on the blankets in the bottom of the sphere. I was
astonished to see that they were floating now nearly a foot from the spherical wall. Then I saw from his shadow that
Cavor was no longer leaning against the glass. I thrust out my hand behind me, and found that I too was suspended
in space, clear of the glass.

I did not cry out nor gesticulate, but fear came upon me. It was like being held and lifted by something—you
know not what. The mere touch of my hand against the glass moved me rapidly. I understood what had happened,
but that did not prevent my being afraid. We were cut off from all exterior gravitation, only the attraction of objects
within our sphere had effect. Consequently everything that was not fixed to the glass was falling—slowly because of
the slightness of our masses—towards the centre of gravity of our little world, which seemed to be somewhere about
the middle of the sphere, but rather nearer to myself than Cavor, on account of my greater weight.

"We must turn round," said Cavor, "and float back to back, with the things between us."

It was the strangest sensation conceivable, floating thus loosely in space, at first indeed horribly strange, and
when the horror passed, not disagreeable at all, exceeding restful; indeed, the nearest thing in earthly experience to it
that I know is lying on a very thick, soft feather bed. But the quality of utter detachment and independence! I had not
reckoned on things like this. I had expected a violent jerk at starting, a giddy sense of speed. Instead I felt—as if I
were disembodied. It was not like the beginning of a journey; it was like the beginning of a dream.

Chapter 5

The Journey to the Moon

Presently Cavor extinguished the light. He said we had not overmuch energy stored, and that what we had we
must economise for reading. For a time, whether it was long or short I do not know, there was nothing but blank
darkness.

A question floated up out of the void. "How are we pointing?" I said. "What is our direction?"

"We are flying away from the earth at a tangent, and as the moon is near her third quarter we are going
somewhere towards her. I will open a blind—"

Came a click, and then a window in the outer case yawned open. The sky outside was as black as the darkness
within the sphere, but the shape of the open window was marked by an infinite number of stars.

Those who have only seen the starry sky from the earth cannot imagine its appearance when the vague, half
luminous veil of our air has been withdrawn. The stars we see on earth are the mere scattered survivors that
penetrate our misty atmosphere. But now at last I could realise the meaning of the hosts of heaven!

Stranger things we were presently to see, but that airless, star-dusted sky! Of all things, I think that will be one
of the last I shall forget.

The little window vanished with a click, another beside it snapped open and instantly closed, and then a third,
and for a moment I had to close my eyes because of the blinding splendour of the waning moon.

For a space I had to stare at Cavor and the white-lit things about me to season my eyes to light again, before I
could turn them towards that pallid glare.

Four windows were open in order that the gravitation of the moon might act upon all the substances in our
sphere. I found I was no longer floating freely in space, but that my feet were resting on the glass in the direction of
the moon. The blankets and cases of provisions were also creeping slowly down the glass, and presently came to rest
so as to block out a portion of the view. It seemed to me, of course, that I looked "down" when I looked at the moon.
On earth "down" means earthward, the way things fall, and "up" the reverse direction. Now the pull of gravitation
was towards the moon, and for all I knew to the contrary our earth was overhead. And, of course, when all the
Cavorite blinds were closed, "down" was towards the centre of our sphere, and "up" towards its outer wall.

It was curiously unlike earthly experience, too, to have the light coming up to one. On earth light falls from
above, or comes slanting down sideways, but here it came from beneath our feet, and to see our shadows we had to
look up.
At first it gave me a sort of vertigo to stand only on thick glass and look down upon the moon through hundreds of thousands of miles of vacant space; but this sickness passed very speedily. And then—the splendour of the sight!

The reader may imagine it best if he will lie on the ground some warm summer's night and look between his upraised feet at the moon, but for some reason, probably because the absence of air made it so much more luminous, the moon seemed already considerably larger than it does from earth. The minutest details of its surface were acutely clear. And since we did not see it through air, its outline was bright and sharp, there was no glow or halo about it, and the star-dust that covered the sky came right to its very margin, and marked the outline of its unilluminated part. And as I stood and stared at the moon between my feet, that perception of the impossible that had been with me off and on ever since our start, returned again with tenfold conviction.

"Cavor," I said, "this takes me queerly. Those companies we were going to run, and all that about minerals?"

"Well?"

"I don't see 'em here."

"No," said Cavor; "but you'll get over all that."

"I suppose I'm made to turn right side up again. Still, _this_.-- For a moment I could half believe there never was a world."

"That copy of _Lloyd's News_ might help you."

I stared at the paper for a moment, then held it above the level of my face, and found I could read it quite easily. I struck a column of mean little advertisements. "A gentleman of private means is willing to lend money," I read. I knew that gentleman. Then somebody eccentric wanted to sell a Cutaway bicycle, "quite new and cost 15 pounds," for five pounds; and a lady in distress wished to dispose of some fish knives and forks, "a wedding present," at a great sacrifice. No doubt some simple soul was sagely examining these knives and forks, and another triumphantly riding off on that bicycle, and a third trustfully consulting that benevolent gentleman of means even as I read. I laughed, and let the paper drift from my hand.

"Are we visible from the earth?" I asked.

"Why?"

"I knew some one who was rather interested in astronomy. It occurred to me that it would be rather odd if—my friend—chanced to be looking through a telescope."

"It would need the most powerful telescope on earth even now to see us as the minutest speck."

For a time I stared in silence at the moon.

"It's a world," I said; "one feels that infinitely more than one ever did on earth. People perhaps—"

"People!" he exclaimed. "No! Banish all that! Think yourself a sort of ultra-arctic voyager exploring the desolate places of space. Look at it!"

He waved his hand at the shining whiteness below. "It's dead—dead! Vast extinct volcanoes, lava wildernesses, tumbled wastes of snow, or frozen carbonic acid, or frozen air, and everywhere landslip seams and cracks and guls. Nothing happens. Men have watched this planet systematically with telescopes for over two hundred years. How much change do you think they have seen?"

"None."

"They have traced two indisputable landslips, a doubtful crack, and one slight periodic change of colour, and that's all."

"I didn't know they'd traced even that."

"Oh, yes. But as for people—!"

"By the way," I asked, "how small a thing will the biggest telescopes show upon the moon?"

"One could see a fair-sized church. One could certainly see any towns or buildings, or anything like the handiwork of men. There might perhaps be insects, something in the way of ants, for example, so that they could hide in deep burrows from the lunar light, or some new sort of creatures having no earthly parallel. That is the most probable thing, if we are to find life there at all. Think of the difference in conditions! Life must fit itself to a day as long as fourteen earthly days, a cloudless sun-blaze of fourteen days, and then a night of equal length, growing ever colder and colder under these, cold, sharp stars. In that night there must be cold, the ultimate cold, absolute zero, 273 degrees Centigrade, below the earthly freezing point. Whatever life there is must hibernate through that, and rise again each day."

He mused. "One can imagine something worm-like," he said, "taking its air solid as an earth-worm swallows earth, or thick-skinned monsters—"

"By the bye," I said, "why didn't we bring a gun?"

He did not answer that question. "No," he concluded, "we just have to go. We shall see when we get there."

I remembered something. "Of course, there's my minerals, anyhow," I said; "whatever the conditions may be."

Presently he told me he wished to alter our course a little by letting the earth tug at us for a moment. He was
going to open one earthward blind for thirty seconds. He warned me that it would make my head swim, and advised me to extend my hands against the glass to break my fall. I did as he directed, and thrust my feet against the bales of food cases and air cylinders to prevent their falling upon me. Then with a click the window flew open. I fell clumsily upon hands and face, and saw for a moment between my black extended fingers our mother earth—a planet in a downward sky.

We were still very near--Cavor told me the distance was perhaps eight hundred miles and the huge terrestrial disc filled all heaven. But already it was plain to see that the world was a globe. The land below us was in twilight and vague, but westward the vast gray stretches of the Atlantic shone like molten silver under the receding day. I think I recognised the cloud-dimmed coast-lines of France and Spain and the south of England, and then, with a click, the shutter closed again, and I found myself in a state of extraordinary confusion sliding slowly over the smooth glass.

When at last things settled themselves in my mind again, it seemed quite beyond question that the moon was "down" and under my feet, and that the earth was somewhere away on the level of the horizon—the earth that had been "down" to me and my kindred since the beginning of things.

So slight were the exertions required of us, so easy did the practical annihilation of our weight make all we had to do, that the necessity for taking refreshment did not occur to us for nearly six hours (by Cavor's chronometer) after our start. I was amazed at that lapse of time. Even then I was satisfied with very little. Cavor examined the apparatus for absorbing carbonic acid and water, and pronounced it to be in satisfactory order, our consumption of oxygen having been extraordinarily slight. And our talk being exhausted for the time, and there being nothing further for us to do, we gave way to a curious drowsiness that had come upon us, and spreading our blankets on the bottom of the sphere in such a manner as to shut out most of the moonlight, wished each other good-night, and almost immediately fell asleep.

And so, sleeping, and sometimes talking and reading a little, and at times eating, although without any keenness of appetite,[*] but for the most part in a sort of quiescence that was neither waking nor slumber, we fell through a space of time that had neither night nor day in it, silently, softly, and swiftly down towards the moon.

[* Footnote: It is a curious thing, that while we were in the sphere we felt not the slightest desire for food, nor did we feel the want of it when we abstained. At first we forced our appetites, but afterwards we fasted completely. Altogether we did not consume one-hundredth part of the compressed provisions we had brought with us. The amount of carbonic acid we breathed was also unnaturally low, but why this was, I am quite unable to explain.]

Chapter 6

The Landing on the Moon

I remember how one day Cavor suddenly opened six of our shutters and blinded me so that I cried aloud at him. The whole area was moon, a stupendous scimitar of white dawn with its edge hacked out by notches of darkness, the crescent shore of an ebbing tide of darkness, out of which peaks and pinnacles came glittering into the blaze of the sun. I take it the reader has seen pictures or photographs of the moon and that I need not describe the broader features of that landscape, those spacious ring-like ranges vaster than any terrestrial mountains, their summits shining in the day, their shadows harsh and deep, the gray disordered plains, the ridges, hills, and craterlets, all passing at last from a blazing illumination into a common mystery of black. Athwart this world we were flying scarcely a hundred miles above its crests and pinnacles. And now we could see, what no eye on earth will ever see, that under the blaze of the day the harsh outlines of the rocks and ravines of the plains and crater floor grew gray and indistinct under a thickening haze, that the white of their lit surfaces broke into lumps and patches, and broke again and shrank and vanished, and that here and there strange tints of brown and olive grew and spread.

But little time we had for watching then. For now we had come to the real danger of our journey. We had to drop ever closer to the moon as we spun about it, to slacken our pace and watch our chance, until at last we could dare to drop upon its surface.

For Cavor that was a time of intense exertion; for me it was an anxious inactivity. I seemed perpetually to be getting out of his way. He leapt about the sphere from point to point with an agility that would have been impossible on earth. He was perpetually opening and closing the Cavorite windows, making calculations, consulting his chronometer by means of the glow lamp during those last eventful hours. For a long time we had all our windows closed and hung silently in darkness hurling through space.
Then he was feeling for the shutter studs, and suddenly four windows were open. I staggered and covered my eyes, drenched and scorched and blinded by the unaccustomed splendour of the sun beneath my feet. Then again the shutters snapped, leaving my brain spinning in a darkness that pressed against the eyes. And after that I floated in another vast, black silence.

Then Cavor switched on the electric light, and told me he proposed to bind all our luggage together with the blankets about it, against the concussion of our descent. We did this with our windows closed, because in that way our goods arranged themselves naturally at the centre of the sphere. That too was a strange business; we two men floating loose in that spherical space, and packing and pulling ropes. Imagine it if you can! No up nor down, and every effort resulting in unexpected movements. Now I would be pressed against the glass with the full force of Cavor's thrust, now I would be kicking helplessly in a void. Now the star of the electric light would be overhead, now under foot. Now Cavor's feet would float up before my eyes, and now we would be crossways to each other. But at last our goods were safely bound together in a big soft bale, all except two blankets with head holes that we were to wrap about ourselves.

Then for a flash Cavor opened a window moonward, and we saw that we were dropping towards a huge central crater with a number of minor craters grouped in a sort of cross about it. And then again Cavor flung our little sphere open to the scorching, blinding sun. I think he was using the sun's attraction as a brake. "Cover yourself with a blanket," he cried, thrusting himself from me, and for a moment I did not understand.

Then I hauled the blanket from beneath my feet and got it about me and over my head and eyes. Abruptly he closed the shutters again, snapped one open again and closed it, then suddenly began snapping them all open, each safely into its steel roller. There came a jar, and then we were rolling over and over, bumping against the glass and against the big bale of our luggage, and clutching at each other, and outside some white substance splashed as if we were rolling down a slope of snow....

Over, clutch, bump, clutch, bump, over....

Came a thud, and I was half buried under the bale of our possessions, and for a space everything was still. Then I could hear Cavor puffing and grunting, and the snapping of a shutter in its sash. I made an effort, thrust back our blanket-wrapped luggage, and emerged from beneath it. Our open windows were just visible as a deeper black set with stars.

We were still alive, and we were lying in the darkness of the shadow of the wall of the great crater into which we had fallen.

We sat getting our breath again, and feeling the bruises on our limbs. I don't think either of us had had a very clear expectation of such rough handling as we had received. I struggled painfully to my feet. "And now," said I, "to look at the landscape of the moon! But--! It's tremendously dark, Cavor!"

The glass was dewy, and as I spoke I wiped at it with my blanket. "We're half an hour or so beyond the day," he said. "We must wait."

It was impossible to distinguish anything. We might have been in a sphere of steel for all that we could see. My rubbing with the blanket simply smeared the glass, and as fast as I wiped it, it became opaque again with freshly condensed moisture mixed with an increasing quantity of blanket hairs. Of course I ought not to have used the blanket. In my efforts to clear the glass I slipped upon the damp surface, and hurt my shin against one of the oxygen cylinders that protruded from our bale.

The thing was exasperating--it was absurd. Here we were just arrived upon the moon, amidst we knew not what wonders, and all we could see was the gray and streaming wall of the bubble in which we had come.

"Confound it!" I said, "but at this rate we might have stopped at home;" and I squatted on the bale and shivered, and drew my blanket closer about me.

Abruptly the moisture turned to spangles and fronds of frost. "Can you reach the electric heater," said Cavor. "Yes--that black knob. Or we shall freeze."

I did not wait to be told twice. "And now," said I, "what are we to do?"

"Wait," he said.

"Wait?"

"Of course. We shall have to wait until our air gets warm again, and then this glass will clear. We can't do anything till then. It's night here yet; we must wait for the day to overtake us. Meanwhile, don't you feel hungry?"

For a space I did not answer him, but sat fretting. I turned reluctantly from the smeared puzzle of the glass and stared at his face. "Yes," I said, "I am hungry. I feel somehow enormously disappointed. I had expected--I don't know what I had expected, but not this."

I summoned my philosophy, and rearranging my blanket about me sat down on the bale again and began my first meal on the moon. I don't think I finished it--I forget. Presently, first in patches, then running rapidly together into wider spaces, came the clearing of the glass, came the drawing of the misty veil that hid the moon world from
our eyes.

We peered out upon the landscape of the moon.

Chapter 7

Sunrise on the Moon

As we saw it first it was the wildest and most desolate of scenes. We were in an enormous amphitheatre, a vast circular plain, the floor of the giant crater. Its cliff-like walls closed us in on every side. From the westward the light of the unseen sun fell upon them, reaching to the very foot of the cliff, and showed a disordered escarpment of drab and grayish rock, lined here and there with banks and crevices of snow. This was perhaps a dozen miles away, but at first no intervening atmosphere diminished in the slightest the minutely detailed brilliancy with which these things glared at us. They stood out clear and dazzling against a background of starry blackness that seemed to our earthly eyes rather a gloriously spangled velvet curtain than the spaciousness of the sky.

The eastward cliff was at first merely a starless selvedge to the starry dome. No rosy flush, no creeping pallor, announced the commencing day. Only the Corona, the Zodiacal light, a huge cone-shaped, luminous haze, pointing up towards the splendour of the morning star, warned us of the imminent nearness of the sun.

Whatever light was about us was reflected by the westward cliffs. It showed a huge undulating plain, cold and gray, a gray that deepened eastward into the absolute raven darkness of the cliff shadow. Innumerable rounded gray summits, ghostly hummocks, billows of snowy substance, stretching crest beyond crest into the remote obscurity, gave us our first inkling of the distance of the crater wall. These hummocks looked like snow. At the time I thought they were snow. But they were not--they were mounds and masses of frozen air.

So it was at first; and then, sudden, swift, and amazing, came the lunar day.

The sunlight had crept down the cliff, it touched the drifted masses at its base and incontinently came striding with seven-league boots towards us. The distant cliff seemed to shift and quiver, and at the touch of the dawn a reek of gray vapour poured upward from the crater floor, whirls and puffs and drifting wraiths of gray, thicker and broader and denser, until at last the whole westward plain was steaming like a wet handkerchief held before the fire, and the westward cliffs were no more than refracted glare beyond.

"It is air," said Cavor. "It must be air--or it would not rise like this--at the mere touch of a sun-beam. And at this pace...."

He peered upwards. "Look!" he said.

"What?" I asked.

"In the sky. Already. On the blackness--a little touch of blue. See! The stars seem larger. And the little ones and all those dim nebulousities we saw in empty space--they are hidden!"

Swiftly, steadily, the day approached us. Gray summit after gray summit was overtaken by the blaze, and turned to a smoking white intensity. At last there was nothing to the west of us but a bank of surging fog, the tumultuous advance and ascent of cloudy haze. The distant cliff had receded farther and farther, had loomed and changed through the whirl, and foundered and vanished at last in its confusion.

Nearer came that steaming advance, nearer and nearer, coming as fast as the shadow of a cloud before the south-west wind. About us rose a thin anticipatory haze.

Cavor gripped my arm. "What?" I said.

"Look! The sunrise! The sun!"

He turned me about and pointed to the brow of the eastward cliff, looming above the haze about us, scarce lighter than the darkness of the sky. But now its line was marked by strange reddish shapes, tongues of vermilion flame that writhed and danced. I fancied it must be spirals of vapour that had caught the light and made this crest of fiery tongues against the sky, but indeed it was the solar prominences I saw, a crown of fire about the sun that is forever hidden from earthly eyes by our atmospheric veil.

And then--the sun!

Steadily, inevitably came a brilliant line, came a thin edge of intolerable effulgence that took a circular shape, became a bow, became a blazing sceptre, and hurled a shaft of heat at us as though it was a spear.

It seemed verily to stab my eyes! I cried aloud and turned about blinded, groping for my blanket beneath the bale.

And with that incandescence came a sound, the first sound that had reached us from without since we left the
earth, a hissing and rustling, the stormy trailing of the aerial garment of the advancing day. And with the coming of
the sound and the light the sphere lurched, and blinded and dazzled we staggered helplessly against each other. It
lurched again, and the hissing grew louder. I had shut my eyes perforce, I was making clumsy efforts to cover my
head with my blanket, and this second lurch sent me helplessly off my feet. I fell against the bale, and opening my
eyes had a momentary glimpse of the air just outside our glass. It was running--it was boiling--like snow into which
a white-hot rod is thrust. What had been solid air had suddenly at the touch of the sun become a paste, a mud, a
slushy liquefaction, that hissed and bubbled into gas.

There came a still more violent whirl of the sphere and we had clutched one another. In another moment we
were spun about again. Round we went and over, and then I was on all fours. The lunar dawn had hold of us. It
meant to show us little men what the moon could do with us.

I caught a second glimpse of things without, puffs of vapour, half liquid slush, excavated, sliding, falling, sliding. We dropped into darkness. I went down with Cavor's knees in my chest. Then he seemed to fly away from
me, and for a moment I lay with all the breath out of my body staring upward. A toppling crag of the melting stuff
had splashed over us, buried us, and now it thinned and boiled off us. I saw the bubbles dancing on the glass above. I
heard Cavor exclaiming feebly.

Then some huge landslip in the thawing air had caught us, and spluttering expostulation, we began to roll down
a slope, rolling faster and faster, leaping crevasses and rebounding from banks, faster and faster, westward into the
white-hot boiling tumult of the lunar day.

Clutching at one another we spun about, pitched this way and that, our bale of packages leaping at us, pounding
at us. We collided, we gripped, we were torn asunder--our heads met, and the whole universe burst into fiery darts
and stars! On the earth we should have smashed one another a dozen times, but on the moon, luckily for us, our
weight was only one-sixth of what it is terrestrially, and we fell very mercifully. I recall a sensation of utter sickness,
a feeling as if my brain were upside down within my skull, and then--

Something was at work upon my face, some thin feelers worried my ears. Then I discovered the brilliance of
the landscape around was mitigated by blue spectacles. Cavor bent over me, and I saw his face upside down, his
eyes also protected by tinted goggles. His breath came irregularly, and his lip was bleeding from a bruise. "Better?"
he said, wiping the blood with the back of his hand.

Everything seemed swaying for a space, but that was simply my giddiness. I perceived that he had closed some
of the shutters in the outer sphere to save me--from the direct blaze of the sun. I was aware that everything about us
was very brilliant.

"Lord!" I gasped. "But this--" I craned my neck to see. I perceived there was a blinding glare outside, an utter change from the gloomy
darkness of our first impressions. "Have I been insensible long?" I asked.

"I don't know--the chronometer is broken. Some little time... My dear chap! I have been afraid..."

I lay for a space taking this in. I saw his face still bore evidences of emotion. For a while I said nothing. I
passed an inquisitive hand over my contusions, and surveyed his face for similar damages. The back of my right
hand had suffered most, and was skinless and raw. My forehead was bruised and had bled. He handed me a little
measure with some of the restorative--I forget the name of it--he had brought with us. After a time I felt a little
better. I began to stretch my limbs carefully. Soon I could talk.

"It wouldn't have done," I said, as though there had been no interval.
"No! it _wouldn't_."

He thought, his hands hanging over his knees. He peered through the glass and then stared at me.
"Good Lord!" he said. "No!"

"What has happened?" I asked after a pause. "Have we jumped to the tropics?"

"It was as I expected. This air has evaporated--if it is air. At any rate, it has evaporated, and the surface of the
moon is showing. We are lying on a bank of earthy rock. Here and there bare soil is exposed. A queer sort of soil!"

It occurred to him that it was unnecessary to explain. He assisted me into a sitting position, and I could see with
my own eyes.

Chapter 8

A Lunar Morning
The harsh emphasis, the pitiless black and white of scenery had altogether disappeared. The glare of the sun had taken upon itself a faint tinge of amber; the shadows upon the cliff of the crater wall were deeply purple. To the eastward a dark bank of fog still crouched and sheltered from the sunrise, but to the westward the sky was blue and clear. I began to realise the length of my insensibility.

We were no longer in a void. An atmosphere had arisen about us. The outline of things had gained in character, had grown acute and varied; save for a shadowed space of white substance here and there, white substance that was no longer air but snow, the arctic appearance had gone altogether. Everywhere broad rusty brown spaces of bare and tumbled earth spread to the blaze of the sun. Here and there at the edge of the snowdrifts were transient little pools and eddies of water, the only things stirring in that expanse of barrenness. The sunlight inundated the upper two blinds of our sphere and turned our climate to high summer, but our feet were still in shadow, and the sphere was lying upon a drift of snow.

And scattered here and there upon the slope, and emphasised by little white threads of unthawed snow upon their shady sides, were shapes like sticks, dry twisted sticks of the same rusty hue as the rock upon which they lay. That caught one's thoughts sharply. Sticks! On a lifeless world? Then as my eye grew more accustomed to the texture of their substance, I perceived that almost all this surface had a fibrous texture, like the carpet of brown needles one finds beneath the shade of pine trees.

"Cavor!" I said.
"Yes."
"It may be a dead world now--but once--"

Something arrested my attention. I had discovered among these needles a number of little round objects. And it seemed to me that one of these had moved. "Cavor," I whispered.
"What?"

But I did not answer at once. I stared incredulous. For an instant I could not believe my eyes. I gave an inarticulate cry. I gripped his arm. I pointed. "Look!" I cried, finding my tongue. "There! Yes! And there!"

His eyes followed my pointing finger. "Eh?" he said.

How can I describe the thing I saw? It is so petty a thing to state, and yet it seemed so wonderful, so pregnant with emotion. I have said that amidst the stick-like litter were these rounded bodies, these little oval bodies that might have passed as very small pebbles. And now first one and then another had stirred, had rolled over and cracked, and down the crack of each of them showed a minute line of yellowish green, thrusting outward to meet the hot encouragement of the newly-risen sun. For a moment that was all, and then there stirred, and burst a third!

"It is a seed," said Cavor. And then I heard him whisper very softly, "Life!"

"Life!" And immediately it poured upon us that our vast journey had not been made in vain, that we had come to no arid waste of minerals, but to a world that lived and moved! We watched intensely. I remember I kept rubbing the glass before me with my sleeve, jealous of the faintest suspicion of mist.

The picture was clear and vivid only in the middle of the field. All about that centre the dead fibres and seeds were magnified and distorted by the curvature of the glass. But we could see enough! One after another all down the sunlit slope these miraculous little brown bodies burst and gaped apart, like seed-pods, like the husks of fruits; opened eager mouths. that drank in the heat and light pouring in a cascade from the newly-risen sun.

Every moment more of these seed coats ruptured, and even as they did so the swelling pioneers overflowed their rent-distended seed-cases, and passed into the second stage of growth. With a steady assurance, a swift deliberation, these amazing seeds thrust a rootlet downward to the earth and a queer little bundle-like bud into the air. In a little while the whole slope was dotted with minute plantlets standing at attention in the blaze of the sun.

They did not stand for long. The bundle-like buds swelled and strained and opened with a jerk, thrusting out a coronet of little sharp tips, spreading a whorl of tiny, spiky, brownish leaves, that lengthened rapidly, lengthened visibly even as we watched. The movement was slower than any animal's, swifter than any plant's I have ever seen before. How can I suggest it to you—the way that growth went on? The leaf tips grew so that they moved onward even while we looked at them. The brown seed-case shrivelled and was absorbed with an equal rapidity. Have you ever on a cold day taken a thermometer into your warm hand and watched the little thread of mercury creep up the tube? These moon plants grew like that.

In a few minutes, as it seemed, the buds of the more forward of these plants had lengthened into a stem and were even putting forth a second whorl of leaves, and all the slope that had seemed so recently a lifeless stretch of litter was now dark with the stunted olive-green herbage of bristling spines that swayed with the vigour of their growing.

I turned about, and behold! along the upper edge of a rock to the eastward a similar fringe in a scarcely less forward condition swayed and bent, dark against the blinding glare of the sun. And beyond this fringe was the silhouette of a plant mass, branching clumsily like a cactus, and swelling visibly, swelling like a bladder that fills
with air.

Then to the westward also I discovered that another such distended form was rising over the scrub. But here the light fell upon its sleek sides, and I could see that its colour was a vivid orange hue. It rose as one watched it; if one looked away from it for a minute and then back, its outline had changed; it thrust out blunt congested branches until in a little time it rose a coralline shape of many feet in height. Compared with such a growth the terrestrial puff-ball, which will sometimes swell a foot in diameter in a single night, would be a hopeless laggard. But then the puff-ball grows against a gravitational pull six times that of the moon. Beyond, out of gullies and flats that had been hidden from us, but not from the quickening sun, over reefs and banks of shining rock, a bristling beard of spiky and fleshy vegetation was straining into view, hurrying tumultuously to take advantage of the brief day in which it must flower and fruit and seed again and die. It was like a miracle, that growth. So, one must imagine, the trees and plants arose at the Creation and covered the desolation of the new-made earth.

Imagine it! Imagine that dawn! The resurrection of the frozen air, the stirring and quickening of the soil, and then this silent uprising of vegetation, this unearthly ascent of fleshiness and spikes. Conceive it all lit by a blaze that would make the intensest sunlight of earth seem watery and weak. And still around this stirring jungle, wherever there was shadow, lingered banks of bluish snow. And to have the picture of our impression complete, you must bear in mind that we saw it all through a thick bent glass, distorting it as things are distorted by a lens, acute only in the centre of the picture, and very bright there, and towards the edges magnified and unreal.

Chapter 9

Prospecting Begins

We ceased to gaze. We turned to each other, the same thought, the same question in our eyes. For these plants to grow, there must be some air, however attenuated, air that we also should be able to breathe.

"The manhole?" I said.
"Yes!" said Cavor, "if it is air we see!"
"In a little while," I said, "these plants will be as high as we are. Suppose--suppose after all-- Is it certain? How do you know that stuff _is_ air? It may be nitrogen--it may be carbonic acid even!"
"That's easy," he said, and set about proving it. He produced a big piece of crumpled paper from the bale, lit it, and thrust it hastily through the man-hole valve. I bent forward and peered down through the thick glass for its appearance outside, that little flame on whose evidence depended so much!

I saw the paper drop out and lie lightly upon the snow. The pink flame of its burning vanished. For an instant it seemed to be extinguished. And then I saw a little blue tongue upon the edge of it that trembled, and crept, and spread!

Quietly the whole sheet, save where it lay in immediate contact with the snow, charred and shrivelled and sent up a quivering thread of smoke. There was no doubt left to me; the atmosphere of the moon was either pure oxygen or air, and capable therefore--unless its tenuity was excessive--of supporting our alien life. We might emerge--and live!

I sat down with my legs on either side of the manhole and prepared to unscrew it, but Cavor stopped me. "There is first a little precaution," he said. He pointed out that although it was certainly an oxygenated atmosphere outside, it might still be so rarefied as to cause us grave injury. He reminded me of mountain sickness, and of the bleeding that often afflicts aeronauts who have ascended too swiftly, and he spent some time in the preparation of a sickly-tasting drink which he insisted on my sharing. It made me feel a little numb, but otherwise had no effect on me. Then he permitted me to begin unscrewing.

Presently the glass stopper of the manhole was so far undone that the denser air within our sphere began to escape along the thread of the screw, singing as a kettle sings before it boils. Thereupon he made me desist. It speedily became evident that the pressure outside was very much less than it was within. How much less it was we had no means of telling.

I sat grasping the stopper with both hands, ready to close it again if, in spite of our intense hope, the lunar atmosphere should after all prove too rarefied for us, and Cavor sat with a cylinder of compressed oxygen at hand to restore our pressure. We looked at one another in silence, and then at the fantastic vegetation that swayed and grew visibly and noiselessly without. And ever that shrill piping continued.

My blood-vessels began to throb in my ears, and the sound of Cavor's movements diminished. I noted how still
everything had become, because of the thinning of the air.

As our air sizzled out from the screw the moisture of it condensed in little puffs.

Presently I experienced a peculiar shortness of breath that lasted indeed during the whole of the time of our exposure to the moon's exterior atmosphere, and a rather unpleasant sensation about the ears and finger-nails and the back of the throat grew upon my attention, and presently passed off again.

But then came vertigo and nausea that abruptly changed the quality of my courage. I gave the lid of the manhole half a turn and made a hasty explanation to Cavor; but now he was the more sanguine. He answered me in a voice that seemed extraordinarily small and remote, because of the thinness of the air that carried the sound. He recommended a nip of brandy, and set me the example, and presently I felt better. I turned the manhole stopper back again. The throbbing in my ears grew louder, and then I remarked that the piping note of the outrush had ceased. For a time I could not be sure that it had ceased.

"Well?" said Cavor, in the ghost of a voice.
"Well?" said I.
"Shall we go on?"
I thought. "Is this all?"
"If you can stand it."

By way of answer I went on unscrewing. I lifted the circular operculum from its place and laid it carefully on the bale. A flake or so of snow whirled and vanished as that thin and unfamiliar air took possession of our sphere. I knelt, and then seated myself at the edge of the manhole, peering over it. Beneath, within a yard of my face, lay the untrodden snow of the moon.

There came a little pause. Our eyes met.
"It doesn't distress your lungs too much?" said Cavor.
"No," I said. "I can stand this."

He stretched out his hand for his blanket, thrust his head through its central hole, and wrapped it about him. He sat down on the edge of the manhole, he let his feet drop until they were within six inches of the lunar ground. He hesitated for a moment, then thrust himself forward, dropped these intervening inches, and stood upon the untrodden soil of the moon.

As he stepped forward he was refracted grotesquely by the edge of the glass. He stood for a moment looking this way and that. Then he drew himself together and leapt.

The glass distorted everything, but it seemed to me even then to be an extremely big leap. He had at one bound become remote. He seemed twenty or thirty feet off. He was standing high upon a rocky mass and gesticulating back to me. Perhaps he was shouting—but the sound did not reach me. But how the deuce had he done this? I felt like a man who has just seen a new conjuring trick.

In a puzzled state of mind I too dropped through the manhole. I stood up. Just in front of me the snowdrift had fallen away and made a sort of ditch. I made a step and jumped.

I found myself flying through the air, saw the rock on which he stood coming to meet me, clutched it and clung in a state of infinite amazement.

I gasped a painful laugh. I was tremendously confused. Cavor bent down and shouted in piping tones for me to be careful.

I had forgotten that on the moon, with only an eighth part of the earth's mass and a quarter of its diameter, my weight was barely a sixth what it was on earth. But now that fact insisted on being remembered.

"We are out of Mother Earth's leading-strings now," he said.

With a guarded effort I raised myself to the top, and moving as cautiously as a rheumatic patient, stood up beside him under the blaze of the sun. The sphere lay behind us on its dwindling snowdrift thirty feet away.

As far as the eye could see over the enormous disorder of rocks that formed the crater floor, the same bristling scrub that surrounded us was starting into life, diversified here and there by bulging masses of a cactus form, and scarlet and purple lichens that grew so fast they seemed to crawl over the rocks. The whole area of the crater seemed to me then to be one similar wilderness up to the very foot of the surrounding cliff.

This cliff was apparently bare of vegetation save at its base, and with buttresses and terraces and platforms that did not very greatly attract our attention at the time. It was many miles away from us in every direction; we seemed to be almost at the centre of the crater, and we saw it through a certain haziness that drove before the wind. For there was even a wind now in the thin air, a swift yet weak wind that chilled exceedingly but exerted little pressure. It was blowing round the crater, as it seemed, to the hot illuminated side from the foggy darkness under the sunward wall. It was difficult to look into this eastward fog; we had to peer with half-closed eyes beneath the shade of our hands, because of the fierce intensity of the motionless sun.

"It seems to be deserted," said Cavor, "absolutely desolate."
I looked about me again. I retained even then a clinging hope of some quasi-human evidence, some pinnacle of building, some house or engine, but everywhere one looked spread the tumbled rocks in peaks and crests, and the darting scrub and those bulging cacti that swelled and swelled, a flat negation as it seemed of all such hope.

"It looks as though these plants had it to themselves," I said. "I see no trace of any other creature."

"No insects--no birds, no! Not a trace, not a scrap nor particle of animal life. If there was--what would they do in the night? ... No; there's just these plants alone."

I shaded my eyes with my hand. "It's like the landscape of a dream. These things are less like earthly land plants than the things one imagines among the rocks at the bottom of the sea. Look at that yonder! One might imagine it a lizard changed into a plant. And the glare!"

"This is only the fresh morning," said Cavor.

He sighed and looked about him. "This is no world for men," he said. "And yet in a way--it appeals."

He became silent for a time, then commenced his meditative humming.

I started at a gentle touch, and found a thin sheet of livid lichen lapping over my shoe. I kicked at it and it fell to powder, and each speck began to grow.

I heard Cavor exclaim sharply, and perceived that one of the fixed bayonets of the scrub had pricked him. He hesitated, his eyes sought among the rocks about us. A sudden blaze of pink had crept up a ragged pillar of crag. It was a most extraordinary pink, a livid magenta.

"Look!" said I, turning, and behold Cavor had vanished.

For an instant I stood transfixed. Then I made a hasty step to look over the verge of the rock. But in my surprise at his disappearance I forgot once more that we were on the moon. The thrust of my foot that I made in striding would have carried me a yard on earth; on the moon it carried me six--a good five yards over the edge. For the moment the thing had something of the effect of those nightmares when one falls and falls. For while one falls sixteen feet in the first second of a fall on earth, on the moon one falls two, and with only a sixth of one's weight. I fell, or rather I jumped down, about ten yards I suppose. It seemed to take quite a long time, five or six seconds, I should think. I floated through the air and fell like a feather, knee-deep in a snow-drift in the bottom of a gully of blue-gray, white-veined rock.

I looked about me. "Cavor!" I cried; but no Cavor was visible.

"Cavor!" I cried louder, and the rocks echoed me.

I turned fiercely to the rocks and clambered to the summit of them. "Cavor!" I cried. My voice sounded like the voice of a lost lamb.

The sphere, too, was not in sight, and for a moment a horrible feeling of desolation pinched my heart.

Then I saw him. He was laughing and gesticulating to attract my attention. He was on a bare patch of rock twenty or thirty yards away. I could not hear his voice, but "jump" said his gestures. I hesitated, the distance seemed enormous. Yet I reflected that surely I must be able to clear a greater distance than Cavor.

I made a step back, gathered myself together, and leapt with all my might. I seemed to shoot right up in the air as though I should never come down.

It was horrible and delightful, and as wild as a nightmare, to go flying off in this fashion. I realised my leap had been altogether too violent. I flew clean over Cavor's head and beheld a spiky confusion in a gully spreading to meet my fall. I gave a yelp of alarm. I put out my hands and straightened my legs.

I hit a huge fungoid bulk that burst all about me, scattering a mass of orange spores in every direction, and covering me with orange powder. I rolled over spluttering, and came to rest convulsed with breathless laughter.

I became aware of Cavor's little round face peering over a bristling hedge. He shouted some faded inquiry. "Eh?" I tried to shout, but could not do so for want of breath. He made his way towards me, coming gingerly among the bushes.

"We've got to be careful," he said. "This moon has no discipline. She'll let us smash ourselves."

He helped me to my feet. "You exerted yourself too much," he said, dabbing at the yellow stuff with his hand to remove it from my garments.

I stood passive and panting, allowing him to beat off the jelly from my knees and elbows and lecture me upon my misfortunes. "We don't quite allow for the gravitation. Our muscles are scarcely educated yet. We must practise a little, when you have got your breath."

I pulled two or three little thorns out of my hand, and sat for a time on a boulder of rock. My muscles were quivering, and I had that feeling of personal disillusionment that comes at the first fall to the learner of cycling on earth.

It suddenly occurred to Cavor that the cold air in the gully, after the brightness of the sun, might give me a fever. So we clambered back into the sunlight. We found that beyond a few abrasions I had received no serious injuries from my tumble, and at Cavor's suggestion we were presently looking round for some safe and easy landing-
place for my next leap. We chose a rocky slab some ten yards off, separated from us by a little thicket of olive-green spikes.

"Imagine it there!" said Cavor, who was assuming the airs of a trainer, and he pointed to a spot about four feet from my toes. This leap I managed without difficulty, and I must confess I found a certain satisfaction in Cavor's falling short by a foot or so and tasting the spikes of the scrub. "One has to be careful you see," he said, pulling out his thorns, and with that he ceased to be my mentor and became my fellow-learner in the art of lunar locomotion.

We chose a still easier jump and did it without difficulty, and then leapt back again, and to and fro several times, accustoming our muscles to the new standard. I could never have believed had I not experienced it, how rapid that adaptation would be. In a very little time indeed, certainly after fewer than thirty leaps, we could judge the effort necessary for a distance with almost terrestrial assurance.

And all this time the lunar plants were growing around us, higher and denser and more entangled, every moment thicker and taller, spiked plants, green cactus masses, fungi, fleshy and lichenous things, strangest radiate and sinuous shapes. But we were so intent upon our leaping, that for a time we gave no heed to their unfaltering expansion.

An extraordinary elation had taken possession of us. Partly, I think, it was our sense of release from the confinement of the sphere. Mainly, however, the thin sweetness of the air, which I am certain contained a much larger proportion of oxygen than our terrestrial atmosphere. In spite of the strange quality of all about us, I felt as adventurous and experimental as a cockney would do placed for the first time among mountains and I do not think it occurred to either of us, face to face though we were with the unknown, to be very greatly afraid.

We were bitten by a spirit of enterprise. We selected a lichenous kopje perhaps fifteen yards away, and landed neatly on its summit one after the other. "Good!" we cried to each other; "good!" and Cavor made three steps and went off to a tempting slope of snow a good twenty yards and more beyond. I stood for a moment struck by the grotesque effect of his soaring figure--his dirty cricket cap, and spiky hair, his little round body, his arms and his knicker-bockered legs tucked up tightly--against the weird spaciousness of the lunar scene. A gust of laughter seized me, and then I stepped off to follow. Plump! I dropped beside him.

We made a few gargantuan strides, leapt three or four times more, and sat down at last in a lichenous hollow. Our lungs were painful. We sat holding our sides and recovering our breath, looking appreciation to one another. Cavor panted something about "amazing sensations." And then came a thought into my head. For the moment it did not seem a particularly appalling thought, simply a natural question arising out of the situation.

"By the way," I said, "where exactly is the sphere?"

Cavor looked at me. "Eh?"

The full meaning of what we were saying struck me sharply.

"Cavor!" I cried, laying a hand on his arm, "where is the sphere?"

Chapter 10

Lost Men in the Moon

His face caught something of my dismay. He stood up and stared about him at the scrub that fenced us in and rose about us, straining upward in a passion of growth. He put a dubious hand to his lips. He spoke with a sudden lack of assurance. "I think," he said slowly, "we left it ... somewhere ... about _there_."

He pointed a hesitating finger that wavered in an arc.

"I'm not sure." His look of consternation deepened. "Anyhow," he said, with his eyes on me, "it can't be far."

We had both stood up. We made unmeaning ejaculations, our eyes sought in the twining, thickening jungle round about us.

All about us on the sunlit slopes frothed and swayed the darting shrubs, the swelling cactus, the creeping lichens, and wherever the shade remained the snow-drifts lingered. North, south, east, and west spread an identical monotony of unfamiliar forms. And somewhere, buried already among this tangled confusion, was our sphere, our home, our only provision, our only hope of escape from this fantastic wilderness of ephemeral growths into which we had come.

"I think after all," he said, pointing suddenly, "it might be over there."

"No," I said. "We have turned in a curve. See! here is the mark of my heels. It's clear the thing must be more to the eastward, much more. No--the sphere must be over there."
"I _think_," said Cavor, "I kept the sun upon my right all the time."
"Every leap, it seems to me," I said, "my shadow flew before me."

We stared into one another's eyes. The area of the crater had become enormously vast to our imaginations, the growing thickets already impenetrably dense.
"Good heavens! What fools we have been!"
"It's evident that we must find it again," said Cavor, "and that soon. The sun grows stronger. We should be fainting with the heat already if it wasn't so dry. And ... I'm hungry."

I stared at him. I had not suspected this aspect of the matter before. But it came to me at once--a positive craving. "Yes," I said with emphasis. "I am hungry too."

He stood up with a look of active resolution. "Certainly we must find the sphere."
As calmly as possible we surveyed the interminable reefs and thickets that formed the floor of the crater, each of us weighing in silence the chances of our finding the sphere before we were overtaken by heat and hunger.

"It can't be fifty yards from here," said Cavor, with indecisive gestures. "The only thing is to beat round about until we come upon it."

"That is all we can do," I said, without any alacrity to begin our hunt. "I wish this confounded spike bush did not grow so fast!"

"That's just it," said Cavor. "But it was lying on a bank of snow."
I stared about me in the vain hope of recognising some knoll or shrub that had been near the sphere. But everywhere was a confusing sameness, everywhere the aspiring bushes, the distending fungi, the dwindling snow banks, steadily and inevitably changed. The sun scorched and stung, the faintness of an unaccountable hunger mingled with our infinite perplexity. And even as we stood there, confused and lost amidst unprecedented things, we became aware for the first time of a sound upon the moon other than the air of the growing plants, the faint sighing of the wind, or those that we ourselves had made.

Boom.... Boom.... Boom.
It came from beneath our feet, a sound in the earth. We seemed to hear it with our feet as much as with our ears. Its dull resonance was muffled by distance, thick with the quality of intervening substance. No sound that I can imagine could have astonished us more, or have changed more completely the quality of things about us. For this sound, rich, slow, and deliberate, seemed to us as though it could be nothing but the striking of some gigantic buried clock.

Boom.... Boom.... Boom.
Sound suggestive of still cloisters, of sleepless nights in crowded cities, of vigils and the awaited hour, of all that is orderly and methodical in life, booming out pregnant and mysterious in this fantastic desert! To the eye everything was unchanged: the desolation of bushes and cacti waving silently in the wind, stretched unbroken to the distant cliffs, the still dark sky was empty overhead, and the hot sun hung and burned. And through it all, a warning, a threat, throbbed this enigma of sound.

Boom.... Boom.... Boom.
We questioned one another in faint and faded voices.
"A clock?"
"Like a clock!"
"What is it?"
"What can it be?"
"Count," was Cavor's belated suggestion, and at that word the striking ceased.

The silence, the rhythmic disappointment of the silence, came as a fresh shock. For a moment one could doubt whether one had ever heard a sound. Or whether it might not still be going on. Had I indeed heard a sound?
I felt the pressure of Cavor's arm upon my arm. He spoke in an undertone, as though he feared to wake some sleeping thing. "Let us keep together," he whispered, "and look for the sphere. We must get back to the sphere. This is beyond our understanding."

"Which way shall we go?"

He hesitated. An intense persuasion of presences, of unseen things about us and near us, dominated our minds. What could they be? Where could they be? Was this arid desolation, alternately frozen and scorched, only the outer rind and mask of some subterranean world? And if so, what sort of world? What sort of inhabitants might it not presently disgorging upon us?
And then, stabbing the aching stillness as vivid and sudden as an unexpected thunderclap, came a clang and rattle as though great gates of metal had suddenly been flung apart.

It arrested our steps. We stood gaping helplessly. Then Cavor stole towards me.
"I do not understand!" he whispered close to my face. He waved his hand vaguely skyward, the vague
suggestion of still vaguer thoughts.

"A hiding-place! If anything came..."

I looked about us. I nodded my head in assent to him.

We started off, moving stealthily with the most exaggerated precautions against noise. We went towards a thicket of scrub. A clangour like hammers flung about a boiler hastened our steps. "We must crawl," whispered Cavor.

The lower leaves of the bayonet plants, already overshadowed by the newer ones above, were beginning to wilt and shrivel so that we could thrust our way in among the thickening stems without serious injury. A stab in the face or arm we did not heed. At the heart of the thicket I stopped, and stared panting into Cavor's face.

"Subterranean," he whispered. "Below."

"They may come out."

"We must find the sphere!"

"Yes," I said; "but how?"

"Crawl till we come to it."

"But if we don't?"

"Keep hidden. See what they are like."

"We will keep together," said I.

He thought. "Which way shall we go?"

"We must take our chance."

We peered this way and that. Then very circumspectly, we began to crawl through the lower jungle, making, so far as we could judge, a circuit, halting now at every waving fungus, at every sound, intent only on the sphere from which we had so foolishly emerged. Ever and again from out of the earth beneath us came concussions, beatings, strange, inexplicable, mechanical sounds; and once, and then again, we thought we heard something, a faint rattle and tumult, borne to us through the air. But fearful as we were we dared essay no vantage-point to survey the crater. For long we saw nothing of the beings whose sounds were so abundant and insistent. But for the faintness of our hunger and the drying of our throats that crawling would have had the quality of a very vivid dream. It was so absolutely unreal. The only element with any touch of reality was these sounds.

Picture it to yourself! About us the dream-like jungle, with the silent bayonet leaves darting overhead, and the silent, vivid, sun-splashed lichens under our hands and knees, waving with the vigour of their growth as a carpet waves when the wind gets beneath it. Ever and again one of the bladder fungi, bulging and distending under the sun, loomed upon us. Ever and again some novel shape in vivid colour obtruded. The very cells that built up these plants were as large as my thumb, like beads of coloured glass. And all these things were saturated in the unmitigated glare of the sun, were seen against a sky that was bluish black and spangled still, in spite of the sunlight, with a few surviving stars. Strange! the very forms and texture of the stones were strange. It was all strange, the feeling of one's body was unprecedented, every other movement ended in a surprise. The breath sucked thin in one's throat, the blood flowed through one's ears in a throbbing tide--thud, thud, thud, thud....

And ever and again came gusts of turmoil, hammering, the clanging and throb of machinery, and presently--the bellowing of great beasts!

Chapter 11

The Mooncalf Pastures

So we two poor terrestrial castaways, lost in that wild-growing moon jungle, crawled in terror before the sounds that had come upon us. We crawled, as it seemed, a long time before we saw either Selenite or mooncalf, though we heard the bellowing and grunting noises of these latter continually drawing nearer to us. We crawled through stony ravines, over snow slopes, amidst fungi that ripped like thin bladders at our thrust, emitting a watery humour, over a perfect pavement of things like puff-balls, and beneath interminable thickets of scrub. And ever more helplessly our eyes sought for our abandoned sphere. The noise of the mooncalves would at times be a vast flat calf-like sound, at times it rose to an amazed and wrathful bellowing, and again it would become a clogged bestial sound, as though these unseen creatures had sought to eat and bellow at the same time.

Our first view was but an inadequate transitory glimpse, yet none the less disturbing because it was incomplete. Cavor was crawling in front at the time, and he first was aware of their proximity. He stopped dead, arresting me
with a single gesture.

A cracking and smashing of the scrub appeared to be advancing directly upon us, and then, as we squatted close and endeavoured to judge of the nearness and direction of this noise, there came a terrific bellow behind us, so close and vehement that the tops of the bayonet scrub bent before it, and one felt the breath of it hot and moist. And, turning about, we saw indistinctly through a crowd of swaying stems the mooncalf's shining sides, and the long line of its back loomed out against the sky.

