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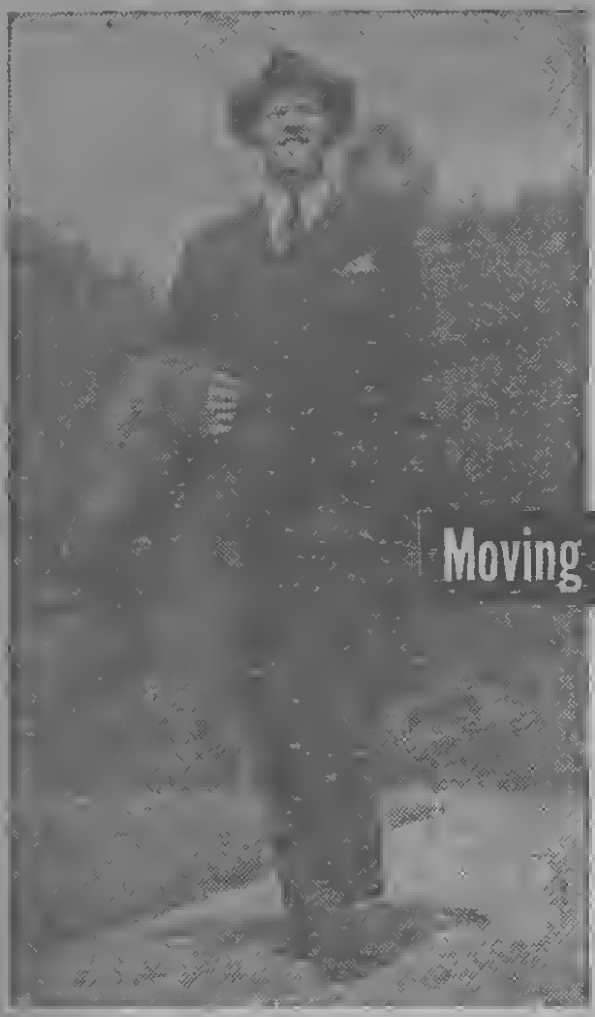

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Volume 1 Number 2

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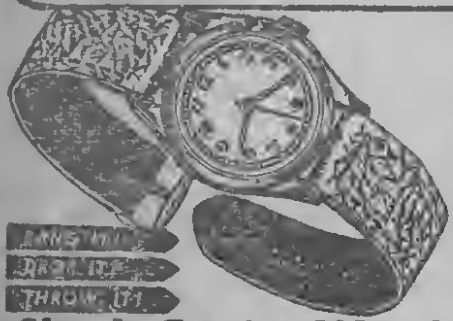

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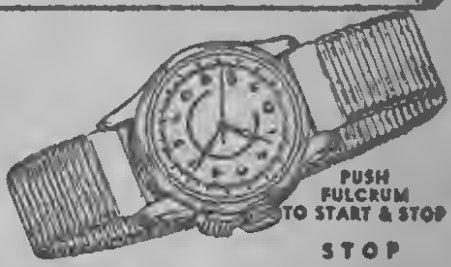

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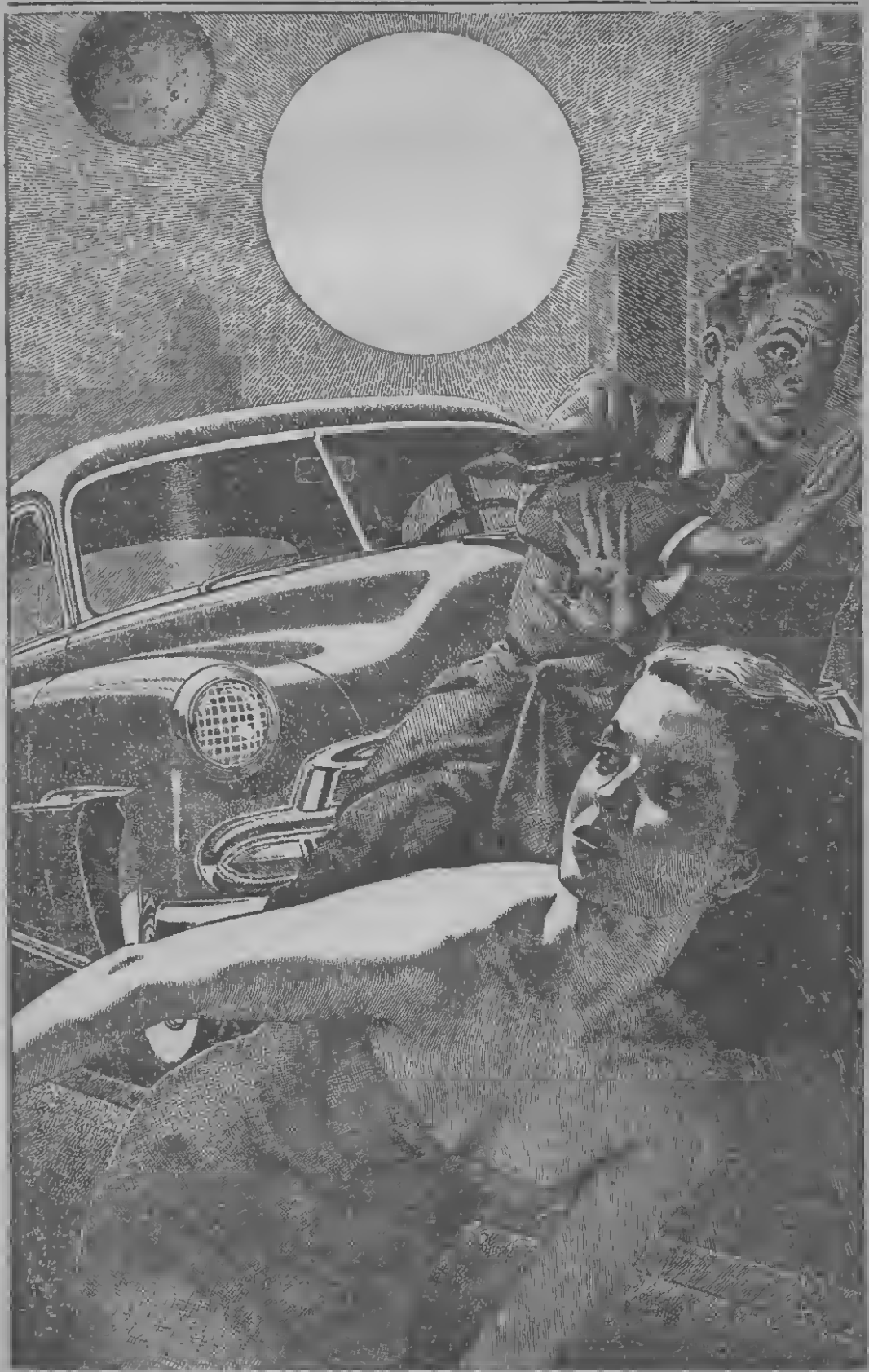


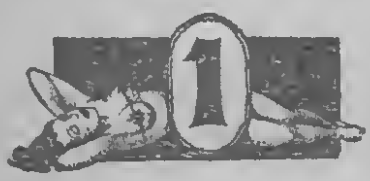
Sean darted for the sidewalk as the car plunged toward him. What was the connection between this sun that shone at midnight, and the attempts on his life?

THE SUN CAME UP LAST NIGHT!

• Feature Novel Of Strange Menace •

There was a new sun in the sky, and there'd be a new Earth soon — a nice clean Earth free of life — unless a shield from the radiations could be devised. And the technicians who could make such a shield were in hiding!

by Edwin James



THE DRUNK was in his mellow stage. He was muttering happily to himself. Sean leaned a little closer.

"The sun was shining on the sea:
Shining with all his might."

Sean's smile was a little rueful. It was nice that someone was happy. The drunk was a short, pudgy man dressed in a light spring suit. He was leaning over the railing of the pier, watching the waves roll in.

"He did his very best to make
The billows smooth and bright."

The drunk's attire and activities would not have been particularly noteworthy had it not been for two otherwise ordinary facts: it was midnight in New York, midnight of February 16.

"And that was odd because it was—
The middle of the night."

The drunk finished his quotation with a chortle. He turned to Sean. "Have a drink," he said, offering a fifth of bourbon very gravely.

As gravely Sean took it. He rolled the drink around his mouth and let it slide gently down his throat. He felt better. It was good bourbon.

"Somebody once told me," the drunk said with a studied seriousness, "that nothing is impossible. Is that right?"

Sean allowed himself to be drawn into conversation. "Given enough time anything can happen," he said, "and usually does."

"Just like the monkey and the typewriter," the drunk added pon-

derously. "It's all a matter of probabilities."

Sean cast a quick glance at the blazing disc overhead. Probabilities or fantasy? Sean wasn't sure he wouldn't wake up soon.

"I have a wonderful idea," the drunk said happily. His voice sank to a confidential tone and he glanced suspiciously around the pier. "Let's organize a company. We'll call it *'Possibilities Unlimited'*. We'll make millions."

"Hm-m-m," Sean said. "We'd need a slogan. What about *'We Do Anything'?*"

"Fine, fine," the drunk exclaimed. "Or *'Want Something?— There's No Time Like Infinity.'*"

The drunk tilted the bottle back and swallowed noisily. "Wunnerful! Wunnerful!" he sputtered.

Sean smiled wryly and arched his cigarette into the sea. Infinity wasn't available. There was only now. And now there was trouble. The fantastic had only too ordinary consequences; it was going to be hard to live with.

Now—there was Ed and the Globe. Life as usual in spite of the fantastic. If possible. And he had dallied too long.

The drunk sidled up to him. "There might be something done about that thing," he said, jerking his thumb upward.

Sean glanced up again. "What?" he said.

The purring of a motor sounded behind them. Sean half turned and saw a long, dark car which had driven up to the head of the pier. A white blur of a face was visible at one of the windows.

"Ah, here you are, Willie," some one said from the car. "We thought we'd never find you."

So the drunk's name was Willie. Sean glanced at him. The drunk was shaking. His eyes were frightened—Sean had never seen such frightened eyes, even those of prisoners of war who knew they were going to die.

"Come along, Willie," the voice said. "And bring your friend with you."

The drunk turned to Sean and gasped out one word. "Peterson."

Then he had slipped over the rail into the water. Sean stared down in amazement. The man had sunk like a stone. Sean started to dive after him. As his feet left the pier something whispered and plucked at his coat tail. A moment later something twisted his foot.

Then he was in the water going deeper and deeper. There was nothing. The pudgy man was gone. Sean came up for air under the shadow of the pier. He raised his foot and fingered his shoe. The heel was gone, wrenched off. He felt his coat tail. There was a neat little hole in it.

Sean suddenly felt cold. Someone had shot at him. Someone had wanted to kill him Why?

He swam deeper into the shadow of the pier.

• SEAN STARED up at the big sign across the front of the towering building. *The New York Globe*, it said. *Always first with the most.*

What did Ed want? Sean O'Shaughnessy had been there first with the most once too often.

Somewhere, distantly, a woman screamed and a man shouted. Sean threw himself forward instinctively. He was halfway through the revolving door when there was an impact behind him, a tortured screech of metal, a whine of tires, and an accelerated motor. Then there was quiet.

Slowly, cautiously, Sean went back through the door to the outside. A crowd was gathering. Some of them were staring at black marks on the sidewalk or paint on the building and some were gazing down the street.

"That driver must have been drunk," some woman said indignantly.

Sean walked over to the paint mark on the building. It was dark, almost black. He turned quickly and went back inside.

The newsroom was crowded, as it was after every local catastrophe. Even in the midst of death and

destruction, the American newspaper reader wanted to know how everybody else was suffering. Only this wasn't death and destruction—yet.

The reporters, pounding away at their typewriters, turned to shout greetings at Sean as he threaded his way down the aisle.

"Hey, boy! Come back to get a lock of the old man's hair?"

"You're too late. He just tore out the last one."

"Hey, Sean! Ed finally admit he couldn't run the paper without you?"

"He's been going mad ever since you left."

"Hey, See-an! A touch of sunstroke?"

"It's pronounced Shawn, you Irish bum," said Sean. "Casey—you're a disgrace to the auld sod."

But he patted the red curls that framed the lovely Irish face.

"Your hand's trembling," she said in surprise.

He raised it and eyed it as if it were some strange specimen. "Why so it is!"

He moved between the rows of clattering teletypes and stopped before the door of the glass-enclosed office. The sign on the door said *Edwin Stanton—Managing Editor,* and beyond that was Ed's shining head bent over a desk cluttered with papers. Sean opened the door and Ed's face came up at the sound of the newsroom.

"Come in, Sean," he said. "And close that door."

• SEAN SHUT the door behind him and took a chair in front of the desk. Ed fiddled nervously with a letter opener, but Sean sat quietly, not saying anything. He wasn't going to make it any easier. Finally Ed cleared his throat.

"We need you, Sean," he said quickly. "We need every good newspaperman. This is a crisis and the newspapers are going to have to bear a lot of the weight of it. We want you to come back."

"What about Morris?" asked Sean, gently.

"Morris be hanged," Ed said irritably. "This is bigger than Morris, more important even than the *Globe.*"

Sean whistled softly. Always before it had been the *Globe* first and the rest of the world second.

"I know—I know," Ed snapped. "Anyway, Morris is going to be too busy to worry about Columnist Sean O'Shaughnessy and whether the *Globe* has fired him as requested."

"He's got a lot of money," Sean said.

"Rub it in," Ed sighed. "Also it's mostly tied up in coal. He'll have lots to think about; people aren't going to want much coal this winter."

"Nor next summer."

Ed gave him a shrewd glance. "No," he said. "They won't. They won't want much of anything. Except maybe a bunk of the North Pole. That's what I mean—we're going to need you."

Sean sighed. "A lot of things have happened to me today, Ed. I get fired; I see the sun go down and come up again in the East a few minutes later. I see a drunk drown himself; somebody takes a couple of shots at me; I almost get run over. And now you want me to come back to work."

"Well?" Ed asked.

"For one, brief, delirious moment I thought I was out of this business."

Ed relaxed. "All right, listen. About 6 p.m., our time, the moon was overhead in England, and observers saw what appeared to be a bright flash behind the moon. That faded. At 6:01 the moon appeared to grow a halo. This got brighter until, at 6:02, a rim of fire appeared around the edge. At 6:03—?"

He pointed out the window at the flaming disc that had been the moon. "It's pouring out enough heat to raise the temperature in New York 40 degrees in a few hours."

Sean began to whistle a tune. It was *It's June in January.* Ed's face got red. "It's not funny."

"I know," Sean said, breaking off. "Wait till the sun and moon come up together. Wait till summer."

"That's why I telephoned you to come back," Ed said somberly.

"What am I supposed to do," Sean said, "organize a bucket brigade?"

"There'll be better men than you or I trying to do that," Ed began slowly. "Right now this is a novelty—and a rather pleasant one. You walk into your house and it's winter, below freezing. You walk out and it's a balmy spring. But what we're worried about is the people when they find out the real consequences."

"Who's *'we'?*" Sean asked, his eyes narrowing.

"An hour ago I had a call from Wsshington. All disseminators of public information are being organized. Nothing gets out that isn't in the public interest."

"And who decides that?"

"We do—following the lines laid down in Washington. They'll be too busy with other things."

"I imagine," Sean said drily. "What is their decision on what is fit to print?"

"We can't tell the public everything at once. If they knew all the possible consequences, there would be riots and a total collapse of morality and government. They must be conditioned to the idea slowly. No alarming statements or predictions; reassurances, if necessary, and slow and subtle but steady information on the conditions they will have to face."

"I see," Sean said. "And that's my job, I presume."

"I'm assigning you to features," Ed said. "Anything connected with the moon and its new condition. Keep enough news flowing to satisfy the demand but not enough to alarm. Keep it light, if you can, but slip in a fact here and there. Nothing scary."

"In other words," said Sean, "do a propaganda job on the moon. Make the public think it's as good, if not better, than the old one."

"That's right," Ed said. "But it's not for profit, this time. It's for survival."

"I know," Sean said, and he stared out the window at the white-hot disc of the moon. His face was strained and pale, and his voice was low. "Don't count on me too much, Ed. I'm scared."

THE TELETYPES were pounding away madly, threatening to shake themselves from their foundations. Sean watched them for a few minutes, scanning the information that streamed from the machines. Then he ripped off a few items, walked to his desk, and lit a cigarette.

He arranged the sheets of yellow paper in a neat pile and read them through carefully. They were comprehensive. And most of the information was confidential.

How to tell it was the problem. How to tell enough but not too much. How to explain it satisfactorily without telling the truth. Sean took out several sheets of copy paper and began to write down the essential facts. He had to have them all in hand before he could fabricate successfully.

An atomic explosion on the hidden side of the moon set up a chain reaction which converted the entire mass of the moon into a gaseous, burning sphere of exploding atoms, much like the sun. The heat given off by the moon is much less than that of the sun but that is partially counterbalanced by its nearness.

So much for the facts that were known. The rest was conjecture, but it was guesswork by men who were qualified to guess.

It was a natural occurrence. It was started by the bringing together of a large quantity of fissionable material, of which there is practically none refined by nature. Whether it was deliberate or not is another matter.

There were three explanations offered.

The explosion was set off by: (1) inhabitants of the hidden side of the moon—an accident; (2) an earth nation which had mastered space flight; either deliberately, by rocket, or accidentally, through the explosion of an atomic factory; or (3) extra-terrestrial forces bent on destroying earth.

Of the three, Sean liked the second best. There would be only too

many reasons to establish a secret colony and factory on tbe moon. It could not be deliberate—any earth nation would be in the same boat witb the rest of the world. And the other two possibilities were too far-fetcbed.

The effects predicted wers frightening.

The temperature range in the temperate regions would be from 60 degrees in the winter to 130 in the summer. The tropics would be unbearable, and the semi-arctic would be similar to the tropics before the change.

Sean smiled grimly. Tbere would be a big rush north.

Another aspect, allied to the climatic changes, would be the increasing frequency of high intensity storms, tornadoes, hurricanes, etc. Those who live near water would have the heat tempered for them, but they would be in greater danger from inclement weather.

There were, of course, a few compensations.

Man's store of available energy was greatly increased. Practically all the energy used by man, atomic energy excluded. comes to him through the radiation of the sun. Plant life converts it into fuel, it makes the winds blow, it lifts he waters from the sea and carries them to the mountains. The moon would intensify that action.

Tbose high winds and torrential rains might be energy in tbe raw, Sean thought wryly, but it was rather an uncomfortable method of getting it. He glanced at some of the news reports. They ranged from the tragic to comic relief.

Fifty heat deaths below the equator when the temperature zoomed to 120. It was summer there. *The birds were flying north. Danger of large-scale floods with the spring thaw coming all at once. Spring crops coming up.*

Maybe tbey would have phenomenal results if the storms didn't beat them down or they didn't wither in the heat. They would need a good crop.

Large increase in static on AM sets—generally poor reception. There weren't many AM sets left; that wouldn't bother anyone.

Some mysterious radio signals.

That would be good to take the people's minds off their troubles.

Sean stuck a sheet of copy paper in his typewriter and started beating away at his story. It was hard not to put in all the facts. He steeled himself. Tbe reason could go in, but not the explanations. Tbe innocuous predictions, but not the dire ones. Tbe news items—yes, they would have to be included.

FINALLY it was finished. Sean got up wearily, collected the sheets, and took tbem in to Ed. The managing editor looked through the story quickly. "Good enough," he said. "You've got the idea. Only, those mysterious radio signals may not be as funny as you tbink. Washington has a top cryptographer working on them."

Sean shrugged. Ed reached into his desk, pulled out a small card, and tossed it toward the reporter. Sean picked it up and glanced at it. He looked quickly at Ed.

"You're now an agent of the government," Ed said softly. "Remember that."

Sean frowned. "Why?"

"Every person in a responsible position has one of those now," Ed said grimly. "You may be called on to give help at any time, to quell a riot, spike a rumor, or keep your teeth clamped sbut on the truth. You'll need that card. Witbout it, nosy questioners or people who want to get into strange places won't be looked on kindly."

Sean nodded, and tucked the card away.

"Where will you be," Ed asked, "if I want to get in touch witb you in the next bour or so?"

"For the next half hour," Sean said wryly, "at the nearest bar. After that, at the University. Professor Lyons. I need some first-hand information."

He walked into the newsroom, glanced down the row of desks, and hesitated. Finally, he sbrugged and walked down the aisle. "Casey," he

said. "How would you like to join me in a drink?"

She looked up quickly. "Are you trying to lead me into evil ways?"

"Nothing could be farther from my thoughts," Sean said easily.

"In that case, there's not much point in accepting," she said. She got up, standing slim and desirable beside him. "But I can always hope you'll change your mind."

SEAN GLANCED around warily as they left the building, but the streets were almost deserted. It was just before dawn; the bright moon had gone down. It should have been dark, but there was a sort of twilight instead.

The few people on the street looked hot and uncomfortable as they walked along. They seemed irritable, and perhaps it was not all due to the heat. Then a dark cloud began to come up quickly, and people cast quick glances at it and scurried for their destinations.

"I feel sorry for them," Pat said.

"Why them, especially?"

"I mean all of them, knowing something strange has turned their world upside-down, not knowing what it may do them, finally. And yet they keep on with their everyday work and life, sure, fundamentally, that man will find a way to survive this crisis as he has all the rest. There's something really great about them."

"Great?" Sean questioned.

"Yes," Pat said vigorously. "For almost any one of these brave, foolish, quixotic people, if put to the final test, would sacrifice himself for the future of his family, his country, or his race. In the mass they may be swayed to terrible things, but individually they're great."

"What about us," Sean asked, "who know what the future may bring?"

She glanced at him. "We're different," she said. "We're cynical; we've been observing and reporting their doings so long that people in the mass or individually are only ciphers."

Sean laughed. "Except you, Casey. You're no cipher. Your figure is much better than that."

They dodged into the bar just ahead of the first huge splatters of rain. They were soon seated in the secluded side booth which was the favorite of the *Globe's* reporters.

"I'm not sure," said Sean, soberly, "that the greatest loss in the moon transformation will not be its romantic influence." A smile crossed his lips. "What will you do now, Casey, when there is no moon to sigh beneath?"

She laughed. "You're as naive as all men, O'Shaughnessy. It's you who made the moon a symbol of romance; we only used it. It's the men who sighed and dreamed, women schemed."

"That sounds very cold and calculating."

"It was," she said. "The moon was a cold, chaste, unresponsive goddess, and that's why you wanted her—and us. Oh, occasionally, I admit, we got swept away by our own propaganda—but, generally speaking, we kept our heads."

"Hm-m-m," Sean murmured. "The things you never know until too late."

"It's the women who have to keep the world running properly," Pat said. "If it were left to the men, they'd always be running off on some wild crusade or hare-brained scheme and never get down to the practical fundamentals of life, like hard work and getting married and raising children."

"Oh, I imagine we'd get around to it in time," Sean smiled.

"I doubt it," said Pat, seriously. "You'd rather have the world unsettled and adventurous. Women are the custodians of life; they have to see that everything is safe and sensible and secure, that the world is a proper place to settle down in and raise a family."

"Then I was right," said Sean, "when I said the loss of the moon's romantic influence would be the greatest tragedy, altbough I didn't know I was being so serious."

"Oh, it isn't so serious," Pat said lightly. "It was only a handy device. Women have a hundred other weapons in tbe battle for the preservation of the race. We'll think of something else; we're eternally resourceful when it comes to catching a man and making him into a husband and father."

SEAN HALF rose from his bench and leaned over the table. "Like this?" he said, and kissed her lightly.

Before he could draw back, Pat caught him by tbe shoulders. "No—like this," she said, and, placing her soft lips firmly against his, held them there for a long moment.

Sean sank back. "I see what you mean," he said, breathlessly.

They were silent. Finally Pat broke the spell. "Sean," she said, "why do you call me 'Casey'? Why don't you call me 'Pat' like everybody else?"

His smile was a little crooked. "Men have to have their defenses."

"Against me?" she smiled.

"Maybe it's because I'm afraid," Sean said.

"Of me!" she exclaimed.

"Of everything."

She laughed. "Oh, no! Not the great O'Shaughnessy, reporter-hero of a thousand floods, fires, wars, catastropbes. Afraid!"

His tone was deadly serious. "I'm a fraud," he said. "I've always been afraid. That's why I've done the things I have—to try to live down that feeling inside that keeps telling me I'm worthless. Before, it wasn't so bad; tbe dangers were impersonal. But now someone is trying to kill me."

"Why?" she gasped.

"I don't know," he said miserably. He didn't meet her eyes. "I wanted you to know what kind of person I am. I've run before; I may run again. And I'll end up hating myself and everybody else."

Her eyes were on his face. There was pity in them and understanding and—something else. But his gaze was still focussed on a dark corner of the bar. "We're all afraid," she said lightly.

He raised his glass and moodily took a drink. A moment later he spat it out on the floor and reached across the table to knock her glass out of her hands and away from her lips.

She was half-startled, half-angry. "Was that supposed to be funny?"

"Cyanide!" he said.

●

There had been no disturbances yet. The sun—the real sun, this time—had come up, leaving only a brief, cooler period between the two long stretches of day.

It would take a long time to accustom oneself to this, Sean thought, as he walked into the building from the campus, out of the heat.

A uniformed policeman stopped him. "Where you goin', buddy?" he asked, as if he knew the answer and didn't like it.

"Professor Lyons," Sean said. "Interview for the *Globe*."

The policeman shook his head. "No dice, buddy; come back next week."

"What's happened here?" Sean asked, alarmed. "Why are the police here?"

"No questions, buddy," the cop said sharply. "Move along."

Sean opened his mouth and shut it again. He was about to back away when he thought of the card Ed had given bim. "Does this mean anything to you?"

The cop took a good look at it and grumbled. "Why didn't you say so?" he said sourly. "Go ahead."

● SEAN WALKED down the hall. When he glanced back, the officer was standing implacable before another visitor. Sean turned it over in his mind a few times before he knocked at the office door.

"Come in," a voice called.

Sean opened the door and walked in. Three men were grouped around a desk at the rear of the office. One

of them was Professor Lyons; the other two he didn't know.

"Ah, O'Shaughnessy," Lyons said. "I was expecting you to show up soon. I didn't think you'd let the uniform at the front door stop you."

Sean flipped his card at them. "I'm a member of the fraternity."

Lyons glanced at it and tossed it back. "O'Shaughnessy of the *Globe*, Professors Davis and Stewart, physics and astronomy, respectively."

They nodded their greetings.

"I'm afraid there isn't much we can tell you," Lyons said.

"I can think of a lot of things," Sean said drily; "suppose we start with what the cop is doing at the door."

They glanced at each other. "It seems the public isn't to find out the scientific explanation for the moon's peculiar state," Lyons said. "The officer is ostensibly there to keep us from being molested, but we more than half suspect that he is also posted to keep us from talking to any but authorized personnel."

"Even though we have been enlisted, as you have," said Stewart, "in the forces of the government."

"Apparently," added Lyons, with conscious irony, "scientists are not considered too trustworthy when it comes to secret information."

"That must have disrupted your classes," said Sean.

"Quite true," Lyons said. "But they would bave been broken up in any case; our students have been organized into a temporary auxiliary force of police for keeping the peace."

"I see," said Sean, leaning toward them. "What I want to know is: can man survive this change?"

"I'm afraid we can't answer that question, or any more questions," Davis broke in coldly. "We have been instructed to confide in no one; I intend to see that we obey those instructions."

"Professor Davis!" Lyons exclaimed. "We were told to talk to no one except authorized persons. Sean is obviously autborized. And I'm sure notbing will get through to the public that shouldn't."

"If I'm to do an efficient job of giving the public what they should have, I'll have to know the real answers," Sean said firmly.

"I intend to register my protest, nevertheless," Davis said; "I advise against it."

"The answer to your question, Sean," Lyons said, "is maybe. Not all, probably, but undoubtedly some will continue to exist. With superhuman efforts, perhaps a majority could survive—under different conditions, of course."

"What do you mean," Sean asked quickly, "'superhuman efforts and different conditions'?"

"The first step would be to harness as much of the added energy as possible—by building huge windmills, increasing our bydo-electric capacity, and so forth. Then the cities would have to be protected from the elements—by going underground or being roofed."

"Of the two," put in Stewart, "we consider the roofing the more practical and desirable."

"Extensive hydroponic farms must be started," Lyons continued, "to supply food until it is seen whether our present plants can survive the changed environment and the elements or we can develop new varieties."

"Is that program possible?" Sean asked.

"Possible?—yes," said Lyons. "On a small scale, probable. But whether it can be or will be done extensively is uncertain. The final decision, of course, is up to Washington. All we can do is suggest."

"Are there any chances of doing something about the moon?"

Stewart smiled grimly.

"You might as well try to put out the sun."

• SEAN SUDDENLY noticed that their voices had been pitched well above normal for several minutes. Listening, he heard the reason. There was a strong whine and whistle in the background. He looked out the window, the others following his gaze. The trees outside were whipping wildly.

"That's the first of the big winds," Lyons said.

It was an insistent, irritating sound. No matter how far pushed into the back of the mind, it was never completely forgotten.

"So that's it, then," said Sean; "the survival of the fittest again."

"Unless we can work together far hetter than we have hefore," said Stewart, "it will mean fairly complete destruction."

"Unless—" Lyons began, and bit his lip.

"Unless what?" Sean urged.

"If Peterson's Colony could be persuaded to—"

"Professor Lyons!" Davis commanded coldly.

"But Davis!" Lyons protested nervously.

"Never!" Davis said in hiting tones.

"I suppose you're right," Lyons said weakly and turned back to his desk.

An uneasy silence fell upon them, a silence threaded with the eager, ravenous whine from beyond the window. Sean glanced casually at the two men, but his mind was racing. What meaning did that scene have, if any? That was the second time he had heard the name "Peterson."

Sean was ahout to take his leave when the telephone rang. Stewart answered it and handed it to the reporter.

He listened for a moment and hegan scribbling on a piece of copy paper. Finally he put the phone down gently.

"A Navy cryptographer," Sean said slowly, "has deciphered a message apparently from outer space on a line, roughly, with the constellation Orion. This, supposedly, is what the message said:

To the government (or governments) of earth and to its people— We, the race of Karth, from the sun of Dilr, have initiated a chain reaction on your satellite as the first step in our conquest of your planet. We have powers beyond your imaginings. If you obey us you will not be hurt and will be afforded the blessings and comforts of the Karth rule. If you do not, we will force your flaming satellite from its orbit and cause it to approach your planet until it breaks apart and showers you with its disintegrating matter. These are our instructions: all weapons, no matter how small or large, will be collected and deposited at one spot, where they will be destroyed. At a time which will be set later representtatives of the government (or governments) will meet with the occupying ship to surrender the planet. If you agree to these conditions, set off a large explosion on the desert to the south of your largest inland sea when the constellation which is shaped like a square with a line across it is directly overhead. We will give you thirty revolutions of your satellite to consider this. After that it will be too late.

Lyons licked his lips nervously. "It's a joke," he said. "Someone's trying to pull a practical joke. Not a very funny one either."

"How could they decipher something like that?" Stewart ohjected.

"It was in Morse code," Sean said. "Slightly garbled, as if someone had picked up the snatches which had passed through the Heaviside layer and pieced out the language from that."

"It must be true," Davis said harshly; "no one on earth has the knowledge or the ahility or the power to start a chain reaction on the moon. We should have known that."

"What are we going to do?" Lyons asked, helplessly.

"Give up, of course," Davis said; "we can't fight that kind of power."

"I'm afraid you're right," Sean said, getting up to leave.

Lyons walked toward him and clasped his hand firmly. "Come around any time, Sean. I imagine we'll be pretty lonely for a while. Unless they call off our hodyguard."

"I'll do that," said Sean, repressing a start of surprise.

He exchanged pleasantries with the others and walked away swiftly, not stopping until he was cut off from sight of the office by a bend in the corridor.

Then he carefully unfolded the slip of paper Lyons had pushed into his hand.

Find out, it read, *where major inventions of 1950-60 came from! Last hope.*

Sean set a match to it, watched it burn, and ground the ashes under his heel.

Outside the wind was howling.

IT WAS A hard pull to get the door open against the sweep of the wind. Sean ducked quickly inside the lobby and straightened his coat and hair. He stopped at the desk to look for mail. The clerk looked up as Sean saw his box was empty. "Oh, Mr. O'Shaughnessy," he said. "There was a man here looking for you."

Sean forced himself to be calm. "What did he look like?"

"Sort of tall and thin with gray hair. He wouldn't leave his name."

The description didn't fit anyone Sean knew. He nodded and started to walk away. The clerk called him back.

"He left a package for you—the man I was talking about. It wouldn't fit in your box."

The clerk hauled it out and set it down on the desk. It was a square package about five inches on a side. Sean stared at it dully.

"It has your name on it, but no return address," the clerk said.

Sean picked it up gingerly and walked to the elevator. He got off at the fifth floor and walked to his room fumbling for his key. When he was inside he placed the package on a table and looked at it.

The package was innocuous enough, wrapped in brown paper and tied with white string. But there was no reason for anyone to leave a package for him. Except—!

A cold feeling of fear welled up in him, choking him. When he lit a cigarette his hands were trembling. They were after him. Four times within less than twenty-four hours. Two bullets. A car. Poison. And now this. There was no doubt in his mind what the package was.

Why? Why did he have to die? What had he done; what had he seen; what did he know? There was the little drunk whose name was Willie who had been afraid to go on living. And Professor Lyons who was afraid, too. And one word: *"Peterson."* Did someone want him dead because he had heard that name? Or because he might have heard more?

They won't get me, he thought savagely. *I won't sit here and be a target. Let them find me if they want me.*

Panic seized him. He ran into the bathroom and filled the bathtub with water. He picked the package up, almost dropping it in his haste, and slipped it gently under the water.

SEAN WENT back in the bedroom and threw a few clothes into a small bag. He slipped out of the hotel the back way, glancing around carefully to make sure no one saw him. A cab was waiting at the head of the alley.

"Where to?" the cabby asked.

"Just drive around," Sean said shakily.

He watched out the back window for fifteen minutes. No one was following him. He could swear to it. But there was no use taking any chances.

Sean tossed a couple of bills onto the front seat and slipped out at a corner drugstore. He made two calls, one to the police, the other to Pennsylvania station.

He watched the street from the front of the store for several minutes. Then he stepped out and hailed another cab. "Penn station," he said.

When he entered, a tall, thin man with gray hair was watching one of the doors. Sean dodged into one of the stores, hoping that he hadn't been seen. He watched the man closely. There was no doubt about it; the man was waiting for him.

How did they know, he thought in anguish. *They couldn't have known. It must be a guess.*

And then the tall, thin man with gray hair stepped forward to greet a middle-aged woman coming through the door.

Sean felt himself go weak inside. A moment later he cursed himself for being a fool and a coward. He stepped out of the store and walked to the reservation window.

"Here you are, sir," the clerk said. "One for—"

"Thank you," Sean said loudly.

The clerk looked at him curiously. Sean walked slowly away, glancing around with apparently casual interest but scanning each face for recognition. He lounged near the stairs to the trains and lit a cigarette; he hadn't long to wait.

Sean repressed any signs of emotion when the attendant called his train. The passengers went down, chatting, carefree. Sean envied them and didn't move. At the lsst moment he dasbed down the stairs as the conductor called *"All aboard."* He swung up the steps just as the train started to move.

Standing at the entrance, watching the platform, he was breathing a sigh of relief when a short, fat man carrying a large suitcase rushed into sight and boarded the train. The fat man pushed himself past Sean, puffing, without a sign of interest and moved into the car. Sean watcbed bim through narrowed eyes. Finally he shrugged.

But it was the short, fat man who bumped against him in the Chicago station. Sean just kept himself from going under the wheels of the train by a quick, twisting turn. When he regained his balance, the man was gone.

Sean cursed and took even greater precautions. In Kansas City be dodged through taxicabs, stores, and side streets for an hour before he arrived at the house of a friend. Even then he couldn't sleep, tossing and turning in feverish thought and tortured doubts.

●

The burning roof of the house collapsed just as he got out of it.

●

The motor of the airplane he caught at the Municipal Airport sputtered and died soon after it took off. Luckily, it was able to glide back for a dead stick landing.

●

Sean boarded another train. In Albuquerque he was red-eyed and shaky from loss of sleep and little food. He almost collapsed when a truck backfired on a nearby street. He crept, trembling, back onto the train.

As the train rolled westward, there were no further attempts on his life. Sean sat in his compartment staring blindly out at tbe desert. Had they been attempts on his life? Or mere unrelated accidents? He was never to know. Had he lost them? Or were they trying to lull him into a false sense of security?

He got up, locked the door, and threw himself down on the unmade bed. In a few minutes he was asleep.

In San Francisco he bought a gun and stopped running.

● FROM HIS hotel room, Sean put in a call to Washington, D.C. When he hung up he looked down at the list of names and addresses. It seemed very ordinary. A few of the names were familiar; most were not. The addresses? Scattered over the face of the United States.

Sean scratched his nose reflectively with the tip of his pencil. Where was the mystery?

He picked up the telephone again and asked the operator for the phone of a Mr. Joseph David Carter at an address there in San Francisco. There was a short wait and then a voice came through, thin and querulous. "Hello? Hello?" it ssid.

The voice might have been that of a man or a woman.

"Is a Mr. Joseph David Carter there?" Sean asked.

"Who?" asked the voice, stupidly.

"Joseph David Carter," Sean repeated.

"Oh, Carter! He ain't lived here for almost ten years."

"Did he leave a forwarding address?"

An ear-splitting clap of thunder came over the wire. Sean smiled grimly. "Wait a minute," said the voice, crabbedly. "I'll see."

Sean waited for several minutes. Finally he heard the clatter of the phone being picked up again. "Just a post office box number here," the voice said. It gave the number.

"Thanks," said Sean and jiggled the hook. The operator came back on.

"Give me the main post office," Sean said.

After some trouble in getting the right person, Sean finally found an official who could help him. "Yes," said the clerk, returning, "we have a box here for Joseph Carter."

"Thanks," said Sean and started to hang up.

"If you get in touch with him, though," said the clerk, "you might tell him he has mail here."

"Doesn't he call for it?"

"There hasn't been any mail removed from the other side of that box for several years."

Sean hung up, scratched his head, and jotted down that apparently inconsequential piece of information. He continued his search for others on the list, running up a considerable phone bill. A few of them he found at the addresses given; but the majority had vanished, leaving nothing behind but a San Francisco post office box number.

So, mused Sean, *and what significance has San Francisco that the inventors of the '50s should vanish there, leaving only a box number as their forwarding address?* And none of the boxes had been approached in years. Somewhere the clue to this curious behavior was hiding, waiting to explain many things.

But the two circling, fiery globes wouldn't wait. Every hour they created more havoc. And the public was getting restless; any moment, panic might break through the tight bonds of secrecy and control.

Sean took a cab to a San Francisco newspaper office. From the managing editor, an acquaintance of several years, he got the permission he needed.

• SEAN QUICKLY found his way to the morgue. The superannuated reporter who handled the files cast a nervous, questioning look toward him from under straggly, white eyebrows.

It's even getting him, Sean thought. *He feels it, too—the restlessness, the tension, the working against time.*

"Anything you can find on a man named Peterson," Sean said. "And any reference to a colony of that name. Twenty years or so ago, I think. Maybe more."

The old man went silently about his task, thumbing through an index, referring to the cabinets that lined the rooms. He tossed a bundle of clippings on the desk and went back to his searching.

Sean leafed through them quickly. "Must be some other Peterson," he said.

The old man grunted.

Finally he returned with another envelope, this one covered with dust. "This says 'Peterson'," he said. "Don't know what's in it. Must have been here before I took over."

Sean began to scan the yellowed clippings inside. Gradually his reading grew slower until he was absorbing every word. An hour later he looked up and put the last clipping carefully aside. During that hour the noise and voices outside had failed to penetrate his concentration. Now his eyes, strained by trying to d e c i p h e r faded printing on discolored paper, refused to focus for a moment.

Finally, the old man, seated at his desk, swam into view. He was gazing at him curiously. "The way you been reading," he said, "it might be your own obit."

"No," said Sean, slowly. "Maybe just the opposite. For everybody."

Leaving careful instructions to safeguard the clippings, Sean went back to his hotel room and put in another call to Washington. While he was waiting for an answer to his question, he lay back on his bed. His eyes stared at the ceiling, unseeing. Occasionally he would get up and pace restlessly or stare impatiently at the telephone.

He was getting close.

WHEN THE call finally came through, it was storming outside. Thunder cracked loudly, and hail clattered in the streets and against the windows. At times it was difficult to make out the answers of the voice on the other end of the line.

"South Pacific?" Sean said and again, "South Pacific. Location?" He scribbled on a sheet of paper. "Let's have it once more. Dimensions? Out of the shipping and air lanes? Anything more known about it?"

He thanked the voice from Washington and hung up. He sat down in a chair and concentrated on his notes. It was falling into place, all the pieces forming a pattern of hope.

Sean was rested. He felt better than he had for a long time; he was through running. He still didn't know why. He didn't know a lot of things, but he knew enough.

He put in a call to New York and got through almost immediately. "Hello, Professor Lyons?"

"Yes," said the voice at the other end of the line. It sounded tense and wary.

"Somebody else there, eh?" said Sean. "Pretend you're talking to a relative. Your Aunt Harriet or somebody."

"Oh, hello, Aunt Julie. How are you?"

"I'll ask the questions," said Sean. "You just say yes or no, right or wrong. Got it?"

"That's fine," Lyons said.

"The way I've got it figured is this," Sean said. "A geneticist named Peterson tried to get public acceptance for a scheme to improve the race by planned marriages, but he wasn't successful."

"That's good," said Lyons. "I'm glad you're feeling better."

Sean took a deep breath and went on. The rest was conjecture. "So he gathered together a group of extra-intelligent people—scientists, men and women—bought an island in the South Pacific, and settled down to found a colony, the nucleus of an ideal society, hoping that it would spread later."

"That's right."

"For the first few years they needed money to buy machinery, raw materials, and that sort of thing, so they put out a lot of inventions and collected the royalties. When they became independent of outside resources, they stopped their efforts and withdrew from all contact with the outside world under a heavy veil of secrecy."

"Yes," Lyons said, "that's true, Aunt Julie."

"A lot of scientists know about it, however, but they have been sworn to secrecy. They are very much in sympathy with the experiment, feel that contact with the outside world would sully it, perhaps destroy it, and would go to great lengths to protect its secret."

"I imagine you're right."

"The colony," Sean went on, "may have made great scientific advances and may know what to do about the moon and the ultimatum from the aliens."

"Yes," Lyons said.

"But left alone they may decide to take care of themselves and let the rest of the world go, unless they are convinced that it's to their best interests to string along with us."

"I wouldn't be surprised," said Lyons. His voice sounded a little worried. "I'm rather busy, Aunt Julie; I don't think we'd better talk much longer."

"Just one more thing. Do you think it would be a good idea for someone to go there to try to make them see the light?"

"I think that would be a fine idea," Lyons said. "But don't bore anybody else with those old stories

of yours. Oh, yes. I'm fine. I wouldn't worry about the moon any more; I think it's going to be all right. Good luck, Aunt Julie. Goodbye."

The phone clicked. Sean set it down gently. He looked out the window where the huge hailstones were beating down mercilessly. As he looked the window cracked under the impact.

Sean felt determined. He wasn't afraid any more—at least not in the old way. This was different. This wasn't blind and unreasoning; this was a calm awareness of the difficulties and the odds—a sensible thing. He could live with it.

He called the airport and made arrangements for a group of independent pilots to meet with him within an hour at the port. He looked at the cracked window again. There would be that to contend with, as well.

Sean went to his coat and got out the automatic. Carefully he ejected all the shells. Slowly he cleaned the gun, oiled it, worked it back and forth to see that it moved easily. He filled the clip and slipped it into the butt of the gun.

He got up and put on his coat. Picking up the gun, he placed it in a side pocket. The bulge was almost imperceptible. He put on his hat. He wouldn't need anything else.

Sean looked around the room. His face seemed harder; his eyes, too, were harder. There was a different air about him. He looked like a man it would be wise not to disagree with.

He opened the door and stepped out into the hall.

THE PILOTS milled around uncertainly in the small room just off the airport. Outside, the wind blew fiercely and huge hailstones clattered on the roof and bounced off the pavement.

"Listen, mister," one of them said finally. "It isn't we're afraid, but any man's a fool to go out in weather like this."

"Of course you aren't afraid," Sean said pleasantly. "I admit I'm a fool, but I want to know if there's another fool here."

"Why can't you wait a few days, mister," said another pilot. "Maybe the storm will let up."

"Maybe it won't, too," Sean said. "I want to go out as soon as possible, and I've got the money to pay for the trip."

"No one could have that much money," muttered another.

"What are you afraid of?" Sean asked. "The only thing you have to lose is your lives."

"What about our ships?"

"I'll put up money to pay full insurance coverage on you and your ship."

"What good will that do us if we're not around to collect it?" someone piped from the back of the room.

"Let's look at facts," Sean said. "Either you men are pilots or you aren't. This weather isn't going to let up; it's with us to stay. You have to fly in it or get a job digging ditches. The money you have sunk in your planes is going to be a total loss unless you use them—no one else will want them. I'm giving you a chance to make some money to replace that loss."

"I'd rather dig ditches in the ground than the ocean," one pilot said.

"Yeah, mister," another said. "If you wanted to go some place overland, I'd say 'swell—hop aboard.' But this ocean stuff is suicide, now. Storms pop up out of nowhere, even if you can get off the ground. You might just as well run into a hurricane or typhoon as not. No, sir, not for me."

"Let me tell you this, then," Sean began. "I'm on important business—important for all of us, important for the future of the world. I wouldn't risk my neck for anything less."

"What do you mean—important?"

"I can't tell you everything, but

it has to do with the moon and its present condition. If I'm successful, it may bring the moon back to normal."

"If it's so important," one of them said skeptically, "why don't you get the navy to fly you."

"There are reasons I can't explain why that is impossible," Sean said, pulling out his billfold. "I am, however, an agent of the government."

He pulled out the card Ed had given him. One of the pilots glanced at it. "That don't mean a thing," he said. "We've all got those."

"All right," Sean said. "Is anybody willing to risk it?"

The silence was sullen.

"Aren't there any men left around here?" Sean said desperately.

One of the pilots, a big man in his flight jacket, stuck his nose close to Sean's face.

"I don't take that from anybody," he said savagely.

"Why don't you do something about it?" Sean said quietly. "Like flying me where I want to go."

The man glared at him for a moment and spun on his heel. "I got a family, mister," he said. "They come first."

•THE REST got up and slowly followed him. Finally the room was cleared except for Sean and an average-size blond fellow in a shabby leather jacket. He was grinning.

"Well," Sean said bitterly, "why don't you follow your buddies?"

"Sorry, mister," he said, tossing his curly hair. "I didn't want to make the other guys feel bad; I'll take that job."

"What's the matter," Sean asked, "no family?"

"Nope," he said, grinning. He got up and stretched. "All I got is me and my plane; I just like to fly."

"Amphibious?"

"Yep," he said. "Range: ten-thousand miles, if we load her to the limit. I had a service to the Islands before the storms blew up. She's a sweet ship."

"I'll pay you five thousand dollars for the trip, plus insurance for you and your ship."

"Just the ship, mister," the pilot grinned. "I don't want anybody happy if I don't come back."

"O.K.," Sean said. The fellow's grin was infectious. "I'm Sean—Sean Casey."