Of course it is hard for me now to say how much I saw at that time, because my impressions were corrected by subsequent observation. First of all impressions was its enormous size; the girth of its body was some fourscore feet, its length perhaps two hundred. Its sides rose and fell with its laboured breathing. I perceived that its gigantic, flabby body lay along the ground, and that its skin was of a corrugated white, dappling into blackness along the backbone. But of its feet we saw nothing. I think also that we saw then the profile at least of the almost brainless head, with its fat-encumbered neck, its slobbering omnivorous mouth, its little nostrils, and tight shut eyes. (For the mooncalf invariably shuts its eyes in the presence of the sun.) We had a glimpse of a vast red pit as it opened its mouth to bawl and bellow again; we had a breath from the pit, and then the monster heeled over like a ship, dragged forward along the ground, creasing all its leathery skin, rolled again, and so swallowed past us, smashing a path amidst the scrub, and was speedily hidden from our eyes by the dense interlacings beyond. Another appeared more distantly, and then another, and then, as though he was guiding these animated lumps of provender to their pasture, a Selenite came momentarily into ken. My grip upon Cavor's foot became convulsive at the sight of him, and we remained motionless and peering long after he had passed out of our range.

By contrast with the mooncalves he seemed a trivial being, a mere ant, scarcely five feet high. He was wearing garments of some leathery substance, so that no portion of his actual body appeared, but of this, of course, we were entirely ignorant. He presented himself, therefore, as a compact, bristling creature, having much of the quality of a complicated insect, with whip-like tentacles and a clanging arm projecting from his shining cylindrical body case. The form of his head was hidden by his enormous many-spiked helmet--we discovered afterwards that he used the spikes for prodding refractory mooncalves--and a pair of goggles of darkened glass, set very much at the side, gave a bird-like quality to the metallic apparatus that covered his face. His arms did not project beyond his body case, and he carried himself upon short legs that, wrapped though they were in warm coverings, seemed to our terrestrial eyes inordinately flimsy. They had very short thighs, very long shanks, and little feet.

In spite of his heavy-looking clothing, he was progressing with what would be, from the terrestrial point of view, very considerable strides, and his clanging arm was busy. The quality of his motion during the instant of his passing suggested haste and a certain anger, and soon after we had lost sight of him we heard the bellow of a mooncalf change abruptly into a short, sharp squeal followed by the scuffle of its acceleration. And gradually that bellowing receded, and then came to an end, as if the pastures sought had been attained.

We listened. For a space the moon world was still. But it was some time before we resumed our crawling search for the vanished sphere.

When next we saw mooncalves they were some little distance away from us in a place of tumbled rocks. The less vertical surfaces of the rocks were thick with a speckled green plant growing in dense mossy clumps, upon which these creatures were crawling. We stopped at the edge of the reeds amidst which we were crawling at the sight of them, peering out at then and looking round for a second glimpse of a Selenite. They lay against their food which these creatures were browsing. We stopped at the edge of the reeds amidst which we were crawling at the sight of them, peering out at then and looking round for a second glimpse of a Selenite. They lay against their food which these creatures were browsing.
a dusty yellow colour. We were afraid to strike out across this space, but as it presented less obstruction to our
walking than the scrub, we went down upon it and began very circumspectly to skirt its edge.

For a little while the noises from below ceased and everything, save for the faint stir of the growing vegetation,
was very still. Then abruptly there began an uproar, louder, more vehement, and nearer than any we had so far
heard. Of a certainty it came from below. Instinctively we crouched as flat as we could, ready for a prompt plunge
into the thicket beside us. Each knock and throb seemed to vibrate through our bodies. Louder grew this throbbing
and beating, and that irregular vibration increased until the whole moon world seemed to be jerking and pulsing.

"Cover," whispered Cavor, and I turned towards the bushes.

At that instant came a thud like the thud of a gun, and then a thing happened—it still haunts me in my dreams. I
had turned my head to look at Cavor's face, and thrust out my hand in front of me as I did so. And my hand met
nothing! I plunged suddenly into a bottomless hole!

My chest hit something hard, and I found myself with my chin on the edge of an unfathomable abyss that had
suddenly opened beneath me, my hand extended stiffly into the void. The whole of that flat circular area was no
more than a gigantic lid, that was now sliding sideways from off the pit it had covered into a slot prepared for it.

Had it not been for Cavor I think I should have remained rigid, hanging over this margin and staring into the
enormous gulf below, until at last the edges of the slot scraped me off and hurled me into its depths. But Cavor had
not received the shock that had paralysed me. He had been a little distance from the edge when the lid had first
opened, and perceiving the peril that held me helpless, gripped my legs and pulled me backward. I came into a
sitting position, crawled away from the edge for a space on all fours, then staggered up and ran after him across the
thundering, quivering sheet of metal. It seemed to be swinging open with a steadily accelerated velocity, and the
bushes in front of me shifted sideways as I ran.

I was none too soon. Cavor's back vanished amidst the bristling thicket, and as I scrambled up after him, the
monstrous valve came into its position with a clang. For a long time we lay panting, not daring to approach the pit.

But at last very cautiously and bit by bit we crept into a position from which we could peer down. The bushes
about us creaked and waved with the force of a breeze that was blowing down the shaft. We could see nothing at
first except smooth vertical walls descending at last into an impenetrable black. And then very gradually we became
aware of a number of very faint and little lights going to and fro.

For a time that stupendous gulf of mystery held us so that we forgot even our sphere. In time, as we grew more
accustomed to the darkness, we could make out very small, dim, elusive shapes moving about among those needle-
point illuminations. We peered amazed and incredulous, understanding so little that we could find no words to say.
We could distinguish nothing that would give us a clue to the meaning of the faint shapes we saw.

"What can it be?" I asked; "what can it be?"
"The engineering!... They must live in these caverns during the night, and come out during the day."
"Cavor!" I said, "Can they be--that--it was something like--men?"
"_That_ was not a man."
"We dare risk nothing!"
"We dare do nothing until we find the sphere!"
"We _can_ do nothing until we find the sphere."

He assented with a groan and stirred himself to move. He stared about him for a space, sighed, and indicated a
direction. We struck out through the jungle. For a time we crawled resolutely, then with diminishing vigour.
Presently among great shapes of flabby purple there came a noise of trampling and cries about us. We lay close, and
for a long time the sounds went to and fro and very near. But this time we saw nothing. I tried to whisper to Cavor
that I could hardly go without food much longer, but my mouth had become too dry for whispering.

"Cavor," I said, "I must have food."
He turned a face full of dismay towards me. "It's a case for holding out," he said.
"But I _must_," I said, "and look at my lips!"
"I've been thirsty some time."
"If only some of that snow had remained!"
"It's clean gone! We're driving from arctic to tropical at the rate of a degree a minute...."

I gnawed my hand.

"The sphere!" he said. "There is nothing for it but the sphere."

We roused ourselves to another spurt of crawling. My mind ran entirely on edible things, on the hissing
profundity of summer drinks, more particularly I craved for beer. I was haunted by the memory of a sixteen gallon
cask that had swaggered in my Lympne cellar. I thought of the adjacent larder, and especially of steak and kidney
pie—tender steak and plenty of kidney, and rich, thick gravy between. Ever and again I was seized with fits of
hungry yawning. We came to flat places overgrown with fleshy red things, monstrous coralline growths; as we
pushed against them they snapped and broke. I noted the quality of the broken surfaces. The confounded stuff certainly looked of a biteable texture. Then it seemed to me that it smelt rather well.

I picked up a fragment and sniffed at it.

"Cavor," I said in a hoarse undertone.

He glanced at me with his face screwed up. "Don't," he said. I put down the fragment, and we crawled on through this tempting fleshiness for a space.

"Cavor," I asked, "why not?"

"Poison," I heard him say, but he did not look round.

We crawled some way before I decided.

"I'll chance it," said I.

He made a belated gesture to prevent me. I stuffed my mouth full. He crouched watching my face, his own twisted into the oddest expression. "It's good," I said.

"O Lord!" he cried.

He watched me munch, his face wrinkled between desire and disapproval, then suddenly succumbed to appetite and began to tear off huge mouthfuls. For a time we did nothing but eat.

The stuff was not unlike a terrestrial mushroom, only it was much laxer in texture, and, as one swallowed it, it warmed the throat. At first we experienced a mere mechanical satisfaction in eating; then our blood began to run warmer, and we tingled at the lips and fingers, and then new and slightly irrelevant ideas came bubbling up in our minds.

"Its good," said I. "Infernally good! What a home for our surplus population! Our poor surplus population," and I broke off another large portion. It filled me with a curiously benevolent satisfaction that there was such good food in the moon. The depression of my hunger gave way to an irrational exhilaration. The dread and discomfort in which I had been living vanished entirely. I perceived the moon no longer as a planet from which I most earnestly desired the means of escape, but as a possible refuge from human destitution. I think I forgot the Selenites, the mooncalves, the lid, and the noises completely so soon as I had eaten that fungus.

Cavor replied to my third repetition of my "surplus population" remark with similar words of approval. I felt that my head swam, but I put this down to the stimulating effect of food after a long fast. "Ess'lent discov'ry yours, Cavor," said I. "Se'nd on'y to the 'tato."

"Whajer mean?" asked Cavor. "'Scovery of the moon--se'nd on'y to the 'tato?"

I looked at him, shocked at his suddenly hoarse voice, and by the badness of his articulation. It occurred to me in a flash that he was intoxicated, possibly by the fungus. It also occurred to me that he erred in imagining that he had discovered the moon; he had not discovered it, he had only reached it. I tried to lay my hand on his arm and explain this to him, but the issue was too subtle for his brain. It was also unexpectedly difficult to express. After a momentary attempt to understand me--I remember wondering if the fungus had made my eyes as fishy as his--he set off upon some observations on his own account.

"We are," he announced with a solemn hiccup, "the creashurs o' what we eat and drink."

He repeated this, and as I was now in one of my subtle moods, I determined to dispute it. Possibly I wandered a little from the point. But Cavor certainly did not attend at all properly. He stood up as well as he could, putting a hand on my head to steady I himself, which was disrespectful, and stood staring about him, quite devoid now of any fear of the moon beings.

I tried to point out that this was dangerous for some reason that was not perfectly clear to me, but the word "dangerous" had somehow got mixed with "indiscreet," and came out rather more like "injurious" than either; and after an attempt to disentangle them, I resumed my argument, addressing myself principally to the unfamiliar but attentive coralline growths on either side. I felt that it was necessary to clear up this confusion between the moon and a potato at once--I wandered into a long parenthesis on the importance of precision of definition in argument. I did my best to ignore the fact that my bodily sensations were no longer agreeable.

In some way that I have now forgotten, my mind was led back to projects of colonisation. "We must annex this moon," I said. "There must be no shilly-shally. This is part of the White Man's Burthen. Cavor--we are--hic--Satap--mean Satraps! Nempire Caesar never dreamt. B'in all the newspapers. Cavorecia. Bedfordecia. Bedfordecia--hic--Limited. Mean--unlimited! Practically."

Certainly I was intoxicated.

I embarked upon an argument to show the infinite benefits our arrival would confer on the moon. I involved myself in a rather difficult proof that the arrival of Columbus was, on the whole, beneficial to America. I found I had forgotten the line of argument I had intended to pursue, and continued to repeat "sim'lar to C'lumbus," to fill up time.

From that point my memory of the action of that abominable fungus becomes confused. I remember vaguely that we declared our intention of standing no nonsense from any confounded insects, that we decided it ill became
men to hide shamefully upon a mere satellite, that we equipped ourselves with huge armfuls of the fungus—whether
for missile purposes or not I do not know—and, heedless of the stabs of the bayonet scrub, we started forth into the
sunshine.

Almost immediately we must have come upon the Selenites. There were six of them, and they were marching
in single file over a rocky place, making the most remarkable piping and whining sounds. They all seemed to
become aware of us at once, all instantly became silent and motionless, like animals, with their faces turned towards
us.

For a moment I was sobered.
"Insects," murmured Cavor, "insects! And they think I'm going to crawl about on my stomach—on my
vertebrated stomach!
"Stomach," he repeated slowly, as though he chewed the indignity.

Then suddenly, with a sort of fury, he made three vast strides and leapt towards them. He leapt badly; he made
a series of somersaults in the air, whirled right over them, and vanished with an enormous splash amidst the cactus
bladders. What the Selenites made of this amazing, and to my mind undignified irruption from another planet, I have
no means of guessing. I seem to remember the sight of their backs as they ran in all directions, but I am not sure. All
these last incidents before oblivion came are vague and faint in my mind. I know I made a step to follow Cavor, and
tripped and fell headlong among the rocks. I was, I am certain, suddenly and vehemently ill. I seem to remember, a
violent struggle and being gripped by metallic clasps....

My next clear recollection is that we were prisoners at we knew not what depths beneath the moon's surface;
we were in darkness amidst strange distracting noises; our bodies were covered with scratches and bruises, and our
heads racked with pain.

Chapter 12

The Selenite's Face

I found myself sitting crouched together in a tumultuous darkness. For a long time I could not understand
where I was, nor how I had come to this perplexity. I thought of the cupboard into which I had been thrust at times
when I was a child, and then of a very dark and noisy bedroom in which I had slept during an illness. But these
sounds about me were not the noises I had known, and there was a thin flavour in the air like the wind of a stable.
Then I supposed we must still be at work upon the sphere, and that somehow I had got into the cellar of Cavor's
house. I remembered we had finished the sphere, and fancied I must still be in it and travelling through space.

"Cavor," I said, "cannot we have some light?"

There came no answer.

"Cavor!" I insisted.

I was answered by a groan. "My head!" I heard him say; "my head!"

I attempted to press my hands to my brow, which ached, and discovered they were tied together. This startled
me very much. I brought them up to my mouth and felt the cold smoothness of metal. They were chained together. I
tried to separate my legs and made out they were similarly fastened, and also that I was fastened to the ground by a
much thicker chain about the middle of my body.

I was more frightened than I had yet been by anything in all our strange experiences. For a time I tugged
silently at my bonds. "Cavor!" I cried out sharply. "Why am I tied? Why have you tied me hand and foot?"

"I haven't tied you," he answered. "It's the Selenites."

The Selenites! My mind hung on that for a space. Then my memories came back to me: the snowy desolation,
the thawing of the air, the growth of the plants, our strange hopping and crawling among the rocks and vegetation of
the crater. All the distress of our frantic search for the sphere returned to me.... Finally the opening of the great lid
that covered the pit!

Then as I strained to trace our later movements down to our present plight, the pain in my head became
intolerable. I came to an insurmountable barrier, an obstinate blank.

"Cavor!"

"Yes?"

"Where are we?"

"How should I know?"
"Are we dead?"
"What nonsense!"
"They've got us, then!"

He made no answer but a grunt. The lingering traces of the poison seemed to make him oddly irritable.
"What do you mean to do?"
"How should I know what to do?"

"Oh, very well!" said I, and became silent. Presently, I was roused from a stupor. "O Lord!" I cried; "I wish you'd stop that buzzing!"

We lapsed into silence again, listening to the dull confusion of noises like the muffled sounds of a street or factory that filled our ears. I could make nothing of it, my mind pursued first one rhythm and then another, and questioned it in vain. But after a long time I became aware of a new and sharper element, not mingling with the rest but standing out, as it were, against that cloudy background of sound. It was a series of relatively very little definite sounds, tappings and rubbings, like a loose spray of ivy against a window or a bird moving about upon a box. We listened and peered about us, but the darkness was a velvet pall. There followed a noise like the subtle movement of the wards of a well-oiled lock. And then there appeared before me, hanging as it seemed in an immensity of black, a thin bright line.

"Look!" whispered Cavor very softly.
"What is it?"
"I don't know."

We stared.

The thin bright line became a band, and broader and paler. It took upon itself the quality of a bluish light falling upon a white-washed wall. It ceased to be parallel-sided; it developed a deep indentation on one side. I turned to remark this to Cavor, and was amazed to see his ear in a brilliant illumination—all the rest of him in shadow. I twisted my head round as well as my bonds would permit. "Cavor," I said, "it's behind!"

His ear vanished—gave place to an eye!

Suddenly the crack that had been admitting the light broadened out, and revealed itself as the space of an opening door. Beyond was a sapphire vista, and in the doorway stood a grotesque outline silhouetted against the glare.

We both made convulsive efforts to turn, and failing, sat staring over our shoulders at this. My first impression was of some clumsy quadruped with lowered head. Then I perceived it was the slender pinched body and short and extremely attenuated bandy legs of a Selenite, with his head depressed between his shoulders. He was without the helmet and body covering they wear upon the exterior.

He was a blank, black figure to us, but instinctively our imaginations supplied features to his very human outline. I, at least, took it instantly that he was somewhat hunchbacked, with a high forehead and long features.

He came forward three steps and paused for a time. His movements seemed absolutely noiseless. Then he came forward again. He walked like a bird, his feet fell one in front of the other. He stepped out of the ray of light that came through the doorway, and it seemed as though he vanished altogether in the shadow.

For a moment my eyes sought him in the wrong place, and then I perceived him standing facing us both in the full light. Only the human features I had attributed to him were not there at all!

Of course I ought to have expected that, only I didn't. It came to me as an absolute, for a moment an overwhelming shock. It seemed as though it wasn't a face, as though it must needs be a mask, a horror, a deformity, that would presently be disavowed or explained. There was no nose, and the thing had dull bulging eyes at the side—in the silhouette I had supposed they were ears. There were no ears.... I have tried to draw one of these heads, but I cannot. There was a mouth, downwardly curved, like a human mouth in a face that stares ferociously....

The neck on which the head was poised was jointed in three places, almost like the short joints in the leg of a crab. The joints of the limbs I could not see, because of the puttee-like straps in which they were swathed, and which formed the only clothing the being wore.

There the thing was, looking at us!

At the time my mind was taken up by the mad impossibility of the creature. I suppose he also was amazed, and with more reason, perhaps, for amazement than we. Only, confound him! he did not show it. We did at least know what had brought about this meeting of incompatible creatures. But conceive how it would seem to decent Londoners, for example, to come upon a couple of living things, as big as men and absolutely unlike any other earthly animals, careering about among the sheep in Hyde Park! It must have taken him like that.

Figure us! We were bound hand and foot, fagged and filthy; our beards two inches long, our faces scratched and bloody. Cavor you must imagine in his knickerbockers (torn in several places by the bayonet scrub) his Jaeger shirt and old cricket cap, his wiry hair wildly disordered, a tail to every quarter of the heavens. In that blue light his
face did not look red but very dark, his lips and the drying blood upon my hands seemed black. If possible I was in a worse plight than he, on account of the yellow fungus into which I had jumped. Our jackets were unbuttoned, and our shoes had been taken off and lay at our feet. And we were sitting with our backs to this queer bluish light, peering at such a monster as Durer might have invented.

Cavor broke the silence; started to speak, went hoarse, and cleared his throat. Outside began a terrific bellowing, as if a mooncalf were in trouble. It ended in a shriek, and everything was still again.

Presently the Selenite turned about, flickered into the shadow, stood for a moment retrospective at the door, and then closed it on us; and once more we were in that murmurous mystery of darkness into which we had awakened.

Chapter 13

Mr. Cavor Makes Some Suggestions

For a time neither of us spoke. To focus together all the things we had brought upon ourselves seemed beyond my mental powers.

"They've got us," I said at last.
"It was that fungus."
"Well--if I hadn't taken it we should have fainted and starved."
"We might have found the sphere."

I lost my temper at his persistence, and swore to myself. For a time we hated one another in silence. I drummed with my fingers on the floor between my knees, and gritted the links of my fetters together. Presently I was forced to talk again.

"What do you make of it, anyhow?" I asked humbly.
"They are reasonable creatures--they can make things and do things. Those lights we saw..."

He stopped. It was clear he could make nothing of it.

When he spoke again it was to confess, "After all, they are more human than we had a right to expect. I suppose--"

He stopped irritatingly.
"Yes?"

"I suppose, anyhow--on any planet where there is an intelligent animal--it will carry its brain case upward, and have hands, and walk erect."

Presently he broke away in another direction.

"We are some way in," he said. "I mean--perhaps a couple of thousand feet or more."
"Why?"

"It's cooler. And our voices are so much louder. That faded quality--it has altogether gone. And the feeling in one's ears and throat."

I had not noted that, but I did now.

"The air is denser. We must be some depths--a mile even, we may be--inside the moon."
"We never thought of a world inside the moon."
"No."
"How could we?"
"We might have done. Only one gets into habits of mind."

He thought for a time.

"Now," he said, "it seems such an obvious thing."

"Of course! The moon must be enormously cavernous, with an atmosphere within, and at the centre of its caverns a sea.

"One knew that the moon had a lower specific gravity than the earth, one knew that it had little air or water outside, one knew, too, that it was sister planet to the earth, and that it was unaccountable that it should be different in composition. The inference that it was hollowed out was as clear as day. And yet one never saw it as a fact. Kepler, of course--"

His voice had the interest now of a man who has discerned a pretty sequence of reasoning.

"Yes," he said, "Kepler with his sub-volvani was right after all."

"I wish you had taken the trouble to find that out before we came," I said.
He answered nothing, buzzing to himself softly, as he pursued his thoughts. My temper was going.
"What do you think has become of the sphere, anyhow?" I asked.
"Lost," he said, like a man who answers an uninteresting question.
"Among those plants?"
"Unless they find it."
"And then?"
"How can I tell?"
"Cavor," I said, with a sort of hysterical bitterness, "things look bright for my Company..."
He made no answer.
"Good Lord!" I exclaimed. "Just think of all the trouble we took to get into this pickle! What did we come for? What are we after? What was the moon to us or we to the moon? We wanted too much, we tried too much. We ought to have started the little things first. It was you proposed the moon! Those Cavorite spring blinds! I am certain we could have worked them for terrestrial purposes. Certain! Did you really understand what I proposed? A steel cylinder--"
"Rubbish!" said Cavor.
We ceased to converse.
For a time Cavor kept up a broken monologue without much help from me.
"If they find it," he began, "if they find it ... what will they do with it? Well, that's a question. It may be that's the question. They won't understand it, anyhow. If they understood that sort of thing they would have come long since to the earth. Would they? Why shouldn't they? But they would have sent something--they couldn't keep their hands off such a possibility. No! But they will examine it. Clearly they are intelligent and inquisitive. They will examine it--get inside it--trifle with the studs. Off! ... That would mean the moon for us for all the rest of our lives. Strange creatures, strange knowledge...."
"As for strange knowledge--" said Cavor, and language failed me.
"Look here, Bedford," said Cavor, "you came on this expedition of your own free will."
"You said to me, 'Call it prospecting'."
"There's always risks in prospecting."
"Especially when you do it unarmed and without thinking out every possibility."
"I was so taken up with the sphere. The thing rushed on us, and carried us away."
"Rushed on _me_, you mean."
"Rushed on me just as much. How was I to know when I set to work on molecular physics that the business would bring me here--of all places?"
"It's this accursed science," I cried. "It's the very Devil. The medieval priests and persecutors were right and the Moderns are all wrong. You tamper with it--and it offers you gifts. And directly you take them it knocks you to pieces in some unexpected way. Old passions and new weapons--now it upsets your religion, now it upsets your social ideas, now it whirls you off to desolation and misery!"
"Anyhow, it's no use your quarrelling with me now. These creatures--these Selenites, or whatever we choose to call them--have got us tied hand and foot. Whatever temper you choose to go through with it in, you will have to go through with it.... We have experiences before us that will need all our coolness."
He paused as if he required my assent. But I sat sulking. "Confound your science!" I said.
"The problem is communication. Gestures, I fear, will be different. Pointing, for example. No creatures but men and monkeys point."
That was too obviously wrong for me. "Pretty nearly every animal," I cried, "points with its eyes or nose."
Cavor meditated over that. "Yes," he said at last, "and we don't. There's such differences--such differences!"
"One might.... But how can I tell? There is speech. The sounds they make, a sort of fluting and piping. I don't see how we are to imitate that. Is it their speech, that sort of thing? They may have different senses, different means of communication. Of course they are minds and we are minds; there must be something in common. Who knows how far we may not get to an understanding?"
"The things are outside us," I said. "They're more different from us than the strangest animals on earth. They are a different clay. What is the good of talking like this?"
Cavor thought. "I don't see that. Where there are minds they will have something similar--even though they have been evolved on different planets. Of course if it was a question of instincts, if we or they are no more than animals--"
"Well, are they? They're much more like ants on their hind legs than human beings, and who ever got to any sort of understanding with ants?"
"But these machines and clothing! No, I don't hold with you, Bedford. The difference is wide--"
"It's insurmountable."

"The resemblance must bridge it. I remember reading once a paper by the late Professor Galton on the possibility of communication between the planets. Unhappily, at that time it did not seem probable that that would be of any material benefit to me, and I fear I did not give it the attention I should have done—in view of this state of affairs. Yet.... Now, let me see!

"His idea was to begin with those broad truths that must underlie all conceivable mental existences and establish a basis on those. The great principles of geometry, to begin with. He proposed to take some leading proposition of Euclid's, and show by construction that its truth was known to us, to demonstrate, for example, that the angles at the base of an isosceles triangle are equal, and that if the equal sides be produced the angles on the other side of the base are equal also, or that the square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the two other sides. By demonstrating our knowledge of these things we should demonstrate our possession of a reasonable intelligence.... Now, suppose I ... I might draw the geometrical figure with a wet finger, or even trace it in the air...."

He fell silent. I sat meditating his words. For a time his wild hope of communication, of interpretation, with these weird beings held me. Then that angry despair that was a part of my exhaustion and physical misery resumed its sway. I perceived with a sudden novel vividness the extraordinary folly of everything I had ever done. "Ass!" I said; "oh, ass, unutterable ass.... I seem to exist only to go about doing preposterous things. Why did we ever leave the thing? ... Hopping about looking for patents and concessions in the craters of the moon!... If only we had had the sense to fasten a handkerchief to a stick to show where we had left the sphere!"

I subsided, fuming.

"It is clear," meditated Cavor, "they are intelligent. One can hypothecate certain things. As they have not killed us at once, they must have ideas of mercy. Mercy! at any rate of restraint. Possibly of intercourse. They may meet us. And this apartment and the glimpses we had of its guardian. These fetters! A high degree of intelligence...."

"I wish to heaven," cried I, "I'd thought even twice! Plunge after plunge. First one fluky start and then another. It was my confidence in you! Why didn't I stick to my play? That was what I was equal to. That was my world and the life I was made for. I could have finished that play. I'm certain ... it was a good play. I had the scenario as good as done. Then.... Conceive it! leaping to the moon! Practically--I've thrown my life away! That old woman in the inn near Canterbury had better sense."

I looked up, and stopped in mid-sentence. The darkness had given place to that bluish light again. The door was opening, and several noiseless Selenites were coming into the chamber. I became quite still, staring at their grotesque faces.

Then suddenly my sense of disagreeable strangeness changed to interest. I perceived that the foremost and second carried bowls. One elemental need at least our minds could understand in common. They were bowls of some metal that, like our fetters, looked dark in that bluish light; and each contained a number of whitish fragments. All the cloudy pain and misery that oppressed me rushed together and took the shape of hunger. I eyed these bowls wolfishly, and, though it returned to me in dreams, at that time it seemed a small matter that at the end of the arms that lowered one towards me were not hands, but a sort of flap and thumb, like the end of an elephant's trunk. The stuff in the bowl was loose in texture, and whitish brown in colour—rather like lumps of some cold souffle, and it smelt faintly like mushrooms. From a partially divided carcass of a mooncalf that we presently saw, I am inclined to believe it must have been mooncalf flesh.
My hands were so tightly chained that I could barely contrive to reach the bowl; but when they saw the effort I made, two of them dexterously released one of the turns about my wrist. Their tentacle hands were soft and cold to my skin. I immediately seized a mouthful of the food. It had the same laxness in texture that all organic structures seem to have upon the moon; it tasted rather like a gauffre or a damp meringue, but in no way was it disagreeable. I took two other mouthfuls. "I wanted--foo'!" said I, tearing off a still larger piece."

For a time we ate with an utter absence of self-consciousness. We ate and presently drank like tramps in a soup kitchen. Never before nor since have I been hungry to the ravenous pitch, and save that I have had this very experience I could never have believed that, a quarter of a million of miles out of our proper world, in utter perplexity of soul, surrounded, watched, touched by beings more grotesque and inhuman than the worst creations of a nightmare, it would be possible for me to eat in utter forgetfulness of all these things. They stood about us watching us, and ever and again making a slight elusive twittering that stood the suppose, in the stead of speech. I did not even shiver at their touch. And when the first zeal of my feeding was over, I could note that Cavor, too, had been eating with the same shameless abandon.

Chapter 14

Experiments in intercourse

When at last we had made an end of eating, the Selenites linked our hands closely together again, and then untwisted the chains about our feet and rebound them, so as to give us a limited freedom of movement. Then they unfastened the chains about our waists. To do all this they had to handle us freely, and ever and again one of their queer heads came down close to my face, or a soft tentacle-hand touched my head or neck. I don't remember that I was afraid then or repelled by their proximity. I think that our incurable anthropomorphism made us imagine there were human heads inside their masks. The skin, like everything else, looked bluish, but that was on account of the light; and it was hard and shiny, quite in the beetle-wing fashion, not soft, or moist, or hairy, as a vertebrated animal's would be. Along the crest of the head was a low ridge of whitish spines running from back to front, and a much larger ridge curved on either side over the eyes. The Selenite who untied me used his mouth to help his hands.

"They seem to be releasing us," said Cavor. "Remember we are on the moon! Make no sudden movements!"

"Are you going to try that geometry?"

"If I get a chance. But, of course, they may make an advance first."

We remained passive, and the Selenites, having finished their arrangements, stood back from us, and seemed to be looking at us. I say seemed to be, because as their eyes were at the side and not in front, one had the same difficulty in determining the direction in which they were looking as one has in the case of a hen or a fish. They conversed with one another in their reedy tones, that seemed to me impossible to imitate or define. The door behind us opened wider, and, glancing over my shoulder, I saw a vague large space beyond, in which quite a little crowd of Selenites were standing. They seemed a curiously miscellaneous rabble.

"Do they want us to imitate those sounds?" I asked Cavor.

"I don't think so," he said.

"It seems to me that they are trying to make us understand something."

"I can't make anything of their gestures. Do you notice this one, who is worrying with his head like a man with an uncomfortable collar?"

"Let us shake our heads at him."

We did that, and finding it ineffectual, attempted an imitation of the Selenites' movements. That seemed to interest them. At any rate they all set up the same movement. But as that seemed to lead to nothing, we desisted at last and so did they, and fell into a piping argument among themselves. Then one of them, shorter and very much thicker than the others, and with a particularly wide mouth, squatted down suddenly beside Cavor, and put his hands and feet in the same posture as Cavor's were bound, and then by a dexterous movement stood up.

"Cavor," I shouted, "they want us to get up!"

He stared open-mouthed. "That's it!" he said.

And with much heaving and grunting, because our hands were tied together, we contrived to struggle to our feet. The Selenites made way for our elephantine heavings, and seemed to twitter more volubly. As soon as we were on our feet the thick-set Selenite came and patted each of our faces with his tentacles, and walked towards the open doorway. That also was plain enough, and we followed him. We saw that four of the Selenites standing in the
doorway were much taller than the others, and clothed in the same manner as those we had seen in the crater, namely, with spiked round helmets and cylindrical body-cases, and that each of the four carried a goad with spike and guard made of that same dull-looking metal as the bowls. These four closed about us, one on either side of each of us, as we emerged from our chamber into the cavern from which the light had come.

We did not get our impression of that cavern all at once. Our attention was taken up by the movements and attitudes of the Selenites immediately about us, and by the necessity of controlling our motion, lest we should startle and alarm them and ourselves by some excessive stride. In front of us was the short, thick-set being who had solved the problem of asking us to get up, moving with gestures that seemed, almost all of them, intelligible to us, inviting us to follow him. His spout-like face turned from one of us to the other with a quickness that was clearly interrogative. For a time, I say, we were taken up with these things.

But at last the great place that formed a background to our movements asserted itself. It became apparent that the source of much, at least, of the tumult of sounds which had filled our ears ever since we had recovered from the stupefaction of the fungus was a vast mass of machinery in active movement, whose flying and whirling parts were visible indistinctly over the heads and between the bodies of the Selenites who walked about us. And not only did the web of sounds that filled the air proceed from this mechanism, but also the peculiar blue light that irradiated the whole place. We had taken it as a natural thing that a subterranean cavern should be artificially lit, and even now, though the fact was patent to my eyes, I did not really grasp its import until presently the darkness came. The meaning and structure of this huge apparatus we saw I cannot explain, because we neither of us learnt what it was for or how it worked. One after another, big shafts of metal flung out and up from its centre, their heads travelling in what seemed to me to be a parabolic path; each dropped a sort of dangling arm as it rose towards the apex of its flight and plunged down into a vertical cylinder, forcing this down before it. About it moved the shapes of tenders, little figures that seemed vaguely different from the beings about us. As each of the three dangling arms of the machine plunged down, there was a clank and then a roaring, and out of the top of the vertical cylinder came pouring this incandescent substance that lit the place, and ran over as milk runs over a boiling pot, and dripped luminously into a tank of light below. It was a cold blue light, a sort of phosphorescent glow but infinitely brighter, and from the tanks into which it fell it ran in conduits athwart the cavern.

Thud, thud, thud, thud, came the sweeping arms of this unintelligible apparatus, and the light substance hissed and poured. At first the thing seemed only reasonably large and near to us, and then I saw how exceedingly little the Selenites upon it seemed, and I realised the full immensity of cavern and machine. I looked from this tremendous affair to the faces of the Selenites with a new respect. I stopped, and Cavor stopped, and stared at this thunderous engine.

"But this is stupendous!" I said. "What can it be for?"

Cavor's blue-lit face was full of an intelligent respect. "I can't dream! Surely these beings-- Men could not make a thing like that! Look at those arms, are they on connecting rods?"

The thick-set Selenite had gone some paces unheeded. He came back and stood between us and the great machine. I avoided seeing him, because I guessed somehow that his idea was to beckon us onward. He walked away in the direction he wished us to go, and turned and came back, and flicked our faces to attract our attention.

Cavor and I looked at one another.

"Cannot we show him we are interested in the machine?" I said.

"Yes," said Cavor. "We'll try that." He turned to our guide and smiled, and pointed to the machine, and pointed again, and then to his head, and then to the machine. By some defect of reasoning he seemed to imagine that broken English might help these gestures. "Me look 'im," he said, "me think 'im very much. Yes."

His behaviour seemed to check the Selenites in their desire for our progress for a moment. They faced one another, their queer heads moved, the twittering voices came quick and liquid. Then one of them, a lean, tall creature, with a sort of mantle added to the puttee in which the others were dressed, twisted his elephant trunk of a hand about Cavor's waist, and pulled him gently to follow our guide, who again went on ahead. Cavor resisted. "We may just as well begin explaining ourselves now. They may think we are new animals, a new sort of mooncalf perhaps! It is most important that we should show an intelligent interest from the outset."

He began to shake his head violently. "No, no," he said, "me not come on one minute. Me look at 'im."

"Isn't there some geometrical point you might bring in apropos of that affair?" I suggested, as the Selenites conferred again.

"Possibly a parabolic--" he began.

He yelled loudly, and leaped six feet or more!

One of the four armed moon-men had pricked him with a goad!

I turned on the goad-bearer behind me with a swift threatening gesture, and he started back. This and Cavor's sudden shout and leap clearly astonished all the Selenites. They receded hastily, facing us. For one of those moments
that seem to last for ever, we stood in angry protest, with a scattered semicircle of these inhuman beings about us.

"He pricked me!" said Cavor, with a catching of the voice.

"I saw him," I answered.

"Confound it!" I said to the Selenites; "we're not going to stand that! What on earth do you take us for?"

I glanced quickly right and left. Far away across the blue wilderness of cavern I saw a number of other Selenites running towards us; broad and slender they were, and one with a larger head than the others. The cavern spread wide and low, and receded in every direction into darkness. Its roof, I remember, seemed to bulge down as if with the weight of the vast thickness of rocks that prisoned us. There was no way out of it—no way out of it. Above, below, in every direction, was the unknown, and these inhuman creatures, with goads and gestures, confronting us, and we two unsupported men!

Chapter 15

The Giddy Bridge

Just for a moment that hostile pause endured. I suppose that both we and the Selenites did some very rapid thinking. My clearest impression was that there was nothing to put my back against, and that we were bound to be surrounded and killed. The overwhelming folly of our presence there loomed over me in black, enormous reproach.

Why had I ever launched myself on this mad, inhuman expedition?

Cavor came to my side and laid his hand on my arm. His pale and terrified face was ghastly in the blue light.

"We can't do anything," he said. "It's a mistake. They don't understand. We must go. As they want us to go."

I looked down at him, and then at the fresh Selenites who were coming to help their fellows. "If I had my hands free—"

"It's no use," he panted.

"No."

"We'll go."

And he turned about and led the way in the direction that had been indicated for us.

I followed, trying to look as subdued as possible, and feeling at the chains about my wrists. My blood was boiling. I noted nothing more of that cavern, though it seemed to take a long time before we had marched across it, or if I noted anything I forgot it as I saw it. My thoughts were concentrated, I think, upon my chains and the Selenites, and particularly upon the helmeted ones with the goads. At first they marched parallel with us, and at a respectful distance, but presently they were overtaken by three others, and then they drew nearer, until they were within arms length again. I winced like a beaten horse as they came near to us. The shorter, thicker Selenite marched at first on our right flank, but presently came in front of us again.

How well the picture of that grouping has bitten into my brain; the back of Cavor's downcast head just in front of me, and the dejected droop of his shoulders, and our guide's gaping visage, perpetually jerking about him, and the goad-bearers on either side, watchful, yet open-mouthed—a blue monochrome. And after all, I do remember one other thing besides the purely personal affair, which is, that a sort of gutter came presently across the floor of the cavern, and then ran along by the side of the path of rock we followed. And it was full of that same bright blue luminous stuff that flowed out of the great machine. I walked close beside it, and I can testify it radiated not a particle of heat. It was brightly shining, and yet it was neither warmer nor colder than anything else in the cavern.

Clang, clang, clang, we passed right under the thumping levers of another vast machine, and so came at last to a wide tunnel, in which we could even hear the pad, pad, of our shoeless feet, and which, save for the trickling thread of blue to the right of us, was quite unlit. The shadows made gigantic travesties of our shapes and those of the Selenites on the irregular wall and roof of the tunnel. Ever and again crystals in the walls of the tunnel scintillated like gems, ever and again the tunnel expanded into a stalactitic cavern, or gave off branches that vanished into darkness.

We seemed to be marching down that tunnel for a long time. "Trickle, trickle," went the flowing light very softly, and our footfalls and their echoes made an irregular paddle, paddle. My mind settled down to the question of my chains. If I were to slip off one turn _so_, and then to twist it _so_ ...

If I tried to do it very gradually, would they see I was slipping my wrist out of the looser turn? If they did, what would they do?

"Bedford," said Cavor, "it goes down. It keeps on going down."
His remark roused me from my sullen pre-occupation.

"If they wanted to kill us," he said, dropping back to come level with me, "there is no reason why they should not have done it."

"No," I admitted, "that's true."

"They don't understand us," he said, "they think we are merely strange animals, some wild sort of mooncalf birth, perhaps. It will be only when they have observed us better that they will begin to think we have minds--"

"When you trace those geometrical problems," said I.

"It may be that."

We tramped on for a space.

"You see," said Cavor, "these may be Selenites of a lower class."

"The infernal fools!" said I viciously, glancing at their exasperating faces.

"If we endure what they do to us--"

"We've got to endure it," said I.

"There may be others less stupid. This is the mere outer fringe of their world. It must go down and down, cavern, passage, tunnel, down at last to the sea--hundreds of miles below."

His words made me think of the mile or so of rock and tunnel that might be over our heads already. It was like a weight dropping, on my shoulders. "Away from the sun and air," I said. "Even a mine half a mile deep is stuffy." remarked.

"This is not, anyhow. It's probable--Ventilation! The air would blow from the dark side of the moon to the sunlit, and all the carbonic acid would well out there and feed those plants. Up this tunnel, for example, there is quite a breeze. And what a world it must be. The earnest we have in that shaft, and those machines--"

"And the goad," I said. "Don't forget the goad!"

He walked a little in front of me for a time.

"Even that goad--" he said.

"Well?"

"I was angry at the time. But--it was perhaps necessary we should get on. They have different skins, and probably different nerves. They may not understand our objection--just as a being from Mars might not like our earthly habit of nudging."

"They'd better be careful how they nudge me."

"And about that geometry. After all, their way is a way of understanding, too. They begin with the elements of life and not of thought. Food. Compulsion. Pain. They strike at fundamentals."

"There's no doubt about that," I said.

He went on to talk of the enormous and wonderful world into which we were being taken. I realised slowly from his tone, that even now he was not absolutely in despair at the prospect of going ever deeper into this inhuman planet-burrow. His mind ran on machines and invention, to the exclusion of a thousand dark things that beset me. It wasn't that he intended to make any use of these things, he simply wanted to know them.

"After all," he said, "this is a tremendous occasion. It is the meeting of two worlds! What are we going to see? Think of what is below us here."

"We shan't see much if the light isn't better," I remarked.

"This is only the outer crust. Down below-- On this scale-- There will be everything. Do you notice how different they seem one from another? The story we shall take back!"

"Some rare sort of animal," I said, "might comfort himself in that way while they were bringing him to the Zoo.... It doesn't follow that we are going to be shown all these things."

"When they find we have reasonable minds," said Cavor, "they will want to learn about the earth. Even if they have no generous emotions, they will teach in order to learn.... And the things they must know! The unanticipated things!"

He went on to speculate on the possibility of their knowing things he had never hoped to learn on earth, speculating in that way, with a raw wound from that goad already in his skin! Much that he said I forget, for my attention was drawn to the fact that the tunnel along which we had been marching was opening out wider and wider. We seemed, from the feeling of the air, to be going out into a huge space. But how big the space might really be we could not tell, because it was unlit. Our little stream of light ran in a dwindling thread and vanished far ahead. Presently the rocky walls had vanished altogether on either hand. There was nothing to be seen but the path in front of us and the trickling hurrying rivulet of blue phosphorescence. The figures of Cavor and the guiding Selenite marched before me, the sides of their legs and heads that were towards the rivulet were clear and bright blue, their darkened sides, now that the reflection of the tunnel wall no longer lit them, merged indistinguishably in the darkness beyond.
And soon I perceived that we were approaching a declivity of some sort, because the little blue stream dipped suddenly out of sight.

In another moment, as it seemed, we had reached the edge. The shining stream gave one meander of hesitation and then rushed over. It fell to a depth at which the sound of its descent was absolutely lost to us. Far below was a bluish glow, a sort of blue mist—at an infinite distance below. And the darkness the stream dropped out of became utterly void and black, save that a thing like a plank projected from the edge of the cliff and stretched out and faded and vanished altogether. There was a warm air blowing up out of the gulf.

For a moment I and Cavor stood as near the edge as we dared, peering into a blue-tinged profundity. And then our guide was pulling at my arm.

Then he left me, and walked to the end of that plank and stepped upon it, looking back. Then when he perceived we watched him, he turned about and went on along it, walking as surely as though he was on firm earth. For a moment his form was distinct, then he became a blue blur, and then vanished into the obscurity. I became aware of some vague shape looming darkly out of the black.

There was a pause. "Surely!—" said Cavor.

One of the other Selenites walked a few paces out upon the plank, and turned and looked back at us unconcernedly. The others stood ready to follow after us. Our guide's expectant figure reappeared. He was returning to see why we had not advanced.

"What is that beyond there?" I asked.

"I can't see."

"We can't cross this at any price," said I.

"I could not go three steps on it," said Cavor, "even with my hands free."

We looked at each other's drawn faces in blank consternation.

"They can't know what it is to be giddy!" said Cavor.

"It's quite impossible for us to walk that plank."

"I don't believe they see as we do. I've been watching them. I wonder if they know this is simply blackness for us. How can we make them understand?"

"Anyhow, we must make them understand."

I think we said these things with a vague half hope the Selenites might somehow understand. I knew quite clearly that all that was needed was an explanation. Then as I saw their faces, I realised that an explanation was impossible. Just here it was that our resemblances were not going to bridge our differences. Well, I wasn't going to walk the plank, anyhow. I slipped my wrist very quickly out of the coil of chain that was loose, and then began to twist my wrists in opposite directions. I was standing nearest to the bridge, and as I did this two of the Selenites laid hold of me, and pulled me gently towards it.

I shook my head violently. "No go," I said, "no use. You don't understand."

Another Selenite added his compulsion. I was forced to step forward.

"I've got an idea," said Cavor; but I knew his ideas.

"Look here!" I exclaimed to the Selenites. "Steady on! It's all very well for you—"

I sprang round upon my heel. I burst out into curses. For one of the armed Selenites had stabbed me behind with his goad.

I wrenched my wrists free from the little tentacles that held them. I turned on the goad-bearer. "Confound you!" I cried. "I've warned you of that. What on earth do you think I'm made of, to stick that into me? If you touch me again—"

By way of answer he pricked me forthwith.

I heard Cavor's voice in alarm and entreaty. Even then I think he wanted to compromise with these creatures. "I say, Bedford," he cried, "I know a way!" But the sting of that second stab seemed to set free some pent-up reserve of energy in my being. Instantly the link of the wrist-chain snapped, and with it snapped all considerations that had held us unresisting in the hands of these moon creatures. For that second, at least, I was mad with fear and anger. I took no thought of consequences. I hit straight out at the face of the thing with the goad. The chain was twisted round my fist.

There came another of these beastly surprises of which the moon world is full.

My mailed hand seemed to go clean through him. He smashed like—like some softish sort of sweet with liquid in it! He broke right in! He squelched and splashed. It was like hitting a damp toadstool. The flimsy body went spinning a dozen yards, and fell with a flabby impact. I was astonished. I was incredulous that any living thing could be so flimsy. For an instant I could have believed the whole thing a dream.

Then it had become real and imminent again. Neither Cavor nor the other Selenites seemed to have done anything from the time when I had turned about to the time when the dead Selenite hit the ground. Every one stood...
back from us two, every one alert. That arrest seemed to last at least a second after the Selenite was down. Every one must have been taking the thing in. I seem to remember myself standing with my arm half retracted, trying also to take it in. "What next?" clamoured my brain; "what next?" Then in a moment every one was moving!

I perceived we must get our chains loose, and that before we could do this these Selenites had to be beaten off. I faced towards the group of the three goad-bearers. Instantly one threw his goad at me. It swished over my head, and I suppose went flying into the abyss behind.

I leaped right at him with all my might as the goad flew over me. He turned to run as I jumped, and I bore him to the ground, came down right upon him, and slipped upon his smashed body and fell. He seemed to wriggle under my foot.

I came into a sitting position, and on every hand the blue backs of the Selenites were receding into the darkness. I bent a link by main force and untwisted the chain that had hampered me about the ankles, and sprang to my feet, with the chain in my hand. Another goad, flung javelin-wise, whistled by me, and I made a rush towards the darkness out of which it had come. Then I turned back towards Cavor, who was still standing in the light of the rivulet near the gulf convulsively busy with his wrists, and at the same time jabbering nonsense about his idea.

"Come on!" I cried.
"My hands!" he answered.
Then, realising that I dared not run back to him, because my ill-calculated steps might carry me over the edge, he came shuffling towards me, with his hands held out before him.

I gripped his chains at once to unfasten them.
"Where are they?" he panted.
"Run away. They'll come back. They're throwing things! Which way shall we go?"
"By the light. To that tunnel. Eh?"
"Yes," said I, and his hands were free.

I dropped on my knees and fell to work on his ankle bonds. Whack came something—I know not what—and splashed the livid streamlet into drops about us. Far away on our right a piping and whistling began.

I whipped the chain off his feet, and put it in his hand. "Hit with that!" I said, and without waiting for an answer, set off in big bounds along the path by which we had come. I had a nasty sort of feeling that these things could jump out of the darkness on to my back. I heard the impact of his leaps come following after me.

We ran in vast strides. But that running, you must understand, was an altogether different thing from any running on earth. On earth one leaps and almost instantly hits the ground again, but on the moon, because of its weaker pull, one shot through the air for several seconds before one came to earth. In spite of our violent hurry this gave an effect of long pauses, pauses in which one might have counted seven or eight. "Step," and one soared off! All sorts of questions ran through my mind: "Where are the Selenites? What will they do? Shall we ever get to that tunnel? Is Cavor far behind? Are they likely to cut him off?" Then whack, stride, and off again for another step.

I saw a Selenite running in front of me, his legs going exactly as a man's would go on earth, saw him glance over his shoulder, and heard him shriek as he ran aside out of my way into the darkness. He was, I think, our guide, but I am not sure. Then in another vast stride the walls of rock had come into view on either hand, and in two more strides I was in the tunnel, and tempering my pace to its low roof. I went on to a bend, then stopped and turned back, and plug, plug, plug, Cavor came into view, splashing into the stream of blue light at every stride, and grew larger and blundered into me. We stood clutching each other. For a moment, at least, we had shaken off our captors and were alone.

We were both very much out of breath. We spoke in panting, broken sentences.
"You've spoilt it all!" panted Cavor. "Nonsense," I cried. "It was that or death!"
"What are we to do?"
"Hide."
"How can we?"
"It's dark enough."
"But where?"
"Up one of these side caverns."
"And then?"
"Think."
"Right--come on."

We strode on, and presently came to a radiating dark cavern. Cavor was in front. He hesitated, and chose a black mouth that seemed to promise good hiding. He went towards it and turned.
"It's dark," he said.
"Your legs and feet will light us. You're wet with that luminous stuff."
"But--"

A tumult of sounds, and in particular a sound like a clanging gong, advancing up the main tunnel, became audible. It was horribly suggestive of a tumultuous pursuit. We made a bolt for the unlit side cavern forthwith. As we ran along it our way was lit by the irradiation of Cavor's legs. "It's lucky," I panted, "they took off our boots, or we should fill this place with clatter." On we rushed, taking as small steps as we could to avoid striking the roof of the cavern. After a time we seemed to be gaining on the uproar. It became muffled, it dwindled, it died away.