"I'm John Storm," the pilot said and cocked an ear to the sound of the hail outside. "Well named, eh?"

Sean grinned. "May the better storm win."

Storm lit a cigarette and drew in a deep puff of smoke. Releasing it slowly, he spoke through the smoke. "When do we leave?"

"As soon as the ship is ready."

"That's pretty damn quick," Storm said. "All we gotta do is put a little extra gas in her. Let's go."

Sean hesitated for s moment. His scruples won out. "It's only fair that I tell you this much," he said. "We're heading for a spot I'm not even sure exists. If it does, I don't know what we may be getting into. Our chances are probably pretty slim of getting through the whole mess alive. You can back out if you want to."

"Thanks for telling me, Sean," Storm said. "But I've always been crazy and this is no time to change."

Sean's expression lightened. "Let's go," he said.

They spent a few minutes in a large office of the main terminal. Storm called the hangar to have them service the ship, and they signed a few papers. On their way out of the room, Sean saw one of the typists look up from her work. Her expression was worried. "Leaving again, Johnny?"

"Keep a light in the window for me," he said gayly.

"You be careful now," she demanded fiercely.

He grinned broadly and threw her a kiss. "Sure will, Honey."

Another pretty girl stopped them in the hall. "Johnny!" she said. "You aren't flying today."

"Sure am, honey," he said. "Miss me?"

"You're a fool, Johnny," she said, but her eyes belied her words.

They stopped for clearance and the weather. "I can't give you clearance in this stuff," the officer said,

nodding at the window. "You wouldn't even get off the field."

"We'll take our chances," Sean said lightly.

"But we won't," the man said. "No ship takes off the airport in weather like this."

"The man said we're taking off, Bill," Storm said evenly. "It's our risk and we're taking it."

"This is important business," Sean added. "We aren't doing it for fun. But with or without clearance, we're taking off; if you want any confirmation, call this number in New York."

Sean handed him a card and they walked down the railing to the weather section. The girl got up. scanning a sheet she had just received. She was young and pretty. Sean turned his eyes away; he knew what was going to happen.

"Weather clearing a little west of here," she read automatically. "May slacken here in spots. Due to unusual conditions prevailing lately no prediction is advance—. Johnny!"

She had raised her eyes from the sheet. "You aren't going out in that!" she exclaimed.

"Sure am, boney."

He leaned over the railing and kissed her lightly on the lips. "Be good," he said, and he and Sean walked away.

●

THE HAIL slackened a little and they made a run for the hangar. The ship was already warmed and waiting. They got in the huge plane, Sean sitting in the co-pilot's seat, and waited.

The hail had almost stopped. The field should have been knee-deep in ice but it melted rapidly in the sultry heat. It was raining now, hard, windswept rain. Storm looked at Sean questioningly. Sean jerked a thumb toward the ceiling.

Storm revved the engines and pulled the ship out of the hangar. The rain hammered at it; the wind rocked it. Storm sat a moment, feeling the plane's response. Then he nodded. "She'll take it," he yelled, above the engines.

Sean nodded. Storm taxied her to the runway facing into the wind. It tried to lift the plane from the ground. The hail began falling again, lightly. Storm pushed the throttle slowly toward open. Within two hundred feet the plane was off the ground, jerking through the air with the gusts that caught at it.

Storm handled the controls casually, almost tenderly. Then the hail struck, hammering at the ship, thundering to break through. The thick glass on Sean's side cracked; the metal covering dented; and then they were through. Only the wind and rain buffeted them.

Storm cursed a little at the damage. Then he turned to Sean. "Where to?" he yelled.

Sean handed him a slip showing the latitude and longitude. Storm pursed his lips as if he were whistling softly. Then he looked at Sean and grinned. "What are we waiting for?" he shouted, and headed the ship out over the ocean.

●

It was hot below the equator, sizzling, and the cabin was not refrigerated. Here it was the middle of summer, and sometimes the sun or the burning moon beat down and heated the metal of the ship to scorching intensity. Then the rain came as a brief respite, and the winds and storms tossed the ship wildly.

They fled on and on into the South Pacific, searching for an island that was once sold to a man named Peterson, an island that might be desert, and might be anything. In the quiet moments, Sean rehearsed his arguments again and again. In the stormy ones, he helped Storm hold the plane to its course.

Storm turned to Sean one clear, bright moment on the morning of the second day and wiped the sweat from his forehead. "One hundred miles more, if my navigation is right," he said. "If it's there, how do we get in?"

Sean had told him the story during the lonely hours. If they failed, it wouldn't make any difference. If they succeeded, he would need an ally who knew what was going on.

Sean shrugged his shoulders. "Your guess is as good as mine."

"Just set down and say 'here we are, where's the brass band'?"

Sean grinned. "Maybe."

Storm went back to his wheel, but now they both watched below eagerly. The water was blue, bottomless, and without boundaries or features. It moved lazily in the sun.

A dot in the distance became a tiny, white coral island beneath, without vegetation, the water milky around it. Then nothing again. The hundred miles went by, and the monotony was unrelieved.

Storm smiled apologetically. "Those winds are hard to figure. It might be a hundred miles in any direction."

"Let's keep going the way we are," Sean said.

They kept going. Fifty miles more slipped behind them. Sean stirred uneasily. They couldn't do this indefinitely.

STORM WAS the first to see it. It looked like a gray, hazy bubble to the left, on the horizon. He banked the ship and sent it straight toward the spot.

"Ever see anything like that before?" Sean asked.

"Hell, no," Storm said. "And I don't think anyone else has either. There's nothing around here for hundreds of miles."

The bubble grew until it became a gray hemisphere sitting upon the blue ocean. It was difficult to see what lay behind that curtain. Shapes seemed to grow and change and quiver. When it was beneath them, there was a hint of buildings and spires below—or it might have been trees and mountains, or waves and steam.

They banked around it, searching for a hint to its nature, looking for an opening, something. It was expressionless, as blank as a mask.

"Well?" Storm said.

"Bank above it," Sean said, and he walked back to the toolchest and pulled out a screwdriver.

He forced the door open against the slipstream. He looked down; the bubble was directly below. He tossed the screwdriver through the opening. Then he looked down, watching the tool turn lazily over and over as it fell toward the gray hemisphere. It got smaller and smaller.

There was a flash and a lazy puff of smoke curling upward. Sean walked back to the cockpit. "See?" he asked.

Storm nodded. They looked at each other.

"They don't like visitors," Storm said.

"I guess not," Sean said. "Is the radio set up?"

Storm nodded.

"Just click the switch on the far right."

Sean clicked the switch and waited. Then he picked up the hand mike. "Hello, Peterson's Colony," he said steadily. "Hello, below. This is the plane flying overhead; we wish to enter. Please answer."

He switched to reception and waited. There was nothing, not even static. He flipped the sending switch again. "Hello, Peterson's Colony," he said. "This is an emergency. We must talk with you. Radio us instructions for landing. Answer."

Again there was nothing. Sean tried another wave length and another. He spun the dial to its limit in both directions. The air remained as silent as it was when they arrived. He repeated his message again and again. Nothing.

"Hello, Peterson's Colony," he said savagely. "We know the secret of your existence. We know who you are, what you are, where you are. You and the earth are threatened with destruction or slavery. This is a matter of your existence, as well. Don't be afraid; there are only two of us. Send us instructions for landing. Answer!"

There was only silence. Sean left the radio and walked slowly back to the cockpit. Storm raised an eyebrow. Sean shook his head. "Not a thing," he said.

Storm pointed at the gas gauge. "There isn't much more than enough to get us back," he said. "We have to do something soon."

Sean looked down at the gray hemisphere. "I know," he said.

He studied it for a long moment. "Why don't they answer?" he said suddenly. "Are they crazy or what?"

"Maybe they can't hear us," Storm said. "That thing stopped the screwdriver. Maybe it stops other things, too."

"Maybe that's it," Sean said. "Maybe they can't see us any better than we can see them, or hear us either. Maybe they don't know we're here." He thought about it for a moment. Then be shook his head. "If they're smart enough to do that"—he motioned to the bemisphere—"they abould be smart enougb to know we're here."

"Maybe they're all gone," Storm suggested. "Or dead."

"Tbat's a happy tbought," Sean said.

He turned away and tossed tbe problem in his mind. Below lay the one hope for the life and freedom of the world. Below lay death if they should try to penetrate the screen. But upon hia decision rested not only his life and Storm's but the whole suffering people of eartb. Go back or try to go in? What should be do?

He had done enough, he told himself. He had tried. What man could do more?

Oh, Casey—Pat, he muttered, aoundlessly, w*hat shall I do?*

"Wait a minute," he said.

He walked back to the radio, still waiting, still silent. He picked up tbe mike. "Peterson's Colony," he said coldly. "We're coming in. If you value your lives or your future do not try to stop us. Tbis is your last chance; we're coming in."

He walked back to the cockpit. "Take her down," he said.

STORM NURSED it down until it was skimming tbe water. Then be eased back on the throttle to cut flying speed. When the ship finally slipped into the water it was as smooth as a launching. They were beside the gray curtain which was about one hundred yards away.

"Where now, cap'n?" grinned Storm.

"Edge a little closer and then circle the thing. Maybe we'll see sometbing."

When they were little more than a wingspan away, tbere was atill little to aee. The curtain came down to the water's edge and then stopped. The sea was calm and the meeting point between the curtain and the aea was steady. It was just a line.

That seemed odd to Sean, somehow, but he couldn't pin it down. Now that they were closer the sbapes seemed cleared behind the barrier. The island seemed to rise gradually in a vague, hillock shape. And those were buildings, although their outlines wavered and faded. But t h e r e was no movement; possibly it was too far to see. Sean kept telling himself that it was too far to see.

Then their wake arrived at tbe curtain, and a line of steam arose where it splashed against the barrier. Sean looked at it, puzzled.

"Mighty powerful stuff," Storm said.

"All right, take ber around," Sean said, in a bemuaed tone.

They taxied around the hemispbere. Everywhere it was the same. No thickening, no thinning of the barrier, just the same gray wall with the line of steam at the edge wbere the wake splashed. And it was big—bigger tban it looked.

"Doesn't look like there's any way into this place, Sean," Storm said finally. "Like I said, I guess they don't like visitors."

Sean snapped bis fingers. "That's it! Look there where the steam is rising."

"What do you mean?" Storm asked. "That's where the water hits it."

"Yes," Sean said triumphantly. "But it doesn't steam when the waves bave quieted down."

Storm stared at him for a moment. Then his face cleared. "Maybe you're right."

"That bas to be it," Sean said. "That curtain doesn't extend below

the surface. It would take a tremendous amount of power to keep turning that water to steam. Taxi up a little closer."

Storm maneuvered the ship to within a few feet of the screen. Sean picked up an old broom and crawled out on the hull until he was on the prow. The sun burned down and the hull was frying-hot, but he stretched himself out and stuck the broom forward under the water. Nothing happened.

He drew it back. It was whole, uncharred, unblistered. He tried it again. This time he raised it a little high and he brought back a small piece of the handle.

Sean crawled back into the ship, sweating. "I was right," he said exultantly.

"When do we go in?" Storm asked.

"I'm sorry, Johnny," Sean said; "you don't go."

"Now, see here," Storm protested. "I signed up for the whole trip. Well, we aren't there yet."

"We may need to get away in a hurry," Sean said. "You'll have to be ready. And besides, someone has to guard the ship."

Storm agreed reluctantly. "It's your party," he said.

"Keep as close a watch as possible." Sean said.

He reached into the pocket of his coat and pulled out his automatic. "Here," he said. "You may need this. If I'm not back or haven't sent word in exactly twenty-four hours, go back with what we've found out. Get in touch with Ed Stanton at this number in New York. Tell him everything's that happened."

He scribbled for a moment on a card and handed it to Storm.

"Got it," Storm said.

Sean took a deep breath. "You've done a good job, Johnny. You should get a medal."

"Be careful," Storm said. "You'd better swim as far as possible under water. No telling how thick that thing is. Good luck, Sean."

"If I don't get back"—Sean's voice was steady—"you might tell a girl named Pat Casey at the *New York Globe* that—that—"

"That what?" Storm asked softly.

"Oh, tell her she's the best thing that ever came out of Ireland."

SEAN WALKED to the door and crawled back to his position on the prow. He waved at Storm, took a deep breath, let it partway out, and dived.

The water was clear and warm. He pulled himself forward with long, powerful sweeps of his arms. His legs weren't much help, clothed and shod. He pulled himself beneath the water, until his lungs began to burn and scream for air. And then he went a little farther.

Finally he came up, gasping, to the surface. He took a shuddering breath, another, and looked back. The curtain was over fifty feet behind him.

Sean turned and looked at the island. It was covered with buildings, white, even in the subdued light that came through the screen. There wasn't a spot of green, not a shrub or tree or blade of grass. Just the buildings, square and utilitarian, some of them towering close to the roof of the hemisphere.

But there was no one moving on the island; it appeared deserted. For the first time Sean noticed that it was cool. It wasn't that he was wet. The air was cool; the sun shone through the screen, but its rays were tempered.

At a point not very far away, there was a large, stone dock. Everywhere else the buildings came squarely to the water's edge and stopped, like a cliff. Sean stopped treading water and began to swim toward the dock.

On one of the stone pillars was a series of metal rings forming a ladder. Sean pulled himself, dripping, from the water and began to climb.

When his head came over the edge of the structure, he was prepared to glance hastily around and duck back; he wasn't prepared to look into the kindly eyes of an old man with a white beard. The old fellow had been seated on a chair back from the front, fishing over the side of the pier. Several brightly colored semi-tropical fish lay beside him.

He smiled at Sean. "You've been

swimming," he said. "Swimming with your clothes on. I've often wanted to do that, but I'm getting too old now. I forget myself, however. Welcome, sir. Welcome to Peterson's Colony."

Sean stared at the buildings and back at the old man. He followed Sean's gaze and nodded, a little sadly. "You're right," he said. "We should have brought some artists or an architect. As it is, the colony is utilitarian—purely utilitarian."

There was something in the thought that seemed to depress him. He stared down at the fish around his chair as if comparing them with the island.

"Where is everybody?" Sean asked warily.

"There is a conncil. Everybody has gone."

"Why aren't you there?"

The old man sighed. "I have outlived my usefulness," he said. He looked up, a light shining in his eyes. "Perhaps someday there will be no old age, no senility. Perhaps it can be bred from the race, as imbecility or epilepsy can be bred out."

A wondering thought crept into Sean's mind. "Who are you?" he said.

"Me?" said the old man, as if surprised at interest in his identity. "I am an old man named Peterson."

"Peterson!" Sean breathed. "Then this is your colony."

"In name only," the old man said. "My children have gone far beyond my humble beginnings; they have gone very far."

"Then you can help me," Sean said eagerly. "The world needs you and your colony, Mr. Peterson."

"Yes," Peterson said, resting a hand in his beard, "that is what I thought. The world needed my colony. Even when I was most discouraged, that is what sustained me. Someday, I told myself, the world will be in serious trouble, will call for help, and we will answer."

"That time has come," Sean said slowly. "The world is in trouble now. I have come for help."

Peterson turned sorrowful eyes on Sean's eager, pleading face. "I wish," he said, "I wish—"

A cold, precise voice broke in behind them. "Peterson," it said, "you know it is forbidden."

In his excitement, Sean hadn't noticed the figures in loose-fitting tunics and trousers walking onto the dock. Now there was no excitement, no surprise at finding a dripping stranger on the shores of this isolated, shrouded island. Peterson sank back in his chair and turned slowly back to his fishing. Sean swung around to face the newcomers.

THEY WERE standing in a group, five of them, eyeing him humorlessly. "Who are you?" one of them asked.

He took a deep breath. "Sean Casey."

"How did you get here?"

Sean glanced down at his clothes. "Swam."

They didn't smile. Sean reflected that they were young to be so serious. The one slightly in front nodded at the others.

They stepped forward to group themselves around him. Sean tensed himself for a fight.

"Come along," the leader said.

Sean decided to come along. They walked briskly, in silence, off the dock and up the street. It was paved with the same materials that were used in the buildings and put together with such care that there wasn't a crack or an inequality—just the same, slightly-roughened surface everywhere.

The island had a definite rise toward the center, and they walked up a grade that had Sean breathing heavily in a few minutes. Finally they turned in at a building that looked as much like the rest as assembly-line cars. He was escorted to a desk behind which sat a slightly older man than his guards, but dressed identically.

"Sean Casey," the leader of the welcoming committee said. "He won't divulge how he got here."

"Very well," said the man behind the desk. "You may return to your work."

In a moment they were alone, Sean and the man behind the desk, in a windowless cubicle lit, mercilessly,

from hidden sources. Sean looked around for another chair, but there was nothing else in the room. "Not a very friendly welcome," he said.

"We don't encourage visitors, Casey. How did you get here?"

Sean thought about it for a moment. "Airplane, of course," he said. They probably knew it anyway, and, if they didn't, they would find out soon enough.

"Where is it now?"

Sean wondered a little at his manner of speech. It was the same as the others, cold, metallic, precise. "Outside your curtain."

The man nodded. "You are Irish?" he asked.

"American."

"Naturalized?"

"No," Sean said.

The questions continued for several minutes. Sean wondered what he was up to. He didn't seem like a person to waste words or time. Perhaps he was trying to analyze him before he asked the important questions, so that he could judge the validity of the answers.

"Occupation?"

Sean hesitated for a moment. "Reporter," he said. What good would that information do them?

"How did you learn of the existence and location of the colony?"

"Research."

"Why are you here?" the man asked.

"To ask for help," Sean said slowly. "The world needs your help. Only Peterson's Colony can save it from slow disintegration, destruction, or enslavement."

The man's eyes narrowed. "What led you to the conclusion that we would help?"

"You are the last hope," Sean said. "You must help. How can you refuse?"

The man didn't answer. He studied Sean through unrevealing eyes. Finally he rose from his chair and moved around the desk. "Come with me," he said.

•THEY WALKED out into the street again. There were a few people there now, men and women, in what appeared to be the standard colony dress. They showed no curiosity at the sight of a stranger. And there were no children. Sean wondered at that.

They walked toward the center of the island, still climbing.

"The colony was begun," the man said as they moved along, "to develop a better society and a better race. The world rejected us and our ideas; we owe it nothing. I want you to remember that."

"You owe it your lives," Sean objected. "Without the rest of the world you would have had no existence. It, at least, gave you a chance for life."

"The same debt is owed by the rest of the race to the amoeba, the fish, and the rest of the evolutionary cycle."

He shrugged it aside.

"We developed our society on necessarily rigid principles of proper matings, proper training, and proper discipline. The laws are inflexible as they must be in a truly scientific society. When the children are born they are removed from parental care and placed in general nurseries so that they will feel responsible to the society, not to the home or family group."

"Why are you telling me this?" Sean asked.

"So that you can understand."

It isn't that, Sean thought. *It's a desire for admiration.*

"When the children reach the age of discrimination their real training begins."

He led the way into another building, half-way up the slope to the central peak. They looked in a gymnasium class of children doing vigorous calesthenics. They were of varying ages and sizes, sweat beading their faces, all seriously intent on what they were doing. They were silent, no laughing or giggling, no talking. Sean felt something cold creep into his heart.

Another room was a classroom, filled with children of grade school age, bent studiously over desks. And the instructor was lecturing on advanced physics.

The inspection continued, class by class of students far advanced beyond their ages. All the courses were

fundamentally scientific in nature.

They went hack into the street and continued their journey towsrd the huilding marking the center of the island.

"When the children have completed their training, they are matched to fitting occupations in the various laboratories, hydroponic gardens, or theoretical sciences. As much work as possihle is done by machine. There is no drudgery. Couples are mated hy the central council and produce children as scheduled. The intelligence and health quotient is rising steadily."

"And what does all this lead to?" Sean asked, sickened.

"To a better society and a better race," the man said coldly. "Both planned, not allowed to grow or deteriorate haphazardly. It is a work which must not he interrupted or endangered."

"Endangered?" Sean asked.

"We have always realized that the world would not hesitate to destroy us if it became aware of our presence."

They were in front of the lsrge huilding dominating the island.

"You will see the Spokesman and the higher council," the man said, "hut I am afraid the answer will be '*no*'."

THE HIGHER council was composed of men of thirty-five or forty years of age. Sean presented his plea strongly.

"The world's fate rests in your hands, gentlemen," Sean said. "The moon, as you know, has become another, smaller sun. It alone is creating terrihle havoc and will decimate the earth's population in a few years."

"That condition does not trouble us," said the man seated in the center at the long, raised tahls.

"I know," Sean said; "you have your screen, which protects you. That is what the rest of the world needs for survival. Give us the secret."

"We will take it into consideration," the Spokesman said.

"Just before I left for here," Sean continued, "we learned the reason for the moon's explosion. A space ship from an alien star system set off a chain reaction on it as the first step in the conquest of earth. They demand earth's complete surrender to their domination."

"What are the consequences of refusal?" asked the other.

"They will force the moon out of its orbit toward the earth until it disintegrates and makes the earth uninhahitable. They demand that the governments of earth disarm completely as a preliminary to surrender."

"Will the governments surrender?"

"What else can they do?" Sean asked. "They have no choice. But you, with your greater scientific knowledge, might he able to devise a method of protecting earth and defeating the aliens."

"Why should we do this?" asked the Spokesman.

"To save the earth!" Sean exclaimed. "However hitterly you may feel toward the rest of the world, the fact remains we are your brothers. No matter how far away you are, you are still part of us, sprung from the same fathers, nurtured by the same civilization, culture, traditions, hred in the same philosophies."

"Is there no hetter reason than that?"

Sean looked at them. When he went on his voice was cold. "To save your own necks," he said. "If earth defies the aliens, even you could not survive the rain of disintegrating matter. And if the earth surrenders the aliens will either conquer you or destroy you."

"Is that all?" the other asked.

Sean hesitated a moment. "Yes," he said.

The Spokesman looked down the line of faces on each side of him. To Sean they were inscrutahle, but they must have meant something to

the other. He nodded and turned hack to Sean.

"Hear this, then, hefore we announce our decision. We hear no love for the rest of the world. It cast us out when it might have furthered our progress. It would destroy us if it were aware of us and if it could."

"You can't condemn a whole people for the actions of a government or a few governments!"

"We met with nothing hut hatred everywhere," the Spokesman said. "The only ones who understand or sympathize are on this island with, perhaps, a few exceptions."

"People are slow to accept new things," Sean argued. "You can't sentence them to death hecause they are not educated to your movement."

"We not only can, we do," tolled the other. "They do not deserve to live. They are not friends or brothers, hut enemies. Let them perish!"

"But what of the danger to you?" Sean protested.

Sean read no concern on any face.

"We will meet that as we have met everything else—alone."

"Must I take this message hack to your former homes, your relatives, your friends?"

"We have no home hut this, no relatives nor friends hut what are here. And you will not return."

•SEAN STARTED. The council rose as if by signal and hegan to file from the room. Only the Spokesman remained seated to say something that the others

"You will remain here," the other said.

For a moment Sean entertained wild hopes that the Spokesman wanted to say something that the others should not hear, hut that dream was soon shattered.

"Your ship is outside," the man said.

"Yes."

"We presume there is another person in it."

"Presume away," Sean shrugged.

"You will send a radio message to him, instructing him to come in as you did, that all is well."

"What will happen if I don't?"

The man shrugged. "We will find another way."

"What will you do with us?"

"You are unfit to take an equal place in the colony. You will he offered a choice: death or menial lahor."

"And if I refuse?"

"Then you will have no choice."

Sean's tone changed, it hecame fawning; under its flattery the man hehind the hroad tahle drew himself a little straighter.

"I don't know what to do; you people are so smart. You know so many things—all the inventions you have made."

"Only the Spokesman of the higher council knows them all."

"You, sir!" Sean exclaimed. "But surely you don't remember all the details in your head!"