I stopped and looked back, and I heard the pad, pad of Cavor's feet receding. Then he stopped also. "Bedford," he whispered; "there's a sort of light in front of us."

I looked, and at first could see nothing. Then I perceived his head and shoulders dimly outlined against a fainter darkness. I saw, also, that this mitigation of the darkness was not blue, as all the other light within the moon had been, but a pallid gray, a very vague, faint white, the daylight colour. Cavor noted this difference as soon, or sooner, than I did, and I think, too, that it filled him with much the same wild hope.

"Bedford," he whispered, and his voice trembled. "That light--it is possible--"

He did not dare to say the thing he hoped. Then came a pause. Suddenly I knew by the sound of his feet that he was striding towards that pallor. I followed him with a beating heart.

Chapter 16

Points of View

The light grew stronger as we advanced. In a little time it was nearly as strong as the phosphorescence on Cavor's legs. Our tunnel was expanding into a cavern, and this new light was at the farther end of it. I perceived something that set my hopes leaping and bounding.

"Cavor," I said, "it comes from above! I am certain it comes from above!"

He made no answer, but hurried on.

Indisputably it was a gray light, a silvery light.

In another moment we were beneath it. It filtered down through a chink in the walls of the cavern, and as I stared up, drip, came a drop of water upon my face. I started and stood aside--drip, fell another drop quite audibly on the rocky floor.

"Cavor," I said, "if one of us lifts the other, he can reach that crack!"

"I'll lift you," he said, and incontinently hoisted me as though I was a baby.

I thrust an arm into the crack, and just at my finger tips found a little ledge by which I could hold. I could see the white light was very much brighter now. I pulled myself up by two fingers with scarcely an effort, though on earth I weigh twelve stone, reached to a still higher corner of rock, and so got my feet on the narrow ledge. I stood up and searched up the rocks with my fingers; the cleft broadened out upwardly. "It's climbable," I said to Cavor. "Can you jump up to my hand if I hold it down to you?"

I wedged myself between the sides of the cleft, rested knee and foot on the ledge, and extended a hand. I could not see Cavor, but I could hear the rustle of his movements as he crouched to spring. Then whack and he was hanging to my arm--and no heavier than a kitten! I lugged him up until he had a hand on my ledge, and could release me.

"Confound it!" I said, "any one could be a mountaineer on the moon;" and so set myself in earnest to the climbing. For a few minutes I clambered steadily, and then I looked up again. The cleft opened out steadily, and the light was brighter. Only--

It was not daylight after all.

In another moment I could see what it was, and at the sight I could have beaten my head against the rocks with disappointment. For I beheld simply an irregularly sloping open space, and all over its slanting floor stood a forest of little club-shaped fungi, each shining gloriously with that pinkish silvery light. For a moment I stared at their soft radiance, then sprang forward and upward among them. I plucked up half a dozen and flung them against the rocks, and then sat down, laughing bitterly, as Cavor's ruddy face came into view.

"It's phosphorescence again!" I said. "No need to hurry. Sit down and make yourself at home." And as he spluttered over our disappointment, I began to lob more of these growths into the cleft.

"I thought it was daylight," he said.

"Daylight!" cried I. "Daybreak, sunset, clouds, and windy skies! Shall we ever see such things again?"
As I spoke, a little picture of our world seemed to rise before me, bright and little and clear, like the background of some old Italian picture. "The sky that changes, and the sea that changes, and the hills and the green trees and the towns and cities shining in the sun. Think of a wet roof at sunset, Cavor! Think of the windows of a westward house!" He made no answer.

"Here we are burrowing in this beastly world that isn't a world, with its inky ocean hidden in some abominable blackness below, and outside that torrid day and that death stillness of night. And all these things that are chasing us now, beastly men of leather--insect men, that come out of a nightmare! After all, they're right! What business have we here smashing them and disturbing their world! For all we know the whole planet is up and after us already. In a minute we may hear them whimpering, and their gongs going. What are we to do? Where are we to go? Here we are as comfortable as snakes from Jamrach's loose in a Surbiton villa!"

"It was your fault," said Cavor.
"My fault!" I shouted. "Good Lord!"
"I had an idea!"
"Curse your ideas!"
"If we had refused to budge--"
"Under those goads?"
"Yes. They would have carried us!"
"Over that bridge?"
"Yes. They must have carried us from outside."
"I'd rather be carried by a fly across a ceiling."
"Good Heavens!"

I resumed my destruction of the fungi. Then suddenly I saw something that struck me even then. "Cavor," I said, "these chains are of gold!"

He was thinking intently, with his hands gripping his cheeks. He turned his head slowly and stared at me, and when I had repeated my words, at the twisted chain about his right hand. "So they are," he said, "so they are." His face lost its transitory interest even as he looked. He hesitated for a moment, then went on with his interrupted meditation. I sat for a space puzzling over the fact that I had only just observed this, until I considered the blue light in which we had been, and which had taken all the colour out of the metal. And from that discovery I also started upon a train of thought that carried me wide and far. I forgot that I had just been asking what business we had in the moon. Gold....

"It seems to me that there are two courses open to us."
"Well?"
"Either we can attempt to make our way--fight our way if necessary--out to the exterior again, and then hunt for our sphere until we find it, or the cold of the night comes to kill us, or else--"

He paused. "Yes?" I said, though I knew what was coming.
"We might attempt once more to establish some sort of understanding with the minds of the people in the moon." 
"So far as I'm concerned--it's the first."
"I doubt."
"I don't."

"You see," said Cavor, "I do not think we can judge the Selenites by what we have seen of them. Their central world, their civilised world will be far below in the profounder caverns about their sea. This region of the crust in which we are is an outlying district, a pastoral region. At any rate, that is my interpretation. These Selenites we have seen may be only the transitory interest even as he looked. He hesitated for a moment, then went on with his interrupted meditation. I sat for a space puzzling over the fact that I had only just observed this, until I considered the blue light in which we had been, and which had taken all the colour out of the metal. And from that discovery I also started upon a train of thought that carried me wide and far. I forgot that I had just been asking what business we had in the moon. Gold...."

He discovered a new line of possibilities. "Well, suppose we got ourselves into some corner, where we could defend ourselves against these hinds and labourers. If, for example, we could hold out for a week or so, it is probable that the news of our appearance would filter down to the more intelligent and populous parts--"
"If they exist."
"They must exist, or whence came those tremendous machines?"
"That's possible, but it's the worst of the two chances."
"We might write up inscriptions on walls--"
"How do we know their eyes would see the sort of marks we made?"
"If we cut them--"
"That's possible, of course."
I took up a new thread of thought. "After all," I said, "I suppose you don't think these Selenites so infinitely wiser than men."
"They must know a lot more—or at least a lot of different things."
"Yes, but--" I hesitated.
"I think you'll quite admit, Cavor, that you're rather an exceptional man."
"How?"
"Well, you—you're a rather lonely man—have been, that is. You haven't married."
"Never wanted to. But why--"
"And you never grew richer than you happened to be?"
"Never wanted that either."
"You've just rooted after knowledge?"
"Well, a certain curiosity is natural--"
"You think so. That's just it. You think every other mind wants to know. I remember once, when I asked you why you conducted all these researches, you said you wanted your F.R.S., and to have the stuff called Cavorite, and things like that. You know perfectly well you didn't do it for that; but at the time my question took you by surprise, and you felt you ought to have something to look like a motive. Really you conducted researches because you had to. It's your twist."
"Perhaps it is--"
"It isn't one man in a million has that twist. Most men want—well, various things, but very few want knowledge for its own sake. I don't, I know perfectly well. Now, these Selenites seem to be a driving, busy sort of being, but how do you know that even the most intelligent will take an interest in us or our world? I don't believe they'll even know we have a world. They never come out at night—they'd freeze if they did. They've probably never seen any heavenly body at all except the blazing sun. How are they to know there is another world? What does it matter to them if they do? Well, even if they have had a glimpse of a few stars, or even of the earth crescent, what of that? Why should people living inside a planet trouble to observe that sort of thing? Men wouldn't have done it except for the seasons and sailing; why should the moon people?...

"Well, suppose there are a few philosophers like yourself. They are just the very Selenites who'll never have heard of our existence. Suppose a Selenite had dropped on the earth when you were at Lympne, you'd have been the last man in the world to hear he had come. You never read a newspaper! You see the chances against you. Well, it's for these chances we're sitting here doing nothing while precious time is flying. I tell you we've got into a fix. We've come unarmed, we've lost our sphere, we've got no food, we've shown ourselves to the Selenites, and made them think we're strange, strong, dangerous animals; and unless these Selenites are perfect fools, they'll set about now and hunt us till they find us, and when they find us they'll try to take us if they can, and kill us if they can't, and that's the end of the matter. If they take us, they'll probably kill us, through some misunderstanding. After we're done for, they may discuss us perhaps, but we shan't get much fun out of that."
"Go on."
"On the other hand, here's gold knocking about like cast iron at home. If only we can get some of it back, if only we can find our sphere again before they do, and get back, then--"
"Yes?"
"We might put the thing on a sounder footing. Come back in a bigger sphere with guns."
"Good Lord!" cried Cavor, as though that was horrible.
I shied another luminous fungus down the cleft.
"Look here, Cavor," I said, "I've half the voting power anyhow in this affair, and this is a case for a practical man. I'm a practical man, and you are not. I'm not going to trust to Selenites and geometrical diagrams if I can help it. That's all. Get back. Drop all this secrecy—or most of it. And come again." He reflected. "When I came to the moon," he said, "I ought to have come alone."
"The question before the meeting," I said, "is how to get back to the sphere."
For a time we nursed our knees in silence. Then he seemed to decide for my reasons.
"I think," he said, "one can get data. It is clear that while the sun is on this side of the moon the air will be blowing through this planet sponge from the dark side hither. On this side, at any rate, the air will be expanding and flowing out of the moon caverns into the craters... Very well, there's a draught here."
"So there is."
"And that means that this is not a dead end; somewhere behind us this cleft goes on and up. The draught is
blowing up, and that is the way we have to go. If we try to get up any sort of chimney or gully there is, we shall not only get out of these passages where they are hunting for us--"

"But suppose the gully is too narrow?"
"We'll come down again."
"Ssh!" I said suddenly; "what's that?"

We listened. At first it was an indistinct murmur, and then one picked out the clang of a gong. "They must think we are mooncalves," said I, "to be frightened at that."
"They're coming along that passage," said Cavor.
"They must be."
"They'll not think of the cleft. They'll go past."

"But suppose the gully is too narrow?"
"We'll come down again."

"Ssh!" I said suddenly; "what's that?"

We listened. At first it was an indistinct murmur, and then one picked out the clang of a gong. "They must think we are mooncalves," said I, "to be frightened at that."
"They're coming along that passage," said Cavor.
"They must be.
"They'll not think of the cleft. They'll go past."

I listened again for a space. "This time," I whispered, "they're likely to have some sort of weapon."
Then suddenly I sprang to my feet. "Good heavens, Cavor!" I cried. "But they will! They'll see the fungi I have been pitching down. They'll--"

I didn't finish my sentence. I turned about and made a leap over the fungus tops towards the upper end of the cavity. I saw that the space turned upward and became a draughty cleft again, ascending to impenetrable darkness. I was about to clamber up into this, and then with a happy inspiration turned back.
"What are you doing?" asked Cavor.
"Go on!" said I, and went back and got two of the shining fungi, and putting one into the breast pocket of my flannel jacket, so that it stuck out to light our climbing, went back with the other for Cavor. The noise of the Selenites was now so loud that it seemed they must be already beneath the cleft. But it might be they would have difficulty in clambering in to it, or might hesitate to ascend it against our possible resistance. At any rate, we had now the comforting knowledge of the enormous muscular superiority our birth in another planet gave us. In other minute I was clambering with gigantic vigour after Cavor's blue-lit heels.

Chapter 17

The Fight in the Cave of the Moon Butchers

I do not know how far we clambered before we came to the grating. It may be we ascended only a few hundred feet, but at the time it seemed to me we might have hauled and jammed and hopped and wedged ourselves through a mile or more of vertical ascent. Whenever I recall that time, there comes into my head the heavy clank of our golden chains that followed every movement. Very soon my knuckles and knees were raw, and I had a bruise on one cheek. After a time the first violence of our efforts diminished, and our movements became more deliberate and less painful. The noise of the pursuing Selenites had died away altogether. It seemed almost as though they had not traced us up the crack after all, in spite of the tell-tale heap of broken fungi that must have lain beneath it. At times the cleft narrowed so much that we could scarce squeeze up it; at others it expanded into great drusy cavities, studded with prickly crystals or thickly beset with dull, shining fungoid pimples. Sometimes it twisted spirally, and at other times slanted down nearly to the horizontal direction. Ever and again there was the intermittent drip and trickle of water by us. Once or twice it seemed to us that small living things had rustled out of our reach, but what they were we never saw. They may have been venomous beasts for all I know, but they did us no harm, and we were now tuned to a pitch when a weird creeping thing more or less mattered little. And at last, far above, came the familiar bluish light again, and then we saw that it filtered through a grating that barred our way.

We whispered as we pointed this out to one another, and became more and more cautious in our ascent. Presently we were close under the grating, and by pressing my face against its bars I could see a limited portion of the cavern beyond. It was clearly a large space, and lit no doubt by some rivulet of the same blue light that we had seen flow from the beating machinery. An intermittent trickle of water dropped ever and again between the bars near my face.

My first endeavour was naturally to see what might be upon the floor of the cavern, but our grating lay in a depression whose rim hid all this from our eyes. Our foiled attention then fell back upon the suggestion of the various sounds we heard, and presently my eye caught a number of faint shadows that played across the dim roof far overhead.

Indisputably there were several Selenites, perhaps a considerable number, in this space, for we could hear the noises of their intercourse, and faint sounds that I identified as their footfalls. There was also a succession of
regularly repeated sounds—chid, chid, chid—which began and ceased, suggestive of a knife or spade hacking at some soft substance. Then came a clank as if of chains, a whistle and a rumble as of a truck running over a hollowed place, and then again that chid, chid, chid resumed. The shadows told of shapes that moved quickly and rhythmically, in agreement with that regular sound, and rested when it ceased.

We put our heads close together, and began to discuss these things in noiseless whispers.

"They are occupied," I said, "they are occupied in some way."

"Yes."

"They're not seeking us, or thinking of us."

"Perhaps they have not heard of us."

"Those others are hunting about below. If suddenly we appeared here--"

We looked at one another.

"There might be a chance to parley," said Cavor.

"No," I said. "Not as we are."

For a space we remained, each occupied by his own thoughts.

Chid, chid, chid went the chipping, and the shadows moved to and fro.

I looked at the grating. "It's flimsy," I said. "We might bend two of the bars and crawl through."

We wasted a little time in vague discussion. Then I took one of the bars in both hands, and got my feet up against the rock until they were almost on a level with my head, and so thrust against the bar. It bent so suddenly that I almost slipped. I clambered about and bent the adjacent bar in the opposite direction, and then took the luminous fungus from my pocket and dropped it down the fissure.

"Don't do anything hastily," whispered Cavor, as I twisted myself up through the opening I had enlarged. I had a glimpse of busy figures as I came through the grating, and immediately bent down, so that the rim of the depression in which the grating lay hid me from their eyes, and so lay flat, signalling advice to Cavor as he also prepared to come through. Presently we were side by side in the depression, peering over the edge at the cavern and its occupants.

It was a much larger cavern than we had supposed from our first glimpse of it, and we looked up from the lowest portion of its sloping floor. It widened out as it receded from us, and its roof came down and hid the remotest portion altogether. And lying in a line along its length, vanishing at last far away in that tremendous perspective, were a number of huge shapes, huge pallid hulls, upon which the Selenites were busy. At first they seemed big white cylinders of vague import. Then I noted the heads upon them lying towards us, eyeless and skinless like the heads of sheep at a butcher's, and perceived they were the carcasses of mooncalfes being cut up, much as the crew of a whaler might cut up a moored whale. They were cutting off the flesh in strips, and on some of the farther trunks the white ribs were showing. It was the sound of their hatchets that made that chid, chid, chid. Some way away a thing like a trolley cable, drawn and loaded with chunks of lax meat, was running up the slope of the cavern floor. This enormous long avenue of hulls that were destined to be food gave us a sense of the vast populousness of the moon world second only to the effect of our first glimpse down the shaft.

It seemed to me at first that the Selenites must be standing on trestle-supported planks,[*] and then I saw that the planks and supports and the hatchets were really of the same leaden hue as my fetters had seemed before white light came to bear on them. A number of very thick-looking crowbars lay about the floor, and had apparently assisted to turn the dead mooncalf over on its side. They were perhaps six feet long, with shaped handles, very tempting-looking weapons. The whole place was lit by three transverse streams of the blue fluid.

[* Footnote: I do not remember seeing any wooden things on the moon; doors tables, everything corresponding to our terrestrial joinery was made of metal, and I believe for the most part of gold, which as a metal would, of course, naturally recommend itself—other things being equal—on account of the ease in working it, and its toughness and durability.]

We lay for a long time noting all these things in silence. "Well?" said Cavor at last.

I crouched over and turned to him. I had come upon a brilliant idea. "Unless they lowered those bodies by a crane," I said, "we must be nearer the surface than I thought."

"Why?"

"The mooncalf doesn't hop, and it hasn't got wings."

He peered over the edge of the hollow again. "I wonder now--" he began. "After all, we have never gone far from the surface--"

I stopped him by a grip on his arm. I had heard a noise from the cleft below us!

We twisted ourselves about, and lay as still as death, with every sense alert. In a little while I did not doubt that something was quietly ascending the cleft. Very slowly and quite noiselessly I assured myself of a good grip on my chain, and waited for that something to appear.
"Just look at those chaps with the hatchets again," I said.
"They're all right," said Cavor.
I took a sort of provisional aim at the gap in the grating. I could hear now quite distinctly the soft twittering of the ascending Selenites, the dab of their hands against the rock, and the falling of dust from their grips as they clambered.
Then I could see that there was something moving dimly in the blackness below the grating, but what it might be I could not distinguish. The whole thing seemed to hang fire just for a moment--then smash! I had sprung to my feet, struck savagely at something that had flashed out at me. It was the keen point of a spear. I have thought since that its length in the narrowness of the cleft must have prevented its being sloped to reach me. Anyhow, it shot out from the grating like the tongue of a snake, and missed and flew back and flashed again. But the second time I snatched and caught it, and wrenched it away, but not before another had darted ineffectually at me.
I shouted with triumph as I felt the hold of the Selenite resist my pull for a moment and give, and then I was jabbing down through the bars, amidst squeals from the darkness, and Cavor had snapped off the other spear, and was leaping and flourishing it beside me, and making inefficient jabs. Clang, clang, came up through the grating, and then an axe hurtled through the air and whacked against the rocks beyond, to remind me of the fleshers at the carcasses up the cavern.
I turned, and they were all coming towards us in open order waving their axes. They were short, thick, little beggars, with long arms, strikingly different from the ones we had seen before. If they had not heard of us before, they must have realised the situation with incredible swiftness. I stared at them for a moment, spear in hand. "Guard that grating, Cavor," I cried, howled to intimidate them, and rushed to meet them. Two of them missed with their hatchets, and the rest fled incontinently. Then the two also were sprinting away up the cavern, with hands clenched and heads down. I never saw men run like them!
I knew the spear I had was no good for me. It was thin and flimsy, only effectual for a thrust, and too long for a quick recover. So I only chased the Selenites as far as the first carcass, and stopped there and picked up one of the crowbars that were lying about. It felt comfortingly heavy, and equal to smashing any number of Selenites. I threw away my spear, and picked up a second crowbar for the other hand. I felt five times better than I had with the spear. I shook the two threateningly at the Selenites, who had come to a halt in a little crowd far away up the cavern, and then turned about to look at Cavor.
He was leaping from side to side of the grating, making threatening jabs with his broken spear. That was all right. It would keep the Selenites down--for a time at any rate. I looked up the cavern again. What on earth were we going to do now?
We were cornered in a sort of way already. But these butchers up the cavern had been surprised, they were probably scared, and they had no special weapons, only those little hatchets of theirs. And that way lay escape. Their sturdy little forms--ever so much shorter and thicker than the mooncalf herds--were scattered up the slope in a way that was eloquent of indecision. I had the moral advantage of a mad bull in a street. But for all that, there seemed a tremendous crowd of them. Very probably there was. Those Selenites down the cleft had certainly some infernally long spears. It might be they had other surprises for us.... But, confound it! if we charged up the cave we should let them up behind us, and if we didn't those little brutes up the cave would probably get reinforced. Heaven alone knew what tremendous engines of warfare--guns, bombs, terrestrial torpedoes--this unknown world below our feet, this vaster world of which we had only pricked the outer cuticle, might not presently send up to our destruction. It became clear the only thing to do was to charge! It became clearer as the legs of a number of fresh Selenites appeared running down the cavern towards us.
"Bedford!" cried Cavor, and behold! he was halfway between me and the grating.
"Go back!" I cried. "What are you doing--"
"They've got--it's like a gun!"
And struggling in the grating between those defensive spears appeared the head and shoulders of a singularly lean and angular Selenite, bearing some complicated apparatus.
I realised Cavor's utter incapacity for the fight we had in hand. For a moment I hesitated. Then I rushed past him whirling my crowbars, and shouting to confound the aim of the Selenite. He was aiming in the queerest way with the thing against his stomach. "Chuzz!" The thing wasn't a gun; it went off like cross-bow more, and dropped me in the middle of a leap.
I didn't fall down, I simply came down a little shorter than I should have done if I hadn't been hit, and from the feel of my shoulder the thing might have tapped me and glanced off. Then my left hand hit again the shaft, and I perceived there was a sort of spear sticking half through my shoulder. The moment after I got home with the crowbar in my right hand, and hit the Selenite fair and square. He collapsed--he crushed and crumpled--his head smashed like an egg.
I dropped a crowbar, pulled the spear out of my shoulder, and began to jab it down the grating into the darkness. At each jab came a shriek and twitter. Finally I hurled the spear down upon them with all my strength, leapt up, picked up the crowbar again, and started for the multitude up the cavern.

"Bedford!" cried Cavor. "Bedford!" as I flew past him.

I seem to remember his footsteps coming on behind me.

Step, leap ... whack, step, leap.... Each leap seemed to last ages. With each, the cave opened out and the number of Selenites visible increased. At first they seemed all running about like ants in a disturbed ant-hill, one or two waving hatchets and coming to meet me, more running away, some bolting sideways into the avenue of carcasses, then presently others came in sight carrying spears, and then others. I saw a most extraordinary thing, all hands and feet, bolting for cover. The cavern grew darker farther up.

Flick! something flew over my head. Flick! As I soared in mid-stride I saw a spear hit and quiver in one of the carcasses to my left. Then, as I came down, one hit the ground before me, and I heard the remote chuzz! with which their things were fired. Flick, flick! for a moment it was a shower. They were volleying!

I stopped dead.

I don't think I thought clearly then. I seem to remember a kind of stereotyped phrase running through my mind: "Zone of fire, seek cover!" I know I made a dash for the space between two of the carcasses, and stood there panting and feeling very wicked.

I looked round for Cavor, and for a moment it seemed as if he had vanished from the world. Then he came out of the darkness between the row of the carcasses and the rocky wall of the cavern. I saw his little face, dark and blue, and shining with perspiration and emotion.

He was saying something, but what it was I did not heed. I had realised that we might work from mooncalf to mooncalf up the cave until we were near enough to charge home. It was charge or nothing. "Come on!" I said, and led the way.

"Bedford!" he cried unavailingly.

My mind was busy as we went up that narrow alley between the dead bodies and the wall of the cavern. The rocks curved about--they could not enfilade us. Though in that narrow space we could not leap, yet with our earth-born strength we were still able to go very much faster than the Selenites. I reckoned we should presently come right among them. Once we were on them, they would be nearly as formidable as black beetles. Only there would first of all be a volley. I thought of a stratagem. I whipped off my flannel jacket as I ran.

"Bedford!" panted Cavor behind me.

I glanced back. "What?" said I.

He was pointing upward over the carcasses. "White light!" he said. "White light again!"

I looked, and it was even so; a faint white ghost of light in the remoter cavern roof. That seemed to give me double strength.

"Keep close," I said. A flat, long Selenite dashed out of the darkness, and squealed and fled. I halted, and stopped Cavor with my hand. I hung my jacket over my crowbar, ducked round the next carcass, dropped jacket and crowbar, showed myself, and darted back.

"Chuzz-flick," just one arrow came. We were close on the Selenites, and they were standing in a crowd, broad, short, and tall together, with a little battery of their shooting implements pointing down the cave. Three or four other arrows followed the first, then their fire ceased.

I stuck out my head, and escaped by a hair's-breadth. This time I drew a dozen shots or more, and heard the Selenites shouting and twittering as if with excitement as they shot. I picked up jacket and crowbar again.

"Now!" said I, and thrust out the jacket.

"Chuzz-zz-zz-zz! Chuzz!" In an instant my jacket had grown a thick beard of arrows, and they were quivering all over the carcass behind us. Instantly I slipped the crowbar out of the jacket, dropped the jacket--for all I know to the contrary it is lying up there in the moon now--and rushed out upon them.

For a minute perhaps it was massacre. I was too fierce to discriminate, and the Selenites were probably too scared to fight. At any rate they made no sort of fight against me. I saw scarlet, as the saying is. I remember I seemed to be wading among those leathery, thin things as a man wades through tall grass, mowing and hitting, first right, then left; smash. Little drops of moisture flew about. I trod on things that crushed and piped and went slippery. The crowd seemed to open and close and flow like water. They seemed to have no combined plan whatever. There were spears flew about me, I was grazed over the ear by one. I was stabbed once in the arm and once in the cheek, but I only found that out afterwards, when the blood had had time to run and cool and feel wet.

What Cavor did I do not know. For a space it seemed that this fighting had lasted for an age, and must needs go on for ever. Then suddenly it was all over, and there was nothing to be seen but the backs of heads bobbing up and down as their owners ran in all directions.... I seemed altogether unhurt. I ran forward some paces, shouting, then
turned about. I was amazed.

I had come right through them in vast flying strides, they were all behind me, and running hither and thither to hide.

I felt an enormous astonishment at the evaporation of the great fight into which I had hurled myself, and not a little exultation. It did not seem to me that I had discovered the Selenites were unexpectedly flimsy, but that I was unexpectedly strong. I laughed stupidly. This fantastic moon!

I glanced for a moment at the smashed and writhing bodies that were scattered over the cavern floor, with a vague idea of further violence, then hurried on after Cavor.

Chapter 18

In the Sunlight

Presently we saw that the cavern before us opened upon a hazy void. In another moment we had emerged upon a sort of slanting gallery, that projected into a vast circular space, a huge cylindrical pit running vertically up and down. Round this pit the slanting gallery ran without any parapet or protection for a turn and a half, and then plunged high above into the rock again. Somehow it reminded me then one of those spiral turns of the railway through the Saint Gothard. It was all tremendously huge. I can scarcely hope to convey to you the Titanic proportion of all that place, the Titanic effect of it. Our eyes followed up the vast declivity of the pit wall, and overhead and far above we beheld a round opening set with faint stars, and half of the lip about it well nigh blinding with the white light of the sun. At that we cried aloud simultaneously.

"Come on!" I said, leading the way.

"But there?" said Cavor, and very carefully stepped nearer the edge of the gallery. I followed his example, and craned forward and looked down, but I was dazzled by that gleam of light above, and I could see only a bottomless darkness with spectral patches of crimson and purple floating therein. Yet if I could not see, I could hear. Out of this darkness came a sound, a sound like the angry hum one can hear if one puts one's ear outside a hive of bees, a sound out of that enormous hollow, it may be, four miles beneath our feet...

For a moment I listened, then tightened my grip on my crowbar, and led the way up the gallery.

"This must be the shaft we looked down upon," said Cavor. "Under that lid."

"And below there, is where we saw the lights."

"The lights!" said he. "Yes--the lights of the world that now we shall never see."

"We'll come back," I said, for now we had escaped so much I was rashly sanguine that we should recover the sphere.

His answer I did not catch.

"Eh?" I asked.

"It doesn't matter," he answered, and we hurried on in silence.

I suppose that slanting lateral way was four or five miles long, allowing for its curvature, and it ascended at a slope that would have made it almost impossibly steep on earth, but which one strode up easily under lunar conditions. We saw only two Selenites during all that portion of our flight, and directly they became aware of us they ran headlong. It was clear that the knowledge of our strength and violence had reached them. Our way to the exterior was unexpectedly plain. The spiral gallery straightened into a steeply ascendent tunnel, its floor bearing abundant traces of the mooncalves, and so straight and short in proportion to its vast arch, that no part of it was absolutely dark. Almost immediately it began to lighten, and then far off and high up, and quite blindingly brilliant, appeared its opening on the exterior, a slope of Alpine steepness surmounted by a crest of bayonet shrub, tall and broken down now, and dry and dead, in spiky silhouette against the sun.

And it is strange that we men, to whom this very vegetation had seemed so weird and horrible a little time ago, should now behold it with the emotion a home-coming exile might feel at sight of his native land. We welcomed even the rareness of the air that made us pant as we ran, and which rendered speaking no longer the easy thing that it had been, but an effort to make oneself heard. Larger grew the sunlit circle above us, and larger, and all the nearer tunnel sank into a rim of indistinguishable black. It was clear that the knowledge of our strength and violence had reached them. Our way to the exterior was unexpectedly plain. The spiral gallery straightened into a steeply ascendent tunnel, its floor bearing abundant traces of the mooncalves, and so straight and short in proportion to its vast arch, that no part of it was absolutely dark. Almost immediately it began to lighten, and then far off and high up, and quite blindingly brilliant, appeared its opening on the exterior, a slope of Alpine steepness surmounted by a crest of bayonet shrub, tall and broken down now, and dry and dead, in spiky silhouette against the sun.

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We came out upon this space at last into a light and heat that hit and pressed upon us. We traversed the exposed area painfully, and clambered up a slope among the scrub stems, and sat down at last panting in a high place beneath the shadow of a mass of twisted lava. Even in the shade the rock felt hot.

The air was intensely hot, and we were in great physical discomfort, but for all that we were no longer in a nightmare. We seemed to have come to our own province again, beneath the stars. All the fear and stress of our flight through the dim passages and fissures below had fallen from us. That last fight had filled us with an enormous confidence in ourselves so far as the Selenites were concerned. We looked back almost incredulously at the black opening from which we had just emerged. Down there it was, in a blue glow that now in our memories seemed the next thing to absolute darkness, we had met with things like mad mockeries of men, helmet-headed creatures, and had walked in fear before them, and had submitted to them until we could submit no longer. And behold, they had smashed like wax and scattered like chaff, and fled and vanished like the creatures of a dream!

I rubbed my eyes, doubting whether we had not slept and dreamt these things by reason of the fungus we had eaten, and suddenly discovered the blood upon my face, and then that my shirt was sticking painfully to my shoulder and arm.

"Confound it!" I said, gauging my injuries with an investigatory hand, and suddenly that distant tunnel mouth became, as it were, a watching eye.

"Cavor!" I said; "what are they going to do now? And what are we going to do?"

He shook his head, with his eyes fixed upon the tunnel. "How can one tell what they will do?"

"It depends on what they think of us, and I don't see how we can begin to guess that. And it depends upon what they have in reserve. It's as you say, Cavor, we have touched the merest outside of this world. They may have all sorts of things inside here. Even with those shooting things they might make it bad for us...."

"Yet after all," I said, "even if we don't find the sphere at once, there is a chance for us. We might hold out. Even through the night. We might go down there again and make a fight for it."

I stared about me with speculative eyes. The character of the scenery had altered altogether by reason of the enormous growth and subsequent drying of the scrub. The crest on which we sat was high, and commanded a wide prospect of the crater landscape, and we saw it now all sere and dry in the late autumn of the lunar afternoon. Rising one behind the other were long slopes and fields of trampled brown where the mooncalves had pastured, and far away in the full blaze of the sun a drove of them basked slumberously, scattered shapes, each with a blot of shadow against it like sheep on the side of a down. But never a sign of a Selenite was to be seen. Whether they had fled on our emergence from the interior passages, or whether they were accustomed to retire after driving out the mooncalves, I cannot guess. At the time I believed the former was the case.

"If we were to set fire to all this stuff," I said, "we might find the sphere among the ashes."

Cavor did not seem to hear me. He was peering under his hand at the stars, that still, in spite of the intense sunlight, were abundantly visible in the sky. "How long do you think we've been here?" he asked at last.

"Been where?"

"On the moon."

"Two earthly days, perhaps."

"More nearly ten. Do you know, the sun is past its zenith, and sinking in the west. In four days' time or less it will be night."

"But--we've only eaten once!"

"I know that. And-- But there are the stars!"

"But why should time seem different because we are on a smaller planet?"

"I don't know. There it is!"

"How does one tell time?"

"Hungry--fatigue--all those things are different. Everything is different--everything. To me it seems that since first we came out of the sphere has been only a question of hours--long hours--at most."

"Ten days," I said; "that leaves--" I looked up at the sun for a moment, and then saw that it was halfway from the zenith to the western edge of things. "Four days! ... Cavor, we mustn't sit here and dream. How do you think we may begin?"

I stood up. "We must get a fixed point we can recognise--we might hoist a flag, or a handkerchief, or something--and quarter the ground, and work round that."

He stood up beside me.

"Yes," he said, "there is nothing for it but to hunt the sphere. Nothing. We may find it--certainly we may find it. And if not--"

"We must keep on looking."

He looked this way and that, glanced up at the sky and down at the tunnel, and astonished me by a sudden gesture.
of impatience. "Oh! but we have done foolishly! To have come to this pass! Think how it might have been, and the things we might have done!"

"We might do something yet."

"Never the thing we might have done. Here below out feet is a world. Think of what that world must be! Think of that machine we saw, and the lid and the shaft! They were just remote outlying things, and those creatures we have seen and fought with no more than ignorant peasants, dwellers in the outskirts, yokels and labourers half akin to brutes. Down below! Caverns beneath caverns, tunnels, structures, ways... It must open out, and be greater and wider and more populous as one descends. Assuredly. Right down at the last the central sea that washes round the core of the moon. Think of its inky waters under the spare lights—if, indeed, their eyes need lights! Think of the cascading tributaries pouring down their channels to feed it! Think of the tides upon its surface, and the rush and swirl of its ebb and flow! perhaps they have ships that go upon it, perhaps down there are mighty cities and swarming ways, and wisdom and order passing the wit of man. And we may die here upon it, and never see the masters who must be—ruling over these things! We may freeze and die here, and the air will freeze and thaw upon us, and then—! Then they will come upon us, come on our stiff and silent bodies, and find the sphere we cannot find, and they will understand at last too late all the thought and effort that ended here in vain!"

His voice for all that speech sounded like the voice of someone heard in a telephone, weak and far away.

"But the darkness," I said.

"One might get over that."

"How?"

"I don't know. How am I to know? One might carry a torch, one might have a lamp— The others—might understand."

He stood for a moment with his hands held down and a rueful face, staring out over the waste that defied him. Then with a gesture of renunciation he turned towards me with proposals for the systematic hunting of the sphere.

"We can return," I said.

He looked at me. "First of all we shall have to get to earth."

"We could bring back lamps to carry and climbing irons, and a hundred necessary things."

"Yes," he said.

"We can take back an earnest of success in this gold."

He looked at my golden crowbars, and said nothing for a space. He stood with his hands clasped behind his back, staring across the crater. At last he signed and spoke. "It was I found the way here, but to find a way isn't always to be master of a way. If I take my secret back to earth, what will happen? I do not see how I can keep my secret for a year, for even a part of a year. Sooner or later it must come out, even if other men rediscover it. And then... Governments and powers will struggle to get hither, they will fight against one another, and against these moon people; it will only spread warfare and multiply the occasions of war. In a little while, in a very little while, if I tell my secret, this planet to its deepest galleries will be strewn with human dead. Other things are doubtful, but that is certain. It is not as though man had any use for the moon. What good would the moon be to men? Even of their own planet what have they made but a battle-ground and theatre of infinite folly? Small as his world is, and short as his time, he has still in his little life down there far more than he can do. No! Science has toiled too long forging weapons for fools to use. It is time she held her hand. Let him find it out for himself again—in a thousand years' time."

"There are methods of secrecy," I said.

He looked up at me and smiled. "After all," he said, "why should one worry? There is little chance of our finding the sphere, and down below things are brewing. It's simply the human habit of hoping till we die that makes us think of return. Our troubles are only beginning. We have shown these moon folk violence, we have given them a taste of our quality, and our chances are about as good as a tiger's that has got loose and killed a man in Hyde Park. The news of us must be running down from gallery to gallery, down towards the central parts.... No sane beings will ever let us take that sphere back to earth after so much as they have seen of us."

"We aren't improving our chances," said I, "by sitting here."

We stood up side by side.

"After all," he said, "we must separate. We must stick up a handkerchief on these tall spikes here and fasten it firmly, and from this as a centre we must work over the crater. You must go westward, moving out in semicircles to and fro towards the setting sun. You must move first with your shadow on your right until it is at right angles with the direction of your handkerchief, and then with your shadow on your left. And I will do the same to the east. We will look into every gully, examine every skerry of rocks; we will do all we can to find my sphere. If we see the Selenites we will hide from them as well as we can. For drink we must take snow, and if we feel the need of food, we must kill a mooncalf if we can, and eat such flesh as it has--raw--and so each will go his own way."
"And if one of us comes upon the sphere?"
"He must come back to the white handkerchief, and stand by it and signal to the other."
"And if neither?"
Cavor glanced up at the sun. "We go on seeking until the night and cold overtake us."
"Suppose the Selenites have found the sphere and hidden it?"
He shrugged his shoulders.
"Or if presently they come hunting us?"
He made no answer.
"You had better take a club," I said.
He shook his head, and stared away from me across the waste.
But for a moment he did not start. He looked round at me shyly, hesitated. "Au revoir," he said.
I felt an odd stab of emotion. A sense of how we had galled each other, and particularly how I must have galled
him, came to me. "Confound it," thought I, "we might have done better!" I was on the point of asking him to shake
hands—for that, somehow, was how I felt just then—when he put his feet together and leapt away from me towards
the north. He seemed to drift through the air as a dead leaf would do, fell lightly, and leapt again. I stood for a
moment watching him, then faced westward reluctantly, pulled myself together, and with something of the feeling of
a man who leaps into icy water, selected a leaping point, and plunged forward to explore my solitary half of the
moon world. I dropped rather clumsily among rocks, stood up and looked about me, clambered on to a rocky slab,
and leapt again....
When presently I looked for Cavor he was hidden from my eyes, but the handkerchief showed out bravely on
its headland, white in the blaze of the sun.
I determined not to lose sight of that handkerchief whatever might betide.

Chapter 19

Mr. Bedford Alone
In a little while it seemed to me as though I had always been alone on the moon. I hunted for a time with a
certain intentness, but the heat was still very great, and the thinness of the air felt like a hoop about one's chest. I
came presently into a hollow basin bristling with tall, brown, dry fronds about its edge, and I sat down under these to
rest and cool. I intended to rest for only a little while. I put down my clubs beside me, and sat resting my chin on my
hands. I saw with a sort of colourless interest that the rocks of the basin, where here and there the crackling dry
lichens had shrunk away to show them, were all veined and splattered with gold, that here and there bosses of
rounded and wrinkled gold projected from among the litter. What did that matter now? A sort of languor had
possession of my limbs and mind, I did not believe for a moment that we should ever find the sphere in that vast
desiccated wilderness. I seemed to lack a motive for effort until the Selenites should come. Then I supposed I should
exert myself, obeying that unreasonable imperative that urges a man before all things to preserve and defend his life,
albeit he may preserve it only to die more painfully in a little while.

Why had we come to the moon?
The thing presented itself to me as a perplexing problem. What is this spirit in man that urges him for ever to
depart from happiness and security, to toil, to place himself in danger, to risk even a reasonable certainty of death? It
dawned upon me up there in the moon as a thing I ought always to have known, that man is not made simply to go
about being safe and comfortable and well fed and amused. Almost any man, if you put the thing to him, not in
words, but in the shape of opportunities, will show that he knob as much. Against his interest, against his happiness,
he is constantly being driven to do unreasonable things. Some force not himself impels him, and go he must. But
why? Why? Sitting there in the midst of that useless moon gold, amidst the things of another world, I took count of
all my life. Assuming I was to die a castaway upon the moon, I failed altogether to see what purpose I had served. I
got no light on that point, but at any rate it was clearer to me than it had ever been in my life before that I was not
serving my own purpose, that all my life I had in truth never served the purposes of my private life. Whose
purposes, what purposes, was I serving? ... I ceased to speculate on why we had come to the moon, and took a wider
sweep. Why had I come to the earth? Why had I a private life at all? ... I lost myself at last in bottomless
speculations....

My thoughts became vague and cloudy, no longer leading in definite directions. I had not felt heavy or weary--I
cannot imagine one doing so upon the moon--but I suppose I was greatly fatigued. At any rate I slept.

Slumbering there rested me greatly, I think, and the sun was setting and the violence of the heat abating, through all the time I slumbered. When at last I was roused from my slumbers by a remote clamour, I felt active and capable again. I rubbed my eyes and stretched my arms. I rose to my feet--I was a little stiff--and at once prepared to resume my search. I shouldered my golden clubs, one on each shoulder, and went on out of the ravine of the gold-veined rocks.

The sun was certainly lower, much lower than it had been; the air was very much cooler. I perceived I must have slept some time. It seemed to me that a faint touch of misty blueness hung about the western cliff I leapt to a little boss of rock and surveyed the crater. I could see no signs of mooncalves or Selenites, nor could I see Cavor, but I could see my handkerchief far off, spread out on its thicket of thorns. I looked about me, and then leapt forward to the next convenient view-point.

I beat my round in a semicircle, and back again in a still remoter crescent. It was very fatiguing and hopeless. The air was really very much cooler, and it seemed to me that the shadow under the westward cliff was growing broad. Ever and again I stopped and reconnoitred, but there was no sign of Cavor, no sign of Selenites; and it seemed to me the mooncalves must have been driven into the interior again--I could see none of them. I became more and more desirous of seeing Cavor. The winged outline of the sun had sunk now, until it was scarcely the distance of its diameter from the rim of the sky. I was oppressed by the idea that the Selenites would presently close their lids and valves, and shut us out under the inexorable onrush of the lunar night. It seemed to me high time that he abandoned his search, and that we took counsel together. I felt how urgent it was that we should decide soon upon our course. We had failed to find the sphere, we no longer had time to seek it, and once these valves were closed with us outside, we were lost men. The great night of space would descend upon us--that blackness of the void which is the only absolute death. All my being shrank from that approach. We must get into the moon again, though we were slain in doing it. I was haunted by a vision of our freezing to death, of our hammering with our last strength on the valve of the great pit.

I took no thought any more of the sphere. I thought only of finding Cavor again. I was half inclined to go back into the moon without him, rather than seek him until it was too late. I was already half-way back towards our handkerchief, when suddenly--

I saw the sphere!

I did not find it so much as it found me. It was lying much farther to the westward than I had gone, and the sloping rays of the sinking sun reflected from its glass had suddenly proclaimed its presence in a dazzling beam. For an instant I thought this was some new device of the Selenites against us, and then I understood.

I threw up my arms, shouted a ghostly shout, and set off in vast leaps towards it. I missed one of my leaps and dropped into a deep ravine and twisted my ankle, and after that I stumbled at almost every leap. I was in a state of hysterical agitation, trembling violently, and quite breathless long before I got to it. Three times at least I had to stop with my hands resting on my side and in spite of the thin dryness of the air, the perspiration was wet upon my face.

I thought of nothing but the sphere until I reached it, I forgot even my trouble of Cavor’s whereabouts. My last leap flung me with my hands hard against its glass; then I lay against it panting, and trying vainly to shout, “Cavor! here is the sphere!” When I had recovered a little I peered through the thick glass, and the things inside seemed tumbled. I stooped to peer closer. Then I attempted to get in. I had to hoist it over a little to get my head through the manhole. The screw stopper was inside, and I could see now that nothing had been touched, nothing had suffered. It lay there as we had left it when we had dropped out amidst the snow. For a time I was wholly occupied in making and remaking this inventory. I found I was trembling violently. It was good to see that familiar dark interior again! I cannot tell you how good. Presently I crept inside and sat down among the things. I looked through the glass at the moon world and shivered. I placed my gold clubs upon the table, and sought out and took a little food; not so much because I wanted it, but because it was there. Then it occurred to me that it was time to go out and signal for Cavor. But I did not go out and signal for Cavor forthwith. Something held me to the sphere.

After all, everything was coming right. There would be still time for us to get more of the magic stone that gives one mastery over men. Away there, close handy, was gold for the picking up; and the sphere would travel as well half full of gold as though it were empty. We could go back now, masters of ourselves and our world, and then--

I roused myself at last, and with an effort got myself out of the sphere. I shivered as I emerged, for the evening air was growing very cold. I stood in the hollow staring about me. I scrutinised the bushes round me very carefully before I leapt to the rocky shelf hard by, and took once more what had been my first leap in the moon. But now I made it with no effort whatever.

The growth and decay of the vegetation had gone on apace, and the whole aspect of the rocks had changed, but still it was possible to make out the slope on which the seeds had germinated, and the rocky mass from which we
had taken our first view of the crater. But the spiky shrub on the slope stood brown and sere now, and thirty feet high, and cast long shadows that stretched out of sight, and the little seeds that clustered in its upper branches were brown and ripe. Its work was done, and it was brittle and ready to fall and crumple under the freezing air, so soon as the nightfall came. And the huge cacti, that had swollen as we watched them, had long since burst and scattered their spores to the four quarters of the moon. Amazing little corner in the universe—the landing place of men!

Some day, thought I, I will have an inscription standing there right in the midst of the hollow. It came to me, if only this teeming world within knew of the full import of the moment, how furious its tumult would become!

But as yet it could scarcely be dreaming of the significance of our coming. For if it did, the crater would surely be an uproar of pursuit, instead of as still as death! I looked about for some place from which I might signal Cavor, and saw that same patch of rock to which he had leapt from my present standpoint, still bare and barren in the sun. For a moment I hesitated at going so far from the sphere. Then with a pang of shame at that hesitation, I leapt....

From this vantage point I surveyed the crater again. Far away at the top of the enormous shadow I cast was the little white handkerchief fluttering on the bushes. It was very little and very far, and Cavor was not in sight. It seemed to me that by this time he ought to be looking for me. That was the agreement. But he was nowhere to be seen.

I stood waiting and watching, hands shading my eyes, expecting every moment to distinguish him. Very probably I stood there for quite a long time. I tried to shout, and was reminded of the thinness of the air. I made an undecided step back towards the sphere. But a lurking dread of the Selenites made me hesitate to signal my whereabouts by hoisting one of our sleeping-blankets on to the adjacent scrub. I searched the crater again.

It had an effect of emptiness that chilled me. And it was still. Any sound from the Selenites in the world beneath had died away. It was as still as death. Save for the faint stir of the shrub about me in the little breeze that was rising, there was no sound nor shadow of a sound. And the breeze blew chill.

Confound Cavor!

I took a deep breath. I put my hands to the sides of my mouth. "Cavor!" I bawled, and the sound was like some manikin shouting far away.

I looked at the handkerchief, I looked behind me at the broadening shadow of the westward cliff I looked under my hand at the sun. It seemed to me that almost visibly it was creeping down the sky. I felt I must act instantly if I was to save Cavor. I whipped off my vest and flung it as a mark on the sere bayonets of the shrubs behind me, and then set off in a straight line towards the handkerchief. Perhaps it was a couple of miles away—a matter of a few hundred leaps and strides. I have already told how one seemed to hang through those lunar leaps. In each suspense I sought Cavor, and marvelled why he should be hidden. In each leap I could feel the sun setting behind me. Each time I touched the ground I was tempted to go back.

A last leap and I was in the depression below our handkerchief, a stride, and I stood on our former vantage point within arms' reach of it. I stood up straight and scanned the world about me, between its lengthening bars of shadow. Far away, down a long declivity, was the opening of the tunnel up which we had fled, and my shadow reached towards it, stretched towards it, and touched it, like a finger of the night.

Not a sign of Cavor, not a sound in all the stillness, only the stir and waving of the scrub and of the shadows increased. And suddenly and violently I shivered. "Cav—" I began, and realised once more the uselessness of the human voice in that thin air. Silence. The silence of death.

Then it was my eye caught something—a little thing lying, perhaps fifty yards away down the slope, amidst a litter of bent and broken branches. What was it? I knew, and yet for some reason I would not know. I went nearer to it. It was the little cricket-cap Cavor had worn. I did not touch it, I stood looking at it.

I saw then that the scattered branches about it had been forcibly smashed and trampled. I hesitated, stepped forward, and picked it up.

I stood with Cavor's cap in my hand, staring at the trampled reeds and thorns about me. On some, of them were little smears of something dark, something that I dared not touch. A dozen yards away, perhaps, the rising breeze dragged something into view, something small and vividly white.

It was a little piece of paper crumpled tightly, as though it had been clutched tightly. I picked it up, and on it were smears of red. My eye caught faint pencil marks. I smoothed it out, and saw uneven and broken writing ending at last in a crooked streak up on the paper.

I set myself to decipher this.

"I have been injured about the knee, I think my kneecap is hurt, and I cannot run or crawl," it began—pretty distinctly written.

Then less legibly: "They have been chasing me for some time, and it is only a question of—" the word "time" seemed to have been written here and erased in favour of something illegible—"before they get me. They are beating all about me."
Then the writing became convulsive. "I can hear them," I guessed the tracing meant, and then it was quite unreadable for a space. Then came a little string of words that were quite distinct: "a different sort of Selenite altogether, who appears to be directing the--" The writing became a mere hasty confusion again.

"They have larger brain cases--much larger, and slenderer bodies, and very short legs. They make gentle noises, and move with organized deliberation..."

"And though I am wounded and helpless here, their appearance still gives me hope." That was like Cavor. "They have not shot at me or attempted... injury. I intend--"

Then came the sudden streak of the pencil across the paper, and on the back and edges--blood!

And as I stood there stupid, and perplexed, with this dumbfounding relic in my hand, something very soft and light and chill touched my hand for a moment and ceased to be, and then a thing, a little white speck, drifted athwart a shadow. It was a tiny snowflake, the first snowflake, the herald of the night.

I looked up with a start, and the sky had darkened almost to blackness, and was thick with a gathering multitude of coldly watchful stars. I looked eastward, and the light of that shrivelled world was touched with sombre bronze; westward, and the sun robbed now by a thickening white mist of half its heat and splendour, was touching the crater rim, was sinking out of sight, and all the shrubs and jagged and tumbled rocks stood out against it in a bristling disorder of black shapes. Into the great lake of darkness westward, a vast wreath of mist was sinking. A cold wind set all the crater shivering. Suddenly, for a moment, I was in a puff of falling snow, and all the world about me gray and dim.

And then it was I heard, not loud and penetrating as at first, but faint and dim like a dying voice, that tolling, that same tolling that had welcomed the coming of the day: Boom!... Boom!... Boom!...

It echoed about the crater, it seemed to throb with the throbbing of the greater stars, the blood-red crescent of the sun's disc sank as it tolled out: Boom!... Boom!... Boom!...

What had happened to Cavor? All through that tolling I stood there stupidly, and at last the tolling ceased. And suddenly the open mouth of the tunnel down below there, shut like an eye and vanished out of sight.

Then indeed was I alone.

Over me, around me, closing in on me, embracing me ever nearer, was the Eternal; that which was before the beginning, and that which triumphs over the end; that enormous void in which all light and life and being is but the thin and vanishing splendour of a falling star, the cold, the stillness, the silence--the infinite and final Night of space.

The sense of solitude and desolation became the sense of an overwhelming presence that stooped towards me, that almost touched me.

"No," I cried. "No! Not yet! not yet! Wait! Wait! Oh, wait!" My voice went up to a shriek. I flung the crumpled paper from me, scrambled back to the crest to take my bearings, and then, with all the will that was in me, leapt out towards the mark I had left, dim and distant now in the very margin of the shadow.

Leap, leap, leap, and each leap was seven ages.

Before me the pale serpent-girdled section of the sun sank and sank, and the advancing shadow swept to seize the sphere before I could reach it. I was two miles away, a hundred leaps or more, and the air about me was thinning out as it thins under an air-pump, and the cold was gripping at my joints. But had I died, I should have died leaping. Once, and then again my foot slipped on the gathering snow as I leapt and shortened my leap; once I fell short into bushes that crashed and smashed into dusty chips and nothingness, and once I stumbled as I dropped and rolled head over heels into a gully, and rose bruised and bleeding and confused as to my direction.

But such incidents were as nothing to the intervals, those awful pauses when one drifted through the air towards that pouring tide of night. My breathing made a piping noise, and it was as though knives were whirling in my lungs. My heart seemed to beat against the top of my brain. "Shall I reach it? O Heaven! Shall I reach it?"

My whole being became anguish.

"Lie down!" screamed my pain and despair; "lie down!"

The nearer I struggled, the more awfully remote it seemed. I was numb, I stumbled, I bruised and cut myself and did not bleed.

It was in sight.

I fell on all fours, and my lungs whooped.

I crawled. The frost gathered on my lips, icicles hung from my moustache, I was white with the freezing atmosphere.

I was a dozen yards from it. My eyes had become dim. "Lie down!" screamed despair; "lie down!"

I touched it, and halted. "Too late!" screamed despair; "lie down!"

I fought stiffly with it. I was on the manhole lip, a stupefied, half-dead being. The snow was all about me. I pulled myself in. There lurked within a little warmer air.

The snowflakes--the airflakes--danced in about me, as I tried with chilling hands to thrust the valve in and spun
it tight and hard. I sobbed. "I will," I chattered in my teeth. And then, with fingers that quivered and felt brittle, I turned to the shutter studs.

As I fumbled with the switches—for I had never controlled them before—I could see dimly through the steaming glass the blazing red streamers of the sinking sun, dancing and flickering through the snowstorm, and the black forms of the scrub thickening and bending and breaking beneath the accumulating snow. Thicker whirled the snow and thicker, black against the light. What if even now the switches overcame me? Then something clicked under my hands, and in an instant that last vision of the moon world was hidden from my eyes. I was in the silence and darkness the inter-planetary sphere.

Chapter 20

Mr. Bedford in Infinite Space

It was almost as though I had been killed. Indeed, I could imagine a man suddenly and violently killed would feel very much as I did. One moment, a passion of agonising existence and fear; the next darkness and stillness, neither light nor life nor sun, moon nor stars, the blank infinite. Although the thing was done by my own act, although I had already tasted this very of effect in Cavor's company, I felt astonished, dumbfounded, and overwhelmed. I seemed to be borne upward into an enormous darkness. My fingers floated off the studs, I hung as if I were annihilated, and at last very softly and gently I came against the bale and the golden chain, and the crowbars that had drifted to the middle of the sphere.

I do not know how long that drifting took. In the sphere of course, even more than on the moon, one's earthly time sense was ineffectual. At the touch of the bale it was as if I had awakened from a dreamless sleep. I immediately perceived that if I wanted to keep awake and alive I must get a light or open a window, so as to get a grip of something with my eyes. And besides, I was cold. I kicked off from the bale, therefore, clawed on to the thin cords within the glass, crawled along until I got to the manhole rim, and so got my bearings for the light and blind studs, took a shove off, and flying once round the bale, and getting a scare from something big and flimsy that was drifting loose, I got my hand on the cord quite close to the studs, and reached them. I lit the little lamp first of all to see what it was I had collided with, and discovered that old copy of _Lloyd's News_ had slipped its moorings, and was adrift in the void. That brought me out of the infinite to my own proper dimensions again. It made me laugh and pant for a time, and suggested the idea of a little oxygen from one of the cylinders. After that I lit the heater until I felt warm, and then I took food. Then I set to work in a very gingerly fashion on the Cavorite blinds, to see if I could guess by any means how the sphere was travelling.

The first blind I opened I shut at once, and hung for a time flattened and blinded by the sunlight that had hit me. After thinking a little I started upon the windows at right angles to this one, and got the huge crescent moon and the little crescent earth behind it, the second time. I was amazed to find how far I was from the moon. I had reckoned that not only should I have little or none of the "kick-off" that the earth's atmosphere had given us at our start, but that the tangential "fly off" of the moon's spin would be at least twenty-eight times less than the earth's. I had expected to discover myself hanging over our crater, and on the edge of the night, but all that was now only a part of the outline of the white crescent that filled the sky. And Cavor--?

He was already infinitesimal.

I tried to imagine what could have happened to him. But at that time I could think of nothing but death. I seemed to see him, bent and smashed at the foot of some interminably high cascade of blue. And all about him the stupid insects stared...

Under the inspiring touch of the drifting newspaper I became practical again for a while. It was quite clear to me that what I had to do was to get back to earth, but as far as I could see I was drifting away from it. Whatever had happened to Cavor, even if he was still alive, which seemed to me incredible after that blood-stained scrap, I was powerless to help him. There he was, living or dead behind the mantle of that rayless night, and there he must remain at least until I could summon our fellow men to his assistance. Should I do that? Something of the sort I had in my mind; to come back to earth if it were possible, and then as maturer consideration might determine, either to show and explain the sphere to a few discreet persons, and act with them, or else to keep my secret, sell my gold, obtain weapons, provisions, and an assistant, and return with these advantages to deal on equal terms with the flimsy people of the moon, to rescue Cavor, if that were still possible, and at any rate to procure a sufficient supply of gold to place my subsequent proceedings on a firmer basis. But that was hoping far; I had first to get back.
I set myself to decide just exactly how the return to earth could be contrived. As I struggled with that problem I ceased to worry about what I should do when I got there. At last my only care was to get back.

I puzzled out at last that my best chance would be to drop back towards the moon as near as I dared in order to gather velocity, then to shut my windows, and fly behind it, and when I was past to open my earthward windows, and so get off at a good pace homeward. But whether I should ever reach the earth by that device, or whether I might not simply find myself spinning about it in some hyperbolic or parabolic curve or other, I could not tell. Later I had a happy inspiration, and by opening certain windows to the moon, which had appeared in the sky in front of the earth, I turned my course aside so as to head off the earth, which it had become evident to me I must pass behind without some such expedient. I did a very great deal of complicated thinking over these problems—for I am no mathematician—and in the end I am certain it was much more my good luck than my reasoning that enabled me to hit the earth. Had I known then, as I know now, the mathematical chances there were against me, I doubt if I should have troubled even to touch the studs to make any attempt. And having puzzled out what I considered to be the thing to do, I opened all my moonward windows, and squatted down—the effort lifted me for a time some feet or so into the air, and I hung there in the oddest way—and waited for the crescent to get bigger and bigger until I felt I was near enough for safety. Then I would shut the windows, fly past the moon with the velocity I had got from it—if I did not smash upon it—and so go on towards the earth.

And that is what I did.

At last I felt my moonward start was sufficient. I shut out the sight of the moon from my eyes, and in a state of mind that was, I now recall, incredibly free from anxiety or any distressful quality, I sat down to begin a vigil in that little speck of matter in infinite space that would last until I should strike the earth. The heater had made the sphere tolerably warm, the air had been refreshed by the oxygen, and except for that faint congestion of the head that was always with me while I was away from earth, I felt entire physical comfort. I had extinguished the light again, lest it should fail me in the end; I was in darkness, save for the earthshine and the glitter of the stars below me. Everything was so absolutely silent and still that I might indeed have been the only being in the universe, and yet, strangely enough, I had no more feeling of loneliness or fear than if I had been lying in bed on earth. Now, this seems all the stranger to me, since during my last hours in that crater of the moon, the sense of my utter loneliness had been an agony....

Incredible as it will seem, this interval of time that I spent in space has no sort of proportion to any other interval of time in my life. Sometimes it seemed as though I sat through immeasurable eternities like some god upon a lotus leaf, and again as though there was a momentary pause as I leapt from moon to earth. In truth, it was altogether some weeks of earthly time. But I had done with care and anxiety, hunger or fear, for that space. I floated, thinking with a strange breadth and freedom of all that we had undergone, and of all my life and motives, and the secret issues of my being. I seemed to myself to have grown greater and greater, to have lost all sense of movement; to be floating amidst the stars, and always the sense of earth's littleness and the infinite littleness of my life upon it, was implicit in my thoughts.

I can't profess to explain the things that happened in my mind. No doubt they could all be traced directly or indirectly to the curious physical conditions under which I was living. I set them down here just for what they are worth, and without any comment. The most prominent quality of it was a pervading doubt of my own identity. I became, if I may so express it, dissociate from Bedford; I looked down on Bedford as a trivial, incidental thing with which I chanced to be connected. I saw Bedford in many relations—as an ass or as a poor beast, where I had hitherto been inclined to regard him with a quiet pride as a very spirited or rather forcible person. I saw him not only as an ass, but as the son of many generations of asses. I reviewed his school-days and his early manhood, and his first encounter with love, very much as one might review the proceedings of an ant in the sand. Something of that period of lucidity I regret still hangs about me, and I doubt if I shall ever recover the full-bodied self satisfaction of my early days. But at the time the thing was not in the least painful, because I had that extraordinary persuasion that, as a matter of fact, I was no more Bedford than I was any one else, but only a mind floating in the still serenity of space. Why should I be disturbed about this Bedford's shortcomings? I was not responsible for him or them.

For a time I struggled against this really very grotesque delusion. I tried to summon the memory of vivid moments, of tender or intense emotions to my assistance; I felt that if I could recall one genuine twinge of feeling the growing severance would be stopped. But I could not do it. I saw Bedford rushing down Chancery Lane, hat on the back of his head, coat tails flying out, en route for his public examination. I saw him dodging and bumping against, and even saluting, other similar little creatures in that swarming gutter of people. Me? I saw Bedford that same evening in the sitting-room of a certain lady, and his hat was on the table beside him, and it wanted brushing badly, and he was in tears. Me? I saw him with that lady in various attitudes and emotions—I never felt so detached before.... I saw him hurrying off to Lympne to write a play, and accosting Cavor, and in his shirt sleeves working at the sphere, and walking out to Canterbury because he was afraid to come! Me? I did not believe it.
I still reasoned that all this was hallucination due to my solitude, and the fact that I had lost all weight and sense of resistance. I endeavoured to recover that sense by banging myself about the sphere, by pinching my hands and clasping them together. Among other things, I lit the light, captured that torn copy of _Lloyd's_, and read those convincingly realistic advertisements about the Cutaway bicycle, and the gentleman of private means, and the lady in distress who was selling those "forks and spoons." There was no doubt they existed surely enough, and, said I, "This is your world, and you are Bedford, and you are going back to live among things like that for all the rest of your life." But the doubts within me could still argue: "It is not you that is reading, it is Bedford, but you are not Bedford, you know. That's just where the mistake comes in."

"Confound it!" I cried; "and if I am not Bedford, what am I?"

But in that direction no light was forthcoming, though the strangest fancies came drifting into my brain, queer remote suspicions, like shadows seen from away. Do you know, I had a sort of idea that really I was something quite outside not only the world, but all worlds, and out of space and time, and that this poor Bedford was just a peephole through which I looked at life? ...

Bedford! However I disavowed him, there I was most certainly bound up with him, and I knew that wherever or whatever I might be, I must needs feel the stress of his desires, and sympathise with all his joys and sorrows until his life should end. And with the dying of Bedford—what then? ...

Enough of this remarkable phase of my experiences! I tell it here simply to show how one's isolation and departure from this planet touched not only the functions and feeling of every organ of the body, but indeed also the very fabric of the mind, with strange and unanticipated disturbances. All through the major portion of that vast space journey I hung thinking of such immaterial things as these, hung dissociated and apathetic, a cloudy megalomaniac, as it were, amidst the stars and planets in the void of space; and not only the world to which I was returning, but the blue-lit caverns of the Selenites, their helmet faces, their gigantic and wonderful machines, and the fate of Cavor, dragged helpless into that world, seemed infinitely minute and altogether trivial things to me.

Until at last I began to feel the pull of the earth upon my being, drawing me back again to the life that is real for men. And then, indeed, it grew clearer and clearer to me that I was quite certainly Bedford after all, and returning after amazing adventures to this world of ours, and with a life that I was very likely to lose in this return. I set myself to puzzle out the conditions under which I must fall to earth.

Chapter 21

Mr. Bedford at Littlestone

My line of flight was about parallel with the surface as I came into the upper air. The temperature of sphere began to rise forthwith. I knew it behoved me to drop at once. Far below me, in a darkling twilight, stretched a great expanse of sea. I opened every window I could, and fell—out of sunshine into evening, and out of evening into night. Vaster grew the earth and vaster, swallowing up the stars, and the silvery translucent starlit veil of cloud it wore spread out to catch me. At last the world seemed no longer a sphere but flat, and then concave. It was no longer a planet in the sky, but the world of Man. I shut all but an inch or so of earthward window, and dropped with a slackening velocity. The broadening water, now so near that I could see the dark glitter of the waves, rushed up to meet me. The sphere became very hot. I snapped the last strip of window, and sat scowling and biting my knuckles, waiting for the impact....

The sphere hit the water with a huge splash: it must have sent it fathoms high. At the splash I flung the Cavorite shutters open. Down I went, but slower and slower, and then I felt the sphere pressing against my feet, and so drove up again as a bubble drives. And at the last I was floating and rocking upon the surface of the sea, and my journey in space was at an end.

The night was dark and overcast. Two yellow pinpoints far away showed the passing of a ship, and nearer was a red glare that came and went. Had not the electricity of my glow-lamp exhausted itself, I could have got picked up that night. In spite of the inordinate fatigue I was beginning to feel, I was excited now, and for a time hopeful, in a feverish, impatient way, that so my travelling might end.

But at last I ceased to move about, and sat, wrists on knees, staring at a distant red light. It swayed up and down, rocking, rocking. My excitement passed. I realised I had yet to spend another night at least in the sphere. I perceived myself infinitely heavy and fatigued. And so I fell asleep.

A change in my rhythmic motion awakened me. I peered through the refracting glass, and saw that I had come
aground upon a huge shallow of sand. Far away I seemed to see houses and trees, and seaward a curve, vague distortion of a ship hung between sea and sky.

I stood up and staggered. My one desire was to emerge. The manhole was upward, and I wrestled with the screw. Slowly I opened the manhole. At last the air was singing in again as once it had sung out. But this time I did not wait until the pressure was adjusted. In another moment I had the weight of the window on my hands, and I was open, wide open, to the old familiar sky of earth.

The air hit me on the chest so that I gasped. I dropped the glass screw. I cried out, put my hands to my chest, and sat down. For a time I was in pain. Then I took deep breaths. At last I could rise and move about again.

I tried to thrust my head through the manhole, and the sphere rolled over. It was as though something had lugged my head down directly it emerged. I ducked back sharply, or I should have been pinned face under water. After some wriggling and shoving I managed to crawl out upon sand, over which the retreating waves still came and went.

I did not attempt to stand up. It seemed to me that my body must be suddenly changed to lead. Mother Earth had her grip on me now—no Cavorite intervening. I sat down heedless of the water that came over my feet.

It was dawn, a gray dawn, rather overcast but showing here and there a long patch of greenish gray. Some way out a ship was lying at anchor, a pale silhouette of a ship with one yellow light. The water came rippling in in long shallow waves. Away to the right curved the land, a shingle bank with little hovels, and at last a lighthouse, a sailing mark and a point. Inland stretched a space of level sand, broken here and there by pools of water, and ending a mile away perhaps in a low shore of scrub. To the north-east some isolated watering-place was visible, a row of gaunt lodging-houses, the tallest things that I could see on earth, dull dabs against the brightening sky. What strange men can have reared these vertical piles in such an amplitude of space I do not know. There they are, like pieces of Brighton lost in the waste.

For a long time I sat there, yawning and rubbing my face. At last I struggled to rise. It made me feel that I was lifting a weight. I stood up.

I stared at the distant houses. For the first time since our starvation in the crater I thought of earthly food. "Bacon," I whispered, "eggs. Good toast and good coffee... And how the devil am I going to all this stuff to Lympne?" I wondered where I was. It was an east shore anyhow, and I had seen Europe before I dropped.

I heard footsteps crunching in the sand, and a little round-faced, friendly-looking man in flannels, with a bathing towel wrapped about his shoulders, and his bathing dress over his arm, appeared up the beach. I knew instantly that I must be in England. He was staring most intently at the sphere and me. He advanced staring. I dare say I looked a ferocious savage enough—dirty, unkempt, to an indescribable degree; but it did not occur to me at the time. He stopped at a distance of twenty yards. "Hul-lo, my man!" he said doubtfully.

"Hullo yourself!" said I.

He advanced, reassured by that. "What on earth is that thing?" he asked.

"Can you tell me where I am?" I asked.

"That's Littlestone," he said, pointing to the houses; "and that's Dungeness! Have you just landed? What's that thing you've got? Some sort of machine?"

"Yes."

"Have you floated ashore? Have you been wrecked or something? What is it?"

I whispered swiftly. I made an estimate of the little man's appearance as he drew nearer. "By Jove!" he said, "you've had a time of it! I thought you— Well— Where were you cast away? Is that thing a sort of floating thing for saving life?"

I decided to take that line for the present. I made a few vague affirmatives. "I want help," I said hoarsely. "I want to get some stuff up the beach—stuff I can't very well leave about." I became aware of three other pleasant-looking young men with towels, blazers, and straw hats, coming down the sands towards me. Evidently the early bathing section of this Littlestone.

"Help!" said the young man: "rather!" He became vaguely active. "What particularly do you want done?" He turned round and gesticulated. The three young men accelerated their pace. In a minute they there about me, plying me with questions I was indisposed to answer. "I'll tell all that later," I said. "I'm dead beat. I'm a rag."

"Come up to the hotel," said the foremost little man. "We'll look after that thing there."

I hesitated. "I can't," I said. "In that sphere there's two big bars of gold."

They looked incredulously at one another, then at me with a new inquiry. I went to the sphere, stooped, crept in, and presently they had the Selenites' crowbars and the broken chain before them. If I had not been so horribly fagged I could have laughed at them. It was like kittens round a beetle. They didn't know what to do with the stuff. The fat little man stooped and lifted the end of one of the bars, and then dropped it with a grunt. Then they all did. "It's lead, or gold!" said one.
"Oh, it's gold!" said another.
"Gold, right enough," said the third.
Then they all stared at me, and then they all stared at the ship lying at anchor.
"I say!" cried the little man. "But where did you get that?"
I was too tired to keep up a lie. "I got it in the moon."
I saw them stare at one another.
"Look here!" said I, "I'm not going to argue now. Help me carry these lumps of gold up to the hotel--I guess, with rests, two of you can manage one, and I'll trail this chain thing--and I'll tell you more when I've had some food."
"And how about that thing?"
"It won't hurt there," I said. "Anyhow--confound it!--it must stop there now. If the tide comes up, it will float all right."
And in a state of enormous wonderment, these young men most obediently hoisted my treasures on their shoulders, and with limbs that felt like lead I headed a sort of procession towards that distant fragment of "sea-front." Half-way there we were reinforced by two awe-stricken little girls with spades, and later a lean little boy, with a penetrating sniff, appeared. He was, I remember, wheeling a bicycle, and he accompanied us at a distance of about a hundred yards on our right flank, and then I suppose, gave us up as uninteresting, mounted his bicycle and rode off over the level sands in the direction of the sphere.
I glanced back after him.
"He won't touch it," said the stout young man reassuringly, and I was only too willing to be reassured.
At first something of the gray of the morning was in my mind, but presently the sun disengaged itself from the level clouds of the horizon and lit the world, and turned the leaden sea to glittering waters. My spirits rose. A sense of the vast importance of the things I had done and had yet to do came with the sunlight into my mind. I laughed aloud as the foremost man staggered under my gold. When indeed I took my place in the world, how amazed the world would be!
If it had not been for my inordinate fatigue, the landlord of the Littlestone hotel would have been amusing, as he hesitated between my gold and my respectable company on the one and my filthy appearance on the other. But at last I found myself in a terrestrial bathroom once more with warm water to wash myself with, and a change of raiment, preposterously small indeed, but anyhow clean, that the genial little man had lent me. He lent me a razor too, but I could not screw up my resolution to attack even the outposts of the bristling beard that covered my face.
I sat down to an English breakfast and ate with a sort of languid appetite--an appetite many weeks old and very decrepit--and stirred myself to answer the questions of the four young men. And I told them the truth.
"Well," said I, "as you press me--I got it in the moon."
"The moon?"
"Yes, the moon in the sky."
"But how do you mean?"
"What I say, confound it!"
"Then you have just come from the moon?"
"Exactly! through space--in that ball." And I took a delicious mouthful of egg. I made a private note that when I went back to the moon I would take a box of eggs.
I could see clearly that they did not believe one word what I told them, but evidently they considered me the most respectable liar they had ever met. They glanced at one another, and then concentrated the fire of their eyes on me. I fancy they expected a clue to me in the way I helped myself to salt. They seemed to find something significant in my peppering my egg. These strangely shaped masses of gold they had staggered under held their minds. There the lumps lay in front of me, each worth thousands of pounds, and as impossible for any one to steal as a house or a piece of land. As I looked at their curious faces over my coffee-cup, I realised something of the enormous wilderness of explanations into which I should have to wander to render myself comprehensible again.
"You don't really mean--" began the youngest young man, in the tone of one who speaks to an obstinate child.
"Just pass me that toast-rack," I said, and shut him up completely.
"But look here, I say," began one of the others. "We're not going to believe that, you know."
"Ah, well," said I, and shrugged my shoulders.
"He doesn't want to tell us," said the youngest young man in a stage aside; and then, with an appearance of great sang-froid, "You don't mind if I take a cigarette?"
I waved him a cordial assent, and proceeded with my breakfast. Two of the others went and looked out of the farther window and talked inaudibly. I was struck by a thought. "The tide," I said, "is running out?"
There was a pause, a doubt who should answer me.
"It's near the ebb," said the fat little man.

"Well, anyhow," I said, "it won't float far."

I decapitated my third egg, and began a little speech. "Look here," I said. "Please don't imagine I'm surly or telling you uncivil lies, or anything of that sort. I'm forced almost, to be a little short and mysterious. I can quite understand this is as queer as it can be, and that your imaginations must be going it. I can assure you, you're in at a memorable time. But I can't make it clear to you now--it's impossible. I give you my word of honour I've come from the moon, and that's all I can tell you.... All the same, I'm tremendously obliged to you, you know, tremendously. I hope that my manner hasn't in any way given you offence."

"Oh, not in the least!" said the youngest young man affably. "We can quite understand," and staring hard at me all the time, he heeled his chair back until it very nearly upset, and recovered with some exertion. "Not a bit of it," said the fat young man.

"Don't you imagine that!" and they all got up and dispersed, and walked about and lit cigarettes, and generally tried to show they were perfectly amiable and disengaged, and entirely free from the slightest curiosity about me and the sphere. "I'm going to keep an eye on that ship out there all the same," I heard one of them remarking in an undertone. If only they could have forced themselves to it, they would, I believe, even have gone out and left me. I went on with my third egg.

"The weather," the fat little man remarked presently, "has been immense, has it not? I don't know when we have had such a summer."

"Phoo-whizz! Like a tremendous rocket!
And somewhere a window was broken...."
"What's that?" said I.
"It isn't--?" cried the little man, and rushed to the corner window.
All the others rushed to the window likewise. I sat staring at them.

Suddenly I leapt up, knocked over my third egg, rushed for the window also. I had just thought of something.

"Nothing to be seen there," cried the little man, rushing for the door.

"It's that boy!" I cried, bawling in hoarse fury; "it's that accursed boy!" and turning about I pushed the waiter aside--he was just bring me some more toast--and rushed violently out of the room and down and out upon the queer little esplanade in front of the hotel.

The sea, which had been smooth, was rough now with hurrying cat's-paws, and all about where the sphere had been was tumbled water like the wake of a ship. Above, a little puff of cloud whirled like dispersing smoke, and the three or four people on the beach were bring up with interrogative faces towards the point of that unexpected report. And that was all! Boots and waiter and the four young men in blazers came rushing out behind me. Shouts came from windows and doors, and all sorts of worrying people came into sight--agape.

For a time I stood there, too overwhelmed by this new development to think of the people.

At first I was too stunned to see the thing as any definite disaster--I was just stunned, as a man is by some accidental violent blow. It is only afterwards he begins to appreciate his specific injury.

"Good Lord!"

I felt as though somebody was pouring funk out of a can down the back of my neck. My legs became feeble. I had got the first intimation of what the disaster meant for me. There was that confounded boy--sky high! I was utterly left. There was the gold in the coffee-room--my only possession on earth. How would it all work out? The general effect was of a gigantic unmanageable confusion.

"I say," said the voice of the little man behind. "I say, you know."

I wheeled about, and there were twenty or thirty people, a sort of irregular investment of people, all bombarding me with dumb interrogation, with infinite doubt and suspicion. I felt the compulsion of their eyes intolerably. I groaned aloud.

"I _can't_," I shouted. "I tell you I can't! I'm not equal to it! You must puzzle and--and be damned to you!"

I gesticulated convulsively. He receded a step as though I had threatened him. I made a bolt through them into the hotel. I charged back into the coffee-room, rang the bell furiously. I gripped the waiter as he entered. "D'ye hear?" I shouted. "Get help and carry these bars up to my room right away."

He failed to understand me, and I shouted and raved at him. A scared-looking little old man in a green apron appeared, and further two of the young men in flannels. I made a dash at them and commandeered their services. As soon as the gold was in my room I felt free to quarrel. "Now get out," I shouted; "all of you get out if you don't want to see a man go mad before your eyes!" And I helped the waiter by the shoulder as he hesitated in the doorway. And then, as soon as I had the door locked on them all, I tore off the little man's clothes again, shied them right and left, and got into bed forthwith. And there I lay swearing and panting and cooling for a very long time.

At last I was calm enough to get out of bed and ring up the round-eyed waiter for a flannel nightshirt, a soda
and whisky, and some good cigars. And these things being procured me, after an exasperating delay that drove me several times to the bell, I locked the door again and proceeded very deliberately to look entire situation in the face.

The net result of the great experiment presented itself as an absolute failure. It was a rout, and I was the sole survivor. It was an absolute collapse, and this was the final disaster. There was nothing for it but to save myself, and as much as I could in the way of prospects from our debacle. At one fatal crowning blow all my vague resolutions of return and recovery had vanished. My intention of going back to the moon, of getting a sphereful of gold, and afterwards of having a fragment of Cavorite analysed and so recovering the great secret--perhaps, finally, even of recovering Cavor's body--all these ideas vanished altogether.

I was the sole survivor, and that was all.

I think that going to bed was one of the luckiest ideas I have ever had in an emergency. I really believe I should either have got loose-headed or done some indiscreet thing. But there, locked in and secure from all interruptions, I could think out the position in all its bearings and make my arrangements at leisure.

Of course, it was quite clear to me what had happened to the boy. He had crawled into the sphere, meddled with the studs, shut the Cavorite windows, and gone up. It was highly improbable he had screwed the manhole stopper, and, even if he had, the chances were a thousand to one against his getting back. It was fairly evident that he would gravitate with my bales to somewhere near the middle of the sphere and remain there, and so cease to be a legitimate terrestrial interest, however remarkable he might seem to the inhabitants of some remote quarter of space. I very speedily convinced myself on that point. And as for any responsibility I might have in the matter, the more I reflected upon that, the clearer it became that if only I kept quiet about things, I need not trouble myself about that. If I was faced by sorrowing parents demanding their lost boy, I had merely to demand my lost sphere--or ask them what they meant. At first I had had a vision of weeping parents and guardians, and all sorts of complications; but now I saw that I simply had to keep my mouth shut, and nothing in that way could arise. And, indeed, the more I lay and smoked and thought, the more evident became the wisdom of impenetrability.

It is within the right of every British citizen, provided he does not commit damage nor indecorum, to appear suddenly wherever he pleases, and as ragged and filthy as he pleases, and with whatever amount of virgin gold he sees fit to encumber himself, and no one has any right at all to hinder and detain him in this procedure. I formulated that at last to myself, and repeated it over as a sort of private Magna Charta of my liberty.

Once I had put that issue on one side, I could take up and consider in an equable manner certain considerations I had scarcely dared to think of before, namely, those arising out of the circumstances of my bankruptcy. But now, looking at this matter calmly and at leisure, I could see that if only I suppressed my identity by a temporary assumption of some less well-known name, and if I retained the two months' beard that had grown upon me, the risks of any annoyance from the spiteful creditor to whom I have already alluded became very small indeed. From that to a definite course of rational worldly action was plain sailing. It was all amazingly petty, no doubt, but what was there remaining for me to do?

Whatever I did I was resolved that I would keep myself level and right side up.

I ordered up writing materials, and addressed a letter to the New Romney Bank--the nearest, the waiter informed me--telling the manager I wished to open an account with him, and requesting him to send two trustworthy persons properly authenticated in a cab with a good horse to fetch some hundredweight of gold with which I happened to be encumbered. I signed the letter "Blake," which seemed to me to be a thoroughly respectable sort of name. This done, I got a Folkestone Blue Book, picked out an outfitter, and asked him to send a cutter to measure me for a dark tweed suit, ordering at the same time a valise, dressing bag, brown boots, shirts, hat (to fit), and so forth; and from a watchmaker I also ordered a watch. And these letters being despatched, I had up as good a lunch as the hotel could give, and then lay smoking a cigar, as calm and ordinary as possible, until in accordance with my instructions two duly authenticated clerks came from the bank and weighed and took away my gold. After which I pulled the clothes over my ears in order to drown any knocking, and went very comfortably to sleep.

I went to sleep. No doubt it was a prosaic thing for the first man back from the moon to do, and I can imagine that the young and imaginative reader will find my behaviour disappointing. But I was horribly fatigued and bothered, and, confound it! what else was there to do? There certainly was not the remotest chance of my being believed, if I had told my story then, and it would certainly have subjected me to intolerable annoyances. I went to sleep. When at last I woke up again I was ready to face the world as I have always been accustomed to face it since I came to years of discretion. And so I got away to Italy, and there it is I am writing this story. If the world will not have it as fact, then the world may take it as fiction. It is no concern of mine.

And now that the account is finished, I am amazed to think how completely this adventure is gone and done with. Everybody believes that Cavor was a not very brilliant scientific experimenter who blew up his house and himself at Lympne, and they explain the bang that followed my arrival at Littlestone by a reference to the experiments with explosives that are going on continually at the government establishment of Lydd, two miles...
away. I must confess that hitherto I have not acknowledged my share in the disappearance of Master Tommy Simmons, which was that little boy's name. That, perhaps, may prove a difficult item of corroboration to explain away. They account for my appearance in rags with two bars of indisputable gold upon the Littlestone beach in various ingenious ways—it doesn't worry me what they think of me. They say I have strung all these things together to avoid being questioned too closely as to the source of my wealth. I would like to see the man who could invent a story that would hold together like this one. Well, they must take it as fiction—there it is.

I have told my story—and now, I suppose, I have to take up the worries of this terrestrial life again. Even if one has been to the moon, one has still to earn a living. So I am working here at Amalfi, on the scenario of that play I sketched before Cavor came walking into my world, and I am trying to piece my life together as it was before ever I saw him. I must confess that I find it hard to keep my mind on the play when the moonshine comes into my room. It is full moon here, and last night I was out on the pergola for hours, staring away at the shining blankness that hides so much. Imagine it! tables and chairs, and trestles and bars of gold! Confound it!—if only one could hit on that Cavorite again! But a thing like that doesn't come twice in a life. Here I am, a little better off than I was at Lympne, and that is all. And Cavor has committed suicide in a more elaborate way than any human being ever did before. So the story closes as finally and completely as a dream. It fits in so little with all the other things of life, so much of it is so utterly remote from all human experience, the leaping, the eating, the breathing, and these weightless times, that indeed there are moments when, in spite of my moon gold, I do more than half believe myself that the whole thing was a dream....

Chapter 22

The Astonishing Communication of Mr. Julius Wendigee

When I had finished my account of my return to the earth at Littlestone, I wrote, “The End,” made a flourish, and threw my pen aside, fully believing that the whole story of the First Men in the Moon was done. Not only had I done this, but I had placed my manuscript in the hands of a literary agent, had permitted it to be sold, had seen the greater portion of it appear in the _Strand Magazine_, and was setting to work again upon the scenario of the play I had commenced at Lympne before I realised that the end was not yet. And then, following me from Amalfi to Algiers, there reached me (it is now about six months ago) one of the most astounding communications I have ever been fated to receive. Briefly, it informed me that Mr. Julius Wendigee, a Dutch electrician, who has been experimenting with certain apparatus akin to the apparatus used by Mr. Tesla in America, in the hope of discovering some method of communication with Mars, was receiving day by day a curiously fragmentary message in English, which was indisputably emanating from Mr. Cavor in the moon.

At first I thought the thing was an elaborate practical joke by some one who had seen the manuscript of my narrative. I answered Mr. Wendigee jestingly, but he replied in a manner that put such suspicion altogether aside, and in a state of inconceivable excitement I hurried from Algiers to the little observatory upon the Monte Rosa in which he was working. In the presence of his record and his appliances—and above all of the messages from Cavor that were coming to hand—my lingering doubts vanished. I decided at once to accept a proposal he made to me to remain with him, assisting him to take down the record from day to day, and endeavouring with him to send a message back to the moon. Cavor, we learnt, was not only alive, but free, in the midst of an almost inconceivable community of these ant-like beings, these ant-men, in the blue darkness of the lunar caves. He was lamed, it seemed, but otherwise in quite good health—in better health, he distinctly said, than he usually enjoyed on earth. He had had a fever, but it had left no bad effects. But curiously enough he seemed to be labouring under a conviction that I was either dead in the moon crater or lost in the deep of space.

His message began to be received by Mr. Wendigee when that gentleman was engaged in quite a different investigation. The reader will no doubt recall the little excitement that began the century, arising out an announcement by Mr. Nikola Tesla, the American electrical celebrity, that he had received a message from Mars. His announcement renewed attention to fact that had long been familiar to scientific people, namely: that from some unknown source in space, waves of electromagnetic disturbance, entirely similar those used by Signor Marconi for his wireless telegraphy, are constantly reaching the earth. Besides Tesla quite a number of other observers have been engaged in perfecting apparatus for receiving and recording these vibrations, though few would go so far to consider them actual messages from some extraterrestrial sender. Among that few, however, we must certainly count Mr. Wendigee. Ever since 1898 he had devoted himself almost entirely to this subject, and being a man of ample means
he had erected an observatory on the flanks of Monte Rosa, in a position singularly adapted in every way for such observations.

My scientific attainments, I must admit, are not great, but so far as they enable me to judge, Mr. Wendigee's contrivances for detecting and recording any disturbances in the electromagnetic conditions of space are singularly original and ingenious. And by a happy combination of circumstances they were set up and in operation about two months before Cavor made his first attempt to call up the earth. Consequently we have fragments of his communication even from the beginning. Unhappily, they are only fragments, and the most momentous of all the things that he had to tell humanity--the instructions, that is, for the making of Cavorite, if, indeed, he ever transmitted them--have throbbed themselves away unrecorded into space. We never succeeded in getting a response back to Cavor. He was unable to tell, therefore, what we had received or what we had missed; nor, indeed, did he certainly know that any one on earth was really aware of his efforts to reach us. And the persistence he displayed in sending eighteen long descriptions of lunar affairs--as they would be if we had them complete--shows how much his mind must have turned back towards his native planet since he left it two years ago.

You can imagine how amazed Mr. Wendigee must have been when he discovered his record of electromagnetic disturbances interlaced by Cavor's straightforward English. Mr. Wendigee knew nothing of our wild journey moonward, and suddenly--this English out of the void!

It is well the reader should understand the conditions under which it would seem these messages were sent. Somewhere within the moon Cavor certainly had access for a time to a considerable amount of electrical apparatus, and it would seem he rigged up--perhaps furtively--a transmitting arrangement of the Marconi type. This he was able to operate at irregular intervals: sometimes for only half an hour or so, sometimes for three or four hours at a stretch. At these times he transmitted his earthward message, regardless of the fact that the relative position of the moon and points upon the earth's surface is constantly altering. As a consequence of this and of the necessary imperfections of our recording instruments his communication comes and goes in our records in an extremely fitful manner; it becomes blurred; it "fades out" in a mysterious and altogether exasperating way. And added to this is the fact that he was not an expert operator; he had partly forgotten, or never completely mastered, the code in general use, and as he became fatigued he dropped words and misspelt in a curious manner.

Altogether we have probably lost quite half of the communications he made, and much we have is damaged, broken, and partly effaced. In the abstract that follows the reader must be prepared therefore for a considerable amount of break, hiatus, and change of topic. Mr. Wendigee and I are collaborating in a complete and annotated edition of the Cavor record, which we hope to publish, together with a detailed account of the instruments employed, beginning with the first volume in January next. That will be the full and scientific report, of which this is only the popular transcript. But here we give at least sufficient to complete the story I have told, and to give the broad outlines of the state of that other world so near, so akin, and yet so dissimilar to our own.

Chapter 23

An Abstract of the Six Messages First Received from Mr. Cavor

The two earlier messages of Mr. Cavor may very well be reserved for that larger volume. They simply tell, with greater brevity and with a difference in several details that is interesting, but not of any vital importance, the bare facts of the making of the sphere and our departure from the world. Throughout, Cavor speaks of me as a man who is dead, but with a curious change of temper as he approaches our landing on the moon. "Poor Bedford," he says of me, and "this poor young man," and he blames himself for inducing a young man, "by no means well equipped for such adventures," to leave a planet "on which he was indisputably fitted to succeed" on so precarious a mission. I think he underrates the part my energy and practical capacity played in bringing about the realisation of his theoretical sphere. "We arrived," he says, with no more account of our passage through space than if we had made a journey of common occurrence in a railway train.

And then he becomes increasingly unfair to me. Unfair, indeed, to an extent I should not have expected in a man trained in the search for truth. Looking back over my previously written account of these things, I must insist that I have been altogether juster to Cavor than he has been to me. I have extenuated little and suppressed nothing. But his account is:--

"It speedily became apparent that the entire strangeness of our circumstances and surroundings--great loss of weight, attenuated but highly oxygenated air, consequent exaggeration of the results of muscular effort, rapid
development of weird plants from obscure spores, lurid sky—was exciting my companion unduly. On the moon his character seemed to deteriorate. He became impulsive, rash, and quarrelsome. In a little while his folly in devouring some gigantic vesicles and his consequent intoxication led to our capture by the Selenites—before we had had the slightest opportunity of properly observing their ways...."

(He says, you observe, nothing of his own concession to these same "vesicles.")

And he goes on from that point to say that "We came to a difficult passage with them, and Bedford mistaking certain gestures of theirs"—pretty gestures they were!—"gave way to a panic violence. He ran amuck, killed three, and perforce I had to flee with him after the outrage. Subsequently we fought with a number who endeavoured to bar our way, and slew seven or eight more. It says much for the tolerance of these beings that on my recapture I was not instantly slain. We made our way to the exterior and separated in the crater of our arrival, to increase our chances of recovering our sphere. But presently I came upon a body of Selenites, led by two who were curiously different, even in form, from any of these we had seen hitherto, with larger heads and smaller bodies, and much more elaborately wrapped about. And after evading them for some time I fell into a crevasse, cut my head rather badly, and displaced my patella, and, finding crawling very painful, decided to surrender—if they would still permit me to do so. This they did, and, perceiving my helpless condition, carried me with them again into the moon. And of Bedford I have heard or seen nothing more, nor, so far as I can gather, any Selenite. Either the night overtook him in the crater, or else, which is more probable, he found the sphere, and, desiring to steal a march upon me, made off with it—only, I fear, to find it uncontrollable, and to meet a more lingering fate in outer space."

And with that Cavor dismisses me and goes on to more interesting topics. I dislike the idea of seeming to use my position as his editor to deflect his story in my own interest, but I am obliged to protest here against the turn he gives these occurrences. He said nothing about that gasping message on the blood-stained paper in which he told, or attempted to tell, a very different story. The dignified self-surrender is an altogether new view of the affair that has come to him, I must insist, since he began to feel secure among the lunar people; and as for the "stealing a march" conception, I am quite willing to let the reader decide between us on what he has before him. I know I am not a model man—I have made no pretence to be. But am I that?

However, that is the sum of my wrongs. From this point I can edit Cavor with an untroubled mind, for he mentions me no more.

It would seem the Selenites who had come upon him carried him to some point in the interior down "a great shaft" by means of what he describes as "a sort of balloon." We gather from the rather confused passage in which he describes this, and from a number of chance allusions and hints in other and subsequent messages, that this "great shaft" is one of an enormous system of artificial shafts that run, each from what is called a lunar "crater," downwards for very nearly a hundred miles towards the central portion of our satellite. These shafts communicate by transverse tunnels, they throw out abyssal caverns and expand into great globular places; the whole of the moon's substance for a hundred miles inward, indeed, is a mere sponge of rock. "Partly," says Cavor, "this sponginess is natural, but very largely it is due to the enormous industry of the Selenites in the past. The enormous circular mounds of the excavated rock and earth it is that form these great circles about the tunnels known to earthly astronomers (misled by a false analogy) as volcanoes."

It was down this shaft they took him, in this "sort of balloon" he speaks of, at first into an inky blackness and then into a region of continually increasing phosphorescence. Cavor's despatches show him to be curiously regardless of detail for a scientific man, but we gather that this light was due to the streams and cascades of water—"no doubt containing some phosphorescent organism"—that flowed ever more abundantly downward towards the Central Sea. And as he descended, he says, "The Selenites also became luminous." And at last far below him he saw, as it were, a lake of heatless fire, the waters of the Central Sea, glowing and eddying in strange perturbation, "like luminous blue milk that is just on the boil."

"This Lunar Sea," says Cavor, in a later passage "is not a stagnant ocean; a solar tide sends it in a perpetual flow around the lunar axis, and strange storms and boilings and rushings of its waters occur, and at times cold winds and thunderings that ascend out of it into the busy ways of the great ant-hill above. It is only when the water is in motion that it gives out light; in its rare seasons of calm it is black. Commonly, when one sees it, its waters rise and fall in an oily swell, and flakes and big rafts of shining, bubbly foam drift with the sluggish, faintly glowing current. The Selenites navigate its cavernous straits and lagoons in little shallow boats of a canoe-like shape; and even before my journey to the galleries about the Grand Lunar, who is Master of the Moon, I was permitted to make a brief excursion on its waters.

"The caverns and passages are naturally very tortuous. A large proportion of these ways are known only to expert pilots among the fishermen, and not infrequently Selenites are lost for ever in their labyrinths. In their remoter recesses, I am told, strange creatures lurk, some of them terrible and dangerous creatures that all the science of the moon has been unable to exterminate. There is particularly the Rapha, an inextricable mass of clutching tentacles
that one hacks to pieces only to multiply; and the Tzee, a darting creature that is never seen, so subtly and suddenly
does it slay..."

He gives us a gleam of description.

"I was reminded on this excursion of what I have read of the Mammoth Caves; if only I had had a yellow
flambeau instead of the pervading blue light, and a solid-looking boatman with an oar instead of a scuttle-faced
Selenite working an engine at the back of the canoe, I could have imagined I had suddenly got back to earth. The
rocks about us were very various, sometimes black, sometimes pale blue and veined, and once they flashed and
glittered as though we had come into a mine of sapphires. And below one saw the ghostly phosphorescent fishes
flash and vanish in the hardly less phosphorescent deep. Then, presently, a long ultra-marine vista down the turbid
stream of one of the channels of traffic, and a landing stage, and then, perhaps, a glimpse up the enormous crowded
shaft of one of the vertical ways.

"In one great place heavy with glistening stalactites a number of boats were fishing. We went alongside one of
these and watched the long-armed Selenites winding in a net. They were little, hunchbacked insects, with very
strong arms, short, bandy legs, and crinkled face-masks. As they pulled at it that net seemed the heaviest thing I had
come upon in the moon; it was loaded with weights--no doubt of gold--and it took a long time to draw, for in those
waters the larger and more edible fish lurk deep. The fish in the net came up like a blue moonrise--a blaze of darting,
tossing blue.

"Among their catch was a many-tentaculate, evil-eyed black thing, ferociously active, whose appearance they
greeted with shrieks and twitters, and which with quick, nervous movements they hacked to pieces by means of little
hatchets. All its dissevered limbs continued to lash and writhe in a vicious manner. Afterwards, when fever had hold
of me, I dreamt again and again of that bitter, furious creature rising so vigorous and active out of the unknown sea.
It was the most active and malignant thing of all the living creatures I have yet seen in this world inside the moon....

"The surface of this sea must be very nearly two hundred miles (if not more) below the level of the moon's
exterior; all the cities of the moon lie, I learnt, immediately above this Central Sea, in such cavernous spaces and
artificial galleries as I have described, and they communicate with the exterior by enormous vertical shafts which
open invariably in what are called by earthly astronomers the 'craters' of the moon. The lid covering one such
aperture I had already seen during the wanderings that had preceded my capture.

"Upon the condition of the less central portion of the moon I have not yet arrived at very precise knowledge.
There is an enormous system of caverns in which the mooncalves shelter during the night; and there are abattoirs
and the like--in one of these it was that I and Bedford fought with the Selenite butchers--and I have since seen
balloons laden with meat descending out of the upper dark. I have as yet scarcely learnt as much of these things as a
Zulu in London would learn about the British corn supplies in the same time. It is clear, however, that these vertical
shafts and the vegetation of the surface must play an essential role in ventilating and keeping fresh the atmosphere of
the moon. At one time, and particularly on my first emergence from my prison, there was certainly a cold wind
blowing down the shaft, and later there was a kind of sirocco upward that corresponded with my fever. For at the
end of about three weeks I fell ill of an indefinable sort of fever, and in spite of sleep and the quinine tabloids that
very fortunately I had brought in my pocket, I remained ill and fretting miserably, almost to the time when I was
taken into the presence of the Grand Lunar, who is Master of the Moon.

"I will not dilate on the wretchedness of my condition," he remarks, "during those days of ill-health." And he
goes on with great amplitude with details I omit here. "My temperature," he concludes, "kept abnormally high for a
long time, and I lost all desire for food. I had stagnant waking intervals, and sleep tormented by dreams, and at one
phase I was, I remember, so weak as to be earth-sick and almost hysterical. I longed almost intolerably for colour to
break the everlasting blue..."

He reverts again presently to the topic of this sponge-caught lunar atmosphere. I am told by astronomers and
physicists that all he tells is in absolute accordance with what was already known of the moon's condition. Had
earthly astronomers had the courage and imagination to push home a bold induction, says Mr. Wendigee, they might
have foretold almost everything that Cavor has to say of the general structure of the moon. They know now pretty
certainly that moon and earth are not so much satellite and primary as smaller and greater sisters, made out of one
mass, and consequently made of the same material. And since the density of the moon is only three-fifths that of the
earth, there can be nothing for it but that she is hollowed out by a great system of caverns. There was no necessity,
said Sir Jabez Flap, F.R.S., that most entertaining exponent of the facetious side of the stars, that we should ever
have gone to the moon to find out such easy inferences, and points the pun with an allusion to Gruyere, but he
certainly might have announced his knowledge of the hollowness of the moon before. And if the moon is hollow,
then the apparent absence of air and water is, of course, quite easily explained. The sea lies within at the bottom of
the caverns, and the air travels through the great sponge of galleries, in accordance with simple physical laws. The
caverns of the moon, on the whole, are very windy places. As the sunlight comes round the moon the air in the outer
galleries on that side is heated, its pressure increases, some flows out on the exterior and mingles with the evaporating air of the craters (where the plants remove its carbonic acid), while the greater portion flows round through the galleries to replace the shrinking air of the cooling side that the sunlight has left. There is, therefore, a constant eastward breeze in the air of the outer galleries, and an upflow during the lunar day up the shafts, complicated, of course, very greatly by the varying shape of the galleries, and the ingenious contrivances of the Selenite mind....