"Of course," the man said scornfully. "It is a simple matter for a person with Colony training."

"Then why don't you save the earth," Sean suggested slyly. "You would he hailed as the savior of the world and everyone would he eternally thankful to the Colony."

The Spokesman eyed him coldly. "That has heen decided," he said.

Sean slipped his hand into his pocket. It would have to he that, then. There was no other choice.

When he hrought his hand out, there was a knife in it. With one swift motion the hlade clicked out, wicked and shining in the cruel, diffused light of the room, and Sean threw himself in a slide across the tahle. The Spokesman sat there, paralyzed.

Sean grahhed his tunic at the throat, pulling it mercilessly tight against his neck until the man could scarcely hreathe. His right hand held the knife hlade a few inches from the man's chest.

"One sound," Sean said savagely, "and I'll cut your heart out."

•THE SPOKESMAN turned a little white. "Don't he a fool," he said, when he regained his voice. "You can't get out of here if you kill me."

Sean laughed. "I don't want to kill

you unless I have to. If you're good I may not have to."

"What do you want me to do?" The man's voice was shaky.

"You're not so brave now," Sean said harshly. "You're not so willing to save yourself and let the rest of the world go hang."

The Spokesman tried to get a grip on himself. Sean tightened the tunic around his throat and moved the knife blade a little closer. The blade gleamed suggestively. He crumpled. Sean watched him, hating him, hating himself.

Sean threw him back in his chair and swiveled around off the table behind him. "Get up."

The man got up, shaking.

"You're going with me," Sean said. "You'll take me where I want to go, as if we were going about business for you. If you make any signal or give anything away, if anyone tries to stop us or save you, if anything interferes, I'll run this knife in you before anyone can get close enough to stop me."

"But—but they'll see the knife!" the man protested.

"Don't worry," Sean sneered. "The knife will be concealed by my sleeve. All right. Start walking!"

"Where?" he asked, walking toward the door.

"Down the hill to the left."

They walked to the door. A man approached them questioningly, but the Spokesman waved him away. "Casey has agreed to assist us."

They walked down the inclined street side by side. This time Sean was glad of the calm acceptance of the men and women on the streets. He felt the cold steel of the knife blade on his arm, shivered, and steadied himself sharply. It wouldn't do to show his prisoner that he was afraid.

Sean placed a light hand on the other's arm. A tremor shook it. Sean released the arm, reassured.

Men and women who passed them murmured greetings to the Spokesman. He nodded in return. It was all commonplace and ordinary, but underneath lay a tension between Sean and his prisoner that might flare any moment into catastrophe. Sean dared not think of what lay on his actions and his success. Sweat popped out on his forehead in spite of the coolness beneath the gray dome.

Sean measured his progress in fractions. Half the distance was behind, then three quarters, a few hundred feet left. Then they were on the dock and no one was around. No one was watching them. No one except Peterson, the old man, who was still fishing over the side of the dock.

"Where are you taking me?" the Spokesman whispered.

"You'll see," Sean hissed, jabbing him in the back with his thumb.

The Spokesman almost collapsed. He staggered on out the dock. Peterson looked up. A pleaded expression crossed his face. "Oh, hello," he said. "Back again. Hello, Corder."

"Yes, Mr. Peterson," Sean said. "We're back."

"Going swimming again?" Peterson asked.

"Yes," Sean said. "Both of us."

"Oh," Peterson said, a shadow of a smile crossing his face. "I didn't know Corder liked to swim with his clothes on."

"He doesn't, particularly," Sean grinned. "He's just going along to keep me company. And don't worry about anything, Mr. Peterson. I think everything's going to be all right."

"That's nice," Peterson said. "Have a nice swim. Have a nice swim, Corder."

Sean turned to Corder. "We'll swim straight out," he said. "If you try anything funny I'll rip your stomach open. And I warn you, I'm like a fish in the water."

Sean slipped the knife from his sleeve. Corder shivered and cast him a mute glance of appeal. Sean clamped the hilt of the knife between his teeth, thinking what a fierce, piratical appearance he made. He grabbed Corder by the arm and dived.

Behind him he heard a splash. As he came up Corder was choking and spluttering.

"All right," Sean said fiercely, re-

The radiations from the weird sun continued to pour down, and heat deaths in the cities increased, as summer approached.

moving the knife from his mouth. "Swim!"

He emphasized his command by a motion with the knife. Corder started swimming. Sean replaced the knife between his teeth and followed.

THE LINE of the screen was only a couple of hundred yards away, but it seemed like forever before it was at hand.

"Hold it a minute," Sean said.

He turned to look back. The dock was still deserted except for the figure of the old man. But Peterson was on his feet, waving at them. He seemed almost gay.

Sean turned back to the screen with a lighter heart. He looked at the water-soaked Corder once more. He was shaking, even in the water. Sean removed the knife again.

"Can you swim under water?"

Corder shook his head, fear gleaming in his eyes. Sean nodded regretfully, reached out, and brought the knife hilt down solidly on Corder's head. The man gave a groan and relaxed in the water.

Quickly Sean placed his feet under the other's arm pits and dived, pulling Corder down with him. He swam powerfully, making strong, sweeping strokes with his arms, the dead weight of Corder dragging behind. At least he had to come up. He glanced back; the barrier was well behind them.

Corder floated to the surface. Sean turned him over, so that his face was out of the water. He was still unconscious. He had probably swallowed a lot of water.

Sean glanced around for the plane. For one despairing moment he thought that it was gone. Then he turned another quarter and it was there, almost behind him.

The sun was sizzling on the water as Sean hauled Corder's unconscious form to the hull and hammered on it. Storm appeared in the doorway, gun in hand. He gasped as he saw Sean.

"What've you got?" he said when he had hauled the two aboard.

Sean started pumping water out of Corder's lungs. "The answer," he said. "Let's get going."

●

Sean walked into the newsroom followed by Corder and Storm. Corder glared hatred at Sean's back; he was sweating and his face seemed a little bruised and puffy. Storm made himself at home immediately.

There was a hail of greetings and questions from the reporters. They got up and clustered around the three.

"Say! Where've you been?"

"What's all the mystery in Ed's office?"

"Yeah—more queer ducks in there than there is in Central Park."

"What've you been doing with yourself?"

"What's the scoop?"

A couple of big, efficient-looking men moved from the managing editor's office to break it up. Sean jerked a thumb at Corder and they placed themselves on either side of him and urged him along.

Sean was following when he caught sight of Casey. He touched her hair lightly. "Hello, Casey," he said, a little huskily.

"Hello, you Irish bum," she said. Her smile was a little tremulous.

"Who's this?" Storm asked in his most interested tone.

"Oh, Johnny," Sean said. "I gave you a false name. Mine's O'Shaughnessy."

"I know," Storm said, his eyes on Pat; "I've seen pictures."

"And this is Pat Casey," Sean said.

"If you don't mind," Storm said absent-mindedly, "I think I'll stay out here. I wouldn't be any use to you."

Sean shrugged his shoulders, walked to the door, and looked back. Storm was leaning over Pat's desk, talking eagerly, and she was looking up, completely absorbed.

● SEAN SIGHED and walked into Ed's office, closing the door behind him. There was a large group crowded into the room. Sean recognized Lyons, Stewart, Davis, several other scientists and engineers, some high-placed Washington officials, some high-ranking naval and army officers, and a few others. The rest must be F.B.I. men, he thought.

"We wired you most of the story Aug. Science Fiction Quar. Take II Gal. 4 The Sun Came Up Last from San Francisco," Sean said. "You can get the rest of the details later. Right now I want you to hear the solution."

He prodded Corder. "Go ahead. Tell them what to do about the moon."

Corder licked his lips. "You can use the same device we use to protect the colony and furnish it with power. Propel four rockets with the proper equipment to positions which will form a square completely obscuring the moon from the earth. The equipment will set up a screen which will block any radiations desired."

"Tell them the other advantages, Corder," Sean urged.

"These radiations, when being screened, will generate power," Corder said bitterly. "This power can be broadcast and picked up any place in the world with the use of relaying equipment, either on earth or in space. You can allow as much or as little radiation to slip through as you wish and select between radiations."

"That's fantastic," Davis said.

"We'll get to you in a minute, Davis," Sean said. "Corder will give you the technical details of the rocket, screening, and broadcast machinery. But first, Admiral, I think the United States had better send a fleet to force the surrender of the Peterson Colony."

The Admiral nodded.

"That will be taken into immediate consideration."

"It shouldn't be too difficult," Sean

said. "Although they have atomic weapons, they can he overwhelmed by force. Their screen can be set to stop any radiation or material object, but I doubt if it could stand up under the sudden energy charge of an atomic homh. .And certainly one could be exploded beneath the screen, either slipped in under the water or set off just outside."

Ed looked at him oddly.

"I think, however," Sean went on, "that they will surrender on tbreat of destruction."

Tbe scientists had gathered around Corder, jotting down figures and notes, gabbling excitedly and exclaiming in amazement as the scientist outlined tbe theoretical and technical details of the plan for harnessing the moon's destructive power.

"Well, Ed," Sean said with a tired smile, "it looks like it will be a blessing after all. This will end the earth's power needs for a long, long time, and it can be made to provide a tempering of climate where needed."

"How did you do it?" Ed exclaimed. "How did you get Corder to come with you and give up his secrets?"

"Oh, it wasn't hard, once you understood them," Sean explained. "They'd been living safely, without fear or conflict, so long that actual danger, threat of death or injury, had a disproportionate affect on them."

"What did you mean about Davis?"

"Quite a high percentage of scientists all over the world were in on the secret of the Colony and helped them all they could," Sean said. "Even the threat of extinction for the world couldn't induce them to reveal its secret. Some of them, I have reason to believe, bave either committed or attempted to commit

murder. It is a misplaced loyalty which will have to he corrected."

"Wait a minute!" Ed said suddenly. "We're forgetting the most important thing. What good will all this do us? There's still the alien ship and its ultimatum."

•EVERYBODY in the room looked up quickly at that. Sean glanced at the Colony scientist. "We won't have to worry about that, will we, Corder?" he said.

The scientist's face tightened.

"You see," Sean said, "the whole thing was the Colony's idea. They sent out the spaceship, started a chain reaction on the moon, and sent the message—all in order to remove a threat to their colony. They felt that earth was sure to surrender. At the least they could destroy all the arms and armaments on earth, and at the hest they could rule the whole planet as alien conquerors.

"Thus they could protect themselves and institute their ideas on a world-wide scale. An added incentive was the greater power supply it provided their colony. They had no means, of course, of forcing the moon from its orhit, hut the threat was sufficient."

The Admiral exploded. "Why, we'll hlow them out of the water!"

"No," Sean said sharply. "That is the only-too-typical reaction they were afraid of. We need them, and they need us. They have a great amount of knowledge and great capabilities for adding more. The Colony was hoth a success and a failure. Its failure was that it withdrew from humanity. It got too far away from us and became elite, a clan, apart from the general race.

"They need the rest of the world for balance. The Colony should he hroken up, true, hut its memhers should he redistributed throughout the world, re-educated to the humanities which it lacked. If you destroy them, you destroy at the same time that immense store of information and intelligence and plant the seeds of distrust and rebellion among the scientists and people of the world for future generations to sow."

The Admiral nodded slowly. Sean looked at Corder. His look of sullen hatred had changed to an expression that might have been gratitude.

"The tragedy of the situation," Sean said, "is whether Peterson's ideas might not have heen successful under different circumstances. Perhaps, when humanity is hetter prepared for them, they may receive another trial."

There was silence in the room for a moment.

"And, Admiral," Sean said softly, "when you get there, take special care of an old man named Peterson."

Ed seized his hand and wrung it.

"Sean," he said earnestly, "you've done a wonderful thing. I'm going to see that you and Storm are properly rewarded— Hey! Where are you going?"

Sean turned at the door. "I have to see whether a trap is still baited."

•SEAN STOPPED a few feet from the desk. Storm and Pat were still deeply engrossed in conversation. Sean saw the look on Pat's face as she listened eagerly, read it, and turned away, the muscles tightening around his mouth. There was something irresistable ahout Storm.

"Sean!" Pat cried, and there was an urgent note in her voice.

She ran to him and turned him toward her. "Are you still afraid?"

He forced a smile. "Still afraid," he said, "hut no longer afraid of myself."

He started to turn away but she pulled him back. "I have something to ask you."

"I'll give you the answer now," Sean said gently. "It's still woman's choice."

"Well, you Irish hum," she said. "I choose you!"

Suddenly, without volition, his arms were around her and hers were clinging to his neck. "Tell me," she whispered, "am I still the best thing that ever came out of Ireland?"

Over her shoulder Sean caught sight of Storm's grinning face. Sean's answer was properly muffled.

•

AS I WAS SAYING...

NOW THAT the "It Says Here" department bas become yours, the readers, I'm moving over to another page for general comments and announcements of my own. Looking over back issues of *Future,* I can see that at times I've tended to monopolize the reader's department with long discussions, often leaping in with opinion before the readers bad a chance to air their views. I don't think this is a good practice, and will try to keep the editorial comments brief.

That is, unless I hear from you that you like to see the editor spout at length in the readers' department. I *am* watching your letters carefully, and trying to see what can be done when a trend of opinion indicates some change that is within the editor's province. Please don't feel that your efforts are wasted if yon do not see your letter in print, or do not get a personal reply. The latter is sheerly impossible, except in very rare instances; the former means simply that there was not space, or that I felt some otber letter had material of more general interest. But what *you* bad to say was noted in any event.

There are some matters outside of the editor's province. To a large extent, the covers and artwork are dictated by company policy; advertising is out of the editor's hands completely. I can modify the cover and artwork in accordance with reader's opinions, but cannot change the *type* of cover and artwork we use— *unless a large volume of comment indicates disapproval.* That means thousands, not bundreds, of letters saying, "We don't like girlie covers." As matters stand, there has, at times, been *a small plurality* of disapproval in regard to a particular cover, or set of illustrations—and nothing like uniform *reasons* for the disapproval even here. Some haven't liked the artist, or the particular scene, or the amount of lettering on the cover, etc.

Of course, most of the above applies more strictly to *Future,* inasmuch as thls is only the second issue of the *Quarterly,* bnt since our "policy" is the same for both magaine, it applies here. So—the cover policy is "set" hut it can be "unset" if enougb of you let ns know what you want.

One of the most common come-hacks to my explanation of why we use the type of covers we do is sometbing like "Well, *Astounding* sells very well, and they haven't used the kind of lurid covers yon use for years." Quite true. Bnt *Astounding* didn't start out with the type of cover it uses today; the early issues were definitely action-pictures, with hright colors, fantastic scenes, and girls. The book had a large, well-established audience before any basic changes were made; we're trying to build up an audience, and we are frankly making as *wide an appeal* as possible. *If you help me build up this audience,* then I can help yon get the kind of magazine you want, covers included.

And lt's the stories tbat count. That is where I need your criticisms and snggestiona. I want to know what kind of stories you like and what kind yon dislike. Here, my "policy" is simply to present *any* kind of science-fiction story which I think is good. Do you approve of this? Do yon want the plenum more circumscribed? Tbere is where your votes and listing of "stories disliked" will help.

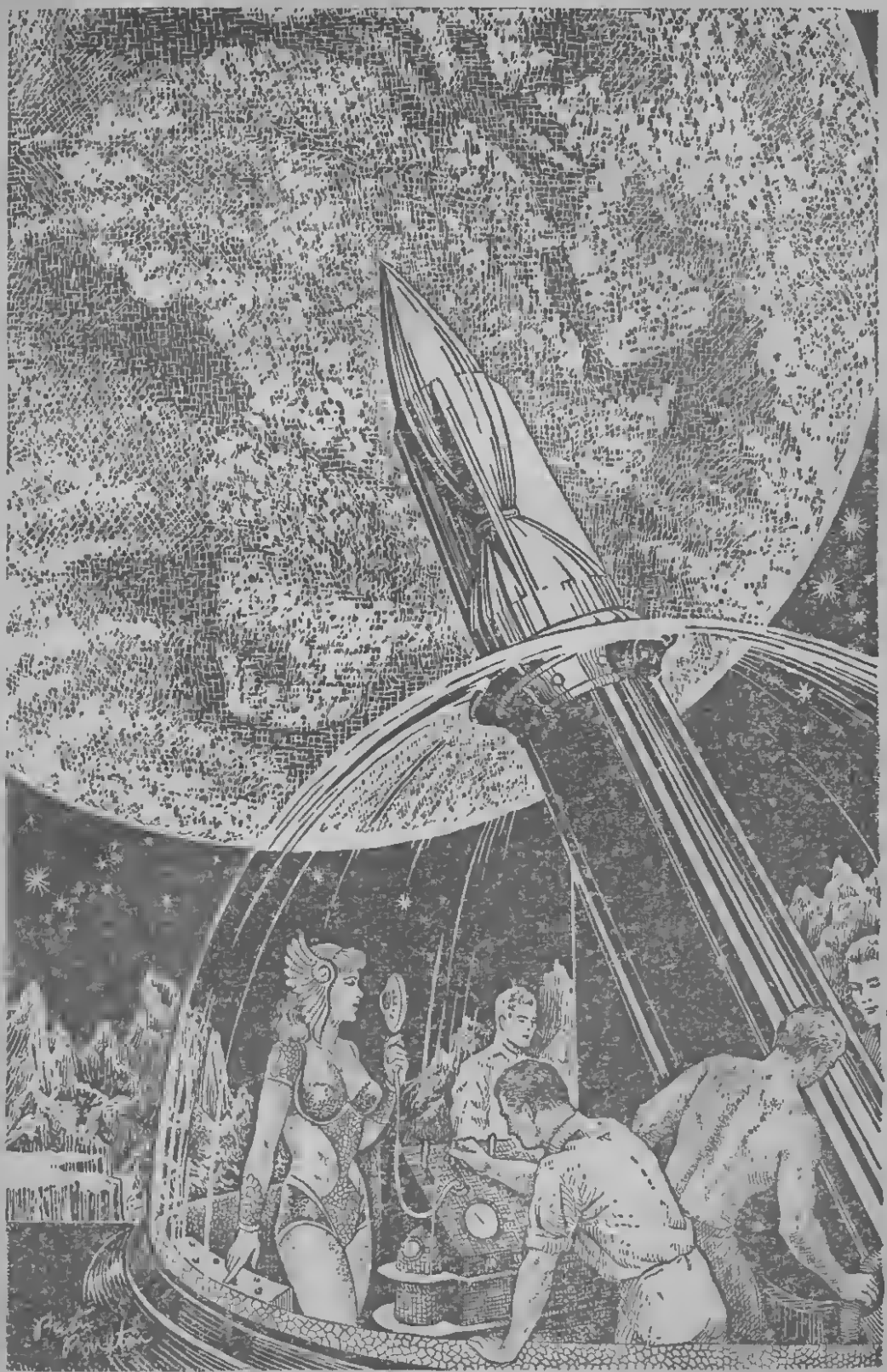
Let's consider the first issue of *Future,* for an example. In that issue I deliberately ran one story of a type I frankly dislike. I thought it was well-done, of its type; but I wanted to find out if this type was desired. It wasn't; your votes and comments placed tbat story definitely way down, and it received more "dislike" votes than any other story we bave used. Result? We haven't nsed any more stories of that type.

I made another experiment in the first issue of *Science Fiction Quarterly.* As this is heing written, I haven't closed the polls yet, but you'll hear about the results. It was a story I thought both good in itself, and well done; I'm as eager to get the returns on it as I hope you are to see the next issue. If they are inconclusive, I'll have to try again; usually, it takes several tries hefore one can he sure of a trend of opinion.

Then, there is the matter of articles. I asked for your votes in *Future,* and the responscs were pretty much against them—*except* that many of those who voted "no," qualified this ballot: you said, "No—unless they are of an unusual nature, and the kind that *belong* in a science fiction magazine. We don't want just plain, "science articles'." So I ran an article closely connected with the Dianetics controversy in *Future;* many praised it; many didn't care for it—but no one objected on the grounds that it was a "science article". Most of those who disliked it added that they were tired of this apparently endless discussion of Dianetics, and could we please think of some other subject for discussion.

I don't know, yet, how the feeling on the Blish articles runs—but I do know that a number of comments have been enthusiastic. The letter by Calvin Thos. Beck in "It Says Here" speaks for many other readers who wrote in a similar vein. But I'll have to balance these against other responses before I'm sure. If I know

[*Turn To Page* 103]

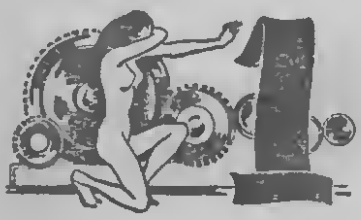


The war only lasted a few days, and the bombing wasn't precisely accurate—it didn't have to be!

DANGER MOON

Steve Templin had to do more than find saboteurs — he had to uncover the deadly motive behind them!

Feature Novel of Days To Come —



STEVE TEMPLIN came out of the airlock into Hadley Dome and looked around for someone to blow off steam on. Templin was fighting mad—had been that way for three days now, ever since he was ordered to report for this mysterious mission on the Moon.

Templin stripped off his pressure suit and almost threw it at the attendant. "I'm looking for Ellen Bishop," he growled. "Where can I find her?"

The attendant said deferentially, "Miss Bishop's suite is on Level Nine, sir. Just below the solarium."

"Okay," groused Templin, walking off.

"Just a second, sir," the attendant called after him. "You forgot your check. And who shall I say is calling, please?"

Templin took the metal tag and jammed it in the pocket of his tunic. "Say nothing," he advised over his shoulder. "I'm going to surprise her."

He stared contemptuously around the ornate lobby of Hadley Dome, then, ignoring the waiting elevator, headed for the wide basalt stairway that led upstairs. With the force of gravity here on the Moon only about one sixth as powerful as on the surface of the Earth, an elevator was a particularly useless and irritating luxury. It was fit, Templin thought, only for the kind of washed-out aristocrats who could afford to chase thrills for the five hundred dollars a day it cost them to live in Hadley Dome. Templin, a heavyweight on his home planet, weighed little over thirty-five pounds on the Moon. He bounded up the stairs in great soaring leaps, eight or ten steps at a time.

On the ninth level he paused, not even winded, and scowled about him. All over were the costly trappings of vast wealth. To Templin's space-hardened mind, Hadley Dome was a festering sore-spot on the face of the Moon. He glowered at the deep-piled Oriental carpet on the floor, the lavish murals that had been painted on the spot by the world's highest-priced artists.

Someone was coming down the long hall. Templin turned and saw a dark, solidly-built man coming toward him in the peculiar slow-motion walk that went with the Moon's light gravity. Templin stopped him with a gesture.

"I'm looking for Ellen Bishop," Templin repeated wearily. "Where's her room?"

THE DARK man stopped and looked Templin over in leisurely fashion. Judging by the gem-studded belt buckler that adorned his brilliantly colored shorts, he was one of the Dome's paying guests...which meant that he was a millionaire at the least. He said in a cold, confident

by James MacCreigh

voice: "Who the devil are you?"

Templin clamped his jaw down on his temper. Carefully he said, "My name is Templin. Steve Templin. If you know where Ellen Bishop's room is, tell me; otherwise skip it."

The dark man said thoughtfully, "Templin. I know that name—oh, yes. You're that crazy explorer, aren't you? The one who's always hopping off to Mercury or Venus or some other planet."

"That's right," said Templin. "Now look, for the last time—"

"What do you want to see Ellen Bishop about?" the dark man interrupted him.

Templin lost control. "Forget it," he flared. He started to walk past the dark man, but the man held out his arm and stopped him. Templin halted, standing perfectly still. "Look, mister," he said. "I've had a tough day, and you're making me mad. Take your hand off my arm."

The dark man said angrily, "By heaven, I'll have you thrown out of the Dome if you don't watch your tongue! I'm Joe Olcott!"

Templin deliberately shook the man's arm off. The dark man growled inarticulately and lunged for him.