Chapter 24

The Natural History of the Selenites

The messages of Cavor from the sixth up to the sixteenth are for the most part so much broken, and they abound so in repetitions, that they scarcely form a consecutive narrative. They will be given in full, of course, in the scientific report, but here it will be far more convenient to continue simply to abstract and quote as in the former chapter. We have subjected every word to a keen critical scrutiny, and my own brief memories and impressions of lunar things have been of inestimable help in interpreting what would otherwise have been impenetrably dark. And, naturally, as living beings, our interest centres far more upon the strange community of lunar insects in which he was living, it would seem, as an honoured guest than upon the mere physical condition of their world.

I have already made it clear, I think, that the Selenites I saw resembled man in maintaining the erect attitude, and in having four limbs, and I have compared the general appearance of their heads and the jointing of their limbs to that of insects. I have mentioned, too, the peculiar consequence of the smaller gravitation of the moon on their fragile slightness. Cavor confirms me upon all these points. He calls them "animals," though of course they fall under no division of the classification of earthly creatures, and he points out "the insect type of anatomy had, fortunately for men, never exceeded a relatively very small size on earth." The largest terrestrial insects, living or extinct, do not, as a matter of fact, measure six inches in length; "but here, against the lesser gravitation of the moon, a creature certainly as much an insect as vertebrate seems to have been able to attain to human and ultra-human dimensions."

He does not mention the ant, but throughout his allusions the ant is continually being brought before my mind, in its sleepless activity, in its intelligence and social organisation, in its structure, and more particularly in the fact that it displays, in addition to the two forms, the male and the female form, that almost all other animals possess, a number of other sexless creatures, workers, soldiers, and the like, differing from one another in structure, character, power, and use, and yet all members of the same species. For these Selenites, also, have a great variety of forms. Of course, they are not only colossally greater in size than ants, but also, in Cavor's opinion at least, in intelligence, morality, and social wisdom they are colossally greater than men. And instead of the four or five different forms of ant that are found, there are almost innumerable different forms of Selenite. I had endeavoured to indicate the very considerable difference observable in such Selenites of the outer crust as I happened to encounter; the differences in size and proportions were certainly as wide as the differences between the most widely separated races of men. But such differences as I saw fade absolutely to nothing in comparison with the huge distinctions of which Cavor tells. It would seem the exterior Selenites I saw were, indeed, mostly engaged in kindred occupations--mooncalf herds, butchers, fleshers, and the like. But within the moon, practically unsuspected by me, there are, it seems, a number of other sorts of Selenite, differing in size, differing in the relative size of part to part, differing in power and appearance, and yet not different species of creatures, but only different forms of one species, and retaining through all their variations a certain common likeness that marks their specific unity. The moon is, indeed, a sort of vast ant-hill, only, instead of there being only four or five sorts of ant, there are many hundred different sorts of Selenite, and almost every gradation between one sort and another.

It would seem the discovery came upon Cavor very speedily. I infer rather than learn from his narrative that he was captured by the mooncalf herds under the direction of these other Selenites who "have larger brain cases (heads?) and very much shorter legs." Finding he would not walk even under the goad, they carried him into darkness, crossed a narrow, plank-like bridge that may have been the identical bridge I had refused, and put him down in something that must have seemed at first to be some sort of lift. This was the balloon--it had certainly been absolutely invisible to us in the darkness--and what had seemed to me a mere plank-walking into the void was really, no doubt, the passage of the gangway. In this he descended towards constantly more luminous caverns of the moon. At first they descended in silence--save for the twitterings of the Selenites--and then into a stir of windy
movement. In a little while the profound blackness had made his eyes so sensitive that he began to see more and more of the things about him, and at last the vague took shape.

"Conceive an enormous cylindrical space," says Cavor, in his seventh message, "a quarter of a mile across, perhaps; very dimly lit at first and then brighter, with big platforms twisting down its sides in a spiral that vanishes at last below in a blue profundity; and lit even more brightly--one could not tell how or why. Think of the well of the very largest spiral staircase or lift-shaft that you have ever looked down, and magnify that by a hundred. Imagine it at twilight seen through blue glass. Imagine yourself looking down that; only imagine also that you feel extraordinarily light, and have got rid of any giddy feeling you might have on earth, and you will have the first conditions of my impression. Round this enormous shaft imagine a broad gallery running in a much steeper spiral than would be credible on earth, and forming a steep road protected from the gulf only by a little parapet that vanishes at last in perspective a couple of miles below.

"Looking up, I saw the very fellow of the downward vision; it had, of course, the effect of looking into a very steep cone. A wind was blowing down the shaft, and far above I fancy I heard, growing fainter and fainter, the bellowing of the mooncalves that were being driven down again from their evening pasturage on the exterior. And up and down the spiral galleries were scattered numerous moon people, pallid, faintly luminous beings, regarding our appearance or busied on unknown errands.

"Either I fancied it or a flake of snow came drifting down on the icy breeze. And then, falling like a snowflake, a little figure, a little man-insect, clinging to a parachute, drove down very swiftly towards the central places of the moon.

"The big-headed Selenite sitting beside me, seeing me move my head with the gesture of one who saw, pointed with his trunk-like 'hand' and indicated a sort of jetty coming into sight very far below: a little landing-stage, as it were, hanging into the void. As it swept up towards us our pace diminished very rapidly, and in a few moments, as it seemed, we were abreast of it, and at rest. A mooring-rope was flung and grasped, and I found myself pulled down to a level with a great crowd of Selenites, who jostled to see me.

"It was an incredible crowd. Suddenly and violently there was forced upon my attention the vast amount of difference there is amongst these beings of the moon.

"Indeed, there seemed not two alike in all that jostling multitude. They differed in shape, they differed in size, they rang all the horrible changes on the theme of Selenite form! Some bulged and overhung, some ran about among the feet of their fellows. All of them had a grotesque and disquieting suggestion of an insect that has somehow contrived to mock humanity; but all seemed to present an incredible exaggeration of some particular feature: one had a vast right fore-limb, an enormous antennal arm, as it were; one seemed all leg, poised, as it were, on stilts; another protruded the edge of his face mask into a nose-like organ that made him startlingly human until one saw his expressionless gaping mouth. The strange and (except for the want of mandibles and palps) most insect-like head of the mooncalf-minders underwent, indeed, the most incredible transformations: here it was broad and low, here high and narrow; here its leathery brow was drawn out into horns and strange features; here it was whiskered and divided, and there with a grotesquely human profile. One distortion was particularly conspicuous. There were several brain cases distended like bladders to a huge size, with the face mask reduced to quite small proportions. There were several amazing forms, with heads reduced to microscopic proportions and blobby bodies; and fantastic, flimsy things that existed, it would seem, only as a basis for vast, trumpet-like protrusions of the lower part of the mask. And oddest of all, as it seemed to me for the moment, two or three of these weird inhabitants of a subterranean world, a world sheltered by innumerable miles of rock from sun or rain, _carried umbrellas_ in their tentaculate hands--real terrestrial looking umbrellas! And then I thought of the parachutist I had watched descend.

"These moon people behaved exactly as a human crowd might have done in similar circumstances: they jostled and thrust one another, they shoved one another aside, they even clambered upon one another to get a glimpse of me. Every moment they increased in numbers, and pressed more urgently upon the discs of my ushers"--Cavor does not explain what he means by this--"every moment fresh shapes emerged from the shadows and forced themselves upon my astounded attention. And presently I was signed and helped into a sort of litter, and lifted up on the shoulders of strong-armed bearers, and so borne through the twilight over this seething multitude towards the apartments that were provided for me in the moon. All about me were eyes, faces, masks, a leathery noise like the rustling of beetle wings, and a great bleating and cricket-like twittering of Selenite voices."

We gather he was taken to a "hexagonal apartment," and there for a space he was confined. Afterwards he was given a much more considerable liberty; indeed, almost as much freedom as one has in a civilised town on earth. And it would appear that the mysterious being who is the ruler and master of the moon appointed two Selenites "with large heads" to guard and study him, and to establish whatever mental communications were possible with him. And, amazing and incredible as it may seem, these two creatures, these fantastic men insects, these beings of other world, were presently communicating with Cavor by means of terrestrial speech.
Cavor speaks of them as Phi-oo and Tsi-puff. Phi-oo, he says, was about 5 feet high; he had small slender legs about 18 inches long, and slight feet of the common lunar pattern. On these balanced a little body, throbbing with the pulsations of his heart. He had long, soft, many-jointed arms ending in a tentacled grip, and his neck was many-jointed in the usual way, but exceptionally short and thick. His head, says Cavor—apparently alluding to some previous description that has gone astray in space—"is of the common lunar type, but strangely modified. The mouth has the usual expressionless gape, but it is unusually small and pointing downward, and the mask is reduced to the size of a large flat nose-flap. On either side are the little eyes.

"The rest of the head is distended into a huge globe and the chitinous leathery cuticle of the mooncalf herds thins out to a mere membrane, through which the pulsating brain movements are distinctly visible. He is a creature, indeed, with a tremendously hypertrophied brain, and with the rest of his organism both relatively and absolutely dwarfed."

In another passage Cavor compares the back view of him to Atlas supporting the world. Tsi-puff it seems was a very similar insect, but his "face" was drawn out to a considerable length, and the brain hypertrophy being in different regions, his head was not round but pear-shaped, with the stalk downward. There were also litter-carriers, lopsided beings, with enormous shoulders, very spidery ushers, and a squat foot attendant in Cavor's retinue.

The manner in which Phi-oo and Tsi-puff attacked the problem of speech was fairly obvious. They came into this "hexagonal cell" in which Cavor was confined, and began imitating every sound he made, beginning with a cough. He seems to have grasped their intention with great quickness, and to have begun repeating words to them and pointing to indicate the application. The procedure was probably always the same. Phi-oo would attend to Cavor for a space, then point also and say the word he had heard.

The first word he mastered was "man," and the second "Mooney"—which Cavor on the spur of the moment seems to have used instead of "Selenite" for the moon race. As soon as Phi-oo was assured of the meaning of a word he repeated it to Tsi-puff, who remembered it infallibly. They mastered over one hundred English nouns at their first session.

Subsequently it seems they brought an artist with them to assist the work of explanation with sketches and diagrams—Cavor's drawings being rather crude. "He was," says Cavor, "a being with an active arm and an arresting eye," and he seemed to draw with incredible swiftness.

The eleventh message is undoubtedly only a fragment of a longer communication. After some broken sentences, the record of which is unintelligible, it goes on:

"But it will interest only linguists, and delay me too long, to give the details of the series of intent parleys of which these were the beginning, and, indeed, I very much doubt if I could give in anything like the proper order all the twistings and turnings that we made in our pursuit of mutual comprehension. Verbs were soon plain sailing—at least, such active verbs as I could express by drawings; some adjectives were easy, but when it came to abstract nouns, to prepositions, and the sort of hackneyed figures of speech, by means of which so much is expressed on earth, it was like diving in cork-jackets. Indeed, these difficulties were insurmountable until to the sixth lesson came a fourth assistant, a being with a huge football-shaped head, whose forte was clearly the pursuit of intricate analogy. He entered in a preoccupied manner, stumbling against a stool, and the difficulties that arose had to be presented to him with a certain amount of clamour and hitting and pricking before they reached his apprehension. But once he was involved his penetration was amazing. Whenever there came a need of thinking beyond Phi-oo's by no means limited scope, this prolate-headed person was in request, but he invariably told the conclusion to Tsi-puff, in order that it might be remembered; Tsi-puff was ever the arsenal for facts. And so we advanced again.

"It seemed long and yet brief—a matter of days—before I was positively talking with these insects of the moon. Of course, at first it was an intercourse infinitely tedious and exasperating, but imperceptibly it has grown to comprehension. And my patience has grown to meet its limitations, Phi-oo it is who does all the talking. He does it with a vast amount of meditative provisional 'M'm--M'm' and has caught up one or two phrases, 'If I may say,' 'If you understand,' and beads all his speech with them.

"Thus he would discourse. Imagine him explaining his artist.

"M'm--M'm--he—if I may say--draw. Eat little--drink little--draw. Love draw. No other thing. Hate all who not draw like him. Angry. Hate all who draw like him better. Hate most people. Hate all who not think all world for to draw. Angry. M'm. All things mean nothing to him—only draw. He like you ... if you understand.... New thing to draw. Ugly--striking. Eh?

"He--turning to Tsi-puff--'love remember words. Remember wonderful more than any. Think no, draw no--remember. Say'—here he referred to his gifted assistant for a word—'histories—all things. He hear once—say ever."

"It is more wonderful to me than I dreamt that anything ever could be again, to hear, in this perpetual obscurity, these extraordinary creatures—even for familiar sense fails to weaken the inhuman effect of their appearance—continually piping a nearer approach to coherent earthly speech—asking questions, giving answers. I feel that I am
casting back to the fable-hearing period of childhood again, when the ant and the grasshopper talked together and the bee judged between them...."

And while these linguistic exercises were going on Cavor seems to have experienced a considerable relaxation of his confinement. "The first dread and distrust our unfortunate conflict aroused is being," he said, "continually effaced by the deliberate rationality of all I do.... I am now able to come and go as I please, or I am restricted only for my own good. So it is I have been able to get at this apparatus, and, assisted by a happy find among the material that is littered in this enormous store-cave, I have contrived to despatch these messages. So far not the slightest attempt has been made to interfere with me in this, though I have made it quite clear to Phi-oo that I am signalling to the earth.

"'You talk to other?' he asked, watching me.

"'Others,' said I.

"'Others,' he said. 'Oh yes, Men?'

"And I went on transmitting."

Cavor was continually making corrections in his previous accounts of the Selenites as fresh facts flowed upon him to modify his conclusions, and accordingly one gives the quotations that follow with a certain amount of reservation. They are quoted from the ninth, thirteenth, and sixteenth messages, and, altogether vague and fragmentary as they are, they probably give as complete a picture of the social life of this strange community as mankind can now hope to have for many generations.

"In the moon," says Cavor, "every citizen knows his place. He is born to that place, and the elaborate discipline of training and education and surgery he undergoes fits him at last so completely to it that he has neither ideas nor organs for any purpose beyond it. 'Why should he?' Phi-oo would ask. If, for example, a Selenite is destined to be a mathematician, his teachers and trainers set out at once to that end. They check any incipient disposition to other pursuits, they encourage his mathematical bias with a perfect psychological skill. His brain grows, or at least the mathematical faculties of his brain grow, and the rest of him only so much as is necessary to sustain this essential part of him. At last, save for rest and food, his one delight lies in the exercise and display of his faculty, his one interest in its application, his sole society with other specialists in his own line. His brain grows continually larger, at least so far as the portions engaging in mathematics are concerned; they bulge ever larger and seem to suck all life and vigour from the rest of his frame. His limbs shrivel, his heart and digestive organs diminish, his insect face is hidden under its bulging contours. His voice becomes a mere stridulation for the stating of formula; he seems deaf to all but properly enunciated problems. The faculty of laughter, save for the sudden discovery of some paradox, is lost to him; his deepest emotion is the evolution of a novel computation. And so he attains his end.

"Or, again, a Selenite appointed to be a minder of mooncalfes is from his earliest years induced to think and live mooncalf, to find his pleasure in mooncalf lore, his exercise in their tending and pursuit. He is trained to become wiry and active, his eye is indurated to the tight wrappings, the angular contours that constitute a 'smart mooncalfishness.' He takes at last no interest in the deeper part of the moon; he regards all Selenites not equally versed in mooncalfes with indifference, derision, or hostility. His thoughts are of mooncalf pastures, and his dialect an accomplished mooncalf technique. So also he loves his work, and discharges in perfect happiness the duty that justifies his being. And so it is with all sorts and conditions of Selenites—each is a perfect unit in a world machine...."

"These beings with big heads, on whom the intellectual labours fall, form a sort of aristocracy in this strange society, and at the head of them, quintessential of the moon, is that marvellous gigantic ganglion the Grand Lunar, into whose presence I am finally to come. The unlimited development of the minds of the intellectual class is rendered possible by the absence of any bony skull in the lunar anatomy, that strange box of bone that clamps about the developing brain of man, imperiously insisting 'thus far and no farther' to all his possibilities. They fall into three main classes differing greatly in influence and respect. There are administrators, of whom Phi-oo is one, Selenites of considerable initiative and versatility, responsible each for a certain cubic content of the moon's bulk; the experts like the football-headed thinker, who are trained to perform certain special operations; and the erudite, who are the repositories of all knowledge. To the latter class belongs Tsi-puff, the first lunar professor of terrestrial languages. With regard to these latter, it is a curious little thing to note that the unlimited growth of the lunar brain has rendered unnecessary the invention of all those mechanical aids to brain work which have distinguished the career of man. There are no books, no records of any sort, no libraries or inscriptions. All knowledge is stored in distended brains much as the honey-ants of Texas store honey in their distended abdomens. The lunar Somerset House and the lunar British Museum Library are collections of living brains...

"The less specialised administrators, I note, do for the most part take a very lively interest in me whenever they encounter me. They will come out of the way and stare at me and ask questions to which Phi-oo will reply. I see them going hither and thither with a retinue of bearers, attendants, shouters, parachute-carriers, and so forth—queer groups to see. The experts for the most part ignore me completely, even as they ignore each other, or notice me—"
to begin a clamorous exhibition of their distinctive skill. The erudite for the most part are rapt in an impervious and apoplectic complacency, from which only a denial of their erudition can rouse them. Usually they are led about by little watchers and attendants, and often there are small and active-looking creatures, small females usually, that I am inclined to think are a sort of wife to them; but some of the profounder scholars are altogether too great for locomotion, and are carried from place to place in a sort of sedan tub, wobbling jellies of knowledge that enlist my respectful astonishment. I have just passed one in coming to this place where I am permitted to amuse myself with these electrical toys, a vast, shaven, shaky head, bald and thin-skinned, carried on his grotesque stretcher. In front and behind came his bearers, and curious, almost trumpet-faced, news disseminators shrieked his fame.

"I have already mentioned the retinues that accompany most of the intellectuals: ushers, bearers, valets, extraneous tentacles and muscles, as it were, to replace the abortive physical powers of these hypertrophied minds. Porters almost invariably accompany them. There are also extremely swift messengers with spider-like legs and 'hands' for grasping parachutes, and attendants with vocal organs that could well nigh wake the dead. Apart from their controlling intelligence these subordinates are as inert and helpless as umbrellas in a stand. They exist only in relation to the orders they have to obey, the duties they have to perform.

"The bulk of these insects, however, who go to and fro upon the spiral ways, who fill the ascending balloons and drop past me clinging to flimsy parachutes are, I gather, of the operative class. 'Machine hands,' indeed, some of these are in actual nature—it is not figure of speech, the single tentacle of the mooncalf herd is profoundly modified for clawing, lifting, guiding, the rest of them no more than necessary subordinate appendages to these important mechanisms, have enormously developed auditory organs; some whose work lies in delicate chemical operations project a vast olfactory organ; others again have flat feet for treads with anchylosed joints; and others—who I have been told are glassflowers—seem mere lung-bellows. But every one of these common Selenites I have seen at work is exquisitely adapted to the social need it meets. Fine work is done by fined-down workers, amazingly dwarfed and neat. Some I could hold on the palm of my hand. There is even a sort of turnspit Selenite, very common, whose duty and only delight it is to apply the motive power for various small appliances. And to rule over these things and order any erring tendency there might be in some aberrant natures are the most muscular beings I have seen in the moon, a sort of lunar police, who must have been trained from their earliest years to give a perfect respect and obedience to the swollen heads.

"The making of these various sorts of operative must be a very curious and interesting process. I am very much in the dark about it, but quite recently I came upon a number of young Selenites confined in jars from which only the fore-limbs protruded, who were being compressed to become machine-minders of a special sort. The extended 'hand' in this highly developed system of technical education is stimulated by irritants and nourished by injection, while the rest of the body is starved. Phi-oo, unless I misunderstood him, explained that in the earlier stages these queer little creatures are apt to display signs of suffering in their various cramped situations, but they easily become indurated to their lot; and he took me on to where a number of flexible-minded messengers were being drawn out and broken in. It is quite unreasonable, I know, but such glimpses of the educational methods of these beings affect me disagreeably. I hope, however, that may pass off, and I may be able to see more of this aspect of their wonderful social order. That wretched-looking hand-tentacle sticking out of its jar seemed to have a sort of limp appeal for lost possibilities; it haunts me still, although, of course it is really in the end a far more humane proceeding than our earthly method of leaving children to grow into human beings, and then making machines of them.

"Quite recently, too—I think it was on the eleventh or twelfth visit I made to this apparatus—I had a curious light upon the lives of these operatives. I was being guided through a short cut hither, instead of going down the spiral, and by the quays to the Central Sea. From the devious windings of a long, dark gallery, we emerged into a vast, low cavern, pervaded by an earthy smell, and as things go in this darkness, rather brightly lit. The light came from a tumultuous growth of livid fungoid shapes—some indeed singularly like our terrestrial mushrooms, but standing as high or higher than a man.

"'Mooneys eat these?' said I to Phi-oo.

"'Yes, food.'

"'Goodness me!' I cried; 'what's that?'

"My eye had just caught the figure of an exceptionally big and ungainly Selenite lying motionless among the stems, face downward. We stopped.

"'Dead?' I asked. (For as yet I have seen no dead the moon, and I have grown curious.)

"'No!' exclaimed Phi-oo. 'Him--worker--no work to do. Get little drink then--make sleep--till we him want. What good him wake, eh? No want him walking about.'

"'There's another!' cried I.

"And indeed all that huge extent of mushroom ground was, I found, peppered with these prostrate figures sleeping under an opiate until the moon had need of them. There were scores of them of all sorts, and we were able
to turn over some of them, and examine them more precisely than I had been able to previously. They breathed
noisily at my doing so, but did not wake. One, I remember very distinctly: he left a strong impression, I think,
because some trick the light and of his attitude was strongly suggestive a drawn-up human figure. His fore-limbs
were long, delicate tentacles--he was some kind of refined manipulator--and the pose of his slumber suggested a
submissive suffering. No doubt it was a mistake for me to interpret his expression in that way, but I did. And as Phi-
oo rolled him over into the darkness among the livid fleshiness again I felt a distinctly unpleasant sensation,
although as he rolled the insect in him was confessed.

"It simply illustrates the unthinking way in which one acquires habits of feeling. To drug the worker one does
not want and toss him aside is surely far better than to expel him from his factory to wander starving in the streets.
In every complicated social community there is necessarily a certain intermittency of employment for all specialised
labour, and in this way the trouble of an 'unemployed' problem is altogether anticipated. And yet, so unreasonable
are even scientifically trained minds, I still do not like the memory of those prostrate forms amidst those quiet,
luminous arcades of fleshy growth, and I avoid that short cut in spite of the inconveniences of the longer, more
noisy, and more crowded alternative.

"My alternative route takes me round by a huge, shadowy cavern, very crowded and clamorous, and here it is I
see peering out of the hexagonal openings of a sort of honeycomb wall, or parading a large open space behind, or
selecting the toys and amulets made to please them by the dainty-tentacled jewellers who work in kennels below, the
mothers of the moon world--the queen bees, as it were, of the hive. They are noble-looking beings, fantastically and
sometimes quite beautifully adorned, with a proud carriage, and, save for their mouths, almost microscopic heads.

"Of the condition of the moon sexes, marrying and giving in marriage, and of birth and so forth among the
Selenites, I have as yet been able to learn very little. With the steady progress of Phi-oo in English, however, my
ignorance will no doubt as steadily disappear. I am of opinion that, as with the ants and bees, there is a large
majority of the members in this community of the neuter sex. Of course on earth in our cities there are now many
who never live that life of parentage which is the natural life of man. Here, as with the ants, this thing has become a
normal condition of the race, and the whole of such elacement as is necessary falls upon this special and by no
means numerous class of matrons, the mothers of the moon-world, large and stately beings beautifully fitted to bear
the larval Selenite. Unless I misunderstand an explanation of Phi-oo's, they are absolutely incapable of cherishing
the young they bring into the moon; periods of foolish indulgence alternate with moods of aggressive violence, and
as soon as possible the little creatures, who are quite soft and flabby and pale coloured, are transferred to the charge
of celibate females, women 'workers' as it were, who in some cases possess brains of almost masculine dimensions."

Just at this point, unhappily, this message broke off. Fragmentary and tantalising as the matter constituting this
chapter is, it does nevertheless give a vague, broad impression of an altogether strange and wonderful world--a
world with which our own may have to reckon we know not how speedily. This intermittent trickle of messages, this
whispering of a record needle in the stillness of the mountain slopes, is the first warning of such a change in human
conditions as mankind has scarcely imagined heretofore. In that satellite of ours there are new elements, new
appliances, traditions, an overwhelming avalanche of new ideas, a strange race with whom we must inevitably
struggle for mastery--gold as common as iron or wood...

Chapter 25

The Grand Lunar

The penultimate message describes, with occasionally elaborate detail, the encounter between Cavor and the
Grand Lunar, who is the ruler or master of the moon. Cavor seems to have sent most of it without interference, but
to have been interrupted in the concluding portion. The second came after an interval of a week.

The first message begins: "At last I am able to resume this--" it then becomes illegible for a space, and after a
time resumed in mid-sentence.

The missing words of the following sentence are probably "the crowd." There follows quite clearly: "grew ever
denser as we drew near the palace of the Grand Lunar--if I may call a series of excavations a palace. Everywhere
faces stared at me--blank, chitinous gapes and masks, eyes peering over tremendous olfactory developments, eyes
beneath monstrous forehead plates; and undergrowth of smaller creatures dodged and yelped, and helmet faces
poised on sinuous, long-jointed necks appeared craning over shoulders and beneath armpits. Keeping a welcome
space about me marched a cordon of stolid, scuttle-headed guards, who had joined us on our leaving the boat in
which we had come along the channels of the Central Sea. The quick-eyed artist with the little brain joined us also, and a thick bunch of lean porter-insects swayed and struggled under the multitude of conveniences that were considered essential to my state. I was carried in a litter during the final stage of our journey. This litter was made of some very ductile metal that looked dark to me, meshed and woven, and with bars of paler metal, and about me as I advanced there grouped itself a long and complicated procession.

"In front, after the manner of heralds, marched four trumpet-faced creatures making a devastating bray; and then came squat, resolute-moving ushers before and behind, and on either hand a galaxy of learned heads, a sort of animated encyclopedia, who were, Phi-oo explained, to stand about the Grand Lunar for purposes of reference. (Not a thing in lunar science, not a point of view or method of thinking, that these wonderful beings did not carry in their heads!) Followed guards and porters, and then Phi-oo's shivering brain borne also on a litter. Then came Tsi-puff in a slightly less important litter; then myself on a litter of greater elegance than any other, and surrounded by my food and drink attendants. More trumpeters came next, splitting the ear with vehement outcries, and then several big brains, special correspondents one might well call them, or historiographers, charged with the task of observing and remembering every detail of this epoch-making interview. A company of attendants, bearing and dragging banners and masses of scented fungus and curious symbols, vanished in the darkness behind. The way was lined by ushers and officers in caparisons that gleamed like steel, and beyond their line, so far as my eyes could pierce the gloom, the heads of that enormous crowd extended.

"I will own that I am still by no means indurated to the peculiar effect of the Selenite appearance, and to find myself, as it were, adrift on this broad sea of excited entomology was by no means agreeable. Just for a space I had something very like what I should imagine people mean when they speak of the 'horrors.' It had come to me before in these lunar caverns, when on occasion I have found myself weaponless and with an undefended back, amidst a crowd of these Selenites, but never quite so vividly. It is, of course, as absolutely irrational a feeling as one could well have, and I hope gradually to subdue it. But just for a moment, as I swept forward into the welter of the vast crowd, it was only by gripping my litter tightly and summoning all my will-power that I succeeded in avoiding an outcry or some such manifestation. It lasted perhaps three minutes; then I had myself in hand again.

"We ascended the spiral of a vertical way for some time, and then passed through a series of huge halls domed-roofed and elaborately decorated. The approach to the Grand Lunar was certainly contrived to give one a vivid impression of his greatness. Each cavern one entered seemed greater and more boldly arched than its predecessor. This effect of progressive size was enhanced by a thin haze of faintly phosphorescent blue incense that thickened as one advanced, and robbed even the nearer figures of clearness. I seemed to advance continually to something larger, dimmer, and less material.

"I must confess that all this multitude made me feel extremely shabby and unworthy. I was unshaven and unkempt; I had brought no razor; I had a coarse beard over my mouth. On earth I have always been inclined to despise any attention to my person beyond a proper care for cleanliness; but under the exceptional circumstances in which I found myself, representing, as I did, my planet and my kind, and depending very largely upon the attractiveness of my appearance for a proper reception, I could have given much for something a little more artistic and dignified than the husks I wore. I had been so serene in the belief that the moon was uninhabited as to overlook such precautions altogether. As it was I was dressed in a flannel jacket, knickerbockers, and golfing stockings, stained with every sort of dirt the moon offered, slippers (of which the left heel was wanting), and a blanket, through which we had come along the channels of the Central Sea. The quick-eyed artist with the little brain joined us also, and a thick bunch of lean porter-insects swayed and struggled under the multitude of conveniences that were considered essential to my state. I was carried in a litter during the final stage of our journey. This litter was made of some very ductile metal that looked dark to me, meshed and woven, and with bars of paler metal, and about me as I advanced there grouped itself a long and complicated procession.

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overshadowed and standing in a huge semicircle beneath him were his intellectual subordinates, his remembrancers and computators and searchers and servants, and all the distinguished insects of the court of the moon. Still lower stood ushers and messengers, and then all down the countless steps of the throne were guards, and at the base, enormous, various, indistinct, vanishing at last into an absolute black, a vast swaying multitude of the minor dignitaries of the moon. Their feet made a perpetual scraping whisper on the rocky floor, as their limbs moved with a rustling murmur.

"As I entered the penultimate hall the music rose and expanded into an imperial magnificence of sound, and the shrieks of the news-bearers died away...."

"I entered the last and greatest hall...."  
"My procession opened out like a fan. My ushers and guards went right and left, and the three litters bearing myself and Phi-oo and Tsi-puff marched across a shiny darkness of floor to the foot of the giant stairs. Then began a vast throbbing hum, that mingled with the music. The two Selenites disembarked, but I was bidden remain seated—I imagine as a special honour. The music ceased, but not that humming, and by a simultaneous movement of ten thousand respectful heads my attention was directed to the enshrouded supreme intelligence that hovered above me.

"At first as I peered into the radiating glow this quintessential brain looked very much like an opaque, featureless bladder with dim, undulating ghosts of convolutions writhing visibly within. Then beneath its enormity and just above the edge of the throne one saw with a start minute elfin eyes peering out of the glow. No face, but eyes, as if they peered through holes. At first I could see no more than these two staring little eyes, and then below I distinguished the little dwarfed body and its insect-jointed limbs shrivelled and white. The eyes stared down at me with a strange intensity, and the lower part of the swollen globe was wrinkled. Ineffectual-looking little hand-tentacles steadied this shape on the throne...."

"It was great. It was pitiful. One forgot the hall and the crowd.

"I ascended the staircase by jerks. It seemed to me that this darkly glowing brain case above us spread over me, and took more and more of the whole effect into itself as I drew nearer. The tiers of attendants and helpers grouped about their master seemed to dwindle and fade into the night. I saw that shadowy attendants were busy spraying that great brain with a cooling spray, and patting and sustaining it. For my own part, I sat gripping my swaying litter and staring at the Grand Lunar, unable to turn my gaze aside. And at last, as I reached a little landing that was separated only by ten steps or so from the supreme seat, the woven splendour of the music reached a climax and ceased, and I was left naked, as it were, in that vastness, beneath the still scrutiny of the Grand Lunar's eyes.

"He was scrutinising the first man he had ever seen...."

"My eyes dropped at last from his greatness to the ant figures in the blue mist about him, and then down the steps to the massed Selenites, still and expectant in their thousands, packed on the floor below. Once again an unreasonable horror reached out towards me.... And passed.

"After the pause came the salutation. I was assisted from my litter, and stood awkwardly while a number of curious and no doubt deeply symbolical gestures were vicariously performed for me by two slender officials. The encyclopaedic galaxy of the learned that had accompanied me to the entrance of the last hall appeared two steps above me and left and right of me, in readiness for the Grand Lunar's need, and Phi-oo's pale brain placed itself about half-way up to the throne in such a position as to communicate easily between us without turning his back on either the Grand Lunar or myself. Tsi-puff took up position behind him. Dexterous ushers sidled sideways towards me, keeping a full face to the Presence. I seated myself Turkish fashion, and Phi-oo and Tsi-puff also knelt down above me. There came a pause. The eyes of the nearer court went from me to the Grand Lunar and came back to me, and a hissing and piping of expectation passed across the hidden multitudes below and ceased.

"That humming ceased.

"For the first and last time in my experience the moon was silent.

"I became aware of a faint wheezy noise. The Grand Lunar was addressing me. It was like the rubbing of a finger upon a pane of glass.

"I watched him attentively for a time, and then glanced at the alert Phi-oo. I felt amidst these slender beings ridiculously thick and fleshy and solid; my head all jaw and black hair. My eyes went back to the Grand Lunar. He had ceased; his attendants were busy, and his shining superfluities was glistening and running with cooling spray.

"Phi-oo meditated through an interval. He consulted Tsi-puff. Then he began piping his recognisable English—at first a little nervously, so that he was not very clear.

"'M'm--the Grand Lunar--wished to say--wishes to say--he gathers you are--m'm--men--that you are a man from the planet earth. He wishes to say that he welcomes you--welcomes you--and wishes to learn--learn, if I may use the word--the state of your world, and the reason why you came to this.'

"He paused. I was about to reply when he resumed. He proceeded to remarks of which the drift was not very clear, though I am inclined to think they were intended to be complimentary. He told me that the earth was to the
moon what the sun is to the earth, and that the Selenites desired very greatly to learn about the earth and men. He then told me no doubt in compliment also, the relative magnitude and diameter of earth and moon, and the perpetual wonder and speculation with which the Selenites had regarded our planet. I meditated with downcast eyes, and decided to reply that men too had wondered what might lie in the moon, and had judged it dead, little recking of such magnificence as I had seen that day. The Grand Lunar, in token of recognition, caused his long blue rays to rotate in a very confusing manner, and all about the great hall ran the pipings and whisperings and rustlings of the report of what I had said. He then proceeded to put to Phi-oo a number of inquiries which were easier to answer.

"He understood, he explained, that we lived on the surface of the earth, that our air and sea were outside the globe; the latter part, indeed, he already knew from his astronomical specialists. He was very anxious to have more detailed information of what he called this extraordinary state of affairs, for from the solidity of the earth there had always been a disposition regard it as uninhabitable. He endeavoured first to ascertain the extremes of temperature to which we earth beings were exposed, and he was deeply interested by my descriptive treatment of clouds and rain. His imagination was assisted by the fact that the lunar atmosphere in the outer galleries of the night side is not infrequently very foggy. He seemed inclined to marvel that we did not find the sunlight too intense for our eyes, and was interested in my attempt to explain that the sky was tempered to a bluish colour through the refraction of the air, though I doubt if he clearly understood that. I explained how the iris of the human eyes can contract the pupil and save the delicate internal structure from the excess of sunlight, and was allowed to approach within a few feet of the Presence in order that this structure might be seen. This led to a comparison of the lunar and terrestrial eyes. The former is not only excessively sensitive to such light as men can see, but it can also _see_ heat, and every difference in temperature within the moon renders objects visible to it.

"The iris was quite a new organ to the Grand Lunar. For a time he amused himself by flashing his rays into my face and watching my pupils contract. As a consequence, I was dazzled and blinded for some little time...." But in spite of that discomfort I found something reassuring by insensible degrees in the rationality of this business of question and answer. I could shut my eyes, think of my answer, and almost forget that the the Grand Lunar has no face...."

"When I had descended again to my proper place the Grand Lunar asked how we sheltered ourselves from heat and storms, and I expounded to him the arts of building and furnishing. Here we wandered into misunderstandings and cross-purposes, due largely, I must admit, to the looseness of my expressions. For a long time I had great difficulty in making him understand the nature of a house. To him and his attendant Selenites it seemed, no doubt, the most whimsical thing in the world that men should build houses when they might descend into excavations, and an additional complication was introduced by the attempt I made to explain that men had originally begun their homes in caves, and that they were now taking their railways and many establishments beneath the surface. Here I think a desire for intellectual completeness betrayed me. There was also a considerable tangle due to an equally unwise attempt on my part to explain about mines. Dismissing this topic at last in an incomplete state, the Grand Lunar inquired what we did with the interior of our globe.

"A tide of twittering and piping swept into the remotest corners of that great assembly then it was last made clear that we men know absolutely nothing of the contents of the world upon which the immemorial generations of our ancestors had been evolved. Three times had I to repeat that of all the 4000 miles of distance between the earth and its centre men knew only to the depth of a mile, and that very vaguely. I understood the Grand Lunar to ask why had I come to the moon seeing we had scarcely touched our own planet yet, but he did not trouble me at that time to proceed to an explanation, being too anxious to pursue the details of this mad inversion of all his ideas.

"He reverted to the question of weather, and I tried to describe the perpetually changing sky, and snow, and frost and hurricanes. 'But when the night comes,' he asked, 'is it not cold?'

"'I told him it was colder than by day.

"'And does not your atmosphere freeze?'

"'I told him not; that it was never cold enough for that, because our nights were so short.

"'Not even liquify?'

"'I was about to say 'No,' but then it occurred to me that one part at least of our atmosphere, the water vapour of it, does sometimes liquify and form dew, and sometimes freeze and form frost--a process perfectly analogous to the freezing of all the external atmosphere of the moon during its longer night. I made myself clear on this point, and from that the Grand Lunar went on to speak with me of sleep. For the need of sleep that comes so regularly every twenty-four hours to all things is part also of our earthly inheritance. On the moon they rest only at rare intervals, and after exceptional exertions. Then I tried to describe to him the soft splendours of a summer night, and from that I passed to a description of those animals that prowl by night and sleep by day. I told him of lions and tigers, and here it seemed as though we had come to a deadlock. For, save in their waters, there are no creatures in the moon not absolutely domestic and subject to his will, and so it has been for immemorial years. They have monstrous water..."
creatures, but no evil beasts, and the idea of anything strong and large existing 'outside' in the night is very difficult for them...."

"He talked with his attendants, as I suppose, upon the strange superficiality and unreasonableness of (man) who lives on the mere surface of a world, a creature of waves and winds, and all the chances of space, who cannot even unite to overcome the beasts that prey upon his kind, and yet who dares to invade another planet. During this aside I sat thinking, and then at his desire I told him of the different sorts of men. He searched me with questions. 'And for all sorts of work you have the same sort of men. But who thinks? Who governs?'

"I gave him an outline of the democratic method.

"When I had done he ordered cooling sprays upon his brow, and then requested me to repeat my explanation conceiving something had miscarried.

"Do they not do different things, then?' said Phi-oo.

"Some, I admitted, were thinkers and some officials; some hunted, some were mechanics, some artists, some toilers. 'But _all_ rule,' I said.

"And have they not different shapes to fit them to their different duties?"

"None that you can see,' I said, 'except perhaps, for clothes. Their minds perhaps differ a little,' I reflected.

"Their minds must differ a great deal,' said the Grand Lunar, 'or they would all want to do the same things.'

"In order to bring myself into a closer harmony with his preconceptions, I said that his surmise was right. 'It was all hidden in the brain,' I said; 'but the difference was there. Perhaps if one could see the minds and souls of men they would be as varied and unequal as the Selenites. There were great men and small men, men who could reach out far and wide, men who could go swiftly; noisy, trumpet-minded men, and men who could remember without thinking....'"

"He interrupted me to recall me to my previous statements. 'But you said all men rule?' he pressed.

"To a certain extent,' I said, and made, I fear, a denser fog with my explanation.

"He reached out to a salient fact. 'Do you mean,' asked, 'that there is no Grand Earthly?'

"I thought of several people, but assured him finally there was none. I explained that such autocrats and emperors as we had tried upon earth had usually ended in drink, or vice, or violence, and that the large and influential section of the people of the earth to which I belonged, the Anglo-Saxons, did not mean to try that sort of thing again. At which the Grand Lunar was even more amazed.

"But how do you keep even such wisdom as you have?' he asked; and I explained to him the way we helped with libraries of books. I explained to him how our science was growing by the united labours of innumerable little men, and on that he made no comment save that it was evident we had mastered much in spite of our social savagery, or we could not have come to the moon. Yet the contrast was very marked. With knowledge the Selenites grew and changed; mankind stored their knowledge about them and remained brutes--equipped. He said this...

"Our States and Empires are still the rawest sketches of what order will some day be,' I said, and so I came to tell him...."

"The record is here too broken to transcribe for the space of perhaps twenty words or more.

"The Grand Lunar was greatly impressed by the folly of men in clinging to the inconvenience of diverse tongues. They want to communicate, and yet not to communicate,' he said, and then for a long time he questioned me closely concerning war.

"He was at first perplexed and incredulous. 'You mean to say,' he asked, seeking confirmation, 'that you run about over the surface of your world--this world, whose riches you have scarcely begun to scrape--killing one another for beasts to eat?'

"I told him that was perfectly correct.
"He asked for particulars to assist his imagination.

"But do not ships and your poor little cities get injured?" he asked, and I found the waste of property and conveniences seemed to impress him almost as much as the killing. 'Tell me more,' said the Grand Lunar; 'make me see pictures. I cannot conceive these things.'

"And so, for a space, though something loath, I told him the story of earthly War.

'I told him of the first orders and ceremonies of war, of warnings and ultimatums, and the marshalling and marching of troops. I gave him an idea of manoeuvres and positions and battle joined. I told him of sieges and assaults, of starvation and hardship in trenches, and of sentinels freezing in the snow. I told him of routs and surprises, and desperate last stands and faint hopes, and the pitiless pursuit of fugitives and the dead upon the field. I told, too, of the past, of invasions and massacres, of the Huns and Tartars, and the wars of Mahomet and the Caliphs, and of the Crusades. And as I went on, and Phi-oo translated, and the Selenites cooed and murmured in a steadily intensified emotion.

"I told them an ironclad could fire a shot of a ton twelve miles, and go through 20 feet of iron--and how we could steer torpedoes under water. I went on to describe a Maxim gun in action, and what I could imagine of the Battle of Colenso. The Grand Lunar was so incredulous that he interrupted the translation of what I had said in order to have my verification of my account. They particularly doubted my description of the men cheering and rejoicing as they went into battle.

"But surely they do not like it!' translated Phi-oo.

"I assured them men of my race considered battle the most glorious experience of life, at which the whole assembly was stricken with amazement.

"But what good is this war? asked the Grand Lunar, sticking to his theme.

"'Oh! as for _good_!' said I; 'it thins the population!'

"'But why should there be a need--?'

There came a pause, the cooling sprays impinged upon his brow, and then he spoke again.

[At this point a series of undulations that have been apparently as a perplexing complication as far back as Cavor's description of the silence that fell before the first speaking of the Grand Lunar become confusingly predominant in the record. These undulations are evidently the result of radiations proceeding from a lunar source, and their persistent approximation to the alternating signals of Cavor is curiously suggestive of some operator deliberately seeking to mix them in with his message and render it illegible. At first they are small and regular, so that with a little care and the loss of very few words we have been able to disentangle Cavor's message; then they become broad and larger, then suddenly they are irregular, with an irregularity that gives the effect at last of some one scribbling through a line of writing. For a long time nothing can be made of this madly zigzagging trace; then quite abruptly the interruption ceases, leaves a few words clear, and then resumes and continues for the rest of the message, completely obliterating whatever Cavor was attempting to transmit. Why, if this is indeed a deliberate intervention, the Selenites should have preferred to let Cavor go on transmitting his message in happy ignorance of their obliteration of its record, when it was clearly quite in their power and much more easy and convenient for them to stop his proceedings at any time, is a problem to which I can contribute nothing. The thing seems to have happened so, and that is all I can say. This last rag of his description of the Grand Lunar begins in mid-sentence.]

"...interrogated me very closely upon my secret. I was able in a little while to get to an understanding with them, and at last to elucidate what has been a puzzle to me ever since I realised the vastness of their science, namely, how it is they themselves have never discovered 'Cavorite.' I find they know of it as a theoretical substance, but they have always regarded it as a practical impossibility, because for some reason there is no helium in the moon, and helium..."

[Across the last letters of helium slashes the resumption of that obliterating trace. Note that word "secret," for that, and that alone, I base my interpretation of the message that follows, the last message, as both Mr. Wendigee and myself now believe it to be, that he is ever likely to send us.]

Chapter 26

The Last Message Cavor sent to the Earth

On this unsatisfactory manner the penultimate message of Cavor dies out. One seems to see him away there in the blue obscurity amidst his apparatus intently signalling us to the last, all unaware of the curtain of confusion that
drops between us; all unaware, too, of the final dangers that even then must have been creeping upon him. His
disastrous want of vulgar common sense had utterly betrayed him. He had talked of war, he had talked of all the
strength and irrational violence of men, of their insatiable aggressions, their tireless futility of conflict. He had filled
the whole moon world with this impression of our race, and then I think it is plain that he made the most fatal
admission that upon himself alone hung the possibility—at least for a long time—of any further men reaching the
moon. The line the cold, inhuman reason of the moon would take seems plain enough to me, and a suspicion of it,
and then perhaps some sudden sharp realisation of it, must have come to him. One imagines him about the moon
with the remorse of this fatal indiscretion growing in his mind. During a certain time I am inclined to guess the
Grand Lunar was deliberating the new situation, and for all that time Cavor may have gone as free as ever he had
gone. But obstacles of some sort prevented his getting to his electromagnetic apparatus again after that message I
have just given. For some days we received nothing. Perhaps he was having fresh audiences, and trying to evade his
previous admissions. Who can hope to guess?

And then suddenly, like a cry in the night, like a cry that is followed by a stillness, came the last message. It is
the briefest fragment, the broken beginnings of two sentences.

The first was: "I was mad to let the Grand Lunar know—"

There was an interval of perhaps a minute. One imagines some interruption from without. A departure from the
instrument—a dreadful hesitation among the looming masses of apparatus in that dim, blue-lit cavern—a sudden rush
back to it, full of a resolve that came too late. Then, as if it were hastily transmitted came: "Cavorite made as
follows: take—"

There followed one word, a quite unmeaning word as it stands: "uless."

And that is all.

It may be he made a hasty attempt to spell "useless" when his fate was close upon him. Whatever it was that
was happening about that apparatus we cannot tell. Whatever it was we shall never, I know, receive another message
from the moon. For my own part a vivid dream has come to my help, and I see, almost as plainly as though I had
seen it in actual fact, a blue-lit shadowy dishevelled Cavor struggling in the grip of these insect Selenites, struggling
ever more desperately and hopelessly as they press upon him, shouting, expostulating, perhaps even at last fighting,
and being forced backwards step by step out of all speech or sign of his fellows, for evermore into the Unknown—
into the dark, into that silence that has no end....
COGITO, ERGO SUM
by John Foster West

A warped instant in Space--and two egos are separated from their bodies and lost in a lonely abyss.

I think, therefore I am. That was the first thought I had. Of course not in the same symbols, but with the same meaning.

I awakened, or came alive, or came into existence suddenly, at least my mental consciousness did. "Here am I," I thought, "but what am I, why am I, where am I?"

I had nothing to work with except pure reason. I was there because I was not somewhere else. I was certain I was there and that was the extent of my knowledge at the moment.

I looked about me--no, I reasoned about me. I was surrounded by nothingness, by black nothingness, a vacuum. Immense distances away I could detect light; or rather, I could perceive waves of force passing around me which originated at points vast distances away, vast in relation to my position in the nothingness.

There were waves of force all about me, varying in frequency. The nothingness was alive with waves of force, traveling parallel and tangential to each other without seeming to interfere one with another. I measured them, differentiated between them and finished with the task in a matter of seconds.

How could I do it? It was one of the capabilities I was created with.

What was I? I perceived the waves of force. I perceived great quantities of mass--solid, liquid, gas--whirling in vacuum, mass built up out of patterns of basic force. I searched my own being, analyzed myself. I was not gas. I was not solid. I was not even force. Yet I existed. I could reason. I was a beginning, a sudden beginning. And I had duration because I knew that time had elapsed since the moment I awakened though I had no means of telling how much time or of even naming the period.

* * * * *
Could I really be pure reason? Can reason exist? Can rational entity exist without a groundwork of matter, or at least of force?

It could. It must. I was rational entity and I existed. Yet I could find nothing of force, nothing to occupy space about my self. For all I could ascertain, I might have covered a one-dimensional point in eternity or I might have been spread throughout vast distances.

From this reasoning I concluded that rational entity might occur either as some force unlike that of all natural phenomena in space, or as some combination of these forces at the moment beyond my own power to analyze, even detect. I finished with that for the time being.

How did I come into being? I discarded the question as unanswerable temporarily. What was I before that instant I suddenly reasoned cogito, ergo sum? I could not say.

How did I know I even existed, really? Obviously because I was capable of rational thought. But what was thinking? First it was perceiving and accepting my own existence; beyond that, it was recognizing the dark nothingness around me and the forces it contained. I had to exist.