Templin side-stepped easily. "I warned you," he said, and he brought his fist up just hard enough to make a good solid contact with the point of Olcott's jaw. Olcott grunted and, grotesquely slowly in the light gravity, he collapsed unconscious on the carpeted floor.

A gasp from behind told Templin he had an audience. He whirled; a girl in the green uniform of a maid was frozen in the doorway of one of the rooms, one hand to her mouth in an attitude of shock.

Templin saw her and relaxed, grinning. "Don't get upset about it," he told her. "He was asking for it. Now maybe you can tell me where Ellen Bishop's room is?"

The maid stammered, "Y-yes, sir. The corner suite, at the end of the corridor."

"Thanks."

The maid hesitated. "Did you know that that was Mr. Joseph Olcott?" she asked tentatively.

Templin nodded cheerfully. "So he told me." In a much improved frame of mind he strolled down to the door the maid had indicated. He glanced at it disapprovingly—it was carved of a single massive piece of oak, which was rare treasure on the treeless, airless moon—but shrugged and rapped it with his knuckles.

"Come in," said a girl's voice from a concealed loudspeaker beside the door, and the door itself swung open automatically. Steve walked in and discovered that he was in a well-furnished drawing room, the equal of anything on Earth.

From behind a huge desk a girl faced him. She was about twenty, hair black as the lunar night, blue eyes that would have been lovely if they had any warmth.

Templin looked around him comfortably, then took out a cigarette and put it in his lips. The chemically-treated tip of it kindled to a glow as he drew in the first long puff. "I'm Steve Templin," he said. "What do you want to see me about?"

A TRACE of a smile curved the corners of the girl's red mouth. "Sit down, Mr. Templin," she said. "I'm glad you're here."

Templin nodded and picked out the chair closest to the desk. "I'm not," he said.

"That's hardly flattering."

Steve Templin shrugged. "It isn't intended to be. I went to work for your father because I liked him and because he gave me a free hand. After he died and you took over, I renewed my contract with the company because it was the only way I saw to keep on with my work on the Inner Planets. Now—I don't know. What do you want with me here?"

Ellen Bishop sighed. "I don't know," she confessed. "Maybe if I knew, I wouldn't have had to cancel your orders to go back to Mercury. All I know is that we need help here, and it looks like you're the only one who can provide it."

Steve asked non-comittally, "What kind of help?"

The girl hesitated. "How long have you been out of touch with what's going on?" she countered.

"You mean while I was on Mercury? About eleven months; I just got back."

Ellen nodded. "And has anyone told you about our—trouble here?"

Steve laughed. "Nobody told me anything," he said flatly. "They didn't have time, maybe. I came back from Mercury with survey charts that took me six months to make, showing where there are mineral deposits that will make anything here on the Moon look sick. All I wanted to do was turn them over to the company, pick up supplies and start out for Venus. And one of your glorified office boys was waiting for me at Denver skyport with your ethergram, ordering me to report here. I just about had time for one real Earth meal and a bath before I caught the rocket shuttle to the Moon."

"Well—" the girl said doubtfully. "Suppose I begin at the beginning, then. You know that my father organized this company, Terralune Projects, to develop uranium deposits here on the Moon. He raised a lot of money, set up the corporation, made plans. He even arranged to finance trips to other planets, like yours to Mercury and Venus, because doing things like that meant more to him than making money. And then he died."

Her face shadowed. "He died," she repeated, "and I inherited a controlling interest in Terralune. And then everything went to pot."

A buzzer sounded on Ellen Bishop's desk, interrupting her. She said, "Hello," and a voice-operated switch turned on her communicator.

A man's voice drawled, "Culver speaking. Shall I come up now?"

Ellen hesitated. Then she said, "Yes," and flicked off the communicator. "That's Jim Culver," she explained. "He'll be your assistant while you're here."

"That's nice," Templin said acidly. "Assistant to do what?"

The girl looked surprised. "Oh I didn't tell you, did I? You're going to manage the uranium mines at Hyginus Cleft."

TEMPLIN OPENED his eyes wide and stared at her. "Look, Bishop," he said, "I can't do that. What do I know about uranium mines—or any other kind of mines?"

Before the girl could answer, the door opened. A tall, lean man drifted in, looked at Templin with mournful eyes. "Hello," he said.

Templin nodded at him. "Get back to the question," he reminded the girl. "What about these mines? I'm no miner."

The girl said, "I know you aren't. We've had three mining engineers on the project in eight weeks. Things are no better for them—in fact, things are worse; ask Culver." She waved to the lean man, who was fumbling around his pockets for a cigarette.

Culver found the cigarette and nodded confirmation. "Trouble isn't ordinary," he said briefly. "It's things that are—strange. Like machines breaking down. And tunnels caving in. And pieces of equipment being missing. Nothing that a mining engineer can handle."

"But maybe something that you can handle." Ellen Bishop was looking at Templin with real pleading in her eyes, the man from the Inner Planets thought. He said: "Got any ideas on who's causing it? Do you think it's just accidental? Or have you been having trouble with some other outfit, or anything of the sort?"

Ellen Bishop bit her lip. "Not real trouble," she said. "Of course, there's Joe Olcott...."

Joe Olcott. The name rang a firebell in Templin's mind. Olcott... yes, of course! The chunky dark man in the corridor—the one he had knocked out!

He grinned abruptly. "I met Mr. Olcott," he acknowledged. "Unpleasant character. But he didn't seem like much of a menace to me."

Ellen Bishop shrugged. "Perhaps he isn't. Oh, you hear stories about him, if you can believe them. They say he has been mixed up in a number of things that were on the other side of the law—that he has committed all sorts of crimes himself. But—I don't really believe that.

Only, it seems funny that we had no trouble at all until Olcott tried to buy a controlling interest in Terralune. We turned him down—it was just a month or so after Dad died—and from then on things have gone from bad to worse."

Templin stubbed out his cigarette, thinking. Automatically his fingers went to his pocket, took out another, and he blew out a huge cloud of fresh smoke. Then he stood up.

"I think I get the story now," he said. "The missing pieces I can fill in later. You want me to take charge of the Terralune mines here on the Moon and try to get rid of this jinx, whatever it is. Well, maybe I can do it. The only question is, what do I get out of it?"

Ellen Bishop looked startled. "Get out of it? What do you mean?" she demanded. Then a scornful look came into her ice-blue eyes. "Oh, I see," she said. "Naturally, you feel that you've got us at your mercy. Well—"

Templin interrupted her. "I asked you a question," he reminded. "What do I get out of it?"

She smouldered. "Name your price," she said bitterly.

"Uh-uh." Templin shook his head. "I don't want money; I want something else."

"Something else?" she repeated in puzzlement. "What?"

Templin leaned across the desk. "I want to go back," he said. "I want a whole fleet of rocket ships to go back to Venus with me...lots of them, enough to start a colony. There's uranium on the Moon, and there are precious metals on Mercury...but on Venus there's something that's more important. There's a raw planet there, a whole world just like the Earth with trees, and jungles, and animals. And there isn't a human being on it. I want to colonize it—and I want Terralune Projects to pay the bill."

Ellen Bishop stared at him unbelievingly, and a slow smile crept into her lips. She said, "I beg your pardon...Temp. All right. It's a bargain." She grasped his hand impulsively. "If you can make the uranium mines pay out I'll see that you get your ships. And your colony. And I'll see that you can take anyone you like on the Terralune payroll along with you to get started."

"Sold," said Templin. He released her hand, wandered thoughtfully over to the huge picture window that formed one entire wall of the girl's room.

● AT A TOUCH of his fingers the opaque covering on the window opened up like a huge iris shutter, and he was gazing out on the barren landscape of the Moon. The Dome was on the peak of Mt. Hadley, looking out on a desolate expanse of twisted, but comparatively flat, rock, bathed in a sultry dull red glow of reflected light from the Earth overhead. Beyond the plain was an awesome range of mountains, the needle sharp peaks of them picked out in brilliant sunlight as the Sun advanced slowly on them.

Culver said from behind him, "That's what they call the Sea of Serenity."

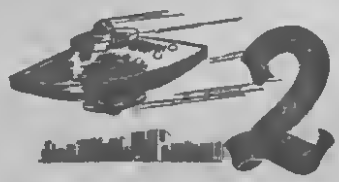
Templin chuckled. "*Mare Serenitatis*," he said. "I know. I've been here before—fourteen years ago, or so."

Ellen bishop amplified. "Didn't you know, Culver? Temp was one of Dad's crew when the old *Astra* landed here in 1957. I don't remember the exact order any more—were you the third man to step on the surface of the Moon, or the fourth?"

Templin grinned. "Third. Your father was fourth. First he sent the two United Nations delegates off to make it all nice and legal; then, being skipper of the ship, he was getting set to touch ground himself. Well, it was his privilege. But he saw me hanging around the air lock—I was a green kid then—and he laughed and said, 'Go ahead, Temp,' and I didn't stop to argue." Templin sobered, and glanced at Ellen Bishop. "I've had other jobs offered me," he said, "and some of them sounded pretty good, but I turned them down. Maybe it isn't smart to tell you this, but there's nothing in the world that could

make me quit the company your father founded. Even though he's dead and a debutante is running it now."

He grinned again at her, and moved toward the door. "Coming, Culver?" he asked abruptly. The tall man nodded and followed him. "So long," said Templin at the door, and closed it behind him without waiting for an answer.



THEY PUT on their pressure suits and stepped out of the lock onto the hard rock outside. Culver gestured and led the way to a small crater-hopping rocket parked a few hundred yards from the Dome. It was still eight days till sunrise, and overhead hung the wide, solemn disk of the Earth, bright enough to read by, big as a huge, drifting balloon.

Mount Hadley is thrust into the dry Sea of Serenity like an arrowhead piercing a heart. Like all the Moon's surface it is bare rock, and the tumbled mountain ranges that lie behind it are like nothing on the face of the Earth. Templin stared around curiously, remembering how it had seemed when that first adventuring flight had landed there. Then he loped over the pitted rock after Culver's swollen pressure suit.

Culver touched a key ring inset in the rocket's airlock, and the door swung open. They scrambled aboard, closed the outer door, and Culver touched a valve that flooded the lock with air. Then they opened the inner door and took off their pressure suits.

Culver said, "The Terralune mine is up at Hyginus Cleft, about four hundred miles south of here. We'll make it in twenty minutes or so."

Templin sat down in one of the bucket seats before the dual controls. Culver followed more slowly, strapping himself in before he reached for the jet control levers. His ship was a little two-ton affair, especially designed for use on the surface of the Moon; powered with chemical fuel, instead of the giant atomics on larger ships, it could carry two persons and a few hundred pounds of cargo—and that was all.

He fed fuel to the tiny jets, paused to give the evaporators a chance to warm up, then tripped the spark contact. There was a brief sputter and a roar. As he advanced the jet lever a muffled grating sound came from underneath, and there was a peculiar jolting, swaying sensation as the rocket danced around on its tail jets for a moment before taking off.

And then they were jet-borne.

Culver swept up to a thousand feet and leveled off, heading toward a huge crater on the horizon. "My first landmark," he explained to Templin.

Templin nodded silently, staring out at the horizon. Although the sun itself was not yet visible, from their elevation it was just below the horizon curve. As they swept over a depression in the Moon's wrinkled surface Templin caught a glimpse of unendurable brightness where the sun was; a long, creeping tongue of flame that writhed in a slow snake curl. It was the sun's corona—a rare sight on the Earth, but always visible on the Moon, where there was no atmosphere to play tricks and blot it out.

Culver said curiously, "I didn't know you were one of the early Moon explorers. How come you aren't a millionaire, like the rest of them?"

Templin shrugged. "I keep on the move," he said ambiguously. "Yes, there were plenty of deals. I could have claimed mining rights, or signed up for lecture tours, or let some rocket-transport company pay me a fat salary for the privilege of putting my name on their board of directors. But I didn't want it. This way, Terralune pays me pretty well for scouting around the Inner Planets for them. I just put the checks in the bank, anyhow—where I spend my time, you can't spend your money.

Money doesn't mean anything on Venus."

Culver nodded. His fingers danced skillfully over the jet keys as the nose of the rocket wavered a hair-breadth off course. Under control, the ship came around a couple of degrees until it was again arrowing straight for its target on the horizon, hurtling over the ancient, jagged face of the Moon.

Culver said casually, "I sort of envy you, Temp. It must be a terrific feeling to see things that no man has ever seen before. I guess that's why I came to the Moon, looking for things like that. But heaven knows, it's getting more like Earth—and the slums of the Earth, at that—every day. Ever since they put that Dome on Mount Hadley the place has been crummy with billionaire tourists."

Templin nodded absently. His attention was fixed on the rear-view periscope. He frowned. "Culver," he said. "What's that coming up behind us?"

• CULVER glanced at the scope. "Oh, that. Pleasure rocket. Looks like Joe Olcott's ship—he's got about the biggest space-yacht around. Only his isn't really a pleasure ship, because he pulled some political strings and got himself a vice commander's commission in the Security Patrol, which means that his yacht rates as an auxiliary. No guns on it, of course; but the Patrol pays his fuel bills."

"A sweet racket," said Templin. "But what the devil is he so close for? If he doesn't watch out he's going to get his nose blistered. Way he's going now he'll be blasting right into our rocket exhaust."

Culver stared worriedly at the periscope. The fat bullet-shaped rocket yacht behind them was getting bigger in the scope, little more than a mile behind them. Then he exhaled. "There he goes," said Culver. The other ship swung its nose a few degrees off to the west. It was a big fast job, burning twice as much fuel as their light crater-jumper, and it slid past them not more that a quarter of a mile away, going in the same direction.

"Joe Olcott," said Templin. "I begin to think that I'm not going to like Mr. Olcott. And I'm pretty sure he doesn't like me; his jaw will be sore for a day or two to help him remember."

Culver grinned and fumbled in his pockets for a cigarette. "He's one of the billionaire tourists I was telling you about, Temp," he said. He sucked on the cigarette, puffed out blue smoke which the air purifiers drew in. "Olcott's about the worst of the bunch, I guess. Not only is he a rich man, but he's mixed up in—Hey! What're you doing?"

Culver squawked in surprise as Templin, swearing incandescently, dove past him to get at the jet controls. Then Culver's eyes caught what Templin had seen a fraction of a second earlier. The big, bullet-shaped rocket had passed them, then come around in a wide arc, plunging head-on at their little ship at a good fifty-mile-a-minute clip.

Templin, sputtering oaths, was clawing at the controls. Under his frantic fingers their ship came slowly over...too slowly. The bullet-shaped ship, carrying twice their jets, came at them until it was a scant hundreds of yards away. Then it switched ends in a tight 10-gravity power turn. When the steering jets had brought it around the space-yacht's pilot fed full power to his main-drive jets.

And deadly, white-hot gases from the rocket exhausts came flaring at Templin and Culver.

• THE LITTLE ship quivered in a death-agony. Templin, white-lipped and soundless now, did the only thing left to him. He cut every jet; the crater-jumper was tossed about in the torrent of flaming gasses from the other ship and hurled aside. The Moon's gravity drew it down and out of danger. Then Templin thrust over the main-drive jets again, checking their fall in a fierce deceleration maneuver. The impact almost blanked Culver out; for a moment dark red specks float-

ed before his eyes. When his vision cleared, he found them settling on their jets in the middle of a five-acre rock plain that formed the center of a small crater.

Templin fought the controls until the landing-struts touched rock. Then he cut jets; the swaying, unstable motion ceased and they were grounded.

Culver shook his head dazedly. "What the devil happened?" he gasped.

"Wait!" Templin's voice was urgent. Culver looked at him in astonishment, but held his tongue. Templin sat stock-still for a second, his bearing one of extreme concentration. Then he relaxed. "Don't hear any escaping air," he reported; "I guess the hull's still in one piece." He peered through the vision port at the black star-filled sky overhead. The long trail of rocket flame from the other ship came around in a sweeping curve that circled over them twice. Then, apparently satisfied, the other pilot straightened out. The flame trail pointed straight back the way they had come as the space-yacht picked up speed. In a moment it was out of sight.

Templin smiled a chill smile. "He thinks he got us," he said. "Let him go on thinking so—for now."

"Tell me what that was all about." Culver demanded. "Two years I've been on the Moon, and nothing like this has ever happened to me before. What in heaven's name was he trying to do?"

Templin looked at him mildly. "Kill us, I should think," he said. "He came close enough to it, too."

"But why?"

Templin shrugged. "That's what I mean to find out. It might be because he's the man I slugged back in the Dome—but I doubt it. Or it might be because he thinks I can put Terralune's mine back on its feet. Wish I shared his confidence."

He unbuckled his safety straps and stood up. "This tub got a radio?" he demanded.

Culver, still pondering over what he had said, looked at him glassily a second. "Radio? Oh—no, of course not. Ship radios don't work on the Moon. You should know that."

Templin grinned. "When I was here there weren't any other ships to radio to. *Why* don't ship radios work?"

"Not enough power. It's not like the Earth, you know—any little one-watt affair can broadcast there, because the signals bounce off the Heaviside Layer. But you can't radio to anything on the Moon unless you can see it, because there isn't any Heaviside Layer to reflect radio waves, and so they only go in straight lines."

"How about the radio at the Dome?"

Culver shrugged. "That's a big one; that one bounces off the Earth's Heaviside Layer. What do you want a radio for, anyhow?"

"Wanted to save time," Templin said succinctly. "No matter. Come on, we've got a job of inspection to do. Put on your pressure suit."

Culver began complying automatically. "What are we going to do?"

"Make an external inspection. Way we were being kicked around up there, I want to make sure our outside hull is okay before I take this thing up again. Let's go look."

THE TWO men slipped into air-tight pressure suits, sealed the helmets and stepped lightly out onto the lunar surface.

Templin skirted the base of the rocket, carefully examining every visible line and marking on the metal skin with the help of a hand-light. Then he said into his helmet radio, "Looks all right, Culver. By the way, what's that thing over there?"

He pointed to something that gleamed, ruddily metallic, at the base of the crater wall. Culver followed the direction of his arm.

"That's a rocket-launching site," he said. "Good place to stay away from. It's a hangover from the Three-Day War—you know, when the boys got the idea they could conquer Earth by blasting it with atom-rockets from the Moon."

Templin nodded. "I remember," he said grimly. "My home town was one

of the first cities wiped out. But why is it a good place to avoid?"

Culver scowled. "Wild radiations. They had a plutonium pile to generate power, and in the fighting the thing got out of control and blew its top. Scattered radioactive matter for half a mile around. Most of it's dead now, of course—these isotopes have pretty short half-lives. But the pile's still there."

Templin said: "And there it can stay, for all of me. Well, let's get moving. The ship looks intact to me—if it isn't, we'll find out when we put the power on."

Culver followed him into the ship's tiny pressure chamber. When they were able to take their helmets off he said curiously, "What's your next move, Temp? Going to get after Olcott?"

"That I don't know yet. One thing is for sure—that was no accident that just happened; he really wanted to blast us. And he had the stuff to do it with, too, with that baby battleship he was flying. It wasn't his fault that we ducked and only got a little dose of the tail end of his rocket blast.... Get in the driver's seat, Culver. The sooner we get to the mine, the sooner the next round starts!"

● THREE HOURS later, Templin was down in the mine galleries at Hyginus Cleft, staring disgruntledly at the wreck of a Mark VII digging machine. This was Gallery Eight richest vein of uranium ore they had found; just when the Mark VII had really begun to turn out sizeable amounts of metal there had been a shift in the rock underneath, crumbling the supports and bringing the shaft's ceiling down to pin the machine. Now the Mark VII, looking like a giant, steel-clad bug on its glittering caterpillar treads, was just half a million dollar's worth of junk.

Culver told him, "Tim Anson, here, was running the machine when the cave-in started; he can tell you all about it."

Templin looked at the man Culver had indicated, a short space-suited figure whose face was hidden behind an opaque mask. The mines were worked in vacuum, of course; it would have been impossible to keep the shafts filled with air. And the dangerous radiations present in the uranium ore required a special helmet for all who stayed long within range of them—a plastic material that transmitted light and other harmless rays in only one direction; dangerous rays it did not transmit at all. Templin said, "What about it, Anson? What happened?"

The man's voice came into his helmet radio. "There's nothing much to tell, sir," it said. "We opened this shaft 'bout a week ago and got some very pretty samples out of it. So we put the Mark Seven in, and I was on it when all of a sudden it began to shake. I thought the machine had gone haywire somehow, so I shut it off. But the shaking kept up, so I hopped off and beat it toward the escape corridor. And then the roof came down. Good thing I was off it, too; smashed the driver's seat like a tin toy."

Templin scowled. "Don't you survey these galleries?" he demanded of Culver. "If there was a rock fault underneath, why didn't you find out about it before you brought the Mark Seven down?"

Culver spread his hands. "Believe it or not, Temp, we surveyed. There *wasn't* any fault."

Templin glared at him. Before he could speak, though, a new voice said tentatively, "Mr. Templin? Message from the radio room." It was another miner holding a sheet of thin paper in his gauntleted hand. Templin took the flimsy from him and held it up to his faceplate. In the light of the helmet lamp he read:

> Pilot Rocket Silvanus registry Joseph Olcott reported accident as required by Regulations. Report stated your Rocket not seen until collision almost inevitable then evasive action taken but impossible to avoid rocket exhaust striking your ship. Pilot reprimanded and cautioned. Signed: Stephens, HQ Lunadmin Tycho Crater.

Templin grinned leanly and passed the radio from Lunar Administration

over to Jim Culver. "I squawked to Tycho about our little brush with Olcott," he explained.

Culver read it quickly and his face darkened with anger. Templin said over the inter-suit radio: "Don't get excited, Culver—I didn't expect anything better. After all, it stood to reason that Olcott would report it as an accident. He had to, in case we survived. At least, now we know where we stand." He glanced around the mine gallery, then frowned again. "I've seen enough," he said ahruptly. "Let's go upstairs again."

Culver nodded and they walked back to the waiting monorail ore car. They stepped in, pressed the release button and the tiny wheels spun round. The car picked up speed rapidly; half a minute later it slowed and stopped at the entrance to the shaft. They crossed an open space, then walked into the air lock of the pressurized structure where Terralune's miners lived.

● IN THE office Templin stripped off his pressure suit and immediately grabbed for one of his cigarettes. Culver more slowly followed his example, then sat down facing Templin. "You've seen the picture now, Temp," he said. "Do you have any ideas on what we can do?"

Templin grimaced. "In a negative sort of way."

"What do you mean?"

"Well, up to a little while ago I had a pretty definite idea that it was Joe Olcott who was causing all our trouble. That, I figured, I could handle—in fact, you might say I was sort of looking forward to it. But, although Olcott is a rich and powerfull man and all that, I don't see how he can cause earthquakes."

Culver nodded. "That's it," he said soberly. "That's not the first time it's happened, either. We've had other kinds of trouble—broken machinery, mistakes in judgement, that sort of thing. Like you, I thought Olcott might be behind it. But—well, good Lord, Temp. The Moon is an old, old planet. There isn't even any internal heat any more—it's all cooled off, and you'd think that its crust would have finally settled by this time. And yet... earthquakes keep on happening. Five of them so far."

Templin grunted and chucked away his cigarette. "Get the strawbosses in here," he said. "Let's have ourselves a conference; maybe somebody will come up with an idea."

Culver flicked on a communicator and spoke into it briefly. He made four or five calls to different stations on the intercom set, then turned it off. "They'll all be here in about five minutes," he reported.

"Okay," said Templin. He pointed to a map on the wall behind Culver. "What's that?" he asked.

Culver turned. "That's the mine and environs, Temp. Right here—" he placed his finger on the map—"is the living quarters and administration building, where we are. Here's the entrance to the shafts. Power plant—that's where the solar collectors are. You know we pick up sunlight on parabolic mirrors, focus it on a heat exchanger and use it to generate electricity. This over here is the oxygen plant."