But how did I know nothingness was right? And how did I know its darkness was right? And how did I know the waves of force were waves and force? And how did I know matter was matter and that I was none of these?

"Symbols," I reasoned. "I'm thinking in symbols. I could not reason without symbols; therefore I could not exist as I am without symbols to think with."

Yet whose symbols were they? Where and how did I come by them? I could think back clearly to the instant of my creation, yet I had not invented the symbols in the interim of my existence, nor had they been given to me. What then? They were part of me when I came alive in this universe, had been invented some other time and elsewhere by someone else or by what I was before I became the entity of reason I now was.

Then that first flash of perception in nothingness was not spontaneous. There was something behind it. I was something before that moment, in another era of time, perhaps a creature of substance. But what?

I concentrated. I remembered the symbol Marl. I was or had been an entity Marl. Were there others back there, somewhere? There must have been, must be yet. Was I the only Marl who metamorphosed into this state of rational entity? Surely not. Yet I could contact no other rationale around me as far away as I could probe. How far was that? How could I know. Was it far enough to reach the other Marls, or were they scattered thinly throughout infinity around me like the flecks of mass?

I was suddenly ill. The symbol malaise came to me as the proper description of my malady. I grew dizzy with my sickness. I wished to regurgitate, to cast off this cold, frightening sensation. Yet I was provided with no physical
means of doing it. It filled me throughout all my thinking. It was I. I thought to exist. I thought depression, sickness. Therefore I was the malady and it was a hell of malcontent beyond symbolical description.

What was wrong with me? I was frightened. I was concerned for my existence here alone. What was it called? The idea shimmered there on the fringe of perception, then fairly leaped into my consciousness. Existing alone as pure reason was worse than no-existence, was worse than dying or never having been at all. I need another Marl. To exist happily, I must have at least one other Marl to communicate with, to share my thoughts, to share my being.

Is this a necessity, a condition peculiar to me as I am, as reason, or is it a condition that came across the barrier with me from that other state? It must be the latter. An entity of pure reason, having come into existence as reason, would need nothing but himself. Why? Because he would be without emotion.

"I am emotional," I thought. "I am entity of almost pure reason, but I have inherited emotion from my previous state. It is a disorder of thought, but it can be a pleasant disorder when the emotion is the right one; or, if unpleasant, when satisfied.

"But I could not have emotions as I am now. They are cortical responses, or are supposed to be. What is cortical? No, they are a sort of illogical reasoning, nothing physical--" The rest eluded me.

"I am lonely," I thought. "Loneliness stems from fear and fear is a basic emotion. I am very lonely. I have been lonely for a long time, bringing it with me here. I would rather sate my loneliness than live to eternity, than know all there is to know. What can quell my loneliness? Another like me, another Marl--whatever a Marl is. I must have, must find another Marl."

I began to search. I darted frantically about space like a frightened thing, though I could perceive no movement. I knew I passed from one area of space to another because I could measure slight changes in the position of the stars about me. I knew the points of light were stars.

There was duration. I could not know how much. Eternity? A split second? But at last I discovered another like me. No, almost like me, but another Marl. The other entity had less of reason, more emotion. It was frightened and lonely. The Marl's whole existence was that of sickness--of loneliness, which is fear. The Marl was darting about madly, seeking, seeking a thing like itself. What was it, like me but different?

As I came in, I measured our similarity and differences. Rationally we were identical, or almost so. Emotionally we were different, vastly different. "Marls appear to exist as rationale and emotion," I reasoned. "Beyond that I cannot go."

The other Marl perceived me, darted frantically toward me, then slowed. We came together, touched like--like two cautious fish meeting in a dark pool and touching mouths to substantiate identical species.

The other Marl was satisfied with my identity. It leaped frantically at me, raced around me, through me, finally stopped, pervading me, while vibrating in sheer relief and happiness. I felt the great fear-loneliness in the other Marl begin to recede and in its place came an almost overpowering euphoria. It was contentment, and it stemmed from the basic emotion love. I knew this at once.

I suddenly realized that I too was relieved, that I was no longer sick with fear-loneliness. It was good, this existing of the other within me or simultaneously with me. Or was it I within the other? It sated our fear emotion and made, created a love-euphoria.

"I am happy I found you," I communicated. "I was lonely for another Marl. You are a Marl?"

The other hesitated, thinking. "No. I am Pat. I am different from you. But it is chiefly emotional. It is good."

"You are a Pat," I returned in disappointment. "I had hoped to find another Marl."

"Don't be disappointed," the Pat soothed. "We are alike, really. Almost so. Like--like flame and gas are both substance yet different. We are two types of the same thing. I am no longer frightened. I am no longer lonely. You are good for me."

I was relieved because I wanted to be. I believed the other Marl--no, the Pat--because I wanted to believe. I did not bother to rationalize. I felt elation.

"Then in that other time, that other place we both belonged to a--a common group, with another name?" I suggested.

"I believe so," the Pat answered.

"How was it when you came awake?" I asked. "Can you remember?"

"I think so. I recall I was born here in fright because it was all wrong. I was not in my natural state, so it was not right." The Pat paused to think. "I remember there was great speed and I was born in fright. Were you?"

"No," I answered. "I was not frightened at first. And I was never frightened to the degree you were. I was mostly lonely, which is related to fear. But when I first conceived of my existence here I was coolly logical. I awakened reasoning--realizing that I existed."

"I suppose it has to do with our emotional differences," the Pat beside me or with me or within me communicated.
"Do you recall where in space you came from?" I asked. "I must have been doubting my existence at first so intensely I did not observe. You seem to have taken your own being for granted, thus you were, perhaps, more observant."

"I--I think so." The Pat hesitated and I knew it was observing the stars around us. "Yes. Come with me. I think I know where."

I stayed with the Pat, a part of it, and we lurched through space. Rather, we ceased to exist at one point in space and existed in another. How far? Distances meant nothing.

"It was here," the Pat informed me finally.

* * * * *

Something was wrong here. The interweaving waves of force were all wrong. There was a disorder, a great cancer in space. The waves interfered with the progress of each other along a great barrier. It was not natural, not like it was elsewhere.

"Something is wrong with the waves of force crossing this area. They interfere with each other. New forces are created. Do you detect it?" I communicated.

"I feel it," the Pat answered. "It is a sickness in space like--like our loneliness."

I knew the comparison was ridiculous but I let it pass. "You said you came alive at great speed. I could have been traveling too. We must have plunged into this barrier. It seems to me that emotions must originate in a physical being; perhaps reason could be free, but not emotion. I don't know. But I have a theory. I believe our physical selves still exist somewhere in space. The barrier, perhaps, interfered with the normal functioning of our mental equipment. We exist at one point in space and we are thinking, experiencing emotions at another point. It's as if our minds are--are broadcasting our thoughts and emotions far away from our physical selves. Either that, or our rationales were torn free and only our emotions are broadcast. Does that sound logical?"

"Yes," the Pat agreed, "I believe that is the answer."

I felt that the Pat was pleased with my theory, that it greatly admired my reasoning. I also perceived that it had no idea what I meant by the explanation. I did not mind.

"You said you were moving at great speed," I continued. "Can you remember the line, the direction you were traveling in?"

The Pat hesitated only a moment. "Yes. You perceive the star cluster there, the triangular one? My heading was in that direction, but it was changing fast."

"Then we could find nothing by traveling toward the triangular cluster?"

"No. I was moving in an arc in the direction of the distorted square cluster there. Do you see it?"

"Yes," I answered, knowing her use of the word see was unconscious. "That is Cetus."

"Cetus?" The Pat was startled. "How do you know that?"

"I don't know. The name came to me. It seemed right to call it that."

"It--it's all so frightening!"

I had no time for pampering our emotions, though I was at great peace with the Pat so near me. Time might prove vital. "Neither would it do any good to travel in the direction of Cetus," I said.

"No, No," the Pat communicated. "If there is any object of matter or force I was a part of in that other existence traveling through space, it is in an arc. The best we can do is take an arbitrary direction between the triangular cluster and the one called Cetus and hope to intercept the object, the other part of me, whatever it is."

"Come with me," I ordered.

I discovered the object of mass hurtling through space before the Pat did. It was symmetrical and metallic. I tore myself away from my companion and darted to meet it. I discovered it was a shell, a hollow thing, and I passed inside. There was a room there. There were projections and circles of transparent matter. I experienced the symbol dials.

There were two other creatures seated close to the dials, things of matter, and their substance was protoplasm. But there was no rationale present in either of them. I examined the living matter of the smaller one swiftly. Organs seemed poised in a suspended state. The creature I observed, housed in a protective shell, seemed paralyzed or dead.

I remembered the word dead.

Then the Pat was with me again. "I--I feel something, Marl. I am frightened. What are they, those things there?"

"They seem to be--" I stopped communicating.

The Pat had disappeared!

The thing of protoplasm nearest me was moving but I was no longer interested. I remember the Pat had touched the upper extremity of the creature and had vanished, had ceased to be.

The old sickness was back. I was lonely. I wanted the other entity. I could not, did not wish to exist without the Pat.
I darted frantically about the metal shell, here and there, searching, searching. Where was the Pat? I screamed for it. I thought Pat as far away as I could reach, but there was no reaction, no response at all.

In my frenzy, I was back beside the creatures of protoplasm before I realized it, near the one I had not yet examined.

"Perhaps they took her," I thought. It was not logical, but it was a hope. Hope is emotional; I was becoming more emotional than rational.

I touched the larger of the two creatures, experimentally; moved cautiously inside it, searching, searching.

Suddenly I was seized by a great force, an inexorable power that grasped me and wrenched me, tearing me from the point in space I had occupied a moment before. My perception blurred, but I was not frightened. Without the Pat I did not care what happened. I was intensely curious. "So this is how it is," I reasoned in a flash, "to cease to be."

And I ceased to be....

* * * * *

Marlow shook his head. I must have dozed, he thought. He glanced at the chronometer on the console ahead.

No, only a minute or two had elapsed since the last time he had checked.

"Sleepy head! Wake up and live!"

He looked to his right. Pat sat in the navigator's seat smiling at him.

"I didn't sleep, honestly," he protested. "We hit some sort of barrier back there. It knocked me out for a moment. I had the damndest impression--"

"Remember what you promised!" She swiveled the seat about to face him. "No more scientific lectures on the mysteries of space or I'll return to earth. You know my poor brain can't absorb it."

"You win," he grinned, running calloused fingers through his greying crew-cut. He leaned forward and kissed her briefly. "How did an old space hermit like me ever win a flower-garden bride in the first place?"

They laughed together, and he felt secure within the metallic shell surrounding them, no longer alone.
The Warden needed to have a certain very obnoxious pest eliminated ... and he knew just the pest-eradicator he needed....

The Harn first came to the Warden's attention through its effect on the game population of an area in World 7 of the Warden's sector. A natural ecology was being maintained on World 7 as a control for experimental seedings of intelligent life-forms in other similar worlds. How the Harn got there, the Warden never knew. In its free-moving larval state, the Harn was a ticklike creature which might have sifted through a natural inter-dimensional rift; or it might have come through as a hitchhiker on some legitimate traveler, possibly even the Warden himself.

In any event, it was there now. Free of natural enemies and competition, it had expanded enormously. So far, the effect in the control world was localized, but this would not be the case when the Harn seeded. Prompt action was indicated.

The Warden's inclination and training was in the direction of avoiding direct intervention in the ecology of the worlds under his jurisdiction, even in the field of predator control. He considered introduction of natural enemies of the Harn from its own world, and decided against it. That cure was as bad, if not worse, than the disease itself.

There was, however, in one adjacent world, a life-form not normally associated with the Harn; but which analysis indicated would be inimical to it, and reasonably amenable to control.

It was worth trying, anyway.

October 3rd, Ed Brown got up to the base cabin of his trap line with his winter's outfit.
He hung an N. C. Company calendar on the wall and started marking off the days.
October 8th, the hole into the other world opened.

In the meantime, of course, Ed had not been idle. All summer the cabin had stood empty. He got his bedding, stove, and other cabin gear down from the cache and made the place livable. The mice were thick, a good fur sign, but a nuisance otherwise. Down in the cellar hole, when he went to clear it out for the new spud crop, he found burrowings everywhere.

Well, old Tom would take care of that in short order. Tom was a big, black, bobtailed cat eleven years old who had lived with Ed since he was a kitten. Not having any feline companionship to distract him, his only interest was hunting mice. Generally he killed a lot more than he could eat, racking the surplus in neat piles beside the trail, on the doorstep, or on a slab in the cellar. He was the best mouser in interior Alaska.

Ed propped the cellar hatch with a stick so old Tom could come and go as he pleased, and went on about his chores, working with a methodical efficiency that matched Tom's and went with his thinning gray hair and forty years in the woods. He dug the spuds he had planted that spring. He made a swing around his beaver lakes, tallying the blankets in each house. He took the canoe and moved supplies to his upper cabin. He harvested some fat mallards that had moved down on the river with the coming of skim ice on the lakes. He bucked up firewood and stacked it to move into camp with the first snow.

On the fifth morning, as he was going down to the boat landing with a pail for water, he found the hole into the other world.

Ed had never seen a hole into another world, of course, nor even heard of such a thing. He was as surprised as any one would naturally be to find one not fifty feet from their front door.

Still, his experience had been all in the direction of believing what his eyes told him. He had seen a lot of strange things in his life, and one more didn't strain him too much. He stood stockstill where he had first noticed the hole and studied it warily.

It was two steps off the trail to the left, right beside the old leaning birch, a rectangular piece of scenery that did not fit. It looked to be, as nearly as he could judge, about man-size, six by three. At the bottom it was easy enough to see where this world left off and that one began. On the left side the two worlds matched pretty well, but on the right side there was a niggerhead in this world, the moss-covered relic of a centuries old stump, while that world continued level, so that the niggerhead was neatly sliced in two. Also, the vegetation was different, mossy on this side, grassy on that.

On up around the hole, though, it was harder to tell. There was no clear-cut line, just the difference in what you could see through it. In the other world, the ground seemed to fall away, with low scrubby brush in the foreground. Then, a mile or so away, there were rising hills with hardwood forests of some kind, still green with summer,
covering them.

Ed stepped cautiously to one side. The view through the hole narrowed, as if it faced the trail square. He edged around the old birch to get behind it, and from that side there was no hole, just the same old Alaskan scenery, birch and rose bushes and spruce. From the front, though, it was still there.

He cut an alder shoot about eight feet long, trimmed it, and poked it through the hole. It went through easily enough. He prodded at the sod in the other world, digging up small tufts. When he pulled the stick back, some of the other world dirt was on the sharp end. It looked and smelled just about like any dirt.

Old Tom came stretching out into the morning sun and stalked over to investigate. After a careful inspection of the hole he settled down with his paws tucked under him to watch. Ed took a flat round can from his pocket, lined his lip frugally with snuff, and sat down on the up-ended bucket to watch too. At the moment, that seemed the likeliest thing to do.

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It was nearly swarming time, the Harn had many things to preoccupy it, but it spared one unit to watch the hole into the other world. So far, nothing much had happened. A large biped had found the opening from the other side. It had been joined by a smaller quadruped; but neither showed any indication yet of coming through. The sun was shining through the hole, a large young yellow sun, and the air was crisp, with sharp interesting odors.

The biped ejected a thin squirt of brown liquid through the hole--venom of some sort, apparently. The Harn hastily drew back out of range.

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The hole into the other world stayed there, as unobtrusively fixed as if it had been there since the beginning of time. Nothing came through, and nothing moved in the other world but leaves stirring now and then with a breeze, clouds drifting across the sky. Ed began to realize it was getting late in the morning, and he had not yet had breakfast. He left old Tom to watch the hole, got stiffly to his feet and went on down the trail to get the pail of water he had started for. From the cabin door, he could still see the hole into the other world. He kept one eye on it while he cooked breakfast.

As he was finishing his second cup of coffee, he noticed the view into the other world becoming duller, dimming in a peculiar fashion. What was happening, he found, was just that it was getting dark in the other world. The effect was strange, much like looking out the door of a brightly lighted room at dusk. The edges of the hole cast a very clearly marked shadow now, and outside this shaft of sunlight the view faded, until a few yards away it was impossible to make out any detail.

Presently the stars came out. Ed was not an astronomer, but he had a woodsman's knowledge of the sky. He could find nothing familiar in any of the stars he saw. In some way, that was more unsettling than the hole itself had been.

After he had finished the dishes, he cut two gee-pole spruce, trimmed them, and stuck one on each side of the hole. He got some thin thread he used to tie beaver snares and wove it back and forth between the poles, rigging a tin can alarm. It seemed likely someone or something had put the hole there, it had not just happened. If anything came through, Ed wanted to know about it. Just to make extra sure, he got some number three traps and made a few blind sets in front of the hole.

Then he went back to his chores. Whatever was going to happen with the hole would happen when it happened, and winter was still coming.

He set some babiche to soak for mending his snowshoes. He ran the net he had set at the edge of the eddy for late silvers and took out two fish. Old Tom had pretty well cleaned up the mice in the cellar hole, but they were still burrowing around the sills of the lean-to. Ed took a shovel and opened up a hole so Tom could get under the lean-to floor. He got out his needles, palm, thread, and wax; and mended his winter mocassins.

Off and on, he checked the hole into the other world. There was nothing but the slow progression of alien stars across the sky. Finally old Tom grew bored and left to investigate the hole under the lean-to. Shortly there were scutterings and squeakings as evidence that he, too, had got back to business.

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Toward evening, Ed got to wondering how a living creature would take transition into the other world. He had no intention of trying it himself until he knew a lot more about it, but he thought he might be able to scare up a surrogate. Out by the wood pile some live-traps were piled under a spruce, from the time when Ed had been catching marten for the Fish and Wildlife to transplant. One was still in pretty fair shape. He patched it up and set it among the cottonwoods at the head of the bar, where there were some rabbit trails.

When he went to bed it was still dark in the other world. He left the cabin door ajar so he could see it from his bed and set his shotgun, loaded with 00 buck, handy.

Nearing sixty, Ed was not a sound sleeper, even when he had nothing on his mind. About ten it started to get
light in the other world, and that woke him up. He padded out to look, but there was no change, it looked about the same as yesterday. He went back to bed.

The next morning there was a rabbit in the live-trap. With a pole, Ed pushed the trap with the rabbit in it through into the other world and watched. Nothing happened. After a while the rabbit began nibbling at some spears of grass that pushed through the wire of the cage. Ed pulled it back and examined the rabbit carefully. It seemed healthy and about as happy as a rabbit could expect to be in a cage.

It did not get dark in the other world till about noon, that day; and about seven, when it was dark in both worlds, Ed heard the jangle of the tin can alarm, followed by the snap of one of the steel traps.

He took a flashlight and found a small hoofed animal, hardly bigger than old Tom, rearing and bucking with a broken leg in the trap. It had sharp little spike horns, only a few inches long, but mean. Ed got several painful jabs before he got the animal tied up and out of the trap. He restrung the alarm, then took his catch into the cabin to examine.

It was herbivorous and adult, from the looks of its teeth and hoofs, though it only weighed about fifteen pounds. As an approximation, Ed decided it was female. When he killed it and opened it up, at first glance it looked reasonably familiar, on closer study less so.

The blood, anyway, was red; not blue or yellow or green; and the bones were bones, just odd-shaped.

Ed cut off a slice of heart and tossed it to old Tom. The cat sniffed it dubiously and then decided he liked it. He meowed for more. Ed gave it to him and fried a small sliver of ham. It smelled and tasted fine, but Ed contented himself with a single delicate nibble, pending further developments. Anyway, it was beginning to look like a little exploration would be feasible.

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The Harn, also, was well-satisfied with the way things were going. It had been a strain to pass up the juicy little quadruped in the cage, but the inhabitants of the other world seemed shy, and the Harn did not wish to frighten them. At least, it knew now that life could come through the hole, and the small herbivore it had herded through confirmed that passage in the opposite direction was equally possible--plus a gratis demonstration of the other world's pitiful defenses. At swarming time, the whole new world would be open to embryo Harn, as well as this world it presently occupied.

It looked like a really notable swarming. The Harn budded three more planters on the forcing stem, to be ready to take full advantage of it.

It got light in the other world at one in the morning that night. Ed had the days there pretty well pegged now. They were roughly twenty-seven hours, of which about thirteen hours were dark. Not too high a latitude, apparently, and probably late summer by the looks of the vegetation.

He got up a little before daylight and looked at the rabbit and old Tom. Both seemed to be doing nicely. Old Tom was hungry for more otherworld meat. Ed gave it to him and made up a light pack. After some thought, he took the .450 bear gun he used for back-up when guiding. Whatever he ran into over there, the .450--a model 71 throwing a 400 grain slug at 2100 fps--should handle it.

The first step through into the other world was a queasy one, but it turned out to be much the same as any other step. The only difference was that now he was in the other world looking back. From this side, the niggerhead at the threshold was sliced sharply, but it had been kicked down a little when he came through, and what with shoving the cage through and pulling it back, so that some clods of moss and dirt were scattered in the other world. For some reason, that made Ed feel better, it seemed to make the joining of the two worlds a little more permanent.

Still, it had come sudden, and it might go sudden. Ed went back into his own world and got an ax, a saw, more ammunition, salt, a heavy sleeping robe, a few other possibilities. He brought them through and piled them in the other world, covering them with a scrap of old tarp. He cut a couple of poles, peeled them, and stuck them in the ground to mark the hole from this side.

Then he looked around.

He stood on the shoulder of a hill, in a game trail that ran down toward a stream below, in what seemed to be a fairly recent burn. There were charred stumps, and the growth was small stuff, with some saplings pushing up through. There was timber in the valley below, though, and on the hills beyond, deciduous, somewhat like oak. South was where east had been in his own world, and the sun seemed smaller, but brighter. The sky was a very dark blue. He seemed lighter in this world, there was a spring in his step he had not known for twenty years. He looked at his compass. It checked with the direction of the sun.

He studied the trail. It had seen a lot of use, but less in recent weeks. There were sharp hoof-prints of the animal he had caught, larger hoof-prints, vague pad-marks of various sizes, but nothing that looked human. The trail went under a charred tree trunk at a height that was not comfortable for a man, and the spacing of the steps around the gnarled roots of an old slump did not fit a man's stride.
He did not notice the Harn creature at all—which was understandable, it was well camouflaged.

He worked circumspectly down the trail, staying a little off it, studying tracks and droppings, noticing evidences of browsing on the shrubs—mostly old—pausing to examine tufts of hair and an occasional feather. Halfway down the slope he flushed a bird about ptarmigan-size, grayish brown in color.

The trail was more marked where it went into the timber. It wound through the trees for a few hundred yards and came out on a canoe-sized stream. Here it forked. One trail crossed the stream and went up the hill on the other side, the other followed the stream up the valley.

The Harn followed Ed's movements, observing carefully. It needed a specimen from the other world, and this biped would serve nicely, but it might as well learn as much as possible about him first. It could always pick him up some time before he returned to his own world. Just to make sure, it sent a stinging unit to guard the entrance.

All his life, except for a short period in France, Ed had been a hunter, never hunted. Still, you don't grow old in the woods by jumping without looking. Coming into a new situation, he was wary as an old wolf. There was a little shoulder right above the fork in the trail. He stood there for several minutes, looking things over, and then went down and crossed the stream at the next riffle, above the ford. By doing so, although he did not know it, he missed the trap the Harn maintained at the ford for chance passers-by.

On the other side of the creek, the trail ran angling off downstream, skirted a small lake hidden in the trees, climbed over another low shoulder and dropped into a second valley. As Ed followed along it, he began to notice a few more signs of life—birds, small scurriers on the ground and in tree tops—and this set him thinking. The country had a picked-over feel to it, a hunted and trapped-out feel, worse where he had first come through, but still noticeable here.

The Harn did not like to cross water, it could, but it did not like to.

Ed looked at the sun. It was getting down in the sky. If there was any activity at all around here, the ford at dusk would be as likely a place as any to find it. He worked back along the ridge to a point above where he judged the ford to be. The breeze was drawing up the valley, but favoring the other side a little. He dropped down and crossed the stream a quarter mile above the ford, climbed well above the trail and worked along the hillside until he was in a position where he could watch both the ford and the fork in the trail. He squatted down against a tree in a comfortable position, laid his gun across his knees, and rummaged in his pack for the cold flapjacks, wrapped around slices of duck breast, which he had packed for lunch.

After he had finished eating he drank from his canteen—the water in this world might be good, it might not, there was no point in taking chances till he could try it on the cat—and took an economical chew of snuff. He settled back to wait.

The Harn had lost Ed after he crossed the creek—it used a fallen tree quite a way further up for its own crossing—and did not pick him up again until just before he crossed back. Now, however, he had been immobile for several minutes. This looked like about as good a time as any to make the pickup. The Harn had a stinging unit just about positioned, and it had dispatched a carrier to stand by.

After a while, sitting there, Ed began to feel uneasy. The timber was big here, and open underneath, almost parklike. The nearest cover was fifty or sixty yards off to his left, a little tangle of brush where a tree had fallen and let a shaft of sunlight through.

It looked possible, but it didn't feel quite right. Still, it was about the only place anything big enough to bother him could hide. The feeling was getting stronger, the back hairs on Ed's neck were starting to stand up now. Without visible movement, or even noticing himself that he was doing it, he let awareness run over his body, checking the position and stiffness of his legs—he had been sitting there quite a while—the balance of the gun across his knees, the nearness of his thumb to the hammer.

Thoughtfully, still studying the patch of brush, he spat a thin stream over his left shoulder at a pile of leaves a few feet away.

Thinking about it later, Ed could almost have sworn the tobacco juice sizzled as it hit. Actually, this was probably imaginary. The stinging unit was not that sensitive to tobacco, though it was sensitive enough. As the drops splattered it, the pile of leaves erupted with a snuffling hiss like an overloaded teakettle into a tornado of bucking, twisting activity.

Ed's reflexes were not quite as fast as they had been when he was young, but they were better educated. Also, he was already keyed-up. Almost as it started, the flurry in the leaves stopped with the roar of his rifle. Fired like that, the heavy gun just about took his hand off, but he did not notice it at the moment. He came erect in a quick
scramble, jacking in a fresh round as he did so. The scene took on that strange timeless aspect it often does in moments of emergency, with a man's whole being focused on the fleeting now—you know, in an academic sort of way, that things are moving fast, you are moving fast yourself, but there seems plenty of time to make decisions, to look things over and decide what has to be done, to move precisely, with minimum effort and maximum effect.

Whatever the thing at his feet was, it was out of the picture now—it had not even twitched after the heavy bullet tore through it. There was a stomping rush in the little thicket he had been watching. Ed took two long quick steps to one side to clear a couple of trees, threw up the gun and fired as something flashed across a thin spot in the brush. He heard the whack of the bullet in flesh and fired again. Ordinarily he did not like to shoot at things he could not see clearly, but this did not seem the time to be overly finicky. There was no further movement in the brush.

He stood there several long moments, listening, and there was no further movement anywhere. He eased the hammer down, fed in three rounds to replace those he had used, and walked slowly back to the first thing he had shot.

At that range, the bullet had not opened up, but it had not needed to. It had practically exploded the creature anyway—the .450 has two tons of striking energy at the muzzle. From what was left, Ed deduced a smallish, rabbit-sized thing, smooth-skinned, muscular, many-legged, flattish, mottled to camouflage perfectly in the leaves. There was a head at one end, mostly undamaged since it had been at the end of a long muscular neck, with a pair of glazing beady eyes and a surprisingly small mouth. When Ed pressed on the muscles at the base of the skull, the mouth gaped roundly and a two-inch long spine slid smoothly out of an inconspicuous slot just below it.

At middling distances or better, Ed could still see as well as ever, but close up he needed help. He got out his pocket magnifier and studied the spine. It looked hollow, grooved back for a distance from the point. A drop of milky looking substance trembled on its tip.

Ed nodded thoughtfully to himself. This was what had made him uneasy, he was pretty sure. What was the thing in the brush, then? Innocent bystander? He got stiffly to his feet, conscious now of the ache in his wrist that had taken most of the recoil of the first shot, the torn web between his right thumb and forefinger where the hammer spur had bitten in; and walked over to the thicket.

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The thing in the brush was larger, quite a bit larger, and the bullets had not torn it up so badly. It lay sprawled with three of its eight legs doubled under it, a bear-sized animal with a gaping, cavernous, toothless mouth out of all proportion to the slender body which seemed designed mainly as a frame for the muscular legs. It was not quite dead. As Ed came up it struggled feebly to get up, but one of the heavy slugs had evidently hit the spine, or whatever carried communications to the hindquarters. It fell back, shuddering convulsively, and suddenly regurgitated a small, furry animal.

Ed stepped back quickly to bring his rifle to bear, but the newest arrival was obviously already dead.

He turned his attention back to the larger animal. It, too, was dead now. There was an obvious family resemblance to the smaller one he had shot in the leaves. Both were smooth-skinned, many-legged, and now that he looked closely he could see this one had two mouths, a small one just under the nostrils, purse-lipped and tiny in its huge face but quite like that of the other creature. Neither looked even remotely like anything he had ever seen before.

He laid down his rifle and took out his knife.

Ten minutes later, he knew quite a bit about the thing, but what he knew did not make much sense. In the first place, its blood was green, a yellowish pussy green. In the second place, the larger mouth, complete with jaws and impressive musculature, opened not into a digestive system, but into a large closed pouch which comprised most of the animal's torso. There was no proper digestive system at all, only a rudimentary gut, heavily laced with blood vessels, terminating at one end in the small second mouth, at the other in an even smaller anus. Otherwise, the thing had no insides except a good pair of lungs and a stout heart—none at all. Bone, muscle, lung, heart—plus the ridiculously inadequate gut—that was it.

What about the small, furry, animal then; the one the other had been carrying in its pouch? There was nothing much out-of-the-way about it—a feline sort of carnivore, something like a marten. The fur looked interesting, and he skinned it out, casing the hide. On the left ham, the skin was punctured and there was a swollen, bluish area—about the sort of wound that would be made by the fang of the first thing he had shot. Ed squatted back on his heels, studying it and putting two and two together. What two and two made was pretty hard to believe, but it fitted the evidence.

He wiped his knife carefully on the grass, put it back in its sheath, and got to his feet. Suddenly, the feeling that he was not alone recurred. He looked quickly around.

Back where he had shot the first thing, a man in forest-green whipcord trousers and jacket was leaning over, hands on knees, looking at the remains. The man looked up and met Ed's eyes. He nodded casually and walked over
to the second thing, prodded it with his toe. After a long moment he nodded again to Ed, smiled briefly, and winked out.

Ed stared at the empty air where the other man had been, mouth open. It was just a little too much. A lot of things had happened to him in the last few days, he had been able to take most of them more or less as they came along, but after all, he wasn't a chicken any more, he was pushing sixty, and there is a limit to what a man should have to put up with at that age. The thought of his snug cabin, with a good fire going, moosemeat bubbling in the pot, the gas lantern hissing, and the bottle of Hudson's Bay rum he had tucked under the eaves against just such an occasion as this, was suddenly very appealing.

Besides, it was getting late, and he didn't think he cared to be stumbling around this world in the dark. He elbowed his pack up, hooked the left shoulder strap, and headed for home, staying off the trail in ordinary caution and watching his footing, but moving pretty fast just the same.

Actually, he need not have been so careful.

The Harn had been surprised and shocked by the explosive violence of the man's reaction to a routine harvesting maneuver. It was a relatively young Harn, but it retained memories of its own world, where there were also nasty, violent things which killed Harn. It was not pleasant to think that it might have evoked some such monster in this hitherto peaceful place.

Then, to top that, there had been the sudden appearance of the Warden. The Harn, of course, saw the Warden not as a man, but in its true aspect, which was not at all friendly.

All in all, this did not seem the moment to start any new adventures. The Harn pulled in all its mobile units, including the stinger it had left at the hole into the other world. It huddled protectively together in its nest, considering these new developments.

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By ten that evening, Ed, in conference with old Tom and the bottle of Hudson's Bay, had done considerable hard thinking, pro and con.

Of course, he didn't have to go into the other world, just because the hole was there. He could block it off, seal it up with timbers and forget it.

He sat there and thought about this, absently smoothing the strange fur on his knee. For an old-timer like himself, things weren't too hot in this world. Fur didn't bring much of a price any more, and he couldn't get it in as he had when he was younger. His wants were simple, but there was a certain rock-bottom minimum he had to have. Too, the winters were starting to bother him a little, the arthritis in his hands was getting worse every year, times he hardly had the strength in his left hand, which was the worst, to hold an ax. Another five, ten, years and it would be the Pioneers' Home for him--if he did not get stove up or sick sooner and die right here in the cabin, too helpless to cut wood for the fire. He had helped bury enough others, bed and all when they didn't come down the river at breakup and somebody had to go up and look for them, to know it was possible.

The other world was milder, it had game and fur--good fur, too, from the looks of it, something new that could lick any mutation or synthetic on the market, and the income tax had still left a few fellows who could pay through the nose to see their women look nice.

And, the country was new. He'd never thought he'd have a crack at a new country again, a new, good country. Often, he'd thought how lucky people had been who were born a hundred and fifty years ago, moving into an easy, rich country like the Ohio or Kentucky when it was new, instead of the bitter North.

The Harn would be a nuisance--Ed did not think of it as the Harn, of course, but just as "they"--but he supposed he could find a way to clean them out. A man generally could, if varmints got troublesome enough.

And the man in forest-green whipcord, well, he could have been just an hallucination. Ed did not really believe in hallucinations, but he had heard about them, and there was always a first time.

Ed sighed, looked at the clock, measured the bottle with his eye--still better than three quarters full.

All in all, he guessed, he'd leave the door into the other world open.

He put old Tom out and went to bed.

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The first order of business seemed to be to get better acquainted with the Harn, and first thing in the morning he set about it. He took the rabbit out of the live box and tethered it in a spot in the other world close to the hole, where raw earth had been exposed by a big blowdown, sweeping the ground afterward to clear it of tracks.

Getting better acquainted with the Harn, though, did not mean he had to have it come in and crawl in bed with him.

Before going to bed the night before, he had set half a can of snuff to steep in some water. He loaded a bug gun with this and sprayed the ground around the hole into the other world. From the reaction yesterday, he judged the stinging units did not like tobacco juice, and this should discourage them from coming through.
He checked his bear snares and found three in good enough shape to satisfy him--the large Harn beast, he suspected, would be about like a grizzly to hold. Three would hardly be enough for a serious trapping program. Ed made his own snares from old aircraft control cable, using a lock of his own devising which slid smoothly and cinched down tight and permanently. He got out his roll of wire and box of locks and started making up some more, sitting where he could watch the rabbit he had staked out.

By the middle of the afternoon the snares were done, but there had been no action with the rabbit, nor was there for the rest of the day.

In the morning, though, it was gone. There were three new sets of tracks in the bare spot--two smaller ones, either of which would have fitted the stinging unit, and what looked like a carrier's. The action was clear enough. The small things had prowled around the rabbit for some time, stopping frequently as if uncertain and suspicious. Finally, one had moved in, with a little flurry of action when it met the rabbit. Then it had moved back and squatted again.

The big tracks came directly to the rabbit and went right out again. They were heavy enough to be clear in the grass beyond the bare spot.

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Ed went back to the cabin and rummaged till he found a pair of snakeproof pants a Stateside sport had once given him--heavy duck with an interlining of woven wire. They were heavy and uncomfortable to wear, and about as useless as wings on a pig in Alaska, where there are no snakes; but they had been brand-new and expensive when given to him, and he had put them away, thinking vaguely he might find a use for them some day. It looked like that day might be now.

He slipped them on, took his rifle and hunting pack, and set out to follow the animal that had taken the rabbit. The trail showed well in the morning dew, going straight away along the hillside as if the thing were headed some place definite. Ed followed along for a quarter mile or so, then found himself on a fairly well beaten path, which presently joined another, and then another, till it was a definitely well used trail. It began to look to him like the thing might have a den of some sort, and he might be getting pretty close to it. He left the trail and climbed up into a lone tall tree, fire-scorched but still struggling for life. From there, he could follow the trail pretty well with his glasses for a couple of hundred yards before he lost it. Finally, he settled on a spot under an old burnt stump as a likely spot for the den.

He focused the glasses carefully and after a few minutes saw a flash of movement there, as if something had slipped in or out. Nothing else happened for about an hour. Then the grass along one of the trails began to wave and a large beast, similar to the one he had shot, trotted into sight. It slipped in under the stump and disappeared.

For the rest of the morning, nothing went in or out.

There was a very good reason for this, and Ed was it.

* * * * *

All night and day after he shot the stinging unit and the carrier unit, the Harn had stayed in its nest. By the second evening, it was getting hungry. It ventured out and found a few morsels, but the organized hunting network it ordinarily maintained had been disrupted, it had lost track of things, and the pickings were poor. Then it stumbled on the rabbit Ed had staked out.

Its first impulse was to leave the rabbit strictly alone. In spite of its early promise, the other world had so far given nothing but trouble. On the other hand, the rabbit was meat, and very good meat, by the smell and looks of it....

The Harn kept its observation unit prowling irresolutely around the target for half the night before it finally gave in to appetite and sent in a stinger to finish the rabbit off, a carrier to pick it up.

It was still uneasy about this when it noticed Ed near the nest the next morning, confirming its fears. It promptly broke up the net it had been re-establishing and pulled all units back in. Maybe if it left him strictly alone, he might still go on about his business, whatever that was, and let the Harn get back to its harvesting.

* * * * *

By noon, Ed was getting pretty stiff sitting in the tree. He climbed down and eased over toward the stump, watching where he set his feet. He was pretty sure the snakeproof pants would stop the stingers, but he saw no point in putting them to the test until he had to.

About fifty yards away, he got a good view, and it did look like there might be a sizable hole under the stump. He studied it carefully with the glasses. There was a smooth-beaten mound in front, and exposed roots were worn slick.

As he got closer, he noticed an unpleasant smell, and near the mouth of the den he got a sudden whiff that almost gagged him--a sour, acid, carrion stink like a buzzard's nest. He moved back a little. The hole was wide and fairly high, two or three feet, but too dark to see back into. Still, he had a sense of something stirring there not too
far back.

Ed had considerable respect for caves and dens with unseen occupants—he had once helped carry in the bodies of two men who had poked a stick into a spring grizzly's den. At the same time, he wanted pretty badly to know what was in there. He suspected there was a good deal more than what he had already seen.

The bug gun loaded with tobacco juice was in his pack, and a flashlight, a small light one designed for a lady's purse which he always carried when away from camp. He got them out and leaned his rifle against a root sticking out just to the left of the den. Taking the bug gun in his left hand and the flashlight in his right, he stooped over to shine the light in, keeping as well clear of the entrance as possible.

All in all, he must have got about a five-second look, which is a lot longer than it sounds when things are happening.

His first impression was a jumble—eyes, scurrying movement, and bulk. Then things started to shape up. About ten feet back from the entrance was a huge, flattish, naked, scabrous bulk, pimpled with finger-sized teats. Clustered around and behind this were a tangle of slinging units, carrier units, observation units. Some had their mouths fixed to teats.

For a long second or two the scene stayed frozen.

Then the front edge of the bulk split and began to gape. Ed found himself looking down a manhole-sized gullet into a shallow puddle of slime with bits of bone sticking up here and there. Toward the near end a soggy mass of fur that might have been the rabbit seemed to be visibly melting down. At the same moment, the tangle of lesser monsters sorted themselves out and a wave of stingers came boiling out at him.

Ed dropped the flashlight, gave two mighty pumps of the bug gun, and jumped clear of the entrance. For a moment, the den mouth boiled with stingers, hissing and bucking in agony. Ed sprayed them heavily again, snatched up his rifle, and ran, looking back over his shoulder. The stingers showed no inclination to follow, though, the tobacco juice seemed to be keeping them well occupied for the moment.

Halfway home, Ed had to stop and rest for a moment while he took a spell of shuddering and gagging as a sudden picture of the slimy gullet came into his mind, with Ed Brown laying where the rabbit had been, melting down into a stinking soup of bones and gobbets of flesh.

When he got to the hole, his arrangement of tin cans, traps, and tobacco juice no longer looked nearly as secure as it had. He got his ax and cut two stout posts, framing the hole; built a stout slab door and hung it from them. Then he drove stakes close together at the threshold, to foil any attempts to dig under, and trimmed a sill tight to the door. His feeling in this matter, as it happened, was sound.

The Harn was beginning to develop a pretty strong dislike for Ed Brown. Three of its stinging units were dead, and most of the rest were in poor shape, thanks to the tobacco spray. It had got a little whiff of the stuff itself, not enough to do any serious damage ordinarily, but right now, so close to swarming time--

Ed was going to have to go.

So far, in this world, the Harn had needed only the three basic types of mobile units. There were other standard types, however, for dealing with more complicated situations. As it happened, a couple of carrier embryos were at just about the right stage. With a little forcing, they could be brought on in not too long a time. Meanwhile, the Harn would do what it could with the material available.

When Ed came through the next day to set his snares, the Harn was prepared to test his snakeproof pants. They held, which was disconcerting to the Harn, but it was a hard creature to convince, once thoroughly aroused. Ed was not too sure of how well the pants would stand up to persistent assault himself. After the third ambush, he took to spraying suspicious looking spots with tobacco juice. He shot two more stingers in this way, but it slowed him up quite a bit. It took him all day to make four sets.

In the next three days he made a dozen sets and caught two carriers. Then, the fourth day, as he adjusted a snare, a seeming root suddenly came to life and slashed at his hand. He was wearing gloves to keep his scent from the snares, and the fang caught the glove and just grazed the ball of his left thumb. The hatchet he had been using to cut a toggle was lying by his knee. He snatched it up and chopped the stinger before it could strike again, then yanked off the glove and looked at his hand. A thin scratch, beaded with drops of blood, showed on the flesh. Unhesitatingly, he drew the razor edge of the hatchet across it, sucked and spat, sucked and spat again and again. Then he started for home.

He barely made it. By the time he got to the hole, he was a very sick man. He latched the door, stumbled into the cabin and fell on the bed.

It was several days before he was able to be about again, his hand still partly paralyzed.

During that time, the situation changed. The Harn took the offensive.

Ed's first notice of this was a rhythmic crashing outside the cabin. He managed to crawl to where he could see the gate he had built to block the hole into the other world. It was shaking from repeated batterings from the other
side. Dragging his rifle with his good hand, he scrabbled down to where he could see through the chinks in the slab door. Two of the carrier units were there, taking turns slamming their full weight against it. He had built that gate skookum, but not to take something like that.

He noted carefully where they were hitting it, then backed off twenty feet and laid the .450 across a log. He let them hit the door twice more to get the timing before he loosed off a shot, at the moment of impact. The battering stopped abruptly, and through the chinks he could see a bulk piled against the gate.

For a while there was no more action. Then, after a few tentative butts at the door, the battering started again. This time, Ed wasn't so lucky. The battering stopped when he fired, but he got an impression that the carrier ran off. He thought he might have hit it, but not mortally.

In an hour or so the Harn was back, and it kept coming back. Ed began to worry about his ammunition, which was not unlimited. Ordinarily, two or three boxes lasted him through the winter. He got his .30-06, for which he had a sugar sack full of military ammunition. The light full-patch stuff did not have the discouraging effect of the .450, though, and he had to shoot a lot oftener.

Another thing, he wasn't getting any rest, which was bad in his already weakened condition. Every time he dozed off the battering would start again, and he would have to wake up and snap a few shots through the door. He held pretty much on one spot, not wanting to shoot the door to pieces, but the Harn noticed this, and started hitting the door in other places.

The second day of the attack, the door came down. It had been pretty shaky for some time, and Ed had got the cabin ready for a siege, filling butter kegs with water and nailing up the windows. As the Harn poured through, he shot several and then broke for the cabin. A carrier ran at him full tilt, bent on bowling him over. Once off his feet, he would have been easy meat for one of the stingers. He sidestepped, swung his shotgun up in one hand--he had kept it handy for the close fighting--and blew the carrier's spine in half. He had to kick it aside to slam the cabin door.

For a few minutes, then, things were pretty hectic. Ed went from one to another of the loopholes he had cut, blasting first with the shotgun as the Harn crowded around, then using the .30 as they grew more cautious.

After the first rush, it was obvious to the Harn that the cabin was going to be a tough nut to crack. On the other hand, there was no rush about it either. Necessarily, it had let its hunting go the past several days while it concentrated on Ed. It was pretty hungry, and it was in rich pickings now--Ed had always kept from disturbing game close to the cabin, partly because he liked to see it around, and partly because he had an idea that some day he might be in a fix where he couldn't travel very well, and would want meat close to hand. The Harn felt no such compunctions. The stinging units spread through the woods, and shortly a steady procession of loaded carriers began to stream back through the hole. Ed picked off the first few, but then the Harn found it could route them up the river trail in such a way that he got only a glimpse as they flashed through the hole. After that he did not hit very many.

Ed stopped shooting. He was getting short on ammunition for the .30 now, too. He counted up. There were eighteen rounds for the .450, half a box of 220 grain soft point for the .30 plus about the same amount of military stuff, and a handful of shotgun shells. Of course, there was still the .30 Luger with a couple of boxes, and the .22; but they were not much account for this kind of work.

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armor. He picked up a five-gallon can of gas, a quart of motor oil, and the twenty feet of garden hose he used for siphoning gas down the bank to the boat. On the way back, another stinger hit him. He kicked it aside, not wanting to set down his load, and it came at him again and again. Just outside the door, he finally caught it under a heel and methodically trampled it to death. Then he snatched open the door, tossed the stuff inside, and pulled it quickly shut behind him.

So far, good enough.

He lashed the gas can solidly to his packboard, slipped the end of the hose into the flexible spout and wired it tight. Then he cut up an old wool undershirt and wrapped the pieces around miscellaneous junk—old nuts and bolts, chunks of leadline, anything to make up half a dozen packages of good throwing heft. He soaked these in oil and stowed them in a musette bag which he snapped to the D-rings of the pack.

One of the metal plates on his moccasin was hanging by a thread, probably he had torn it loose in the scuffle at the door. They weren't going to take too much kicking and banging around, he could see, and once he was on his way, it wouldn't be a very good idea to be caught bending over with his bare hands at ground level to fix them. On the other hand, he couldn't be using all his cartridges on the stingers, either, he had to save them for the carriers. He thought about this some while mending the moccasin, and decided to take the bug gun. It might not kill the stingers, but it ought to discourage them enough so they wouldn't keep pestering him.

With his bad left arm, he had trouble getting the pack on his back. He finally managed by swinging it up on the table first. It was not too much of a load, forty or fifty pounds he guessed. Still, shaky as he was, it was about as much as he could manage. He had intended to just try it on for size, but after he got it up he thought: well, why not now? He picked up the .450, stowed the extra cartridges in his pocket, checked to make sure he had matches, hung the bug gun on his belt, and opened the door.

* * * * *

It was just getting dusk, but the other world was in broad daylight, the days and nights were almost completely reversed again. As he stepped through the hole, the first stinger struck. He gave it a good squirt of tobacco juice. It went bucking and twisting off and he went on, stepping carefully and solidly.

Luckily, most of the Harn was foraging in the new world. Two more stingers ambushed him, but the tobacco juice got rid of them, and he had no serious trouble till he got close to the den. Two carriers came out and rushed him there. He shot them both and then killed the stinger that was pecking at his shins. He moved quickly now, he had an idea that in about a minute all hell would break loose. He swung the pack down on the uphill side of the den, wet the musette bag with a quick spray of gas, tossed it over his shoulder, jammed the free end of the hose into the den mouth and stabbed the can with his knife to vent it. As the gas poured into the den he lit one of his oil and gas soaked bombs and ran around in front, lighting one after another from the one in his hand and tossing them into the den. The musette bag caught fire and he snatched it from his shoulder and tossed it after the bombs. A whoof and a sheet of flame blew out.

About fifty yards away there was a slender, popplelike tree. Ed had thought if he could make that, he would be reasonably secure while the Harn burned. He ran for it as hard as he could, beating at the flames that had spattered on him from the burning gas, but he never made it.

Harn were erupting everywhere. A carrier suddenly came charging out of the brush to his left. While Ed dealt with that one, the Harn played its ace in the hole. The two special units it had been developing to deal with Ed were not quite done yet, but they were done enough to work for the few minutes the Harn needed them. Ed heard a coughing grunt behind him and spun around to see something new crawling out of the flame and smoke at the den entrance.

This one was a roughly carrier shaped creature, but half again as large, built for killing. It had powerful fanged jaws and its eight feet were armed with knife-like, disemboweling claws. As it came at Ed in a lumbering rush, another came crawling out after it.

Ed shot four times, as fast as he could work the action. The heavy slugs did the job, but not quite well enough. With its dying lunge the thing got to him and tossed him ten feet like a rag doll. He hit on his bad hand and felt the wrist bones go.

As he struggled to get up, digging his elbow in and using one hand, he saw a stinger darting in at him. He had lost both the bug gun and his rifle when the fighting unit swiped him. He swiveled on his hips and kicked the stinger away. Then he saw the second fighting unit coming. He forgot about the stinger. It still might get to him, but, if it did, it would be too late to matter.

He drew his knife, managed to get to one knee, and crouched there like an old gray rat, stubbly lips drawn back from worn teeth in a grin of pain and rage. This was one he wasn't going to win, he guessed.

Ten feet away, the fighting unit suddenly ran down like a clockwork toy. It toppled over, skidded past him under its own momentum, and lay there kicking spasmodically. Ed glared at it uncomprehendingly. It arched its
neck back to almost touch its haunches, stiffened, and was still.

Ed looked around. The stinger was dead too, three feet from his shoulder, and half a dozen more which had been making for him. A cloud of greasy, stinking smoke was rolling out of the den. The Harn was dead.

Ed put his knife away and lay back. He did not quite pass out, but things got pretty dim.