"You mean, we make our own oxygen?"

"Well, sort of. There's a lot of quartz on the Moon's surface, and that's silicon dioxide, as you ought to know. We electrolyze it and snatch out the oxygen."

Templin nodded. "What about this marking up on top of the map?"

Culver grinned. "That's our pride and joy here, Temp. It's an old Loonie city. Heaven knows how old—it's all run down into the ground now. Must be a million years old, mayhe, but nobody knows for sure. But the Lunarians, whoever they were, really built for keeps—some of the buildings are still standing. Want to go over and take a look at it later?"

Templin hesitated. "No, not today," he said regretfully. "That's pleasure, and pleasure comes later."

There was a knock on the door. Culver yelled, "Come in," and it opened. A middle-aged, worried-looking man came in.

Culver introduced him. "Sam Bligh," he said; "Sam's our power engineer."

Templin shook hands with Bligh, then with half a dozen other men who followed bim through tbe door. When all were gathered he stood up and spoke to them.

"My name's Templin," he said. "I'm going to be running this project for a while. I didn't ask for the job, and I don't want it, but I seem to be stuck with it. The sooner we begin producing, the sooner you'll get rid of me." He looked around. "Now, one at a time," he said. "I want to hear your troubles...."

The conference lasted about an hour. Then Templin said his piece. "There's going to be some ore brought out in the next twenty-four hours," he said. "I don't care what we have to do to do it, but we are going to ship at least one shipload of the stuff this week. And two shiploads next week, and three the week after, until we're up to quota. That clear?" He looked around the room. The men in it nodded. "Okay," he said. "Let's get going."

TWENTY-FOUR hours later, according to the big Terrestrial clock that hung in the ebony sky, Templin stood space-suited at the portal of the mine and watched the first monocar-load of uranium ore come out. On the ground at his feet was a flat black box, the size of an overnight bag. When the hoist crews had unloaded the glittering fragments of ore and stowed them in the bold of a freight rocket, Templin said over the radio: "Hold it up, Culver; don't send the monorail back down. I want to take another look at Gallery Eight."

Culver, supervising the unloading, said, "Sure, Temp; I'll tag along with you." He sprang lightly into the monorail. Templin, picking up the black box, followed and they braced themselves for tbe acceleration.

As the car picked up speed, they hurtled down the winding mine tunnels, lighted only by the headlights of the car itself. Though there was no air to carry sound, they could feel the vibration of the giant wheels on tbe single metal track as a deep, shuddering roar. Then the roar cbanged pitch as the car's brakes were set by the braking switch at the end of the line. The car slowed and stopped.

They got off and stepped down the rough-hewn gallery to where eight workmen were balf-heartedly trying to clear the rock from the pinned Mark VII digging macbine.

They stopped work to look at Templin. Templin said, "Go ahead, boys; we're just looking around." He moved toward the Mark VII, Culver following, studying the cave-in. Gallery Eigbt was seven hundred feet below the surface of tbe Moon, which meant that, even under the light gravity conditions prevailing on the satellite, there were many millions of tons of rock over their heads.

Frowning, Templin saw that there were strain-cracks on the tunnel walls—deep, long cracks thst ran from floor to ceiling. They seemed to radiate from the point where the digging machine had been pinned down.

One of the workmen drifted over, watching Templin curiously. Templin glanced at the man, then turned to Culver. "Take a look at tbis," he ordered.

Culver looked indifferently. "Yeah. That's where the rock cracked and pinned down the machine."

"Uh-uh." Templin shook his bead. "You've got the cart before the horse. Those cracks *start* at the mining machine. First the machine broke through, *then* the walls cracked."

Culver gaped at him tbrough tbe transparent dome of his pressure suit. "So what?"

Templin grinned, "I don't know

yet," he confessed; "but I aim to find out."

He picked up the case he had been carrying, opened it. Inside was a conglomeration of instruments—dials, meters, what looked like an old-fashioned portable radio, complete with earphones. These Templin disconnected, plugging the earphone lead into a socket on his collar-plate that led to his suit radio.

Culver's eyes narrowed curiously, then his expression cleared. "Oh, I get it," he said. "That's a sound-ranging gadget. You think—"

"I think maybe there's something wrong below," Templin cut in. "As I said yesterday, it looks to me as though there's a rock fault underneath here. That machine broke through the floor of the tunnel. When you consider how light it is, here on the Moon, that means that there was one damn thin shell of rock underneath it. Or else—well, I don't know what else it could be."

Culver laughed. "You'd better start thinking of something, Temp. That floor was solid; I know, because I handled the drilling on this gallery, and I was pretty careful not to let the Mark Seven come in until I'd sound-ranged the rock myself. Look—I've got the graphs back in the office. Come back and I'll show them to you."

Templin hesitated, then shook his head. "You might have made a mistake, Culver. I—I might as well tell you, I checked up on you. I looked over the sound-ranging reports last night. According to them, it's solid rock, all right—but still and all, the Mark Seven crashed through." He bent down, flipped the starting switch on his detection device. "Anyway, this will settle the question once and for all."

● INSIDE THE satchel-like instrument, an electronic oscillator began sending out a steady beat, which was picked up by a sound-reflector and beamed out in a straight line. An electric "ear" in the machine listened for echoes, timed them against the sending impulse and in that way was able to locate very accurately the distance and direction of any flaw in the rock surrounding them.

The machine was sensitive enough to tell the difference between dry and oil-bearing strata of sand—it had been used for that work on Earth. And for it to recognize a cave in the solid rock of the Moon was child's play. So simple, and so hard to mistake, that Templin avoided the question of how the first reports, based on Culver's tests, could have been wrong. The machine could not be mistaken, Templin knew. Could the men who operated it have been treacherous?

Templin pointed the reflector of the instrument at the rock under the trapped Mark VII and reached for the control that would permit him to listen in on the tell-tale echoes from below.

Culver, watching Templin idly, saw the abrupt beginnings of a commotion behind him. The eight workmen who were clustered around the Mark VII suddenly dropped their tools and began to stampede toward them, puffy arms waving wildly and soundlessly.

"What the devil!" ejaculated Culver. Templin glanced up.

Then they felt it, too. Through the soles of their metal-shod feet they felt a growing vibration in the rock. Something was happening—something bad. They paused a second, then the workmen in their panicky flight came within range of their suit radios and they heard the words, *"Cave-in!"*

Templin straightened up. Ominously, the cracks in the wall were widening; there was a shuddering uneasiness in the feel of the rock floor beneath them that could mean only one thing. Somehow, the rock-slide that had wrecked the Mark VII earlier was being repeated. Somewhere beneath their feet a hole in the rock was being filled—and it might well be their bodies that would fill it.

Cursing, Templin jumped aside to let the panic-stricken workmen dash by. Then, half-dragging the paralyzed Culver, he leaped for the monorail car to the surface. They

were the last ones on, and they were just barely in time. The stampeding miners had touched the starting lever, and the monorail began to pick up speed under them as they scrambled aboard.

Looking dazedly behind as the monorail sped upward, Templin saw the roof of the tunnel shiver crazily, then drop down, obliterating the wrecked Mark VII from sight. Luckily, the cave-in spread no farther, but it was a frigbtful spectacle, that soundless, gigantic fall of rock.

And all the more so because, just as the roof came down on the digging machine, Templin saw a figure in pressure suit and opaque miner's helmet dash from tbe back of the machine to a sheltering cranny in the gallery wall. The man was trapped; even if there had been a way to stop the monorail and go back for a rescue try, there was no way of getting to him, through the thousands of cubic yards of rock that fell between, in time to save a life....

UP IN THE office, Templin was a caged tiger, raging as he paced back and forth. His stride was a ludicrous slow-motion shamble in the ligbt gravity, but there was nothing ludicrous about his livid face.

He stopped and whirled on Culver. "Eight men down in that pit—and only seven of them got out! One of our men killed—half a million dollars worth of equipment buried—and wby? Because some fool okayed the digging of a shaft directly over an underground cave!"

Culver shifted uncomfortably. "Wait a second, Temp," he begged. "I swear to you, there wasn't any cave there! Take a look at the sound-ranger graphs yourself."

Templin dragged in viciously on a cigarette. He exhaled a sharply cut-off plume of smoke, and when he answered his voice was under control again. "You're right enough, Culver," he said. "I've looked at the things. Only—there *was* a cave there, or else the miner wouldn't have fallen through. And how do you explain that?"

The door to the office opened and the personnel clerk stuck a worried head in. "I checked the rosters, Mr. Templin," he said.

Templin's jaw tensed in anticipation. "Who was missing?" he asked.

"That's the trouble, sir; no one is missing!"

"What!" Templin stared. "Look, Henkins, don't talk through your hat. There were eight miners down in that pit. Only seven came out. I *saw* one of them left behind, and there isn't a doubt in the world that he's still there dead. Who is it?"

The clerk said defensively, "I'm sorry, Mr. Templin. There are four men in the powerplant, five guards patrolling the sbaft and area and two men on liberty at Tycho City. Every one of them is checked and accounted for. Everybody else is right here in the building." He went on hastily, before Templin could explode: "But I took the liberty of talking to one of the miners who was down there with you, Mr. Templin. Like you, he said there were eight of them. But one man, he said, wasn't part of the regular crew. He didn't know who the odd man was. In fact—" Henkins hesitated— "he thought it was *you!*"

"Me? Ob, for the good Lord's sake!" Templin glared disgustedly. "Look, Henkins, I don't care what your friend says—that man was part of the regular crew. At least he was a miner from this project—he had an opaque miner's helmet on; I saw it myself. You find out who he was, and don't come back here until you know."

"Yes, Mr. Templin," said Henkins despairingly, and he closed the door gently behind him.

Templin threw away his cigarette. "I would give five years' pay," he said moodily, "to be back on Mercury now. There I didn't have any troubles. All I had to worry about was keeping from falling into lava pits, and staying within sight of the ship."

Culver leaned back against the

steel wall of the office. "Sounds fun," he said.

A buzzer sounded. Wearily Templin spoke into the teletone on his desk. "Hello, hello," he growled.

The voice that came out was the worried voice of Sam Bligh. It said, "Trouble, Templin. Something's happened to our energy reserves. The power leads are short-circuited. Can't tell what caused it yet—but it looks like sabotage."

●THE GIANT parabolic mirrors were motionless as Culver and Templin approached them, pointed straight at the wide disk of the Earth hanging overhead. The two men glanced at them in passing, and hastened on to the low-roofed power building. Bligh was waiting for them inside. With a sweep of his arm he indicated the row of power meters that banked the wall.

"Look!" he said. "Every power pack we bad in reserve—out. Tbere isn't a watt of power in the project, except what's in the operating condensers." Templin followed the dlrection of his gesture, and saw that the needle on each meter rested against the "zero" pin.

"Wbat happened?" Templin demanded.

Bligh shrugged helplessly. "See for yourself," he said. He pointed to a window looking down on the generating equipment buried beneath the power shack itself. "Those square contraptions on the right are tbe mercury-laminate power packs. The leads go from the generators to them; then we tap the packs for power as we need it. Somehow the leads were cut about five minutes ago. Right there."

Templin saw where the heavy insulated cables had been chopped off just at the mixing box that led to the packs. He looked at it for a long moment, eyes grim. "Sabotage. You're right, Bligh—that couldn't be an accident. Who was In here?"

Bligh shook his head. "No one—as far as I know. I saw no one. But there wasn't any special guard; tbere never is, here. Anyone in the project could have come in and done It."

Culver cut in, "How long will the power in the condensor last?"

"At our normal rate of use—half a day; if we conserve it—a week. By then the sun will be high enough so that the mirrors will be working again."

"Working again?" repeated Templin. "But the generators are working now, aren't they?"

Bligh hesitated. "Well—yes, but there isn't enougb energy available to make much difference. The Moon takes twenty-eight days to revolve, you know—that means we have fourteen days of sunshine. That's when we get our power. At 'night'—when the sun's on the other side—we turn the mirrors on the Earth and pick up some reflected light, but it isn't enough to help very much."

Templin's face was gaunt in concentration. He said, "Order the project to cut down on power. Stretch out our reserves as much as you can, Bligh. Culver—get a crew ready on one of the freight rockets."

Culver raised his brows. "Where are we going, Temp?"

Templin said, "We're going to get some more power!"

●CULVER SAID tightly over Templin's shoulder, "You realize, of course, that this is going to get us in serious trouble with the Security Patrol if they find out about it."

"We'll try to keep that from happening," said Templin. "Now don't bother me for a minute." His bands raced over the controls of the lumbering freight rocket. Underneath them lay the five-acre crater where they had crash-landed the day before after Olcott's attack. Templin killed the forward motion of the rocket with tbe nose jet, brought the nose up and set the ship down gently on the thundering fire of its tail rockets.

"Secure," be reported. "Are the crew in pressure suits? Good. Get them to work."

Culver sighed despondently and hurried off, shouting orders to the crew. Templin eased himself into bls own suit. A hundred yards away lay the abandoned rocket-launching sltes

that had devastated a score of cities in the Three-Day War. Templin stepped out of the airlock and hastened after the group of pressure-suited men who were already investigating the ruined installation.

Culver waved to him. His voice over the radio was still disgusted as he said, "There's the pile, Temp; this is your last chance to back out of this crazy idea."

"We can't back out," Templin told him; "we need power. We can generate power with our own uranium, if we take this atomic pile back with us and start it up again. Maybe it's illegal, but it's the only way we can keep the mine going for the next week—and I'm taking the chance."

"Okay," said Culver. He gave orders to the men, who began to take the ten-year-old piece of equipment apart. In their ray-proof miners' suits, they were in no danger from the feeble radioactivity still left after the pile had exploded. But Templin was, and so was Culver; their suits were the lighter surface kind, and they had to keep their distance from the pile itself.

A nuclear-fission pile is an elaborate and clumsy piece of apparatus; it consists of many hundreds of cubes of graphite containing tiny pieces of uranium, stacked together, brick on brick, in the shape of a top. There are cadmium control-strips for checking the speed of the nuclear reaction, delicate instruments that keep tabs on what goes on inside the structure, heavy-metal neutron shields and gamma-ray barriers and enough other items to stock a warehouse.

Looking it over, Culver grumbled: "How the devil can we get that heap of junk into the rocket?"

"We'll get it in," promised Templin. He bent down clumsily to pick up a rock, crumbled it in his gauntleted fist. It was like chalk. "Soft," he said. "Burned up by atomic radiation."

Culver nodded inside his helmet. "Happened when the pile blew up, during the War."

"No. It's like this all over the Moon, as you ought to know by now." Templin tossed the powdered rock away and brushed it off his space-gauntlets. "There's something for you to figure out, Culver. I remember reading about it years ago, how the whole surface of the Moon shows that it must have been drenched with atomic rays a couple of thousand years ago. The shape of the craters—the fact that the surface air is all gone—the big cracks in the surface—it all adds up to show that there must have been a terrific atomic explosion here once."

He glanced again at where the miners were disassembling the pile. "I kind of think," he said slowly, "that that accounts for a lot of things here on the Moon. For one thing, it might explain what became of the Loonies, after they built their cities—and disappeared."

Culver said, "You mean that you think the Loonies had atomic power? And—and blew up the Moon with it?"

Templin shrugged, the gesture invisible inside the pressure suit. "Your guess," he said, "is as good as mine. Meanwhile...here comes the first load of graphite bricks. Let's give them a hand stowing it in the rocket."

●

ONCE THE JOB of setting up the stolen plutonium pile was complete, Templin began to feel as though he could see daylight ahead. There was a moment of hysterical tension when the pile first began to operate with uranium taken from the mine—a split-second of nervous fear as the cadmium safety rods were slowly withdrawn and the atomic fires within the pile began to kindle—but the safety controls still worked perfectly, and Templin drew a great breath of relief. An atomic explosion was bad enough anywhere...but here, in the works of a uranium mine where the ground was honeycombed with veins of raw atomic explosive, it was a thing to produce nightmares.

●

After two days of operation the

power-packs were being charged again and the mine was back in full-scale operation. Culver, seated in the office and looking at the day's production report, gloated to Templin, "Looks like we're in the clear now, Temp. Two hundred and fifty kilos of uranium in twenty-four hours—if we can keep that up for a month, mayhe Terralune will begin to make some money on this place."

Templin blew smoke at the white metal ceiling. "Don't count your dividends hefore they're passed," he advised. "The Mark VII is still out of operation—we won't be able to start any new shafts until we get a replacement for it, so our production is limited to what we can get out of Gallery Eight. And hesides—we took care of our power prohlem for the time heing, all right, but what about taking care of the man who caused it?"

"Man who caused it?" repeated Culver.

"Yeah. Rememher what Bligh said—that was sahotage. The leads were short-circuited deliherately."

"Oh." Culver's face fell. "We never found out who the missing miner was, either," he remembered. "Do you—"

●THE TELETONE buzzed, interrupting him. When Templin answered, the voice that came out of the box was crisply efficient. "This is Lieutenant Carmer," it said. "Stand hy for security check."

"Security check?" said Templin. "What the devil is that?"

The voice laughed grimly. "Tell you in just a moment," it promised. "Stand by. I'm on my way up."

The teletone clicked off. Templin faced Culver. "Well?" he demanded. "What is this?"

Culver said placatingly, "It's just a formality, Temp—at least, lt always has been. The Security Patrol sends an officer around every month or so to every outpost on the Moon. All they do is ask a few questions and look to see lf you've got any war-rocket launching equipment set up. The idea is to make sure that nobody installs rocket projectors to shoot at Earth with, as they did in the Three-Day War."

"Oh? And what about our plutonium pile?"

Culver said sorrowfully, "That bothers me, a little. But I don't think we need to worry, hecause we've got the thing in a cave and so far they've never looked in the caves."

"Well," said Templin, "all right. There's nothing we can do about it now, anyhow." He sat down at his desk and awaited his callers.

It only took a minute for the lieutenant to reach the office. But when the door opened Templin sat bolt upright, hardly believing his eyes.

The first man in was a trim, military-looking youth with lieutenant's bars on his shoulders. And following hlm, wearing the twin jets of a Security Patrol vice-commander, was the dark, heavy-set man with whom Templin had tangled in Hadley Dome, and whose ship had attacked them on the flight to the mine. Joe Olcott!

THE LIEUTENANT closed the door hehind hls superior officer and marched up to Templin. He dropped an ethergram form on Templin's desk. "My inspection orders," he said crisply. "Better look them over and see they're all right. I take it that you're the new boss around here."

Templin took his eyes off Olcott with difficulty. To the lieutenant he said non-committally, "I run the mine, yes. Name's Templin. This is Jim Culver, works superintendent."

The lieutenant relaxed a shade. "We've met," he acknowledged, nodding to Culver. "I'm Lieutenant Carmer, and this ls Commander Olcott."

Templin said drily, "I've met Mr. Olcott. Twice—although somewhat informally."

Olcott growled, "Never mind that; we're here on business."

"What sort of business?"

The lieutenant said hesitantly, "There has been a complaint made against you, Mr. Templin—a report of a violation of security regulations."

"Violation? What violation?" Templin reached casually for another cigarette as he spoke, but his senses were alert. This was the man with whom he had bad trouble twice before; it looked like a third dose was in the offing.

Cramer looked at Joe Olcott before he spoke. "Plutonium, Mr. Templin," he said.

Culver coughed spasmodically. Templin said, "I see. Well, of course you can't take any chances, Lieutenant. Absurd as it is, you'd better investigate the report." To Culver he said: "Go up to the quarters and pick out two guides for them, Culver. They'll want to see our whole layout here; maybe you'd better go along too."

Culver nodded, his face full of trouble. "Okay, Temp," he said dismally, and went out.

Templin picked up the ethergrammed orders and read them carefully, stalling for time. They said nothing but what he already knew; they were typical military orders authorizing a party of two officers to inspect the Terralune Projects mine at Hyginus Cleft. He put it down carefully.

He got up. "Excuse me for a while," he said. "Culver will take care of you, and I've got a load of ore coming out to check. If you have any questions, I'll see you before you leave."

Olcott guffawed abruptly. "You bet you will," he sniggered, but he caught Templin's mild eyes and the laughter went out of him. "Go ahead," he said. "We'll see you, all right."

Templin took his time about leaving. At the door he said, "There are cigarettes on the desk; help yourselves." Then he closed the door gently behind him...and at once was galvanized into action. He raced to the metal climbing pole to the quarters on the upper level, swarmed up it at top speed and bounded down the galleyway, looking for Culver. He found Culver and two miners coming out of one of the rooms; he stopped them, took Culver aside.

"I need half an hour," he said. "Can you keep them away from the pile that long? After that—I'll be ready."

Culver said hesitantly, "I guess so. But what's the deal, Temp?"

"You'll find out," Templin promised. "Get going!"

● TEMPLIN took three men and got them into pressure suits in a hurry. They didn't even take time to pump air out of the pressure chamber; as soon as the inner door was sealed, Templin slammed down the emergency release and the outer door popped open. The four of them were almost blasted out of the lock by the sudden rush of air under normal pressure expanding into the vacuum outside. It was a waste of precious oxygen—but Templin was in a burry.

The stars outside were incandescent pin-points in the ebony sky. Off to the west the tops of the mountains were blinding bright in the sun, but it was still night at the mine and the huge Earth hung in the sky overhead.

They leaped across the jagged rock, heading toward the abandoned shaft in which lay the plutonium pile Templin had stolen. As they passed the gleaming mirrors of the solar-energy collectors Templin glanced at them and swore to himself. Without the pile's power to recharge their power-packs they were dependent on the feeble trickle of Earthshine for all their power—far less than the elaborate power-thirsty equipment of the mine needed. But there was no help for it. Perhaps, when Olcott and the security lieutenant had gone, they could revive the pile again and resume mining operations; until then, there would be no power, and mining operations would stop.

Hastily he set two of the men to

digging up and rechanneling the leads to the power dome. Templin and the other man scuttled down into the yawning black shaft.

In the darting light of his helmet lamp he stared around, calculating the risks for the job in hand. The pile had to be concealed; the only way to conceal it was to blast the mouth of the tunnel shut. The pile itself was made of sturdy stuff, of course, with its ray-proof shielding and solid construction. But certainly operation of the pile would have to stop while Olcott and the lieutenant were in the vicinity, for the tiny portable Geiger counters they carried would surely detect the presence of a working atomic pile, no matter how thick and thorough the shielding.

And once a plutonium pile was stopped, it took hours to coax the nuclear reaction back to life. Any attempt to do it in a hurry would mean—atomic explosion.

Templin signaled to the workman, not daring to use his radio, and the two of them tackled the cadmium-metal dampers that protruded from the squat bulk of the plle. Thrust in as far as they would go, they soaked up the flow of neutrons; slowing down the atomic reaction until, like a forest fire cooled by cascading rain, the raging atomlc fires flickered and went out. The reaction was stopped. Tbe splnnlng gas-turbines of the heat-exchanger slowed and halted; the current generator stopped revolving. The atomle pile was dead.

On the surface, Templin knew, the current supply for the whole mining area was being shifted to the solar-energy reserves. The lights would flicker a little; then, as the automatic selector switches tapped the power packs, they would go back on—a little dimmer, no doubt.

Templin groaned regretfully and gestured to the other mlner, who was throwing a heavy sheet-metal hook over the exposed movlng parts of the generator. They hurried up and out to the surface.

Templin pulled a detonation-bomb from the cluster he had bung at hls waist and, carefully gauging the distance, tossed it down the shaft. It struck a wall, rolled a dozen yards.

Then Templin flung himself away from the mouth of the shaft, dragging the other man with bim. The bomb went off.

There was a flare of light and tbrough the soles of their spacemen's boots they felt the vibration, but there was no sound. Templin saw a flat area of rock bulge noiselessly upward, then collapse. The entrance was sealed.

Grim-faced, Templin turned to await the coming of the inspection party. He had done all that could be done.

A MINER, apparently one of the two who had been relocating the power leads, was standing nearby. Templin said curtly into the radio, "If you're finished, get back to the quarters." The man hesitated, then waved and moved slowly off.

Looking at the lights of the mine buildings, Templin could see that they were less bright now than before. Around the buildings small clusters of tinier lights were moving —the helmet lamps of pressure-suited men.

Looking close, Templin saw that three of the smaller lights were coming toward him—Culver, Olcott and the security lieutenant, he was sure. He gestured to his helper to keep out of sight and, in great swooping strides, he bounded toward the three lights.

As he got closer he could see them fairly clearly in the reddlsh light reflected from Earth overhead. They were the three he had expected, sure enough; they wore the clear, transparent helmets of surface Moon-dwellers, not the eloudy ray-opaque sbields of the miners. He greeted them through his radio as casually as he could. "Find any plutonium?" he inquired amiably.

Even in the dim light he could see Olcott's face contort in a snarl.

"You know damn well we dldn't," said Olcott. "But I know it's here; if I didn't have to be in Hadley Dome

in two hours I'd stay right here until I found it!"

Templin spread his hands. "Next time, bring your lunch," he said.

The lieutenant spoke up. "We felt hlasting going on, Templin," he said. "What was it?"

"Opening a shaft," Templin explained carefully; "we're in the mining business here, you know."

Olcott said, "Never mind that. Where are you getting your power?"

Templin looked at him curiously. "Solar radiation," he said. "Where else?"

"Liar!" spat Olcott. "You know that your sun-generators hroke down! You don't have enough reserves to carry you through the night—" He hroke off as he caught Templin's eye.

"Yes," said Templin softly, "I know we don't have enough reserves. But tell me, how did *you* know it?"

Olcott hesitated. Then, aggressively, "We—the Security Patrol has its ways of finding things out," he said. "Anyway, that doesn't matter. I've been tracing your power lines out from the mine; if they end in solar generators, I'll admit we were wrong. I'm hetting they end in a plutonium pile."

Templin nodded. "Fair enough," he said. "Let's follow the lines."

OLCOTT'S rage when they came to the banks of light-gathering mirrors and photocells knew no bounds. "What the devil, Templin," he raged. "What are you trying to put over on us? Look at your power gauges—you haven't enough juice left there to electrocute a fly! Your reserves are way down—the only intake is a couple of hundred amps from the reflected Earthshine—and you're trying to make us think you run the whole mine on it!"

Templin shrugged. "We're very economical of power," he said. "Go around turning lights out after us, and that sort of thing."

The lieutenant had the misfortune to chuckle. Olcott turned on him, anger shining on his face. Templin stood back to watch the fireworks. Then...Olcott seemed, all of a sudden, to calm down.

He glanced at one of the miners, who had come up to join them, then at Templin. He pointed to the spot where Templin had just touched off the hlast concealing the pile.

"What's over there?" he demanded triumphantly.

Templin froze. "Over where?" he stalled; but he knew it was a waste of time.

"Under that blasted rock," crowed Olcott. "You know what I'm talking ahout! Where you just blasted in the tunnel over your contrahand plute pile!"

Templin, dazed and incredulous, stumhled back a step. How had Olcott stumbled on the secret? Templin could have sworn that a moment ago Olcott was completely in the dark—and yet—

Olcott snarled to the lieutenant, "Arrest that man! He's got a plutonium pile going in violation of security regulations!"

Hesitantly the lieutenant looked at his superior officer, then at Templin. He stepped tentatively toward Templin, arm outstretched to grah him...

Templin took a lightning-swift split-second to make up his mind, then he acted. He was hetween the other three men and the mine huildings. Beyond them was the Moon, millions of square miles of desolation. It was his only chance.

Templin plunged through the group, catching them by surprise and scattering them like giant slow-motion ninepins. Leaning far forward to get the maximum thrust and speed from his feet, he raced ahead, spanning twenty-foot pits and crevasses, heading for a crater edge where the rocks were particularly jagged and contorted. He was a hundred yards away, and going fast, hefore the three men could recover from their astonishment.

Then the first explosion blossomed soundlessly on a jagged precipice to his right.

It was the lieutenant's rocket pistol, for Olcott had none of his own—

but Templin knew that it was the fat man's hand that was firing at him. Templin zigzagged frantically. Soundless explosions burst around him, but Olcott's aim was poor, and he wasn't touched.

Then Templin was behind the crater wall. He crashed into a rock outcrop with a jolt that sent him reeling and made him fear, for a second, that he had punctured the air-tightness of his helmet. But he hurried on, ran lightly for a hundred yards parallel to the wall, found a jet-black shadow at the hase of a monolith of rock and crouched there, waiting.

There was no hiss of escaping air; his suit was still intact. After a moment he saw the lights of two men crossing the crater wall. They bobbed around for long minutes, searching for Templin. But there was too much of the Moon, too many sheltering hollows and impenetrable darknesses. After a bit they turned and went back toward the mine.

Templin gave them an extra five minutes for good measure. Then he cautiously crawled out of his hiding place and peered over the ridge.

No one was in sight, all the way to the mine buildings. He watched the lights of the buildings for a while, his face drawn with worry. The events of the last few moments had happened too rapidly to give him a chance to realize how bad a spot he was in. Now it was all coming to him. He had made a desperate gamble when he took the plutonium pile—and lost.

He stood there for several minutes, thinking out his position and what he had to do.

Then he saw something that gave him an answer to one of his problems, at least.

There was a sudden swelling burst of ruddy light that bloomed beyond the mine buildings, in the flat place where rocket ships landed. It got brighter, became white, then rose and lengthened into a sharp-pointed plume that climbed toward the tiny, bright stars overhead. It was the drive-jet off a rocket, taking off. Templin watched the flame level off, hurtle along at top speed in the direction of Tycho Crater.

It was the jet that had brought Olcott and the lieutenant, Templin was sure. They were going—but they would be back.

He hadn't much time. And he had a lot to do.

TAKING NO chances, Templin kept in the cover of the jagged rocks as he approached the dome. A few hundred yards from it he saw a pressure-suited figure moving toward him. He stood motionless in indecision for a moment, until he saw that the helmet on the figure was milkily opaque. A miner's helmet.

Templin stood up and beckoned to the figure. When it was within a few yards he said, "Have the Security Patrol officers gone?"

The miner stopped. Templin was conscious of invisible eyes regarding him through the one-way vision of the helmet. Then he heard a voice say: "Oh, it's you, Templin. I was wondering where you were."

Templin thought that there was something curious about the voice—not an accent, but a definite peculiarity of speech that he couldn't recognize. Almost as though the man were speaking a foreign language—

Templin glanced toward the dome and dismissed the thought. Someone was coming toward them; he had to make sure of his ground. He asked, "That rocket I saw—was that the Security Patrol? Have they both gone?"

"Yes."

"Fine!" Templin exulted. "Where's Culver, then?"

The figure in the space-suit gestured. Templin, following the pointing arm, saw the man who was coming toward them. "Thanks," he said, and raced to meet Culver, who was quartering off toward the power plant. Templin intercepted him only a short distance from the main building.

"Culver," he said urgently, "come into the dome. I've not got much time, so I've got to move fast. When Olcott and—" He broke off, staring.

Culver was looking at him, his expression visibly puzzled even in the twilight, his mouth moving but no sound coming over the radio.

"What's the matter?" Templin demanded. Culver just stared. "Ahh," growled Templin, "your radio is broken. Come on!" He half-dragged Culver the remaining short distance to the dome. They climbed into the airlock, Templin closed the outer pressure doors and touched the valve that flooded the chamber with air. Before they were out of the lock Templin had his helmet off, was motioning to Culver to do likewise.

"What the devil was the matter with your radio?" he demanded.

"Nothing," said Culver in surprise. "It's yours that doesn't work."

"Well—never mind. Anyway, what happened to Olcott?"

"Took off for Tycho. Gone for a posse to hunt for you, I guess."

"Why didn't they radio for help?"

Culver grinned a little self-consciously. "That was me," he explained. "I—I told them we didn't have enough juice to run the radio. They didn't like it, but there wasn't anything they could do. We don't have very much power, and that's a fact."

Templin laughed. "Good boy," he said. "All right. Here's what I want to do. Olcott said he was going to Hadley Dome. I want to be there when he gets there. I think it's time for a showdown."

Culver looked forlorn, but all he said was, "I'll get a rocket ready." He went to the teletone in the anteroom, gave orders to the ground crew of the rockets. To Templin he said, "Let's go outside."

Templin nodded and got ready to put his helmet back on. As he was lifting it over his head something caught his eye.

"What the devil!" he said. "Hey, Culver. Take a look."

Culver looked. At the base of the helmet was a metal lug to which was fastened one of the radio leads. But the lug was snapped off clean; bright metal showed where it had connected with the helmet itself. The radio was broken.

Culver said in self-satisfaction, "Told you so, Temp; it was broken before, when I tried to talk to you outside."

Templin said thoughtfully, "May-be so. Might have broken when I ran into that rock out at the crater—no! It couldn't have been broken. I was talking to a miner over it just before I met you."

"What miner?"

Templin stared at him. "Why, the one who left the building just before you did."

Culver shook his head. "Look, Temp," he said. "I had all hands in here when Olcott and the lieutenant took off. And I was the first one out of the place afterwards. There wasn't any miner."

●TEMPLIN STOOD rooted in astonishment for a moment. Then he blinked. "I talked to *somebody*," he growled. "Listen, I've got twenty minutes or so before I have to take off. Let's go out and take a look for this miner!"

Culver answered by reaching for a suit. Templin picked another helmet with radio tap intact and put it on; they trotted into the pressure lock and let themselves out the other side.

Templin waved. "That's where I saw him." But there was no sign of the "miner".

Templin led off toward where the pressure-suited figure had seemed to be heading, out toward the old Loonie city. They scoured the jagged Moonscape, separating to the limit of their radio-contact range, investigating every peak and crater.

Then Culver's voice crackled in Templin's ear. "Look out there!" it said. "At the base of that rock pyramid!"

Templin looked. His heart gave a b o u n d. Something was moving, something that glinted metallically and jogged in erratic fashion across the rock, going away from them

"That's it!" said Templin. "It's heading toward the Loonie city. Come on—maybe we can head him off!"

The thing went out of sight behind an outcropping of rock, and

Templin and Culver raced toward it. It was a good quarter mile away, right at the fringe of the Loonie city itself. It took them precious minutes to get there, more minutes before they found what they sought.

Then Templin saw it, lying on the naked rock. "Culver!" he whooped. "Got it!"

They approached cautiously. The figure lay motionless, face down at the entrance to one of the deserted moon warrens.

Templin snarled angrily, "Okay, whoever you are! Get up and start answering questions!"

There was no movement from the figure. After a second Culver leaned over to inspect it, then glanced puzzledly at Templin. "Dead?" he ventured.

Templin scowled and thrust a foot under the space-suit, heaved on it to roll it over.

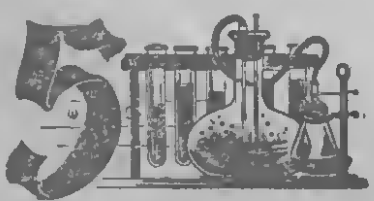
To his surprise, the force of his thrust sent the thing flying into the air like a football at the kick. Its lightness was incredible. They stared at it open-mouthed as it floated in a high parabola. As it came down they raced to it, picked it up.

The helmet fell off as they were handling it. Culver gasped in wonder.

There was no one in the suit!

Templin said, "Good lord, Culver, he—he took the suit off! But there isn't any air. He would have died!"

Culver nodded soberly. "Temp," he said in an awed voice, "just *what* do you suppose was wearing that suit?"



TEMPLIN jockeyed the little jet-ship down to a stem landing at the entrance to Hadley Dome, so close to the Dome itself that the pressure-chamber attendant met him with a glare. But one look at Templin's steel-hard face toned down the glare, and all the man said, very mildly, was, "You were a little close to the Dome, sir. Might cause an accident."

Templin looked at him frigidly. "If anything happens to this rathole," he said, "it won't be an accident. Out of my way."

He mounted the wide basalt stair to Level Nine and pounded Ellen Bishop's door. A timid maid peeped out at Templin and said: "Miss Bishop is upstairs in the game room, sir. Shall I call her on the Dome phone and tell her you're here?"

"Tell her myself," said Templin. He spun around and climbed the remaining flight of stairs to the top of Hadley Dome.

He was in a marble-paved chamber where a gentle fountain danced a slow watery waltz. To his right was Hadley Dome's tiny observatory, where small telescopes watched the face of the Earth day and night. Directly ahead lay the game room, chief attraction of Hadley Dome for its wealthy patrons and a source of large-scale revenue to the billionaire syndicate that owned the Dome.

For Earthly laws did not exist on Hadley Dome; the simple military code that governed the Moon enforced the common law, and certain security regulations...and nothing else. Crimes of violence came under the jurisdiction of the international Security Patrol, but there was no law regulating drugs, alcohol, morals —or gambling. And it was for gambling in particular that the Dome had become famous.

Templin besitated at the threshhold of the game room and stared around for Ellen Bishop. Contemptuously, bis eyes roved over the clustered knots of thrill-seekers. There were fewer than fifty persons in the room, yet he could see tbat gigantic sums of money were changing hands. At the roulette table nearest him a lean, tired-looking croupier was raking in glittering chlps of synthetic diamond and ruby. Each chip was worth a hundred dollars or more...and there were scores of chips in the pile.

Templin took his eyes off the sight to peer around for Olcott. The man was not in the room, and Temp-

lin mentally thanked his gods.

But at the far end, standing with her back to the play and looking out a window on the blinding vista of sun-tortured rock that was the Sea of Serenity, was Ellen Bishop, all alone.

Templin walked up behind her, gently touched her on the shoulder. The girl started and spun round like a released torsion coil.

"Templin!" she gasped. "You startled me."

Templin chuckled comfortably. "Sorry," he said. "Have you seen Olcott?"

"Why, no. I don't think he's in the Dome. But, Temp—what is the trouble at Hyginus? Culver radioed that the Security Patrol was after you for something! What is it?"

"Plenty of trouble," Templin admitted soberly. "And I only know one way out of it. Look, Ellen—don't ask questions right now; there are too many people around here, with too many ears. And I want you to do something."

He glanced around the room, selected a dice table that had a good view of the door. "Let's risk a few dollars," he suggested. "I have a feeling that this is my lucky night!"

●TEMPLIN played cautiously, for the stakes were too high for any man on a salary to afford. But by carefully betting against the dice and controlling the impulse to pyramid his winnings, he managed to stay a few chips ahead of the game.

Ellen, scorning to play, was fuming beside him. She said in a vicious whisper, "Temp, this is the most idiotic thing I ever heard of! Don't you know that the Patrol is after you? Olcott comes here every night; if he sees you—it's all up!"

Templin grinned. "Patience," he said. "I know what I'm doing. Give you six to five that the man doesn't make his eight."

Ellen tossed her head. "Too bad," said Templin. "I would have won." The dice passed to Templin; he made one point, picked up his winnings, threw another and sevened out. He sighed and waited expectantly for the man beside him to bet.

Then—he saw what he was waiting for.

Joe Olcott appeared briefly in the door of the gambling salon. Templin spotted him at once and carefully took the opportunity to light a cigarette, screening most of his downturned face with his hand. But it was an unnecessary precaution; Olcott was looking for someone else, a chubby little servile-looking man, who trotted up to him as soon as the big man appeared in the door. There was a brief whispered conversation, then Olcott and the chubby one disappeared.

Templin waited thirty seconds after they left. "I knew it," he exulted. "Olcott said he was coming back here—and I know why! Come on, Ellen—I want to see where he's going."

Ellen stuttered protest but Templin dragged her out. They followed the other two into the hall and saw that the elevator indicator showed that the cage was on its way down. "They're on it," said Templin. "Come on—stairs are faster." He led the complaining girl down the long basalt stairways at a precipitous pace. She was exhausted, and even Templin was breathing hard, when they rounded the landing to come to the last flight of stairs. He slowed down abruptly, and they carefully peeked into the lobby of Hadley Dome before coming into sight.

Olcott's chubby companion had parted from him, was disappearing down a long corridor that led to the Dome's radio room. Olcott himself was putting on a pressure suit, preparatory to going outside.

Templin halted, concealed by the high balustrade of the stair. He nodded sharply, to himself. "This is it, Ellen," he said to the girl. "Something has been going on—something so fantastic that I hardly dare speak of it, far beyond anything we've dreamed of. But I think I know what it is...and the way Olcott is acting makes me surer of it every minute."

"What are you talking about?" demanded the girl.

Templin laughed. "You'll see," he promised. "Meanwhile, Olcott's on his way to a certain place that I want very much to see. I'm going after him; you stay here."

Ellen Bishop stamped a foot. "I'm going along!" she said.

Templin shook his head. "Uh-uh. You're not—that's final. When this is over I'll be working for you again—but right now I'm the boss. And you're staying here."

● HE LEFT her fuming and went out through the pressure chamber, hastily tugging on the suit he had reclaimed from the attendant. Templin had barely sealed the helmet when the outer door opened, and vacuum sucked at him.

He blinked painfully, staggered by the shock, as he stepped out into the blinding fierce sun. In the days that had passed since last Templin was at Hadley Dome, the Moon's slow circling of the Earth had brought the Dome into direct sunlight, agonizingly bright—hot enough to warm the icy rock far above the boiling point of water overnight. The helmet of his suit, even stopped down as far as the polarizing device would go, still could not keep out enough of that raging radiation to make it really comfortable. But after a few moments the worst of it passed, and he could see again.

Templin stared around for Olcott, confident that he wouldn't see him ...and he did not. Olcott was not among the ships parked outside the Dome. Olcott was out of sight around the Dome's bulk; Templin followed and stared out over the heat-sodden Sea of Serenity.

Olcott's figure, bloated and forbidding-looking in the pressure suit, was bounding clumsily down the long slope of Mount Hadley, going in the general direction of a small crater, miles off across the tortured rocky Sea. Templin stared at the crater thoughtfully for a second. Then he remembered its name.

"Linne," he said underneath his breath. "Yes!" With a sudden upsurge at the heart he recalled the story of Linne Crater—site of one of the biggest and least-dilapidated Lunarian cities—the so-called "Vanishing Crater" of the Nineteenth Century.

Templin nodded soberly to himself, but wasted no more time in contemplation. Already Olcott was almost out of sight, his bloated figure visible only when he leaped over a crevasse or surmounted a plateau. It would be easy enough to lose him in this jagged, sun-drenched waste, Templin knew...so he hurried after the other man.

Templin remembered the story of Linne, always an enigma to Moongazers. It was Linne that, little more than a century before, had been reported by Earthly astronomers as having disappeared...then, a few years later in 1870, it had been discovered again in the low-power telescopes of the period—but with important changes in its shape.

What—Templin wondered abstractly—did those changes in its shape mean?

●

Obviously, Linne was their goal. It lay directly ahead in the path Olcott had taken, a good thirty miles away—across the roughest, most impassable kind of terrain that existed anywhere in the universe men traversed. A good three-day hike on Earth, it was only about an hour's time away on foot, on the light-gravitied surface of the Moon. But it would be an hour of sustained, strenuous exertion, and Templin gave all his concentration to the task of getting there.

A mile farther on, Templin glanced up as he cleared a hundred-foot-deep crevasse. Olcott's figure was nowhere to be seen.

Templin halted, a frown on his lean face. The fat man couldn't have reached the shelter of Linne crater yet—or could he? Had Linne been a wrong guess, after all—was Olcott's destination some place between?

Templin shrugged. Certainly Olcott was out of sight; it behooved Templin to get moving, to try to catch up.

He put his full strength into a powerful leg-thrust that sent him hurtling across a ravine and down into a shallow depression on the other side of it. As he balanced himself for the next leap...

Disaster struck.

OUT OF THE corner of his eye, Templin saw a flicker of motion. A sprawling, spread-eagled figure in a pressure suit was sailing down on him from the lee of a small crater nearby; and from one of the outstretched hands glittered a brilliant, diamond-like reflection of sunlight on steel.

It was a spaceman's knife...and the man who bore it, Templin knew, was Olcott.

Templin writhed aside and out of the way of the knife, but the flailing legs of Olcott caught him and knocked him down. Templin rolled like a ball, landed on his feet facing the other man. Olcott's face behind the clouded semi-opacity of the helmet was contorted in hatred, and the long knife in his hand was a murderous instrument as he leaped toward Templin again.

Templin paused a moment, irresolute. Olcott didn't have a gun with him, he saw; if Templin chose, he could take to his heels and Olcott wouldn't have a chance in the world of catching him. But something within Templin would never let him run from a battle...with scarcely a second's hesitation, he grabbed for the dirk at his own belt and faced his antagonist. If it was fight that Olcott was after, he would give it to the man.

The two closed warily, eyes alert for the slightest weakness on the other's part. Strange, deadly battle, these two humans on the seared face of the Moon! In an age of fantastic technological advance, it was to the knife, after all, that humanity had returned for killing. For nothing could be more deadly than a single tiny rent made by one of these razor-sharp space knives in the puffed pressure suit of an enemy. At the tiniest slit the air would flood out, quick as bomb-flash, and the body of the man inside would burst in horrid soundless explosion as the pressures within it sought to expand into the vacuum.

Olcott drove a wicked thrust at Templin's mid-section, which the bigger man parried with his steel space-gauntlet. He dodged and let the chunky killer jerk free. Templin's mind was clear, not masked by blinding rage: he would kill Olcott if he had to, yes—but, if possible, Templin would somehow disarm the other and keep him alive.

Olcott feinted to the left, sidestepped and came in with a shoulder-high lunge. Templin shifted lightly away, then seized his chance; he ducked, dived inside Olcott's murderous thrust, drove against him with the solid shoulder of his pressure suit. The heavy-set man puffed soundlessly, the wind knocked out of him, as he spun away from the blow. Templin followed up with a sledge-hammer blow to the forearm; the knife flew out of Olcott's hand, and Templin pounced.

He bore the other man down by sheer weight and impact, knelt on his chest, knife pressed against the bulge of the pressure suit just where it joined the collar. With his free hand he flicked on his helmet radio and said, "Give up, Olcott. You're licked and you know it."

Olcott's face was strained and suddenly as pale as the disk of the Moon itself. He licked his lips. "All—all right," he croaked. "Take that knife away, for the love of heaven!"

Templin looked at him searchingly, then nodded and stood up.

"Get up," he ordered. Olcott sullenly pushed himself up on one arm. Then, abruptly, a flash of pain streaked across his face. "My leg!" he groaned. "Damn you, Templin, you've broken it!"

Templin frowned and moved toward him cautiously. He bent to look at the leg, but in the shrouding bulkiness of the air-filled pressure suit there was no way for him to tell if Olcott was lying. He said, "Try and get up."

Olcott winced and shook his head. "I can't," he said. "It's broken."

Templin bent closer, suspiciously. "Looks all right to me—" he started to say. Then he realized his mistake—but too late to do him any good.

Olcott's other leg came up with the swiftness of a striking snake, drew back and lasbed out in a vicious kick that caught Templin full in the ribs, sent him burtling helplessly a dozen yards back. He windmilled his arms, trying to regain his balance...but he had no chance, for at once the ground slid away from under bim as he reeled backward into the yawning 500-foot crevasse, and down!

LITHE AS a cat, Templin twisted his body around in space to land on his feet. The fall was agonizingly slow, but he still possessed all the mass, if not the weight, of his two hundred pound body, and if he struck on his helmet it would mean death.

He landed feet-first. The impact was bone-shattering, but his space-trained leg muscles had time to flex and cushion the shock. As it was, he blacked out for a moment, and came to again to looking up into a blinding sun overhead that silhouetted the head and shoulders of Olcott, peering down at bim.

They looked at each other for a long moment. Then Templin heard the crackle of Olcott's voice in his helmet, and realized with a start that his radio was still working. "A hero," jeered Olcott. "Following after me single-handed. Sorry I couldn't let you come along with me."