After a while he got hold of himself and sat up. He was not too surprised to see the man in forest green prodding at the bodies of the fighting units. The stranger looked at the smoke still oozing from the den and nodded approvingly. Then he came over and looked at Ed. He clacked his tongue in concern and bent over, touching Ed's wrist. Ed noticed there was now a cast on it, and it didn't hurt so much. There was also a plastic binding around his ribs and shoulder, where the claws of the first fighter had raked as it tossed him. That was a mighty neat trick, because the rags of his shirt were still buttoned around him, and he was pretty sure it had not been off at any time.

The stranger smiled at Ed, patted him on the shoulder, and disappeared. He seemed to be a busy sort of fellow, Ed thought, with not much time for visiting.

Ed felt quite a bit better now, enough better to gather up what was left of his gear and start home. He was glad to find old Tom waiting for him there. The cat had taken to the woods when the attack on the gate first started, he didn't like shooting, and Ed had worried that the Harn might have got him.

* * * * *

Ed slept till noon the next day, got up and cooked a dozen flapjacks and a pound of bacon. After breakfast, he sat around for an hour or so drinking coffee. Then he spent the rest of the afternoon puttering around the cabin.

He packed away the snakeproof pants, disassembled the flame-thrower, picked up the traps by the hole.

Old Tom seemed to have pretty well cleaned up the mice under the lean-to. Ed took his shovel and filled in the hole he had dug for the cat to get at them.

He went to bed early. Tomorrow he would take a long hike around the new world, scout out the fur and game, plan his trap-line and pick cabin sites.

The next morning, though, the hole into the other world was gone.

The posts which had marked it were sheared neatly in half. The remains of the door still hung there, battered and sagging; but it swung open on nothing but Alaska, when Ed stepped through he found himself standing beside the old leaning birch.

He tried it several times before he convinced himself.

He walked slowly back toward the cabin, feeling old and uncertain, not quite knowing what to do with himself. Old Tom was over by the lean-to, sniffing and pawing tentatively at the fresh earth where Ed had filled in the hole. As Ed came up, he came over to rub against Ed's leg.

They went into the cabin and Ed started fixing breakfast.

THE END
through the water to catch it. For a moment he had it, then it slipped over his fingers and darted away, out of his reach.

As he stood up, disappointed, he saw them: two boys and a girl, not much older than he. They were standing at the edge of the trees, watching him.

He'd seen children before, but he'd never met any of them. His parents kept him away from them--and from all strangers. He stood still, watching them, waiting for them to say something. He felt excited and uncomfortable at the same time.

They didn't say anything. They just watched him, very intently.

He felt even more uncomfortable.

The bigger boy laughed. He pointed at Eric and laughed again and looked over at his companions. They shook their heads.

Eric waded up out of the water. He didn't know whether to go over to them or run away, back to his mother. He didn't understand the way they were looking at him.

"Hello," he said.

The big boy laughed again. "See?" he said, pointing at Eric. "He can't."

"Can't what?" Eric said.

The three looked at him, not saying anything. Then they all burst out laughing. They pointed at him, jumped up and down and clapped their hands together.

"What's funny?" Eric said, backing away from them, wishing his mother would come, and yet afraid to turn around and run.

"You," the girl said. "You're funny. Funny, funny, funny! You're stu-pid."

The others took it up. "Stu-pid, stu-pid. You can't talk to us, you're too stu-pid...."

They skipped down the bank toward him, laughing and calling. They jumped up and down and pointed at him, crowded closer and closer.

"Silly, silly. Can't talk. Silly, silly. Can't talk...."

Eric backed away from them. He tried to run, but he couldn't. His knees shook too much. He could hardly move his legs at all. He began to cry.

They crowded still closer around him. "Stu-pid." Their laughter was terrible. He couldn't get away from them. He cried louder.

"Eric!" His mother's voice. He twisted around, saw her coming, running toward him along the bank.

"Mama!" He could move again. He stumbled toward her.

"He wants his mama," the big boy said. "Funny baby."

His mother was looking past him, at the other children. They stopped laughing abruptly. They looked back at her for a moment, scuffing their feet in the dirt and not saying anything. Suddenly the big boy turned and ran, up over the bank and out of sight. The other boy followed him.

The girl started to run, and then she looked at Eric's mother again and stopped. She looked back at Eric. "I'm sorry," she said sulkily, and then she turned and fled after the others.

Eric's mother picked him up. "It's all right," she said. "Mother's here. It's all right."

He clung to her, clutching her convulsively, his whole body shaking. "Why, Mama? Why?"

"You're all right, dear."

She was warm and her arms were tight around him. He was home again, and safe. He relaxed, slowly.

"Don't leave me, Mama."

"I won't, dear."

She crooned to him, softly, and he relaxed still more. His head drooped on her shoulder and after a while he fell asleep.

But it wasn't the same as it had been. It wouldn't ever be quite the same again. He knew he was different now.

* * * * *

That night Eric lay asleep. He was curled on his side, one chubby hand under his cheek, the other still holding his favorite animal, the wooly lamb his mother had given him for his birthday. He stirred in his sleep, threshing restlessly, and whimpered.

His mother's face lifted mutely to her husband's.

"Myron, the things those children said. It must have been terrible for him. I'm glad at least that he couldn't perceive what they were thinking."

Myron sighed. He put his arm about her shoulders and drew her close against him. "Don't torture yourself, Gwin. You can't make it easier for him. There's no way."

"But we'll have to tell him something."
He stroked her hair. The four years of their shared sorrow lay heavily between them as he looked down over her head at his son.

"Poor devil. Let him keep his childhood while he can, Gwin. He'll know he's all alone soon enough."

She nodded, burying her face against his chest. "I know...."

Eric whimpered again, and his hands clenched into fists and came up to protect his face.

Instinctively Gwin reached out to him, and then she drew back. She couldn't reach his emotions. There was no perception. There was no way she could enter his dreams and rearrange them and comfort him.

"Poor devil," his father said again. "He's got his whole life to be lonely in."

* * * * *

The summer passed, and another winter and another summer. Eric spent more and more time by himself. He liked to sit on the glassed-in sunporch, bouncing his ball up and down and talking to it, aloud, pretending that it answered him back. He liked to lie on his stomach close to the wall and look out at the garden with its riotous mass of flowers and the insects that flew among them. Some flew quickly, their wings moving so fast that they were just blurs. Others flew slowly, swooping on outspread bright-colored wings from petal to petal. He liked these slow-flying ones the best. He could wiggle his shoulder blades in time with their wings and pretend that he was flying too.

Sometimes other children came by on the outside of the wall. He could look out at them without worrying, because they couldn't see him. The wall wasn't transparent from the outside. He liked it when three or four of them came by together, laughing and chasing each other through the garden. Usually, though, they didn't stay long. After they had played a few minutes his father or his mother went out and looked at them, and then they went away.

Eric was playing by himself when the old man came out to the sunporch doorway and stood there, saying nothing, making no effort to interrupt or to speak. He was so quiet that after a while Eric almost didn't mind his being there.

The old man turned back to Myron and Gwin.

"Of course the boy can learn. He's not stupid."

Eric bounced the ball, flung it against the transparent glass, caught it, bounced it again.

"But how, Walden?" Gwin shook her head. "You offer to teach him, but--"

Walden smiled. "Remember these?"

... Walden's study. The familiar curtains drawn aside, and the shelves behind them. The rows of bright-backed, box-like objects, most of them old and spotted, quite unhygienic ...

Gwin shook her head at the perception, but Myron nodded.

"Books. I didn't know there were any outside the museums."

Walden smiled again. "Only mine. Books are fascinating things. All the knowledge of a race, gathered together on a few shelves...."

"Knowledge?" Myron shrugged. "Imagine storing knowledge in those--boxes. What are they? What's in them? Just words...."

The books faded as Walden sighed. "You'd be surprised what the old race did, with just those--boxes."

He looked across at Eric, who was now bouncing his ball and counting, out loud, up to three, and then going back and starting again.

"The boy can learn what's in those books. Just as if he'd gone to school back in the old times."

Myron and Gwin looked doubtfully at each other, and then over at the corner where Eric played unheeding.

Perhaps Walden could help. Perhaps....

"Eric," Gwin said aloud.

"Yes, mother?"

"We've decided you're going to go to school, the way you want to. Mr. Walden here is going to be your teacher. Isn't that nice?"

Eric looked at her and then at the old man. Strangers didn't often come out on the sunporch. Strangers usually left him alone.

He bounced the ball again without answering.

"Say something, Eric," his mother commanded.

Eric looked back at Walden. "He can't teach me to be like other children, can he?"

"No," Walden said. "I can't."

"Then I don't want to go to school." Eric threw the ball across the room as hard as he could.

"But there once were other people like you," Walden said. "Lots of them. And you can learn about them, if you want to."

"Other people like me? Where?"

Myron and Gwin looked helplessly at each other and at the old man. Gwin began to cry and Myron cursed
softly, on the perception level so that Eric wouldn't hear them.

But Walden's face was gentle and understanding as he answered, so understanding that Eric couldn't help wanting desperately to believe him.

"Everyone was like you once," Walden said. "A long time ago."

* * * * *

It was a new life for Eric. Every day he would go over to Walden's and the two of them would pull back the curtains in the study and Walden would lift down some of the books. It was as if Walden was giving him the past, all of it, as fast as he could grasp it.

"I'm really like the old race, Walden?"

"Yes, Eric. You'll see just how much like them...."

Identity. Here in the past, in the books he was learning to read, in the pictures, the pages and pages of scenes and portraits. Strange scenes, far removed from the gardens and the quiet houses and the wordless smile of friend to friend.

Great buildings and small. The Parthenon in the moonlight, not too many pages beyond the cave, with its smoky fire and first crude wall drawings. Cities bright with a million neon lights, and still later, caves again--the underground stations of the Moon colonies. All unreal, and yet--

They were his people, these men in the pictures. Strange men, violent men: the barbarian trampling his enemy to death beneath his horse's hooves, the knight in armor marching to the Crusade, the spaceman. And the quieter men: the farmer, the artisan, the poet--they too were his people, and far easier to understand than the others.

The skill of reading mastered, and the long, sweeping vistas of the past. Their histories. Their wars. "Why did they fight, Walden?" And Walden's sigh. "I don't know, Eric, but they did."

So much to learn. So much to understand. Their art and music and literature and religion. Patterns of life that ebbed and flowed and ebbed again, but never in quite the same way. "Why did they change so much, Walden?" And the answer, "You probably know that better than I, Eric...."

Perhaps he did. For he went on to the books that Walden ignored. Their mathematics, their science. The apple's fall, and the orbits of planets. The sudden spiral of analysis, theory, technology. The machines--steamships, airplanes, spaceships....

And the searching loneliness that carried the old race from the caves of Earth to the stars. The searching, common to the violent man and the quiet man, to the doer and the dreaming poet.

Why do we hunger, who own the Moon and trample the shifting dust of Mars?

Why aren't we content with the worlds we've won? Why don't we rest, with the system ours?

We have cast off the planets like outgrown toys, and now we want the stars....

"Have you ever been to the stars, Walden?"

Walden stared at him. Then he laughed. "Of course not, Eric. Nobody goes there now. None of our race has ever gone. Why should we?"

There was no explaining. Walden had never been lonely.

And then one day, while he was reading some fiction from the middle period of the race, Eric found the fantasy. Speculation about the future, about their future.... About the new race!

He read on, his heart pounding, until the same old pattern came clear. They had foreseen conflict, struggle between old race and new, suspicion and hatred and tragedy. The happy ending was superficial. Everyone was motivated as they had been motivated.

He shut the book and sat there, wanting to reach back across the years to the old race writers who had been so right and yet so terribly, blindly wrong. The writers who had seen in the new only a continuation of the old, of themselves, of their own fears and their own hungers.

"Why did they die, Walden?" He didn't expect an answer.

"Why does any race die, Eric?"

His own people, forever removed from him, linked to him only through the books, the pictures, and his own backward-reaching emotions.

"Walden, hasn't there ever been anyone else like me, since they died?"

Silence. Then, slowly, Walden nodded.

"I wondered how long it would be before you asked that. Yes, there have been others. Sometimes three or four in a generation."

"Then, perhaps...."

"No," Walden said. "There aren't any others now. We'd know it if there were." He turned away from Eric, to the plastic wall that looked out across the garden and the children playing and the long, level, flower-carpeted plain.

"Sometimes, when there's more than one of them, they go out there away from us, out to the hills where it's
wild. But they're found, of course. Found, and brought back." He sighed. "The last of them died when I was a boy."

Others like him. Within Walden's lifetime, others, cut off from their own race, lonely and rootless in the midst of the new. Others like him, but not now, in his lifetime. For him there were only the books.

The old race was gone, gone with all its conflicts, all its violence, its stupidity--and its flaming rockets in the void and its Parthenon in the moonlight.

* * * * *

Eric came into the study and stopped. The room was filled with strangers. There were half a dozen men besides Walden, most of them fairly old, white-haired and studious looking. They all turned to look at him, watched him gravely without speaking.

"Well, there he is." Walden looked from face to face. "Are you still worried? Do you still think that one small boy constitutes a threat to the race? What about you, Abbot?"

"I don't know. I still think he should have been institutionalized in the beginning."

"Why? So you could study the brain processes of the lower animals?" Walden's thoughts were as sarcastic as he could send them.

"No, of course not. But don't you see what you've done, by teaching him to read? You've started him thinking of the old race. Don't deny it."

"I don't."

The thin man, Drew, broke in angrily. "He's not full grown yet. Just fourteen, isn't he? How can you be sure what he'll be like later? He'll be a problem. They've always been problems."

They were afraid. That was what was the matter with them. Walden sighed. "Tell them what you've been studying, Eric," he said aloud.

For a minute Eric was too tongue-tied to answer. He stood motionless, waiting for them to laugh at him.

"Go on. Tell them."

"I've been reading about the old race," Eric said. "All about the stars. About the people who went off in the starships and explored our whole galaxy."

"What's a galaxy?" the thin man said. Walden could perceive that he really didn't know.

Eric's fear lessened. These men weren't laughing at him. They weren't being just polite, either. They were interested. He smiled at them, shyly, and told them about the books and the wonderful, strange tales of the past that the books told. The men listened, nodding from time to time. But he knew that they didn't understand. The world of the books was his alone....

"Well?" Walden looked at the others. They looked back. Their emotions were a welter of doubt, of indecision.

"You've heard the boy," Walden said quietly, thrusting his own uneasiness down, out of his thoughts.

"Yes." Abbot hesitated. "He seems bright enough--quite different from what I'd expected. At least he's not like the ones who grew up wild in the hills. This boy isn't a savage."

Walden shrugged. "Maybe they weren't savages either," he suggested. "After all, it's been fifty years since the last of them died. And a lot of legends can spring up in fifty years."

"Perhaps we have been worrying unnecessarily." Abbot got up to go, but his eyes still held Walden's. "But," he added, "it's up to you to watch him. If he reverts, becomes dangerous in any way, he'll have to be locked up. That's final."

The others nodded.

"I'll watch him," Walden told them. "Just stop worrying."

He stood at the door and waited until they were out of sight. Then and only then did he allow himself to sigh and taste the fear he'd kept hidden. The old men, the men with authority, were the dangerous ones.

Walden snorted. Even with perception, men could be fools.

* * * * *

The summer that Eric was sixteen Walden took him to the museum. The aircar made the trip in just a few hours--but it was farther than Eric had ever traveled in his life, and farther than most people ever bothered traveling.

The museum lay on an open plain where there weren't many houses. At first glance it was far from impressive. Just a few big buildings, housing the artifacts, and a few old ruins of ancient constructions, leveled now and half buried in the sands.

"It's nothing." Eric looked down at it, disappointed. "Nothing at all."

"What did you expect?" Walden set the aircar down between the two largest buildings. "You knew it wouldn't be like the pictures in the books. You knew that none of the old race's cities are left."

"I know," Eric said. "But I expected more than this."

He got out of the car and followed Walden around to the door of the first building. Another man, almost as old as Walden, came toward them smiling. The two men shook hands and stood happily perceiving each other.
"This is Eric," Walden said aloud. "Eric, this is Prior, the caretaker here. He was one of my schoolmates."

"It's been years since we've perceived short range," Prior said. "Years. But I suppose the boy wants to look around inside?"

Eric nodded, although he didn't care too much. He was too disappointed to care. There was nothing here that he hadn't seen a hundred times before.

They went inside, past some scale models of the old cities. The same models, though a bit bigger, that Eric had seen in the three-dimensional view-books. Then they went into another room, lined with thousands of books, some very old, many the tiny microfilmed ones from the middle periods of the old race.

"How do you like it, Eric?" the caretaker said.

"It's fine," he said flatly, not really meaning it. He was angry at himself for feeling disappointment. Walden had told him what to expect. And yet he'd kept thinking that he'd walk into one of the old cities and be able to imagine that it was ten thousand years ago and others were around him. Others like him....

Ruins. Ruins covered by dirt, and no one of the present race would even bother about uncovering them.

Prior and Walden looked at each other and smiled. "Did you tell him?" the caretaker telepathed.

"No. I thought we'd surprise him. I knew all the rest would disappoint him."

"Eric," the caretaker said aloud. "Come this way. There's another room I want to show you."

He followed them downstairs, down a long winding ramp that spiraled underground so far that he lost track of the distance they had descended. He didn't much care anyway. Ahead of him, the other two were communicating, leaving him alone.

"Through here," Prior said, stepping off the ramp.

They entered a room that was like the bottom of a well, with smooth stone sides and far, far above them a glass roof, with clouds apparently drifting across its surface. But it wasn't a well. It was a vault, forever preserving the thing that had been the old race's masterpiece.

It rested in the center of the room, its nose pointing up at the sky. It was like the pictures, and unlike them. It was big, far bigger than Eric had ever visualized it. It was tall and smooth and as new looking as if its builders had just stepped outside for a minute and would be back in another minute to blast off for the stars.

"A starship," Walden said. "One of the last types."

"There aren't many left," Prior said. "We're lucky to have this one in our museum."

Eric wasn't listening. He was looking at the ship. The old race's ship. His ship.

"The old race built strange things," Prior said. "This is one of the strangest." He shook his head. "Imagine the time they put in on it.... And for what?"

Eric didn't try to answer him. He couldn't explain why the old ones had built it. But he knew. He would have built it himself, if he'd lived then. We have cast off the planets like outgrown toys, and now we want the stars.... His people. His ship. His dream.

* * * * *

The old caretaker showed him around the museum and then left him alone to explore by himself. He had all the time he wanted.

He studied. He worked hard all day long, scarcely ever leaving the museum grounds. He studied the subjects that now were the most fascinating to him of all the old race's knowledge--the subjects that related to the starships. Astronomy, physics, navigation, and the complex charts of distant stars, distant planets, worlds he'd never heard of before. Worlds that to the new race were only pin-pricks of light in the night sky.

All day long he studied. But in the evening he would go down the winding ramp to the ship. The well was lighted with a softer, more diffuse illumination than that of the houses. In the soft glow the walls and the glass-domed roof seemed to disappear and the ship looked free, pointing up at the stars.

He didn't try to tell the caretaker what he thought. He just went back to his books and his studies. There was so much he had to learn. And now there was a reason for his learning. Someday, when he was fully grown and strong and had mastered all he needed from the books, he was going to fly the ship. He was going to look for his people, the ones who had left Earth before the new race came....

He told no one. But Walden watched him, and sighed.

"They'll never let you do it, Eric. It's a mad dream."

"What are you talking about?"

"The ship. You want to go to the stars, don't you?"

Eric stared at him, more surprised than he'd been in years. He had said nothing. There was no way for Walden to know. Unless he'd perceived it--and Eric couldn't be perceived, any more than he could perceive other people....

Walden shook his head. "It wasn't telepathy that told me. It was your eyes. The way you look at the ship. And besides, I've known you for years now. And I've wondered how long it would be before you thought of this answer."
"Well, why not?" Eric looked across at the ship, and his throat caught, choking him, the way it always did. "I'm lonely here. My people are gone. Why shouldn't I go?"

"You'd be lonelier inside that ship, by yourself, away from Earth, away from everything, and with no assurance you'd ever find anyone at all, old race or new or alien...."

Eric didn't answer. He looked back at the ship, thinking of the books, trying to think of it as a prison, a weightless prison carrying him forever into the unknown, with no one to talk to, no one to see.

Walden was right. He would be too much alone in the ship. He'd have to postpone his dream.

He'd wait until he was old, and take the ship and die in it....

Eric smiled at the thought. He was seventeen, old enough to know that his idea was adolescent and melodramatic. He knew, suddenly, that he'd never fly the ship.

* * * * *

The years passed. Eric spent most of his time at the museum. He had his own aircar now, and sometimes he flew it home and visited with his parents. They liked to have him come. They liked it much better than having to travel all the way to the museum to visit him.

Yet, though he wasn't dependent on other people any more, and could fly the aircar as he chose, he didn't do much exploring. He didn't have any desire to meet strangers. And there were always the books.

"You're sure you're all right?" his mother said. "You don't need anything?"

"No. I'm fine."

He smiled, looking out through the sunporch wall into the garden. It seemed years and years since he'd pressed his nose to the glass, watching the butterflies. It had been a long time.

"I've got to get going," he said. "I want to be back at the museum by dark."

"Well, if you're sure you won't stay...."

They said goodbye and he went out and got into the aircar and started back. He flew slowly, close to the ground, because he really had plenty of time and he felt lazy. He skimmed along over a valley and heard laughter and dipped lower. A group of children was playing. Young ones--they even talked aloud sometimes as they played. Children.... There were so many children, always in groups, laughing....

He flew on, quickly, until he was in a part of the country where he didn't see any houses. Just a stream and a grove of trees and bright flowers. He dropped lower, stopped, got out and walked down to the stream.

It was by another stream that he'd met the children who had laughed at him, years ago. He smiled, sadly. He felt alone, but in a different sense from his usual isolation. He felt free, away from people, away even from the books and their unspoken insistence that their writers were dead and almost forgotten. He stood by the edge of the stream, watching water spiders scoot across the rippled surface.

This was the same. This stream had probably been here when the old race was here, maybe even before the old race had even come into existence.

Water spiders. Compared to man, their race was immortal....

The sun was low when he turned away from the stream and walked back to where he had parked the aircar. He scarcely looked about him as he walked. He was sure he was alone, and he felt no caution, no need to watch and listen.

But as he turned toward the car he saw the people. Two. Young, about his own age. A boy and a girl, smiling at each other, holding hands.

They weren't a dozen feet in front of him. But they didn't notice him. They were conscious of no one but each other. As Eric watched, standing frozen, unwilling to draw attention to himself by even moving or backing up, the two leaned closer together. Their arms went around in groups, laughing....

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They said nothing. They kissed, and then stood apart and went on looking at each other. Even without being able to perceive, Eric could feel their emotion.

Then they turned, slowly, toward him. In a moment they would be aware of him. He didn't want them to think he was spying on them, so he went toward them, making no effort to be quiet, and as he moved they stepped still farther apart and looked at him, startled.

They looked at each other as he passed, even more startled, and the girl's hand went up to her mouth in surprise.

They know, Eric thought bitterly. They know I'm different.

He didn't want to go back to the museum. He flew blindly, not looking down at the neat domed houses and the gardens and the people, but ahead, to the eastern sky and the upthrust scarp of the hills. The hills, where people like him had fled, for a little while.

The occasional aircars disappeared. The gardens dropped away, and the ordered color, and there was grass and bare dirt and, ahead, the scraggly trees and out-thrust rocks of the foothills. No people. Only the birds circling, crying to each other, curious about the car. Only the scurrying animals of the underbrush below.
A little of the tension drained from him as he climbed. Perhaps in these very hills men like him had walked, not many generations ago. Perhaps they would walk there again, amid the disorder of tree and canyon and tumbled rock. Amid the wildness, the beauty that was neither that of the gardens nor that of the old race's cities, but older, more enduring than either.

Below him were other streams, but these were swift-flowing, violent, sparkling like prismsunlight as they cascaded over the rocks. Their wildness called to him, soothed him as the starship soothed him, as the gardens and the neat domed houses never could.

He knew why his kind had fled to the hills, for whatever little time they had. He knew too that he would come again.

Searching. Looking for his own kind.

That was what he was doing. That was what he had always intended to do, ever since he had heard of the others like himself, the men who had come here before him. He realized his motive suddenly, and realized too the futility of it. But futile or not, he would come again.

For he was of the old race. He shared their hungering.

Walden was reading in his study when the council members arrived. They came without advance warning and filed in ceremoniously, responding rather coolly to his greeting.

"We're here about the boy," Abbot began abruptly. "He's at the museum now, isn't he?"

Walden nodded. "He's been spending most of his time there lately."

"Do you think it's wise, letting him wander around alone?"

Trouble. Always trouble. Just because there was one young boy, Eric, asking only to be let alone. And the old council members wouldn't rest until they had managed to find an excuse to put him in an institution somewhere, where his actions could be watched, where there wouldn't be any more uncertainty.

"Eric's all right."

"Is he? Prior tells me he leaves the museum every day. He doesn't come here. He doesn't visit his family."

The thin man, Drew, broke in. "He goes to the hills. Just like the others did. Did you know that, Walden?"

Walden's mouth tightened. It wouldn't do to let them read his hostility to their prying. It would be even worse to let them know that they worried him.

"Besides," Drew added, "he's old enough to be thinking about women now. There's always a chance he'll--"

"Are you crazy?" Walden shouted the words aloud. "Eric's not an animal."

"Isn't he?" Abbot answered quietly. "Weren't all the old race just animals?"

Walden turned away from them, closing his mind to their thoughts. He mustn't show anger. If he did, they'd probably decide he was too emotional, not to be trusted. They'd take Eric away, to some institution. Cage him....

"What do you want to do with the boy?" Walden forced his thoughts to come quietly. "Do you want to put him in a zoo with the other animals?"

The sarcasm hurt them. They wanted to be fair. Abbot especially prided himself on his fairness.

"Of course not."

They hesitated. They weren't going to do anything. Not this time. They stood around and made a little polite conversation, about other things, and then Abbot turned toward the door.

"We just wanted to be sure you knew what was going on." Abbot paused. "You'll keep an eye on the boy, won't you?"

"Am I his keeper?" Walden asked softly.

They didn't answer him. Their thoughts were confused and a bit irritated as they went out to the aircar that had brought them. But he knew they'd be back. And they would keep track of Eric. Prior, the caretaker, would help them. Prior was old too, and worried....

Walden walked back into his study, slowly. His legs were trembling. He hadn't realized how upset he had been. He smiled at the intensity of his emotions, realizing something he'd always kept hidden, even from himself.

He was as fond of Eric as if the boy had been his own son.

Eric pushed the books away, impatiently. He didn't feel like studying. The equations were meaningless. He was tired of books, and history, and all the facts about the old race.

He wanted to be outdoors, exploring, walking along the hillsides, looking for his own kind.

But he had already explored the hills. He had flown for miles, and walked for miles, and searched dozens of caves in dozens of gorges. He had found no one. He was sure that if there had been anyone he would have discovered some sign.

He opened the book again, but he couldn't concentrate on it.
Beyond those hills, across another valley, there were even higher mountains. He had often looked across at them, wondering what they held. They were probably as desolate as the ones he'd searched. Still, he would rather be out in them, looking, than sitting here, fretting, almost hating the old race because it had somehow bequeathed him a heritage of loneliness.

He got up abruptly and went outside to the aircar.

It was a long way to the second range of mountains. He flew there directly, skimming over the nearer hills, the ones he had spent weeks exploring. He dropped low over the intervening valley, passing over the houses and towns, looking down at the gardens. The new race filled all the valleys.

He came into the foothills and swung the car upward, climbing over the steep mountainsides. Within a mile from the valley's edge he was in wild country. He'd thought the other hills were wild, but here the terrain was jagged and rock-strewn, with boulders flung about as if by some giant hand. There were a hundred narrow canyons, opening into each other, steep-sloped, overgrown with brambles and almost impenetrable, a maze with the hills rising around them and cutting off all view of the surrounding country.

Eric dropped down into one of the larger canyons. Immediately he realized how easy it would be to get lost in those hills. There were no landmarks that were not like a hundred jutting others. Without the aircar he would be lost in a few minutes. He wondered suddenly if anyone, old race or new, had ever been here before him.

He set the aircar down on the valley floor and got out and walked away from it, upstream, following the little creek that tumbled past him over the rocks. By the time he had gone a hundred paces the car was out of sight.

It was quiet. Far away birds called to each other, and insects buzzed around him, but other than these sounds there was nothing but his own footsteps and the creek rapids. He relaxed, walking more slowly, looking about him idly, no longer searching for anything.

He rounded another bend, climbed up over a rock that blocked his path and dropped down on the other side of it. Then he froze, staring.

Not ten feet ahead of him lay the ashes of a campfire, still smoldering, still sending a thin wisp of smoke up into the air.

He saw no one. Nothing moved. No tracks showed in the rocky ground. Except for the fire, the gorge looked as uninhabited as any of the others.

Slowly Eric walked toward the campfire and knelt down and held his hand over the embers. Heat rose about him. The fire hadn't been out for very long.

He turned quickly, glancing about him, but there was no sudden motion anywhere, no indication that anyone was hiding nearby. Perhaps there was nobody near. Perhaps whoever had built the fire had left it some time before, and was miles away by now....

He didn't think so. He had a feeling that eyes were watching him. It was a strange feeling, almost as if he could perceive. Wishful thinking, he told himself. Unreal, untrue....

But someone had been here. Someone had built the fire. And it was probably, almost certainly, someone without perception. Someone like himself.

His knees were shaking. His hands trembled, and sweat broke out on the palms. Yet his thoughts seemed calm, icily calm. It was just a nervous reaction, he knew that. A reaction to the sudden knowledge that people were here, out in these hills where he had searched for them but never, deep down, expected to find them. They were probably watching him right now, hidden up among the trees somewhere, afraid to move because then he would see them and start out to capture them.

If there were people here, they must think that he was one of the normal ones. That he could perceive. So they would keep quiet, because a person with perception couldn't possibly perceive a person who lacked it. They would remain motionless, hoping to stay hidden, waiting for him to leave so that they could flee deeper into the hills.

They couldn't know that he was one of them.

He felt helpless, suddenly. So near, so near--and yet he couldn't reach them. The people who lived here in the wild mountain gorges could elude him forever.

No motion. No sound. Only the embers, smoking....

"Listen," he called aloud. "Can you hear me?"

The canyon walls caught his voice, sent it echoing back, fainter and fainter. "... can you hear me can you hear me can you...."

No one answered.

"I'm your friend," he called. "I can't perceive. I'm one of you."

Over and over it echoed. "... one of you one of you one of you...."

"Answer me. I've run away from them too. Answer me!"

"Answer me answer me answer me...."
The echoes died away and it was quiet, too quiet. No sound. Even if they heard him, they wouldn't answer.

He couldn't track them. If they had homes that were easy to find they would have left them by now. He was helpless.

The heat from the fire rose about him, and he tasted smoke and coughed. Nothing moved. Finally he stood up, turned away from the fire and walked on past it, up the stream.

No one. No tracks. No sign. Only the feeling that other eyes watched him as he walked along, other ears listened for the sound of his passing.

He turned back, retraced his steps to the fire. The embers had blackened. The wisp of smoke that curled upward was very thin now. Otherwise everything was the same as it had been.

He couldn't give up and fly back to the museum. If he did he might never find them again. But even if he didn't, he might never find them.

"Listen!" He screamed the word, so loudly that they could have heard it miles away. "I'm one of you. I can't perceive. Believe me! You've got to believe me!"

"Believe me believe me believe me...."

Nothing. The tension went out of him suddenly and he began to tremble again, and his throat choked up, wanting to cry. He stumbled from the embers, back in the direction of the aircar.

"Believe me..." This time the words were little more than a whisper, and there was no echo.

"I believe you," a voice said quietly.

** * * * *

He swung about, trying to place it, and saw the woman. She stood at the edge of the trees, above the campfire, half hidden in the undergrowth. She looked down at him warily, a rock clenched in her hand. She wasn't an attractive sight.

She looked old, with a leathery skin and gnarled arms and legs. Her grey-white hair was matted, pulled back into a snarled bun behind her head. She wore a shapeless dress of some roughwoven material that hung limply from her shoulders, torn, dirty, ancient. He'd never seen an animal as dirty as she.

"So you can't perceive," the woman cackled. "I believe it, boy. You don't have that look about you."

"I didn't know," Eric said softly. "I never knew until today that there were any others."

She laughed, a high-pitched laugh that broke off into a choking cough. "There aren't many of us, boy. Not many. Me and Nell--but she's an old, old woman. And Lisa, of course...."

She cackled again, nodding. "I always told Lisa to wait," she said firmly. "I told her that there'd be another young one along."

"Who are you?" Eric said. "Me? Call me Mag. Come on, boy. Come on. What are you waiting for?"

She turned and started off up the hill, walking so fast that she was almost out of sight among the trees before Eric recovered enough to follow her. He stumbled after her, clawing his way up the steep slope, slipping and grabbing the branches with his hands and hauling himself up the rocks.

"You're a slow one." The old woman paused and waited for him to catch up. "Where've you been all your life? You don't act like a mountain boy."

"I'm not," Eric said. "I'm from the valley...."

He stopped talking. He realized, suddenly, the futility of trying to explain his life to her. If she had ever known the towns, it would have been years ago. She was too old, and tattered, and so dirty that her smell wasn't even a good clean animal smell.

"Hurry up, boy!"

He felt unreal, as if this were a dream, as if he would awaken suddenly and be back at the museum. He almost wished that he would. He couldn't believe that he had found another like himself and was now following her, scrambling up a mountain as if he were a goat.

A goat. Smells. The dirty old woman in front of him. He wrinkled his nose in disgust and then was furious with himself, with his reactions, with the sudden knowledge that he had glamorized his kind and had hoped to find them noble and brilliant.

This tattered old woman with her cackling laugh and leathery, toothless face and dirt encrusted clothing couldn't be like him. He couldn't accept it....

Mag led him up the slope and then over some heaped boulders, and suddenly they were on level ground again. They had come out into a tiny canyon, a blind pocket recessed into the mountain, almost completely surrounded by walls that rose sharply upward. Back across the gorge, huddled against the face of the mountain, was a tiny hut.

It was primitive, like those in the prehistoric sections of the old history books. It was made of branches lashed together, with sides that leaned crookedly against each other and a matted roof that looked as if it would slide off at
any minute. It was like a twig house that a child might make with sticks and grass.

"Our home," Mag said. Her voice was proud.

He didn't answer. He followed her across toward it, past the mounds of refuse, the fruit rinds and bones and skins that were flung carelessly beside the trail. He smelled the scent of decay and rottenness and turned his head away, feeling sick.

"Lisa! Lisa!" Mag shouted, the words echoing and re-echoing.

A figure moved just inside the hut doorway. "She's not here," a voice called. "She's out hunting."

"Well, come on out, Nell, and see what I've found."

The figure moved slowly out from the gloom of the hut, bending to get through the low door, half straightening up outside, and Eric saw that it was an old, old woman. She couldn't straighten very far. She was too old, bent and twisted and brittle, feebler looking than anyone Eric had ever seen before. She hobbled toward him slowly, teetering from side to side as she walked, her hands held out in front of her, her eyes on the ground.

"What is it, Mag?" Her voice was as twisted as her body.

"A boy. Valley boy. Just the age for our Lisa, too."

Eric felt his face redden and he opened his mouth to protest, to say something, anything, but Mag went right on talking, ignoring him.

"The boy came in an aircar. I thought he was one of the normals--but he's not. Hasn't their ways. Good looking boy, too."

"Is he?" Nell had reached them. She stopped and looked up, right into Eric's face, and for the first time he realized that she was blind. Her eyes were milky white, without pupils, without irises. Against the brown leather of her skin they looked moist and dead.

"Speak, boy," she croaked. "Let me hear your voice."

"Hello," Eric said, feeling utterly foolish and utterly confused. "I'm Eric."

"Eric...." Nell reached out, touched his arm with her hand, ran her fingers up over his shoulders, over his chest.

"It's been a long time since I've heard a man's voice," she said. "Not since Mag here was a little girl."

"Have you been--here--all that time?" Eric asked, looking around him at the hut, and the meat hanging to dry, covered with flies, and the leather water bags, and the mounds of refuse, the huge, heaped mounds that he couldn't stop smelling.

"Yes," Nell said. "I've been here longer than I want to remember, boy. We came here from the other mountains when Mag was only a baby."

They walked toward the hut, and as they neared it he smelled a new smell, that of stale smoke and stale sweat overlying the general odor of decay.

"Let's talk out here," he said, not wanting to go inside.

They sat down on the hard earth and the two women turned their faces toward him, Mag watching him intently, Nell listening, her head cocked to one side like an old crippled bird's.

"I always thought I was the only one like me," Eric said. "The people don't know of any others. They don't know you exist. They wouldn't believe it."

"That's the way we want it," Mag said. "That's the only way it can be."

Nell nodded. "I was a girl in the other hills," she said, nodding toward the west, toward the museum. "There were several of us then. There had been families of us in my father's time, and in his father's time, and maybe before that even. But when I was a girl there was only my father and my mother and another wife of my father's, and a lot of children...."

She paused, still looking toward the west, facing a horizon she could no longer see. "The normal ones came. We'd hidden from them before. But this time we had no chance to hide. I was hunting, with the boy who was my father's nephew."

"They surrounded the hut. They didn't make any sound. They don't have to. I was in the forest when I heard my mother scream."

"Did they kill her?" Eric cried out. "They wouldn't do that."

"No, they didn't kill any of them. They dragged them off to the aircars, all of them. My father, my mother and the other woman, the children. We watched from the trees and saw them dragged off, tied with ropes, like wild animals. The cars flew away. Our people never came back."

She stopped, sunken in revery. Mag took up the story. Her voice was matter-of-fact, completely casual about those long ago events.

"A bear killed my father. That was after we came back here. Nell was sick. I did the hunting. We almost starved, for a while, but there's lots of game in the hills. It's a good life here. But I've been sorry for Lisa. She's a
woman now. She needs a man. I'm glad you came. I would have hated to send her out looking for a normal one."

"But--" Eric stopped, his head whirling. He didn't know what to say. Anything at all would sound wrong, cruel.

"It's dangerous," Mag went on, "taking up with the normals. They think it's wrong. They think we're animals.

One of us has to pick a man who's stupid--a farmer, maybe--and even then it's like being a pet. A beast."

It took a moment for Eric to realize what she was saying, and when he did realize, the thought horrified him.

"Lisa's father was stupid," Mag said. "He took me in when I came down from the hills. He didn't send for the

others. Not then. He kept me and fed me and treated me kindly, and I thought I was safe. I thought our kind and

theirs could live together."

She laughed. Deep, bitter lines creased her mouth. "A week later the aircar came. They sneaked up to the
garden where I was. He was with them. He was leading them."

"I got away," Mag said. "I saw them coming. They can't run fast, and I knew the hiding places. I never went

back to the valleys. Nell would have starved without me. And there was Lisa to care for, later...."

The old woman, Nell, rocked back and forth, her face still in revery. Flies crawled over her bare arms,

unheeded.

"You must be hungry, boy."

It was filthy. Dirt clung to it--dust and pollen and grime--and the flies had flown off in clouds when she lifted it
down.

The old woman raised her piece and put the edge of it in her mouth and started to chew, slowly, eating her way

up the strip. Mag tore hers with her teeth, rending it and swallowing it quickly, watching Eric all the time.

"Eat."

It was unreal. He couldn't be here. These women couldn't exist.

He lifted the meat, feeling his stomach knot with disgust, wanting to fling it from him and run, blindly, down

the hill to the aircar. But he didn't. He had searched too long to flee now. Shuddering, he closed his mind to the flies

and the smell and the filth and bit into the meat and chewed it and swallowed it. And all the time, Mag watched him.

The sun passed overhead and began to dip toward the west. The shadows, which had shortened as they sat in

front of the hut, lengthened again, until they themselves were half in the shadow of the trees lining the gorge. Still

Lisa did not come. It was very quiet. The only sounds that broke the silence were their own voices and the buzzing

of the flies.

They talked, but communication was difficult between them. Eric tried to accept their ideas, their way of life,

but he couldn't. The things they said were strange to him. Their whole pattern of life was strange to him. He could

understand it at all only because he had studied the primitive peoples of the old race. But he couldn't imagine

himself as one of them. He couldn't think of himself as having grown up among them, in the hills, living only to hunt

and gather berries and store food for the wintertime. He couldn't think of himself hiding, creeping through the

gorges like a hunted animal, flattening himself in the underbrush whenever an aircar passed by.

He sat and listened to them talk, and his amazement grew. Their beliefs were so different. He listened to their

superstitious accounts of the old race, and the way it had been "in the beginning."

He listened to their legends of the old gods who flew through the air and were a mighty people, but who were

destroyed by a new race of devils. He listened as they told him of their own ancestors, children of the gods, who had

fled to the hills to await the gods' return. They had no conception at all of the thousands of years that had elapsed

between the old race's passing and their own forefathers' flight into the hills. And when he tried to explain, they

shook their heads and wouldn't believe him.

He didn't hear Lisa come. One minute the far end of the clearing was empty and still and the next minute the
girl was walking across it toward them, a bow in one hand and a pair of rabbits dangling from the other.

She saw him and stopped, the rabbits dropping from her hand.

"Here's your young man, Lisa," Mag said. "Valley boy. His name's Eric."

He stared back at her, more in curiosity than in surprise. She wasn't nearly as unattractive as he had thought she

would be. She wouldn't be bad looking at all, he thought, if she were clean. She was fairly tall and lean, too skinny

really, with thin muscular arms instead of the softly rounded arms the valley girls had. She was too brown, but her

skin hadn't turned leathery yet, and there was still a little life in the lank brown hair that fell matted about her

shoulders.
"Hello, Lisa," he said.

"Hello." Her eyes never left him. She stared at him, her lips trembling, her whole body tensed. She looked as if she were going to turn and run at any moment, as if only his quietness kept her from fleeing.

With a sudden shock Eric realized that she too was afraid--afraid of him. His own hesitation fell away and he smiled at her.

Mag got up and went over to the girl and put her arm around Lisa's shoulders. "Don't be afraid of him, child," Mag said. "He's a nice boy. Not like one of them."

Lisa trembled.

Eric watched her, pitying her. She was as helpless as he before the calm assumption of the older women. More helpless, because she had probably never thought of defying them, of escaping the pattern of their lives.

"Don't worry, Lisa," he said. "I won't hurt you."

Slowly she walked toward him, poised, waiting for a hostile move. She came within a few feet of him and then sank to her haunches, still watching him, still poised.

She was as savage as the others. A graceful, dirty savage.

"You're really one of us?" she said. "You can't perceive?"

"No," he said. "I can't perceive."

"He's not like them," Mag said flatly. "If you'd ever been among them, you'd know their ways."

"I've never seen a man before, up close," Lisa said.

Her eyes pleaded with him, and suddenly he knew why he pitied her. It was because she felt helpless before him, and beggled him not to harm her, and thought of him as something above her, more powerful than she, and dangerous. He looked across at her and felt protective, and it was a new feeling to him, absolutely new. Because always before, around the normals, even around his own parents and Walden, he had been the helpless one.

He liked this new feeling, and wished it could last. But it couldn't. He couldn't do as the old women expected him to, leave the valley and his parents, leave the books and the museum and the ship, just to hide in the hills like a beast with them.

He had come to find his people, but these three were not they.

"You two go on off and talk," Mag said. "We're old. We don't matter now. You've got things to settle between you."

She cackled again and got up and went into the hut and old Nell got up also and followed her.

The girl shivered. She drew back a little, away from him. Her eyes never left his face.

"Don't be afraid, Lisa," he said gently. "I won't hurt you. I won't even touch you. But I would like to talk to you."

"All right," she said.

They got up and walked to the end of the gorge, the girl keeping always a few feet from him. At the boulders she stopped and faced him, her back against a rock, her thin body still trembling.

"Lisa," he said. "I want to be your friend."

Her eyes widened. "How can you?" she said. "Men are friends. Women are friends. But you're a man and I'm a woman and it's different."

He shook his head helplessly, trying to think of a way to explain things to her. He couldn't say that he found her dirty and unattractive and almost another species. He couldn't say that he'd searched the hills, often thinking of the relationship between man and woman, but that she wasn't the woman, that she never could be the woman for him. He couldn't tell her that he pitied her in perhaps the same way that the normals pitied him.

Still, he wanted to talk to her. He wanted to be her friend. Because he was sure now that he could search the mountains forever, and perhaps find other people, even if those he found were like her, and Mag and Nell.

"Listen, Lisa," he said. "I can't live up here. I live in the valley. I came in an aircar, and it's down in the canyon below here. I have to go back--soon. Before it gets completely dark."

"Why?"

"If I don't the normals will come looking for me. They'll find the aircar and then they'll find us. And you and your family will be taken away. Don't you understand?"

"You're going?" Lisa said.

"In a little while. I must."

She looked at him, strangely. She looked at his clothes, at his face, at his body. Then she looked at her own hands and touched her own coarse dress, and she nodded.

"You won't come back," she said. "You don't like me. I'm not what you were searching for."

He couldn't answer. Her words hurt him. The very fact that she could recognize their difference from each other hurt him. He pitied her still more.
"I'll come back," he said, "Of course I will. As often as I can. You're the only other people I've ever known who didn't perceive."

She looked up into his face again. Her eyes were very large. They were the only beautiful thing about her.
"Even if you do come back, you won't want me."

There wasn't any answer at all.

* * * * *

It was dusk when Eric got back to the museum. He landed the aircar and climbed out and walked across to the building, still feeling unreal, still not believing that the events of this day had actually happened.

He nodded to Prior and the old caretaker nodded back and then stood staring at him, troubled and curious. Eric didn't notice the other's expression, nor the fact that Prior followed him to the top of the spiral ramp and remained there for a while, watching.

Eric stood at the bottom of the well where he had so often stood before, staring across at the ship, then looking up, up, up its sleek length to where its nose pointed yearningly toward the night sky. But tonight he found no comfort in the sight, no sense of kinship with its builders. Tonight the ship was a dead and empty thing.
"You won't want me--" Her voice, her eyes, came between him and the stars.

He had thought of finding his people and sharing with them their common heritage from the past, the knowledge of the old race and its thoughts and its science and its philosophy. He had thought of sharing with them the old desire for the stars, the old hunger, the old loneliness that the new race could never understand. He had been wrong.

His people.... He pushed the thought away.

He looked up at the stars that were merely pin-pricks of light at the top of the well and wondered if anyone, old race or new or something different from either, lived among them now. And he felt small, and even the ship was small, and his own problems and his own search were unimportant. He sat down and leaned back against the smooth wall and closed his eyes, blotting out the ship and the stars, and finally, even Lisa's face before him.

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The old caretaker found him sleeping there, and sighed, and went away again, still frowning. Eric slept on, unheeding. When he awoke it was late morning and the stars were gone and clouds drifted across the mouth of the well.

There was no answer here. The starship would never fly.

And Eric went back to the mountains.

* * * * *

It was two weeks later that the councilmen stood facing Walden across the great museum table. They had come together, Abbot and Drew and the others, and they faced him together, frowning. Their thoughts were hidden. Walden could catch only glimpses of what lay beneath their worry.
"Every day." Abbot's eyes were hard, unyielding. "Why, Walden? Why does he go there every day?"
"Does it matter?"
"Perhaps. Perhaps not. We can't tell--yet."
The ring of faces, of buried perceptions, of fear, anxiety, and a worry that could no longer be shrugged off. And Eric away, as he was every day now, somewhere in the distant hills.
"The boy's all right." Walden checked his own rush of worry.
"Is he?"

The worry in the open now, the fear uncontained, and no more vacillation. Their thoughts hidden from Walden, their plans hidden, and nothing he could do, no way to warn Eric, yet.

Abbot smiled, humorlessly. "The boy had better be all right...."

* * * * *

Eric landed in the canyon and made sure that the aircar was hidden under a ledge, with branches drawn about it so that no one could spot it from above. Then he turned and started for the slope, and as he reached it Lisa ran down to meet him.

"You're late," she called.
"Am I? Have you really been waiting for me?"

"Of course." She came over to meet him, laughing, openly glad that he had come.

He smiled back at her and walked along beside her, having to take long strides to match her skipping ones, and he too was glad that he'd come. Lately he felt like this every day. It was a feeling he couldn't analyze. Nothing had changed. The girl was still too thin and too brown and too dirty, although now she had begun to wash her dress and her body in the mountain stream and to comb the snarls from her hair. But it didn't make her attractive to him. It only made her less unattractive.

"Will you always have to go away every night?" she asked guilelessly.
"I suppose so."
He looked down at her and smiled, wondering why he came. There was still an air of unreality about the whole situation. He felt numb. He had felt that way ever since the first day, and the feeling had grown, until now he moved and spoke and smiled and ate and it was as if he were someone else and the person he had been was gone completely. He liked coming here. But there was no triumph in being with these people, no sense of having found his own kind, no purpose, nothing but a vague contentment and an unwillingness to search any farther.
"You're very quiet," Lisa said.
"I know. I was thinking."
She reached out and touched his arm, her fingers strong and muscular. He smiled at her but made no move toward her, and after a moment she sighed and took her hand away.
"Why are you so different, Eric?"
"Perhaps because I was raised by the others, the normal ones. Perhaps just because I've read so many books about the old race...."
They came up to the boulders that blocked the entrance of the little gorge where the hut was. Lisa started toward them, then stopped abruptly.
"Let's go on up the hill. I want to talk to you, without them."
"All right."
He followed her without speaking, concentrating all his effort on scrambling over the rougher spots in the trail. She didn't say anything more until they had come out on a high ledge that overlooked the whole canyon and she had sat down and motioned for him to sit down too.
"Whew," he panted. "You're a mountain goat, Lisa."
She didn't smile. "I've liked your coming to see us," she said. "I like to listen to you talk. I like the tales you tell of the old ones. But Mag and Nell are upset."
He knew what was coming. His eyes met hers, and then he looked away and reddened and felt sorry for her and what he would have to tell her. This was a subject they had managed to avoid ever since that first day, although the older women brought it up whenever he saw them.
"Mag says I must have a man," Lisa said. Her voice was tight. He couldn't tell if she was crying because he couldn't bear to look at her. He could only stare out over the canyon and listen and wait.
"She says if it isn't you I'll have to find someone else, later on, but she says it ought to be you. Because they're dangerous, and besides, if it's you our children will be sure to be like us."
"What?" He swung around, startled. "Do you mean that if one parent were normal the child might be too?"
"Yes," she said. "It might. They say that's happened. Sometimes. No one knows why we're born. No one knows why some are one way and some another."
"Lisa...." He stopped.
"I know. You don't want me. I've known that all the time."
"It isn't just that."
He tried to find the words to express what he felt, but anything he might say would be cold and cruel and not quite true. He felt the contentment drain out of him, and he felt annoyed, because he didn't want to have to think about her problem, or about anything.
"Why do they want you to have a child?" he said roughly. "Why do they want our kind to go on, living here like animals, or taken to the valleys and separated from each other and put into institutions until we die? Why don't they admit that we've lost, that the normals own the Earth? Why don't they stop breeding and let us die?"
"Your parents were normal, Eric. If all of us died, others would be born, someday."
He nodded and then he closed his eyes and fought against the despair that rose suddenly within him and blotted out the last of the contentment and the unreality. He fought against it and lost. And suddenly Lisa was very real, more real even than the books had ever been. And the dirty old women were suddenly people--individuals, not savages. He tried to pity them, to retreat into his pity and his loneliness, but he couldn't even do that.
The people he had looked for were imaginary. He would never find them, because Mag and Nell and Lisa were his people. They were like him, and the only difference between him and them was one of luck. They were dirty and ignorant. They had been born in the mountains and hunted like beasts. He was more fortunate; he had been born in the valley.
He was a snob. He had looked down on them, when all the time he was one of them. If he had been born among them, he would have been as they were. And, if Lisa had lived in another age, she too would have sought the stars.
Eric sat very still and fought until a little of the turmoil quieted inside of him. Then he opened his eyes again and stared across the canyon, at the rock slides and the trees growing out from the slopes at twisting, precarious angles, and he saw everything in a new light. He saw the old race as it had been far earlier than the age of space-
travel, and he knew that it had conquered many environments on Earth before it had gained a chance to try for those of space. He felt humble, suddenly, and proud at the same time.

Lisa sat beside him, not speaking, drawing away from him and letting him be by himself, as if she knew the conflicts within him and knew enough not to interrupt. He was grateful both for her presence there beside him and for her silence.

Much later, when afternoon shadows had crept well out from the rocks, she turned to him. "Will you take me to the valley someday, Eric?"

"Maybe. But no one must know about you. You know what would happen if any of them found out you even existed."

"Yes," she said. "We'd have to be careful, all right. But you could take me for a ride in the aircar sometime and show me things."

Before, he would have shrugged off her words and forgotten them. Now he couldn't. Decision crystalized quickly in his mind.

"Come on, Lisa," he said, getting to his feet and reaching down to help her up also. "I'll take you to the valley right now."

She looked up at him, unable to speak, her eyes shining, and then she was running ahead of him, down the slope toward the aircar.

* * * * *

The car climbed swiftly away from the valley floor, up between the canyon walls and above them, over the crest of the hills. He circled it for a moment, banking it over on its side so that she could look down at the gorge and the rocks and the cascading stream.

"How do you like it, Lisa?"

"I don't know." She smiled, rather weakly, her body braced against the seat. "It feels so strange."

He smiled back and straightened the car, turning away from the mountains until the great, gardened valley stretched out before them, all the way to the foot of the western hills.

"I'll show you the museum," he said. "I only wish I could take you inside."

She moved away from him, nearer to the window, and looked down at the scattered houses that lay below them, at the people moving in the gardens, at the children.

"I never dreamed it was like this," she said. "I never could picture it before."

There was a longing in her face he'd never noticed before. He stared at her, and she was different suddenly, and her thin muscular body was different too.

Pioneer--that was the word he wanted.

The girls of the new race could never be pioneers.

"Look, Eric. Over there. Aircars."

The words broke in on his thoughts and he looked away from her, following her gaze incuriously, not much interested. And then his fingers stiffened on the controls and the peacefulness fell away from him as if it had never been.

"Lots of them," she said.

Aircars. Eight or ten of them, more than he had ever seen at one time, spread out in a line and flying eastward, straight toward him.

They mustn't see Lisa. They mustn't get close enough to realize who he was.

He swung away from them, perpendicular to their course, angling so that he would be out of perception range, and then he circled, close to the ground, as they swept by, undeviating, purposeful, toward the mountains.

Toward the mountains.

Fear. Sudden, numbing fear and the realization of his own carelessness.

"What's the matter, Eric?"

He had swung about and now followed them, far behind them and off to one side, much too far away for them to try to perceive him. Perhaps, he thought, perhaps they don't know. But all the time he remembered his own trips to the canyon, taken so openly.

"Oh, Eric, they're not--"

He swung up over the last ridge and looked down, and her words choked off in her throat. Below them lay the canyon, and in it, the long line of aircars, landed now, cutting off the gorge, the light reflecting off them, bronze in the sunset. And the tiny figures of men were even now spreading out from the cars.

"What'll we do, Eric?"

Panic. In her voice and in her eyes and in her fingers that bit into his arm, hurting him, steadying him against his own fear and the twisting realization of his betraying lack of caution.
"Run. What else can we do?"

Down back over the ridge, out of sight of the aircars and into the foothills, and all the while knowing that there was nowhere to run to now.

"No, Eric! We've got to go back. We've got to find Mag and Nell--" Her voice rose in anguish, then broke, and she was crying.

"We can't help them by going back," he said harshly. "Maybe they got away. Maybe they didn't. But the others would catch us for sure if they got near us."

Run. It was all they could do, now. Run to other hills and leave the aircar and hide, and live as Lisa had lived, as others of their kind had lived.

"We've got to think of ourselves, Lisa. It's all we can do, now."

Down through the foothills, toward the open valley, and the future, the long blind race to other mountains, and no choice left, no alternative, and the books lost and the starship left behind, forever....

Lisa cried, and her fingers bit into his arm. Ahead of him, too close to flee or deceive, was another line of aircars, flying in from the valley, their formation breaking as they veered toward him.

"Land, Eric. Land and run!"

"We can't, Lisa. There's not enough time."

Everything was lost now—even the hills.

Unless ... one chance. The only chance, and it was nearly hopeless.

"Get in the back, Lisa," he said. "Climb over the seat and hide in that storage compartment. And stay there."

The two nearest cars had swung about now and paralleled his course, flanking him, drifting in nearer and nearer.

"Why?" Lisa clung to him. "What are you going to do?"

"They don't know you're with me. They probably don't even know I went back to the canyon. They think I'll land at the museum, not suspecting anything's wrong. So I'll do just what they expect me to. Go back, and pretend I don't know a thing."

"You're mad."

"It's our only chance, Lisa. If only they don't lock me up tonight...." She clung to him for still another minute and then she climbed over the seat and he heard the luggage compartment panel slide open and, a moment later, shut.

The nearest aircar drifted still closer to him, escorting him west-ward, toward the museum. Behind him, other cars closed in.

* * * * *

Walden and Prior were waiting for him at the entrance of the main building, just as they had waited so often before. He greeted them casually, trying to act exactly as he usually did, but their greetings to him were far from casual. They stared at him oddly, Prior even drawing back a little as he approached. Walden looked at him for a long moment, very seriously, as if trying to tell him something, but what it was Eric didn't know. Both men were worried, their anxiety showing in their manner, and Eric wondered if he himself showed the fear that gripped him.

They must know what had happened. By now probably every normal person within a hundred miles of the museum must know.

At the entrance he glanced back idly and saw that one of the aircars that had followed him had landed and that the others were angling off again, leaving. It was too dark to see how many men got out of the car, but Walden and Prior were facing in that direction, communicating, and Eric knew that they knew. Everything.

It was like a trap around him, with each of their minds a strand of the net, and he was unable to see which strands were about to entangle him, unable to see if there were any holes through which he might escape. All he could do was pretend that he didn't even know the net existed, and wait.

Half a dozen men came up to Prior and Walden. One of them was Abbot. His face was very stern, and when he glanced over at where Eric stood in the building entrance his face grew even sternner.

Eric watched them for a moment; then he went inside, the way he usually did when there were lots of people around. He wished he knew what they were saying. He wished he knew what was going to happen.

He went on into the library and pulled out a book at random and sat down and started turning the pages. He couldn't read. He kept waiting for them to come in, for one of them to lay a hand on his shoulder and tell him to come along, that they knew he had found other people like himself and that he was a danger to their race and that they were going to lock him up somewhere.

What would happen to Lisa? They'd find her, of course. She could never escape alone, on foot, to the hills.

What had happened to Mag and Nell?

No one came. He knew that their perceptions lay all around him, but he could sense no emotions, no thoughts
but his own.

He sat and waited, his eyes focused on the book but not seeing it. It seemed hours before anyone came. Then Prior and Abbot and Walden were in the archway, looking across at him. Prior's face was still worried, Abbot's stern, Walden's reassuring....

Eric forced himself to smile at them and then turn another page and pretend to go on reading. After a moment he heard their footsteps retreating, and when he looked up again they were gone.

He sat a while longer and then he got up and walked down the ramp and stood for a few minutes looking at the ship, because that too would be expected of him. He felt nothing. The ship was a world away now, mocking him, for his future no longer lay in the past, with the old race, but out in the hills. If he had a future at all....

He went up the ramp again, toward his own room. No one else was in sight. They had all gone to bed, perhaps. They wouldn't expect him to try to run away now.

He began to walk, as aimlessly as he could, in the direction of the aircar. He saw no one. Perhaps it wasn't even guarded. He circled around it, still seeing no one; then, feeling more secure suddenly, he went directly toward it and reached up to open the panel and climb in.

"Is that you, Eric?"
Walden's voice. Quiet as always. And it came from inside the car.

Eric stood frozen, looking up at the ship, trying to see Walden's face and unable to find it in the darkness. He didn't answer--couldn't answer. He listened, and heard nothing except Walden, there above him, moving on the seat.

Where was Lisa?
"I thought you'd come back here," Walden said. He climbed down out of the aircar and stood facing Eric, his body a dim shadow.

"Why are you here?" Eric whispered.
"I wanted to see you. Without the others knowing it. I was sure you'd come here tonight."

Walden. Always Walden. First his teacher and then his friend, and now the one man who stood between him and freedom. For a second Eric felt his muscles tense and he stiffened, ready to leap upon the older man and knock him down and take the ship and run. Then he relaxed. It was a senseless impulse, primitive and useless.

"The others don't know you have any idea what's happened, Eric. But I could tell. It was written all over you."

Eric listened, and slowly his tension relaxed, replaced by a dull ache of mourning. But he knew that he was glad to hear that they were dead and not captured, not dragged away from the hills to be bathed and well fed and imprisoned forever under the eyes of the new race.

"The old one was blind," Walden said. "It may have been her blindness that caused her to fall."

"It wasn't."

"No, Eric, it probably wasn't."

They were silent for a moment, and there was no sound at all except for their own breathing. Eric wondered if Lisa still hid in the aircar, if she was listening to them, afraid and hopeless and crying over the death of her people.

"Why did you come out here, Walden?"

"To see you. I came today, when I realized how suspicious the council had grown. I was going to warn you, to tell you to keep away from the hills, that they wanted an excuse to lock you up. I was too late."

"I was careless, Walden." He felt guilt twist inside of him.

"No. You didn't know the danger. I should have warned you sooner. But I never dreamed you would find anyone in the hills, Eric. I never dreamed there were any more without perception, this generation."

Eric moved nearer the car and leaned against it, the cold plastic next to his body cooling him a little, steadying him against the feverish trembling that shook his legs and sent sweat down over him and made him too weak, suddenly, to want to struggle further.

"Let me go, Walden. Let me take the car and go."
Walden didn't move. He stood quietly, a tall thin shape in the darkness.

"There are other people the searchers didn't find, aren't there? And you're going to them."

Eric didn't answer. He looked past Walden, at the car, wishing he could somehow call to Lisa, wishing they could perceive so that he could reassure her and promise her that somehow he'd still take her to freedom. But it would be an empty promise....

"I've warned you too late. You've found your people, but it won't do you any good. They'll hunt you through
the hills, and I won't be able to help you any more."

Eric looked back at him, hearing the sadness in his voice. It was real sadness, real emotion. He thought of the years he had spent with Walden, learning, absorbing the old race knowledge, and he remembered that all through those years Walden had never once made him feel uncomfortable because of the difference between them.

He looked at the old man for a long time, wishing that it was day so he could read the other's expression, wondering how he had managed to take this man for granted for so long.

"Why?" he whispered. "Why are you helping me? Why aren't you like the others?"

"I never had a son, Eric. Perhaps that's the reason."

Eric thought of Myron and shook his head. "No, it isn't that. My father doesn't feel the way you do. He can't forget that I'm not normal. With him, I'm always aware of the difference."

"And you're not with me?"

"No," Eric said. "I'm not. Why?" And he wondered why he had never asked that question before.

"The final question," Walden said softly. "I wondered how long it would be before you asked it. I wondered if you'd ever ask it.

"Haven't you ever thought about why I never married, Eric? Haven't you ever asked yourself why I alone learned to read, and collected books, and studied the old race?"

"No," Eric admitted. "I just accepted you."

"Even though I can perceive and you can't." Walden paused and Eric waited, not knowing what was coming and yet sure that nothing could surprise him now.

"My father was normal," Walden said slowly. "But I never saw him. My mother was like you. So was my brother. We lived in the hills and I was the only one who could perceive. I learned what it was to be different."

Eric stared. He couldn't stop staring. And yet he should have realized, long ago, that Walden was different too, in his own way.

Walden smiled back, his face, shadowed in moonlight, as quiet and as understanding as ever. For a moment neither spoke, and there was only the faraway sound of crickets chirping and the rustling of the wind in the gardens.

And then, from within the aircar, there was a different rustling, that of a person moving.

"Lisa!"

Eric pushed the compartment panel back. The soft light came on automatically, framing her where she curled against the far wall.

"You heard us?"

She nodded. Tears had dried on her cheeks. Her eyes were huge in her thin face.

"We'd better go, Lisa."

He reached in to help her out.

They didn't see the aircar dropping in for a landing until it was almost upon them, until its lights arced down over the museum walls.

"Hide, Eric. In here--" Lisa pulled him forward.

Behind them, Walden's voice, suddenly tired in the darkness. "It's too late. They know I'm here. And they're wondering why."

The three of them stood frozen, watching each other, while the dark shape of the car settled to the ground some thirty yards away.

"It's Abbot," Walden said. He paused, intent for a moment, and added, "He doesn't know about you. Get out of sight somewhere, both of you, away from here--"

"Come on, Lisa--" Eric swung away from the car, toward the shelter of the building and whatever hiding place there might be. "Hurry!"

They ran, and the museum rose in front of them, and the door was open. They were through it and into the dim corridor, and there was no one around; Walden's figure was lost in the night outside. Beyond the libraries the great ramp spiraled downward.

"This way, Lisa!"

They came out into the bottom of the well and there in front of them the starship rested. Still reaching upward. Still waiting, as it had waited for so many uncounted years.

Their ship--if only it could be their ship....

"Oh, Eric!"

Side by side they stood staring at it, and Eric wished that they could get into it and go, right now, while they were still free and there was no one to stop them. But they couldn't. There was no food in the ship, no plant tanks, none of the many provisions the books listed.

Besides, if they took off now they would destroy the museum and all the people in it, and probably kill
themselves as well.

"Eric! We know you're down there!" It wasn't Walden's voice.
Lisa moved closer. Eric put his arm around her and held her while footsteps hurried toward them down the ramp. The council. Abbot and Drew and the others. Prior, shaking his head. Walden.

"Let us go," Eric cried. "Why won't you let us go?"

Walden turned to the others. His eyes pleaded with them. His lips moved and his hands were expressive, gesturing. But the others stood without moving, without expression.

Then Abbot pushed Walden aside and started forward, his face hard and determined and unchangeable.

"You won't let us go," Eric said.

"No. You're fools, both of you."

There was one answer, only one answer, and with it, a hot violence in his blood as the old race pattern came into focus, as the fear and the futility fell away.

It was only a few steps to the ship. Eric caught Lisa's arm and pulled her after him and ran toward it, reaching up to the door. In one motion he flung it open and lifted her through it, then he swung about to face the others.

"Let us go!" he shouted. "Promise to let us go, or we'll take off anyway and if we die at least you'll die too!"

Abbot stopped. He looked back at Walden, his face scornful. "You see?" he said aloud. "They're mad. And you let this happen."

He turned away, dismissing Walden, and came toward the ship. The others followed him.

Eric waited. He stood with his back to the door, waiting, as Abbot strode toward him, ahead of the other councilmen, alone and unprotected.

"You're the fool!" Eric said. He laughed as he leaped forward.

Abbot's eyes went wide suddenly; he tried to dodge, gave a little grunt, and went limp in Eric's grasp.

Eric laughed again, swung Abbot into the ship and leaped in himself. The old race and its violence had never been nearer.

He slammed the door shut, bolted it, and turned back to where the councilman was struggling to his feet.

"Now will you let us go?" Eric said softly. "Or must we take off now, with you--for the stars?"

For a long moment Abbot looked at him, and then his lips trembled and his whole body went slack in defeat.

"The ship is yours," he whispered. "Just let me go."

Outside the ship, Walden chuckled wryly.

* * * * *

The Vacuum Suit was strange against Eric's body, as strange as the straps that bound him to the couch. He looked over at Lisa and she too was unrecognizable, a great bloated slug tied down beside him. Only her face, frightened behind the helmet, looked human.

He reached for the controls, then paused, glancing down through the view screens at the ground, at the people two hundred feet below, tiny ants scurrying away from the ship, running to shelter but still looking up at him. He couldn't see his parents or Walden.

His fingers closed about the control lever but still he stared down. Everything that had been familiar all his life stood out sharply now, because he was leaving and it would never be there again for him. And he had to remember what it was like....

Then he looked up. The sky was blue and cloudless above him, and there were no stars at all. But he knew that beyond the sky the stars were shining.

And perhaps, somewhere amid the stars, the old race waited.

He turned to Lisa. "This may be goodbye, darling."

"It may be. But it doesn't matter, really."

They had each other. It was enough. Even though they could never be as close to each other as the new race was close. They were separate, with a gulf always between their inmost thoughts, but they could bridge that gulf, sometimes.

He turned back to the controls and his fingers tightened. The last line of the poem shouted in his mind, and he laughed, for he knew finally what the poet had meant, what the old race had lived for. We have cast off the planets like outgrown toys, and now we want the stars....

He pulled the lever back and the ship sprang free. A terrible weight pressed against him, crushing him, stifling him. But still he laughed, because he was one of the old race, and he was happy.

And the meaning of his life lay in the search itself.

* * * * *

They stood staring up at the ship until it was only a tiny speck in the sky, and then they looked away from it, at each other. A wave of perception swept among them, drawing them closer to each other in the face of something
they couldn't understand.
"Why did they go?" Abbot asked, in his mind.
"Why did any of the old race go?" Walden answered.
The sunlight flashed off the ship, and then it was gone.
"It's not surprising that the old race died," Abbot said. "They were brilliant, in their way, and yet they did such
strange things. Their lives seemed so completely meaningless...."
Walden didn't answer for a moment. His eyes searched the sky for a last glimpse of the ship, but there was
nothing at all. He sighed, and he looked at Abbot, and then past him, at all the others.
"I wonder," he said, "how long it will be before some other race says the same thing about us."
No one answered. He turned and walked away from them, across the trampled flowers, toward the museum and
the great empty vault where the starship had waited for so long.
THE END

Contents

THE INFRA-MEDIANS
By Sewell Peaslee Wright

There was no sense to the note. There was no sense to anything that Vic Butler did, for that matter. Where he
hid away his vast scientific knowledge in that rattle-brained, red-haired head of his has always been a mystery to me.
The note read:
Dear Pete:
If you get this, I'm in a jam that promises some action.
Drive out, if plane-peddling is palling on you, and bust into the lab. I'm leaving another note there for you, old
son, and after you read it you can let your conscience be your guide.
Bring a gat along, and plenty of ammo. Hope's away, at Aunt Cleo's, so don't get in touch with her and spoil her
visit.
Vic
I had a hot prospect lined up for a demonstration that morning, but I didn't even stop to give him a ring. Vic and
I had been buddies ever since we were kids--and, besides, he was Hope's brother.
Vic's place was out on the river, about ten miles from town, and that little tan roadster of mine made it in just
about ten minutes. The traffic in the business district slowed me up a bit.
There was nothing at all pretentious about the place; it was a rambling, lazy-looking house built largely of
native stone, stretching its length comfortably in the shade of the big maples. Perrin, Vic's man-of-all-work, came
hurrying out of the house to greet me as I locked my wheels on the drive before the door.
"I'm glad you're here, sir!" he exclaimed breathlessly. "I was just about to phone for the police; I was for
certain, sir. Such goings on, I don't know what to think!"
"What's the matter, Perrin? Where's Mr. Butler?"
"That's it, sir! That's exactly it. Where's Mr. Butler? And--"
"Just a moment, please! Cut it short, Perrin. What's happened?"
* * * * *
"I don't know. Yesterday afternoon Mr. Butler leaves a letter for me, which I'm to mail early this morning,
special delivery. It's to you. I reckon you got it, sir?"
"That's why I'm here. Go on."
"Well, after that, he locks himself up in his workroom, so Mrs. Perrin says, she being housekeeper, as you
know, sir, leaving word not to disturb him for dinner.
"We don't think so much of that, Mr. Butler being took with streaks of working at all hours, as you know. But
when Miss Hope came home unexpected this morning--"
"What?"
"She cut her visit a few days short, her aunt having other house guests turn up unexpected like, and Miss Hope
arrives first thing this morning, being here when I return from town after mailing the letter to you, sir.
"Mrs. Perrin had just told her about the master, and Miss Hope looks into his room. He isn't there, and the bed
hasn't been slept in. 'The poor dear,' she says, 'he's worked himself half to death, and dropped off on that horrible cot
he keeps in his laboratory,' says Miss Hope. 'I'll let him sleep.'
"But just a few minutes ago, just before you arrived, sir, she became nervous like, and rapped on the door.
There wasn't a sound. So she went up to the master's room and found a key, and went in. And now she don't answer, and we were just about ready to call the police!

"Let's go inside!" I hurried by Perrin and through the cool, quiet hall to the broad door that opened into the big room at the back of the house, which was Vic's laboratory.

* * * * *

"Vic! Hope!" I pounded as hard as I could, shouting their names. There was no response.

"Is there another key, Perrin?" I snapped.

"No, sir; none that I know of. The master was mighty fussy about his workroom."

"Can we get in through the windows?"

"No. They're barred, if you remember rightly, and fitted with this frosted glass, so you can't see in, even."

"Then get me an ax!" I commanded. "Quick!"

"An ax?" hesitated Perrin.

"An ax--and be quick about it!"

Perrin mumbled a protest and hurried away. I turned to Mrs. Perrin, who had come up to determine the result of my shouting.

"How long is it since Miss Hope went in there?"

"How long, sir? I'd say about twenty minutes before you came. Maybe twenty-five. I wasn't paying any particular attention, sir. She just got the key and went in. After a few minutes I heard something buzzing in there, and I thought maybe Mr. Butler was showing her some new gadget of his, like he was always doing. Then there was a telephone call for him, and I couldn't make neither of them answer; that's when Mr. Perrin and I began to get worried."

"I see." Perrin came hurrying up with the ax, and I motioned them aside. I swung the ax, and the head of the weapon crashed against the lock. The knob dropped to the floor with a clatter, but the door gave not at all.

I brought the ax down again, and something cracked sharply. The third blow sent the door swinging wide.

Cautiously, fearing I know not what, I entered the familiar room. Nothing, apparently, had been disturbed. There was no sign of disorder anywhere. The blankets on the narrow cot in the corner of the room had not been unfolded.

But neither Vic nor Hope were anywhere in sight.

* * * * *

"You and Mrs. Perrin stay there by the door," I suggested. "I don't know what's wrong here, but something's happened. There's no need for all of us entering."

My second glance around the room was more deliberate. To my right were the big generators and the switchboards, gleaming with copper bus-bar, and intricate with their tortuous wiring. Directly before me was the long work-bench that ran the full length of the room, littered with a dozen set-ups for as many experiments. At my left was a sizable piece of apparatus that was strange to me; on a small enameled table beside it was a rather large sheet of paper, weighted down with a cracked Florence flask.

In a sort of panic, I snatched up the paper. Vic had said in his note, that he would leave another note for me here. This was it, for in a bold scrawl at the top was my name. And in hardly decipherable script, below, was his message:

Dear Pete:

First of all, let me say that you've no particular call to do anything about this. If I'm in a jam, it's my own doing, and due to my bull-headedness, of which you have so often reminded me.

Knowing your dislike for science other than that related to aeronautics, I'll cut this pretty short. It'll probably sound crazy to you, anyway.

You know that there's sound above the frequencies to which the human ear will respond. You know there are light rays that the human eyes can't perceive. Some work I've been doing the last five or six months indicates that there's a form of life about us, all around us, which isn't perceptible to our senses--which doesn't mean that it doesn't exist.

Well, I'm going to do a little exploring. I'm going to take a whirl at what I'll call the Infra-Median existence. What I'll find there, I don't know. Life of some kind, however, for my experiments prove that. Possibly not friendly.

All this being so, there's an off chance that I'll find myself tangled with something I can't anticipate. And if you are called upon to read this, then something has gone wrong with my plans.

Should you wish to take a flier after me, stand in the center of the square outlined by the four uprights of the device beside which this little table stands. Be sure your weapon--I told you to bring a gat--is on your person.

There's a small instrument board set on one of the posts. Turn the upper of the two dials until the hand of the meter beside it moves up to 2700 exactly. Wait a moment, until you're sure you have the exact reading. Then turn
the second dial until the two red lines coincide, and as you do so, mark the time. The thing is set to operate the reverse cycle at three-hour intervals exactly. When you come down, you'll start a new cycle, and it might be important for us to know at just what minute we can get back to our own plane. If you decide to try it, tell Perrin to do nothing for at least a week. If the law started experimenting on this equipment, we never could climb back. And leave word with them for Hope; tell her I'll scramble out somehow—that we will, if you decide to try your luck.

Vic

Underneath, in Hope's clear, purposeful hand, was this:

Peter dear:

Not knowing when you'll arrive, I'm going on ahead. We must give Vic a hand—mustn't we?

H.

* * * *

Naturally, I didn't understand Vic's jargon about frequencies and light-rays, for I thought more about football than physics in college, but two things were clear to me. One was that Vic had plunged into some sort of wild experiment, and the other was that Hope had followed him. The rest didn't matter very much.

"Perrin! Mr. Butler and Miss Hope are safe. Everything is explained in this note. You and Mrs. Perrin are to leave me here, and not disturb anything. Do nothing at all for at least a week. If we aren't all back here before that time ... take any action you see fit. Understand?"

"No-no, sir. Where—"

"You understand the orders, anyway. That's all that's necessary. Close the door—and keep it closed at least a week!" I glared at him, and Perrin closed the door.

The apparatus Vic had mentioned was my first thought. It consisted primarily of four tall, slim posts, set in the form of a square, about a yard apart, and supported by heavy copper brackets mounted on a thick base of insulating material, and each post bore at its top, like a stalk with a single drooping flower, a deep, highly polished reflector, pointing inward and downward. The whole effect was not unlike the skeleton of a miniature skyscraper.

I strode between two of the high, slim black pillars and glanced upward. All four of the reflectors seemed pointed directly at my face, and I could see that each held, not the bulb I had expected, but a crudely shaped blob of fused quartz.

* * * *

There was nothing to be gained by examining the peculiar machine, and therefore the one quick glance sufficed. If Vic and Hope had gone this route, I was anxious to follow. I glanced down at the papers in my hand, and slowly turned the first dial on the little instrument board, narrowly watching the hand of the meter beside it, as Vic had instructed.

The hand moved slowly, like the hand of an oil-gauge in which the pressure is gradually built up. Twenty-one... twenty-five... twenty-six... twenty-seven.

I waited a moment, conscious only of the faint hum of a generator at the other end of the room, and the quivering hand of the meter. I turned the dial back an imperceptible degree, and the hand steadied down exactly upon the numerals "2700." Then I touched the next dial.

This second dial was no more than a thin disk of hard rubber or bakelite, with a red scratch-mark on one side. On the panel itself, far to the right of the dial's zero point, was the red scratch-mark that matched it. When the two coincided—well, something happened.

I was conscious of a faint glow from above as I moved the dial slowly, so that its red mark approached the stationary one upon the panel. I glanced up swiftly.

* * * *

Each of the little blobs of quartz was glowing; each with a light of different color. One was a rich amber, one a pale green, one a vivid, electric blue, and one was fiery red. The intensity of the light increased steadily as I moved the dial.

I could not only see the light; I could feel it. It beat upon my body; throbbed all around me. I had a feeling that the mingling rays of light conflicted with each other.

It seemed to me for a moment that I was growing as light as air; that my feet were drifting off the floor, and then, as the red line of the dial came closer to the indicated point, the feeling left, and I suddenly seemed very heavy. I could hardly support my own weight; my legs were trembling with the burden; sweat broke out over my whole body; the rays of light beat down upon me fiercely, overpoweringly....

Desperately, I quickly turned the dial until the two red marks coincided. A great weight, soft and enveloping, seemed to drop upon me. The senses of sight and hearing and feeling all left me. I could only think—and my thoughts were horrible.
Then, suddenly, there was a terrific crash of sound, and my senses returned.

I looked around. It seemed that an instant before I had been standing there in Vic's laboratory, slowly turning the second of the two dials, while the four lights beat down upon my body. And now ... and now I was standing in the open, on another world. A nightmare world that words seem inadequate to describe.

* * * * *

The sky was an angry, sulphurous green, pressing low upon a country utterly flat and nearly barren. The only sign of vegetation I could perceive were strange growths that remotely resembled trees--inverted trees, with wide-spreading branches hungrily nursing the black and barren soil, and gnarled, brief roots reaching out tortured arms toward the forbidding sky.

To my left, and some distance away, a vast number of blunt and ugly towers rose against the sinister skyline, but no form of animal life seemed in evidence. Wonderingly, my head whirling, whether from my strange experience or from the shock of finding myself in what was obviously another world, I do not know, I turned toward the city. And as I took my first step, there materialized suddenly out of the thin and ill-smelling air, the figures of perhaps a dozen monstrous creatures.

They were, in effect, men. That is, they had a head, a torso, two arms and two legs apiece. But they were not human. Those huge round eyes, unblinking and browless, were not human, nor were their slitted, sunken mouths. They were not human beings; they were images of despair.

Their thin legs seemed to buckle at the knees, their arms drooped from their shoulders, their mouths sagged at the corners, even their huge ears hung down like a hound's. Their round, dark eyes, deeply recessed, were caverns of despair.

* * * * *

They were clothed in some coarse, black stuff that bristled as though loosely woven of stiff hair, and yet which was not a true fabric, for it seemed to move within itself, and scintillate, as though composed of billions of restless motes. And as the strange creatures closed in quickly, I saw that theirs was not solid flesh, but, like the clothing that partially covered them, an attenuated substance that was not quite real.

Have you ever sat close to the screen in a motion picture theatre, so that the graininess of the moving film was visible? These creatures were like such shadows, seen in three dimensions.

I retreated two or three swift steps, jerking the revolver from my pocket.

"Back!" I warned, hoping they would understand the tone of voice if not the words. "Back--or I'll pot a couple of you!"

They glanced at each other, swiftly, almost as though they understood. It seemed to me that their mouths lifted; that they almost smiled. Then they rushed at me.

I had only one box of cartridges, besides those in the cylinder of my gun. I didn't know what might be in store for me, and I took no chances.

My first shot sent one of the creatures spinning to the ground. Two more were almost upon me before I could level the weapon and pull the trigger again. I got them both.

The rest of that unholy crew were grinning, and their eyes were shining with anticipation. They closed in upon me eagerly, each apparently doing everything in his power to invite my attention. It was bewildering, and I watched them warily, suspecting a trick. There were only three more cartridges left in my gun, and I did not dare replace the fired shells for fear they would rush me when the action was open and the gun momentarily useless.

* * * * *

I was just about to risk one more cartridge when another figure materialized in the ranks of the enemy; a taller, commanding figure, with a shining jewel, perhaps a mark of authority, dangling from his corded brown throat. The others fell back instantly, and the newcomer approached me swiftly, holding out his hands as though in supplication.

So I was to receive a cordial welcome after all! I breathed a sigh of relief, and pocketed the weapon--and instantly the dark eyes flashed angrily. I held out both hands, to show that they were empty, trying to express my willingness to be friends.

He hesitated, and then uttered a high-pitched sound that I presumed to be a word of command. Before I could free the gun again, the creatures had me, and while their flesh looked more unnatural and unreal than ever, at close range, their long fingers gripped me like talons of steel. The being which had uttered the command disappeared, and my captors led me, struggling and protesting, toward the black, ugly towers of the city.

Over the barren, rocky ground we hurried; past the wretched hovels on the outskirts of the city, and through crooked, dismal streets, toward the center of the city.

A great crowd of creatures similar to my captors hemmed us in. Before us, they thinned into nothingness as we approached, only to swarm into being in some other spot. It was terrifying; an unbelievable experience that made me
question my sanity. The only vestige of comfort left me was the hope that they were taking me to Hope and Vic.

At the entrance of one of the huge misshapen black buildings, the creature with the brilliant stone at his throat appeared as suddenly as a light flashes up in the darkness. With him were two others, each wearing a similar jewel of authority. They stood aside for us to enter, and then followed us down a long corridor which was not lighted by any device I could discern, and yet which was not dark.

A broad door swung open, and I was thrust through the doorway.

"Pete!" shouted a familiar voice, and I scrambled to my feet. There was Vic, his red hair tousled, and his face gray with worry. Behind him, her big blue eyes brimming, her lips quivering, was Hope.

"Vic! Well, here I am. And Hope, dear...."

My voice trailed off. These were not Vic and Hope before me; they were unreal creatures, like the beings which had captured me. I could recognize the face and the figure of the woman I loved and of her brother; but they seemed to have no substance.

Hope suddenly put her arms about me. She was sobbing.

"Don't, Peter!" she whispered.

"Don't look at me like that. I know how you feel. You--you and Vic--you aren't real to me, either! We're just shadows--lost souls...."

"Buck up, Hope!" Vic's voice was kindly, yet firm and gravely commanding. "We're all right. Only--temporarily--we're Infra-Medians. Sit down, Pete, and let's talk. It may be that there's no time to lose in making some plans."

"First of all," I insisted, "tell me where we are; what's happened to us. Do you know?"

"Where we are? Surely. Looking at it in one way, we're less than a mile from my laboratory."

"But, Vic!" I protested. "Do you really mean that we're less than a mile from your laboratory; from our own world? If we were, we could see it; we'd bump into our own trees and houses and people; we'd be knocked down by automobiles, and--"

"Two bodies cannot occupy the same space at the same time. Old law of simple physics. Is that what you mean?" interrupted Vic.

"Why, yes."

"And a body; what's that?"

"A body? Why, matter, I suppose."

"And matter is what?"

"Anything that occupies space," I replied triumphantly. I had remembered that much from my physics classes.

"True," smiled Vic. "But let's see. It is possible to have sound and light in the same place, isn't it? We can even add other things: heat and electricity, for example. Speaking of electricity, a tremendous current of it adds nothing to the weight of the wire carrying it, and nothing to its bulk, unless we have a heating overload. Current enough to kill a thousand men, or to do the work of a million horses, weighs nothing, is invisible, and actually does nothing until released in some form or other, either by accident or design."

"True, but electricity isn't matter. Our old world is matter; I'm matter, and you're matter. Why don't we bump into things?"

"Our old world is matter, true enough, but for the rest, you're wrong, Pete, old son. You're not matter, any more. You're something else. In terms of our own being, you do not exist in your present form. This world does not exist. And the reverse is just as true."

I stared at him, bewildered.

"What am I, then--a ghost?"

"Nothing of the sort. You're old Pete Grahame, a darned good half-back, and the world's rottenest scientist. Only you've been passed into another form of being, through the action of four little quartz bulbs whose periods of vibrations form a beat--but that's over your head, Pete, old son, and we'll have time to talk over details when we get back. Right now, we're in somewhat of a jam." Instinctively, he glanced at Hope; it was her danger, and not his own, that had brought that haggard pallor to his face in so short a time.

"That's what I don't understand. What do these people--if you can call them that--want of us?"

Vic looked down, frowning.

"I'm not sure I'm right," he replied after a moment, "but if I am--they wish us to kill them. As many as possible. When I found myself here, I wandered nearly to the city before I was molested. When they did appear, and tried to lay hands on me, I warned them back, and finally shot one of them.
"The effect was magical. They seemed unable to believe the evidence of their eyes. They rushed me eagerly, each seeming to beg for a bullet.

"I gave them what they wanted, still hoping I could frighten them away. A great crowd formed around me, and the rabble was sent flying by a number of the men who seem to hold some office, distinguished by a jewel-like emblem around their throats. If I read their actions correctly, they claimed the privilege of death by virtue of their greater authority.

* * * * *

"Well, I finally decided that my gun did anything but frighten them. They were angry when I refused to do any more slaughtering, and led me here. Every once in a while one of the captains would come in and command me to kill him. I refused, for that's the only trump card I held.

"When Hope, here, acted like the foolish little kid she is, she was not even armed, and they rushed her here without delay. My theory is that these people live in a dreary world in which there is no pleasure. Their faces seem to show that. Apparently they live a very long time, and have no means of shortening that life. They are not intelligent. Things that would kill a man of our own world have no effect on them, for remember that they are not physical beings. You have seen them appear out of thin air, and dissolve in the same fashion?"

"Yes."

"That is simply their mode of transportation. They pass invisibly through the air, just as electricity passes through a wire; quickly, invisibly, silently. Then they assume their original form where they will--just, again, as electricity passes from the end of the wire exactly the same as it entered it, allowing only for voltage drops and some other factors that aren't pertinent here.

"What we must do, and right now, is to settle upon some means of getting to the proper spot at the proper time. You marked the moment of your departure, I suppose?"

"Exactly." I glanced down at my wrist watch, and noted with relief that it was still running. I observed then, for the first time, that the watch, my clothing, and even my hand, were not real; they were like the rest of the things in this monstrous state that Vic called Infra-Media. "I left at three after ten. It's now fourteen minutes of eleven--Good Lord! Less than an hour since I stood there in your laboratory!"

"Then our next chance to get back will be at three minutes after one," nodded Vic. "I wonder if there is any chance of--"

* * * * *

Before he could complete the sentence the door was flung open, and five of the older men, led by a sixth with a larger jewel at his throat, filed solemnly into the room and motioned that we were to leave.

At the doorway, a double file of creatures closed in about us, and we were led, by long corridors and mighty winding ramps, toward the top of the building.

"Now what?" I whispered to Vic.

"I don't know. That chap with the big stone at his throat seems to be the head man of the city. I think his name is Ee-pay; the others seem to call him that. Maybe it's just a title. But what they're up to now, I can't even guess. Keep your eyes open for a chance to get away, though. How are you feeling, Hope?"

"All excited!" She tried to smile, and almost succeeded. Hope was game all the way through. "What an adventure this will be to talk about when we're old and rheumatic!"

"Good kid!" said Vic, and I pressed her hand as comfortably as I could. We turned a bend in the long ramp we had been climbing, and came out upon the vast, level top of the building.

Thousands of the unreal creatures of this world were crowded around a vast, hideous image that rose from the center of the space; a monster so terrible that Hope cried out at the sight, and Vic exclaimed under his breath.

For myself, I seemed stricken dumb; I could only stare at this black and ghastly god of these people.

* * * * *

The carven image was perhaps thirty feet in height, and represented a figure crouched upon its knees, its head bent very low and at the same time tilted at a grotesque angle so that the face smiled heavenward; the hands, palms upward, extended invitingly just below the chin.

As our party appeared, an aisle opened, and we were marched through the assembled crowd, directly toward the idol. A high-pitched, sibilant chant arose from the multitude, and a procession of very ancient beings, whom I took to be the priests of this god, came in single file from behind the black god, directing the chanting with movements of their arms. They were lighter in color than the others, and much more intelligent, to judge by their faces. Their eyes held none of the sadness which was the most marked characteristic of the others. Each wore upon his forehead a gleaming scarlet stone, bound in place by a circlet of black metal, or what looked like metal.

We paused, and the chanting went on and on, until I began to wonder if anything would ever happen. And then, at last the chanting ceased, and three of the priests moved toward us, followed by an elderly being who wore the
same symbol of power or authority that I had already noted upon the creature Vic called Ee-pay.

One of the priests spoke sharply, commandingly, to Ee-pay, and the latter nodded—not agreeably it seemed to me.

"The old boy doesn't like these other chaps; priests, I take it," whispered Vic. "I think they've been messing up his plans. See; he's motioning us to watch."

* * * * *

The priests led the old man back to the idol. Eagerly, he clambered upon the outstretched hands, and stood there facing the grinning face, stroking the polished cheeks with beseeching fingers. The priests sank to the floor, bending themselves in mockery of the image. Four times they touched their foreheads to the ground, and as the fourth gesture was completed something moved swiftly behind the lips of the image, as though a plate had lifted for a moment and dropped again.

There was a sharp, murmuring sound, as of a harp-string softly plucked. A scarlet haze of light shot forth from the mouth of the black god, and the old man stepped back sharply as though struck by some invisible agent. He would have fallen, but as he crumpled, his body seemed to soften and shatter into a scintillating cloud. An instant later there was no trace of him anywhere.

"Hm-m! The great reward for some notable service rendered, I imagine," whispered Vic. "Those priests are wiser than the rest of this crew. They deal death sparingly, and that makes them great. They love life like a man of our earth; perhaps because they've found out how to enjoy it."

"But what does the work; what killed him?" I asked breathlessly.

"Can't say, Pete. You can't name things here in terms of our own world. Some natural force they've corralled, I imagine. They control it with that shutter behind the lips of the image. Did you notice it?"

"Yes. I suppose one of the priests operates it from some hidden room. Whatever it is, it certainly does the work. And what do you suppose they want us to do now?"

* * * * *

The three priests were coming toward us, smiling. I didn't like their smiles; they were meant to be benign, but there was a cruel and vindictive twist to their lips which chilled me through and through.

"Keep your hand on your gun," said Vic swiftly. "I don't like the looks of these chaps."

The priests stopped before us and their leader began a long harangue in a screechy voice which set my nerves on edge. When he had finished he held out his hands toward me, and motioned toward the waiting idol. Ee-pay spoke up in sharp protest, and thrust himself between me and the priest. For a moment, due to this obviously unexpected interruption, everything was in confusion.

"Pete!" Vic was whispering excitedly in my ear. "Listen, Pete, I think I see through this. These priests have heard about us and our death-dealing ability. They're jealous; they want a corner on that. Old Ee-pay figures maybe we could do him a favor in that line, and that's why he's arguing. The priests want to honor us for the good we've done--by giving us the reward we've just seen. So--"

Before he could finish, Ee-pay was thrust aside by a group of angry guards, and I was jerked away. Hope screamed, and out of the tail of my eye I saw both Vic and Hope struggling frantically to free themselves from an overwhelming number of guards. Vic tried to shout something, but a claw-like brown hand was immediately thrust over his mouth.

* * * * *

The guards who held me, followed by the priests, made their way toward the extended palms which formed the altar of this strange black god whose favor was death. At a command from the priests, the guards lifted me to the altar and then stood watchfully below, gazing up at me with puzzled, mournful, envious eyes.

I saw the priests crouch low, and make their first beseeching bow, in imitation of the black god. Frantically, I looked about me, seeking some avenue of escape.

Below me, hemming me in, were the guards; a triple ring of them, through which I knew I could not escape. Behind me, for I was facing the multitude, was the hideous, grinning face of the idol.

The priests bowed a second time.

I saw the priests crouch low, and make their first beseeching bow, in imitation of the black god. Frantically, I looked about me, seeking some avenue of escape.

Both Hope and Vic were fighting desperately, but there were at least ten guards to each of them. I lifted my hand and waved a farewell, hoping that one of them at least would see the gesture and know that my last thought was of them.

Then, as the priests completed their third bow, I turned and faced the statue.

As my eyes fell upon the shutter behind the thick, grinning lips, the shutter which released the lethal force, a wild and desperate idea came to me. With a shout, I jerked the gun from my pocket and leaped aside. As I did so, I fired twice into the gaping mouth, and saw the bullets shatter the heavy shutter. Then, with the humming sound ringing in my ears like a note of death, I leaped clear, into the midst of the waiting guards.
For an instant, there was no movement, no sound, from all that vast crowd. Even the guards seemed stunned, and I tore my way through them with hardly a pause in my stride.

Then a shrill cry went up; a cry that drowned utterly the humming sound that issued from the shattered mouth of the idol. Blindly, the multitude surged towards the scarlet ray that dealt death, fighting their way toward the oblivion they so highly prized.

Those who had been holding Hope and Vic were surging forward with the rest, their erstwhile prisoners forgotten in their mad greed for death. The crowd jostling about me seemed blind to my presence; every eye was fixed on the altar-like hands of the idol, and the death that blew across them.

"Pete!" yelled Vic. "Coming, boy?" He was waiting for me, staving off as best he could the rush of bodies around him; shielding Hope from the savage jostling.

"Coming!" I leaned forward, butting with my head, both doubled fists working like pistons to clear a way to my companions.

"Nice work, Pete!" shouted Vic, as I joined them, breathless but triumphant. "Now for a break! Gun loaded?"
I snapped open the action and dropped in six cartridges.
"It is now. I'll go ahead; you bring up the rear with Hope in the middle. Ready?"
"Let's go!"

I plunged on, Hope's fingers gripping my belt. Fresh multitudes were pouring up the ramp, brushing aside the five or six priests that had hurried there in an effort to stem the tide.

One of the priests saw us, and cried out shrilly to his companions. With one accord they came toward us, obviously intent upon blocking our way. I have never seen in any other eyes such anger and hatred as blazed in the eyes of those strange beings.

"Watch them, Pete!" roared Vic. "We can't take chances!" His gun roared twice from behind me, and two of the priests fell writhing, to be instantly trampled into pulp. Another reached out long arms toward Hope, and I let him have it. There was nothing else to do. He went the way of the two others.

Twice again, before we reached the ramp they guarded, the angry attendants of the idol fell before our guns. Then, hurrying down ramp after ramp, corridor after corridor, fighting the rushing mob all the way, we came at last, shaking with weariness and gasping for breath, to the deserted streets of this black and terrible city.

"Are we free?" whispered Hope, holding tightly to my arm. "Are we really free?"

"I hope so, dear. We seem to be. If we can only reach the spot where we entered this insane world before something happens--"

"How much time have we?" interrupted Vic.
I glanced down at my watch, fearful, for a moment, that it had been broken or lost in the melée. It was still running, apparently undamaged.

"Let's see; it's four minutes of one. That gives us seven minutes. Can we make it?"
"I think so. It's not so far, and we're nearly out of the city. We have to make it!"

Vic led the way, Hope and I following. Anxiously, I watched the minute hand of the watch slide toward the "XII" of the dial... touch it... move on....

It was not far, as Vic had said, but we were weary from our battle with the crazed mob, and the best we could force from our legs was a sort of dog-trot.

One minute after... two....

"Here's the spot! I marked it with these three pieces of stone. Quick!" Vic swept both arms about Hope and me, holding us in a close embrace, so that we all stood within the triangle formed by the three bits of black rock.

I glanced down at my watch. It lacked but a few seconds of the moment when the machine back in Vic's laboratory would function—provided my watch was correct, and the equipment worked according to schedule.

Suddenly, Hope screamed, and I followed her eyes. A score or more of the strange beings had suddenly materialized but a few yards away, and they were closing in on us swiftly.

I tried to draw my gun. Hands reached out to grasp me; to grasp all three of us. Then darkness closed in swiftly; I was whisked upward, on and on, breathlessly. I was suddenly very heavy; I was dropping in the blackness... there was something solid beneath my feet... a glare of light in my eyes.

"Nicely timed, I'll say that," chuckled Vic. "How does our own material little old world look?"
"Great!" I stepped quickly away from the machine, drawing Hope with me. "Doesn't it, Hope?"

She sighed, a long, shuddering sigh, and snuggled into my arms. Vic glanced towards us and grinned.

"Come to think of it," he remarked, "I believe I'll run along and see if I can find Mrs. Perrin. I haven't had a
thing to eat since noon yesterday, and I've just realized I'm hungry. Will you join me?"
   "In a moment," I nodded, and Vic, being the good scout he was, hurried away.
   * * * * *
   "And the machine?" I asked a few nights later. "Still experimenting with it?" I had really come out to see Hope, of course, but she was still upstairs, putting on the finishing touches.
   Vic shook his head quite gravely.
   "No, old son; I had enough. Off on another tangent now. Why--would you like to go back?"
   "Not me! It doesn't seem real now; more like a nightmare, but it was terrible enough at the time."
   "I can prove it wasn't a nightmare," chuckled Vic. "Come along, and I'll show you something you missed." He led the way to the laboratory, and unlocked a drawer, one of several, beneath the work table.
   "I found this on the floor of the machine," he said. "Didn't notice it until later. The rays of the machine caught it and brought it back with us; made it solid matter, as we know it here. Do you recognize it?"
   I nodded, shuddering. There was no possibility of mistake.
   In a squat, clear bottle of alcohol that Vic had taken from the drawer was a sinister, claw-like brown hand, severed cleanly at the wrist.
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