Templin was silent.

"I'd like to ask you questions," Olcott continued, "but right now I haven't got time; I've got some urgent affairs to take care of."

"In Linne," said Templin. "I know. Go abead, Olcott. I'll see you tbere."

Olcott's figure was quite motionless for a second. Then. "No," he said, "I don't think you will." And his head disappeared over the lip of the crevasse.

●

Templin had just time enough to wonder what Olcott was up to... when he found out.

A giant, jagged boulder, came hurtling down in slow motion from the edge of the chasm.

Slowly as it fell, Templin had just time enough to get out of its way before it struck. It landed with a shattering vibration that he felt through the soles of his feet, sending up splinters of jagged rock that splattered off his helmet and pressure suit. And it was followed by another, and a third, coming down like a giant deadly hail in slow motion.

Then Olcott's head reappeared, to see what the results of his handiwork has been.

Templin, crouched against a boulder just like the ones that had rained down, had sense enough to play dead. He stared up at Olcott with murder in his heart, disciplining himself, forcing himself not to move. For a long moment Olcott looked down.

Then Templin saw an astonisbing thing.

Against the far wall of the crevasse, just below Olcott's head, a flare of light burst out, and almost at once a second, a few yards away.

Templin could see Olcott leap in astonishment, jerk upright and stare in the direction of Hadley Dome.

Someone was shooting a rocket pistol at Olcott. But whom?

Whoever the person was, he was a friend in need to Steve Templin. Olcott scrambled erect and disappeared; Templin waited cautiously for a long moment, but he didn't come back. Templin's unknown friend had driven the other man off, forced him to flee in tbe direction of the Loonie city at Linne Crater.

Templin, hardly believing in his luck, stood up. For several seconds he stood staring at the lip of the cleft, waiting to see what would happen.

A moment later a new helmet poked over the side of the chasm nearest Hadley Dome. Templin peered up in astonishment. It looked like—

It was.

The voice in his helmet was entirely familiar. "Oh, Temp, you utter idiot," it said despairingly. "Are you all right?"

It was Ellen Bishop. "Bless your heart," said Templin feelingly. "Of course I'm all right. Stand by to give me a hand—I'm coming up!"

IT WASN'T easy, but Templin finally managed to scramble out of the crevasse—after loping nearly half a mile along the bottom of it, to where the sides were less precipitous. Ellen Bishop, following his progress from above, was there to meet him as he clambered over the edge.

Remembering the genuine anxiety in her voice as it had come over the radio, he peered curiously at her face; but behind the shading helmet it was hard to read expressions. He smiled.

"You win another Girl Scout merit badge," he observed. "Whatever made you show up in the nick of time like that?"

Ellen's face colored slightly. "I was watching you," she said defiantly. "There's a spotting telescope in the Observatory at Hadley Dome and —well, I was worried about you. I went up and watched. I saw Olcott stop and look around, and then hide ...so I figured out that he'd seen you. It looked like an ambush. And of course, you were such a big fool that you didn't take a rocket gun along with you."

"Couldn't afford to," Templin apologized. "Olcott's still in the Security Patrol—I didn't want to be caught following him with a gun tucked in my belt. Besides, he didn't have one himself."

"He had something," Ellen said. "Or did you just go down in that crevasse to look for edelweiss?"

Templin coughed. "Well," he said ambiguously. "As long as you're here, you might as well come the rest of the way." He craned his neck in the direction of the Loonie city, mockingly near now. Olcott was not in sight.

"Come on," he ordered. "Keep out of trouble, though. Olcott went a little too far when he jumped me. He can't turn back any more...and that means he's desperate."

The girl nodded. Side by side they drove on toward the solitary crater of Linne, alone in the middle of the Mare Serenitatis. Once Templin thought he saw Olcott's figure on top of a peak, watching them. But it didn't reappear, and he decided he had been mistaken....

They loped into the ancient city of the long-dead lunar race, Templin in the lead but the girl only a hair's-breadth behind. In the shadow of a giant ruined tower Templin gestured, and they came to a stop.

He switched off the transmitter of his helmet radio, motioned to the girl to do the same. When, somewhat puzzled, she obeyed, he leaned close to her, touching helmets.

"Keep your radio off!" he yelled, and the vibration carried his voice from his helmet to hers. "This is where Olcott's outfit hides out, whoever they are. If they hear our radios it'll be trouble."

ELLEN NODDED, and the two of them advanced down the broad street of the ravished Lunarian metropolis. Glancing at the shattered buildings all about them, Templin found his mind dwelling on the peculiar tragedy of the Moon's former inhabitants, who had risen from the animal, developed a massive civilization...and seen it wiped out into nothingness.

Ellen shuddered and moved closer to Templin. He understood her feeling; even to him, the city seemed haunted. The light of the giant sun that hung overhead was blinding; yet he found himself becoming jittery, seeing strange imaginary shapes that twisted and contorted in the utterly black shadows cast by the ruined walls.

They circled a shattered Coliseum,

looking warily into every crevice, when Templin felt Ellen's gauntleted hand on his shoulder. He looked at her and touched helmets. Her face was worried. "Someone's watching us, Temp," she said positively, her voice metallic as it was transmitted by the helmets. "I feel eyes."

"Where?"

"How do I know? In that big round building we just passed, I think. It feels exactly as if they keep going around and around the building at the same time we do, always staying on the far side from us."

Templin considered. "Let's look," he said. "You go one way, I'll go the other. We'll meet on the other side."

"Oh, Temp!"

"Don't be frightened, Ellen. You have your gun—and I can take care of myself with my space knife."

Her lip trembled. "All right," she said. Templin watched her start off. She had drawn the gun and was holding it ready as she walked.

Templin went clockwise around the building, moving slowly and carefully, his hand always poised near the dirk at his belt. Almost anything might be lurking in the cavernous hollows in these old buildings. Olcott, he felt quite sure, *was* lurking somewhere nearby—and so were his mysterious friends. Templin stepped over a fallen carven pillar—strange ornamentation of curious serpentine beasts and almost-human figures straining toward the sky was on it—and froze as he thought he saw a flicker of motion out of the corner of his eye. But it was not repeated, and after a moment he went on.

He was clear back to his starting point before he realized that Ellen had disappeared.

●TEMPLIN SWORE in the silence. There was no doubt about it. He had travelled completely around the circular building, and Ellen was gone.

He hesitated a second, feeling the forces of mystery gathering about him as they had about Ellen, then grimly dismissed the fantasy from his mind. There had to be a way of finding Ellen again...and at once.

His mind coldly alert, he circled the ancient Lunarian structure once more. Ellen was not in sight.

Templin stood still, thinking it over. Cautiously he retraced his tracks, eyes fixed on the soft Lunarian rock beneath him.

Fifteen yards away, he saw the marks of a scuffle on the ray-charred rock. Heavy space boots had been dragged there, making deep, protesting scars. Ellen.

Templin swore soundlessly and loosened his space knife in its scabbard. He stared up at the ruined Loonie temple. A crumbled arch was before him; inside the structure it disappeared into ultimate blackness. There was a curving corridor, heading downward in a wide spiral. He could see a dozen yards into it... then darkness obliterated his vision.

Templin shrugged and grinned tightly to himself. It looked so very much like a giant rat-trap. Foolish, to go into unknown danger on the chance that Ellen was there—but it was the foolish sort of risk he had always been willing to take.

He snapped on his helmet lamp and stepped boldly in.

Down he went, and down. The corridor was roughly circular in section, slightly flattened underfoot and ornamented with ancient carvings. Templin flashed his light on them curiously as he passed. They were a repetition of the weirdly yearning figures he had seen on the columns outside—lean, tenuous manlike things, arms stretched to the sky. Curious, how like they were to human beings, Templin thought. Except for the leanness of them, and the outsize eyes on the pearshaped head, they could almost have been men.

Templin grimaced at them and went on.

He had walked about a mile in the broad, downward spiral when he saw lights ahead.

Instinctively he snapped off his helmet lamp, stood motionless in the darkness, waiting to see if he had been noticed. But the lights, whatever they were, did not move; he waited for long minutes, and nothing

came toward him. Obiviously he had not been seen.

Templin cautiously moved up toward them, watching carefully. They were too bright for helmet lamps, he thought; and too still. But what other lights could be down here in this airless cavern under the Moon? He crept up behind a rock overhang and peered out.

"Good Lord!" Stunned, Templin spoke aloud, and the words echoed inside his helmet. For now he could see clearly—and what he saw was unbelievable.

There were figures moving before the lights. A stocky figure of a man in a pressure suit that Templin knew to be Olcott, and others. And the other figures were—not human!

•TEMPLIN stepped out in the open to see more clearly. Abruptly some atavistic sense made the hair on his neck prickle with sudden warning of danger—but it came too late. Templin whirled around, suddenly conscious of his peril. Figures were behind him, menacing figures that he could not recognize in the darkness, closing in on him. He grabbed instinctively for his space knife, hut before he had it clear of its scabbard they were on him, bowling him over with the force and speed of their silent attack. He fell heavily, with them on top of him.

He struggled, writhing frantically, but there were too many of them. They held him down; he felt hands running over him, plucking his space knife from its scahbard. Then he felt himself heing picked up by a dozen hands and carried face down toward the lights.

Templin made his mind relax and consider, fighting to overcome his rage at being taken so by surprise. He thought desperately of ruses for escape....

Then anger was driven out of his mind. He heard a thin, shrill whistle of escaping air within his helmet. It meant only one thing...his suit had been pierced in the struggle, and his precious air was leaking into the void outside.

He made a supreme, convulsive effort and managed to free one arm, but it was recaptured immediately and he was helpless. Templin groaned internally. He was a dead man, he knew—dead as surely as though the heart had been cut from his body. For his suit was leaking air and there was no way to stop it, no nearhy pressure-dome into which to flee, nothing to do but die.

Templin resigned himself for death; he relaxed, allowing his captors to carry him along at a swift, jogging trot. His mind was strangely calm, now that death was so near. For anxiety and fright come only from uncertainty... and there was no more uncertainty...in Templin's mind.

He felt his captors drop him ungently on a rock floor. They were close to the lights now, he realized...

The hiss of air in his ears was gone. And he was still alive. Templin dazedly comprehended a miracle, for the air in his helmet and suit had leaked out until, somehow, it had established a balance. And that meant—

"Air!" He said it aloud, and the word was a prayer of thanksgiving. It was no less than a miracle that there should be air here, under the surface of the Moon—a miracle for which Templin was deeply and personally grateful.

Someone laughed above him. He scramhled to his feet uncertainly, looking up. It was Olcott, pressure-suited but holding his helmet in his hand, laughing at him.

Olcott nodded in grim humor. "Yes," he said, his voice coming thinly to Templin through his own helmet, "it's air all right. But it won't matter to you, because you aren't going to live to enjoy it. My friends here will take care of that!"

Olcott jerked a thumb toward the lights. Templin followed with his eyes.

The lights were crude, old-fashioned electrics, grouped in front of a pit that descended into the floor of the cavern. And beyond the llghts, stsnding in a stoic, silent group,

were a dozen lean figures, big-eyed, big-headed, wearing brief loin-cloths of some mineral material that glistened in the illumination.

Templin stared. For they were not human, those figures. They were—the lean, questing figures that were carved in the ancient Lunarian stone.

TEMPLIN FORCED himself to turn to Olcott. He glanced at at those who had captured him, half-expecting that they would be more of the ancient, supposedly extinct Lunarians. But again he was surprised, for the half-dozen men behind him were as human as himself, though pale and curiously flabby-looking. They wore shredded rags of cloth that seemed to Templin to be the remnants of a military uniform that had disappeared from the face of the Earth years before.

Groping for understanding, Templin turned back to Olcott. Then his mind cleared. There was one question to which he *had* to know the answer.

"Where's Ellen Bishop?" he demanded.

Olcott raised his heavy brows. "I was about to ask you that," he said. "Don't try to deceive me, Templin. Is she hiding?"

Templin shrugged without replying.

Olcott waved. "It doesn't matter. She can't get away. My patrols will pick her up—the Loonies are very good at that."

Templin looked at the dark man's eyes. It was impossible to read his expression, but Templin decided that he was telling the truth. There was no reason, after all, for him to lie.

Templin said shortly, "I don't know where she is." He pointed to the silent, watching figures beyond the lights. "What are they?"

Olcott chuckled richly. "They're the inhabitants, Templin. The original Lunarians. There aren't very many of them left—a thousand or so—but they're all mine."

Templin shook his head. Hard to believe, that the ancient race had survived for so long underground—yet he could not doubt it, when his eyes provided him with evidence. He said, "What do you mean, they're all yours?"

"They work for me," said Olcott easily. He gestured sharply, and the scarecrow-like figures bowed and began to descend into the pit, by a narrow spiral ramp around its sides. "They're rather useful, in fact. As you should know, considering how much they've helped me at Hyginus Cleft."

"S a h o t a g e—you mean—these things were—"

Olcott nodded, almost purring in satisfaction. "Yes. The—accidents—to your equipment, the damage to your generators and a good many other things, were taken care of for me by the Loonies. For instance, it was one of them who located your plutonium pile for me."

Templin scowled. "Wearing one of my miners' pressure-suits, wasn't he? I begin to see." He looked at the group of pallid humans who had captured him. "They Loonies too?" he demanded.

Olcott shook his head. "Only by adoption," he said. "You see, they had the misfortune to be on the wrong side in the Three-Day War. In fact, they were some of the men who were operating the rocket projectors that were so annoying to the United Nations. And when your—*our*—compatriots began atom-blasting the rocket-launching sites, a few of them found their way down here." Olcott gazed at them benevolently. "They are very useful to me, too. They control the Loonies, you see—I think they must have been rather cruel to the Loonies when they first came, because the Loonies are frightened to death of them now. And I control *them*."

Templin stiffened. "Rocket projectors," he repeated. "You mean these are the men who bombed Detroit?"

Olcott waved. "Perhaps," he said. "I don't know which targets they chose. This may have been the crew that blasted Paris—or Memphis—or Stalingrad."

Templin looked at them for a long

moment. "I'll remember," he said softly. "My family— Never mind. What are you going to do with me?"

"I am very likely to kill you, Templin. Unless I turn you over to the Loonies for sport."

Templin nodded. "I see," he said. "Well, I—thought as much."

Olcott looked at him curiously. Then he issued a quick order to the pale, silent men behind him. It was not in English.

To Templin he said, "You shouldn't have gotten in my way. I need the uranium that your company owns; I plan to get it."

"Why?"

Olcott pursed his lips. "I think," he said, "that we will start the roeket projectors again. Only this time, there will be no slip-ups. As a high-ranking offieer in the Security Patrol, I will make sure that we are not interfered with."

The pale men gripped Templin, earried him to the edge of the pit into which the Loonies had disappeared. Olcott said. "Good-by, Templin. I'm turning you over to the Loonies. What they will do to you I don't know. but it will not be pleasant. They hate human beings." He smirked, and added, "With good reason."

He nodded to the men; they picked Templin up easily, dropped him into the pit.

It was not very deep. Templin dropped lightly perhaps twenty feet, landed easily and straightened to face whatever was coming.

He was surrounded by the tall, tenuous Lunarians, a dozen of them staring at him with their huge, cryptic eyes. Silently they gestured to him to move down a shaft in the rock. Templin shrugged and eomplied.

He was in a rabbit-warren of tunnels, branehing and forking out every few yards. Inside of a handful of minutes Templln was thoroughly confused.

They came to a vsulted dome in the rock. Still silent, the Lunsrians gestured to Templin to enter. He did.

Someone eame running toward him, crying: "Temp! Thank Heaven you're safe!"

Pressure-suit off, dark hair flying as she ran to him, was Ellen.

•TEMPLIN HELD her to him tightly for a long moment. When finally she stepped baek he saw that her eyes were damp. She said: "Oh, Temp, I thought you were gone this time for sure! The Loonies told me that Olcott hsd captured you—I was so worried!"

Templin stared. "*Told* you? You mean these things ean talk?"

"Well, no, not exactly. But they told me, all the same. It's mental telepathy, I suppose, Temp, or something very much like it. Oh, they can't read minds—unless you try to eonvey a thought—but they can project their own thoughts to another person. It sounds just like someone talking...but you don't hear it with your ears."

Templin nodded. "I begin to understand things," he said. "That miner at Hyginus—I thought I talked to him, and yet my radio was broken, so I couldn't have. And then, he abandoned his suit. Can the Loonies get along on the surfaee without pressure suits?"

Ellen looked uncertain. "I—I don't know. But—I think perhaps they can. They said something about Olcott forcing them to do it. Oleott has them under eontrol, Temp. He's using them to get the uranium mines away from us—and the Loonies think he wants the uranium to make bombs!"

"I have heard about that," Templin said. "From Olcott. Which reminds me—how did you get down here without his knowing about it?"

Ellen said, "I was outside that Coliseum-looking place, up on the surface, and suddenly somebody grabbed me from behind. I was frightened half to death; he earried me down and through a buneh of tunnels to here. And then—why, this voice began talking to me, and it was one of the Loonles. He said—he said he wanted me to help him get rid of Oleott!"

Templln asked, "Why ean't they

get rid of him themselves? There are a couple thousand Loonies—and Olcott can't have more than fifteen or twenty men down here."

Ellen sighed. "That's the horrible thing, Temp. You see, these men haven't a thing to lose. When they came down here, they brought part of the warhead of an atom-rocket along. And they've got it assemhled in one of the caverns, not far from here—right in the middle of a terrific big lode of uranium ore! Can you imagine what would happen if it went off, Temp? All that uranium would explode—the whole Moon would become a bomb. And that's what they're threatening to do if the Loonies try to fight them."

Templin whistled. He looked around the room they were in reflectively. It was a high-ceillnged, circular affair, cut out of the mother-rock, sparsely furnished with pallets and henches. Loonie living quarters, he thought.

He looked back at the hovering Lunarians, staring hlankly at them from the entrance to the chamher. "How do you work this telepathy affair?" he demanded.

"Walk up to them and start talking. The effort of phrasing words is enough to convey the thought to them—as nearly as I can figure it out."

Templin nodded, looked at them again and walked slowly over. The bulbous heads with the giant eyes confronted him hlankly. He said uncertainly, "Hello?"

A SENSATION of mirth reached him, as though someone had laughed silently heside his ear. A voice spoke, and he recognized its kinship to that of the "miner" he had stopped at Hyginus. It had the same curious strangeness, the thing that was not an accent hut something more hasic. It said, "Hello, Steve Templin. We have spared your life. Now tell us what we are to do with you."

"Why, I thought—" Steve stumhled. "That is, you're having trouhle with these Earthmen, aren't you?"

"For sixteen of your years." There was anger in the thought. "We have not come to like Earthmen, Templin."

Templin said uncomfortahly, "These Earthmen I don't like myself. Shall we make an alliance, then?"

The thought was direct and sincere. "It was for that that we spared your lives."

Templin nodded. "Good." Ahruptly his whole hearing changed. He snapped: "Then help us get out of here! Get us back to Hadley Dome or Hyginus. We'll get help—and come back here and wipe them out!"

Regretfully, the Lunarian's thought came, "That, Templin, is impossible. Our people can go out into the vacuum unprotected, for short periods, but you cannot. Have you forgotten that your suit will no longger hold air?"

Templin winced. But he said, "Ellen's will. Let her go for help."

Wearily the thought came, "Again, no. For if you hrought men here to help you the Earthmen who enslave us could not he taken hy surprise. And if only one of them should live for just a few moments after the first attack...it would be the death of us all. They have hollowed out a chamher in the midst of a deposit of the metal of flre. They have said that if we act against them they will set off a chain reaction—and, in this, I know that they do not lie."

The Lunarian hesitated. Almost apologetically he went on: "It was from the metal of fire that the greatness of our race was destroyed many thousands of years ago, Templin. Once we lived on the surface, and had atomic power; hecause we used it wrongly we ravished the surface of our planet and destroyed nearly all of our people. Now—there are so few of us left, Templin, and we must not see it happen again."

Templin spread his hands. "All right," he said shortly. "What you say is true. But what do you suggest we do?"

The thought was sympathetic. "There is only one chance," it said. "If someone could enter the chamher

of the bomb— My own people cannot approach, for it is not allowed. But you are an Earthman; perhaps you could reach it. And if you could destroy the men who are in there—the others we can account for."

Templin gave it only a second's thought. He nodded reflectively. "It's the only chance," he agreed. "Well—lead the way. I'll try it."

●THE LUNARIAN peeped out into a corridor, then turned back to Templin. He said in his soundless speech, "The entrance to the room of power is to your right. What you will find there I do not know, for none of us have ever been inside."

Templin shrugged. "All right," he said. And to Ellen Bishop, "This is it; if I shouldn't see you again—it's been worthwhile, Ellen."

The girl bit her lip. Impulsively she flung her arms around him, hugged him tight for a second. Then she stepped back and let him go.

Templin stepped out into the corridor. No one was in sight. He patted the bulge of Ellen's rocket pistol where it was concealed under his clothing—he had taken off his pressure suit, torn the stout fabric of his tunic to match the ragged uniforms he had seen on the pale men—and turned down the traveled path to his right.

Thirty yards along, he came to a metal door.

A man was standing there, looking dreamily at the rock wall of the corridor. He looked incuriously at Templin but made no move to stop him. As Templin passed, the man said something rapid snd cssual to him in the language of the nation that had waged the Three-Day War.

That was the first hurdle. It didn't sound like a challenge, Templin thought, wishing vainly that he had learned that language st some time in his life. Apparently the fugitives had not considered the possibility of an inimical human being penetrating to this place.

Templin replied with a non-committsl grunt and walked on. The skin between his shoulder-blsdes crswled, expecting the blast of a rocket-shell from the guard. But it did not come; the thing had worked.

Templin found that he was in a room where half a dozen men sat around, a couple of them playing cards with what looked like a home-made deck, others lying on pallets that had obviously been commandeered from the Loonies.

Along one wall was an involved mechanical affair—a metal tube with bulges along its fifteen-foot length, and a man standing by a push-button monitor control at one end of it. That was his target, Templin knew. Built like an atom-bomb, it would have tiny fragments of uranium-235 or plutonium in it, ready to be hurled together to form a giant, self-detonating mass of atomic explosive at the touch of that button. And once the pieces had come together, nothing under the sun could prevent the blast.

The men were looking up at him, Templin saw. It was time to make his play. The thing was too much like shooting sitting ducks, he thought distastefully—yet he dared not warn them, give them a chance to fight back. Too much was at stake.

He gazed stolidly at the men who were looking at him, and his hand crept to where Ellen's rocket pistol was concealed inside his tunic.

"Templin!"

The shout was like a pistol-crack in his ears. Templin spun round frantically. And in the door stood Olcott, surprise and rage stamped on his face.

●TEMPLIN whirled into action. The men in the room, abruptly conscious that something was wrong, were reaching for weapons. Templin made his decision and passed them up for the first shot—blasted, instead, the man at the atomic warhead control, most deadly to his plans. He saw the man's body disappear in incandescent red mist as the rocket shell hit, then fired at a clump of three who had weapons drawn, fired again and again. Surprise was with him, and he got each

of them with his potent shells. Yet—the odds were too much against him. As he downed the last pale-skinned underground man, Olcott was on him!

Templin reeled with the fury of his attack, grunted as Olcott landed vicious stabbing blows on his unprotected body. He lost control of the rocket-pistol in his hand, saw it spin away across the room as Olcott thudded against him with his steel-gauntleted hand. Templin dropped to the floor under the pressure-suited body, rolled and brought his knees up in a savage kick. The chunky man grunted but lashed out and a steel fist caught Templin at the base of the jaw. For a second the chamber reeled around him. Another like that, he knew, and he was done.

Olcott came down on him like a metal and fabric colossus. The gauntleted hands reached for Templin's throat and found it, circled it and squeezed. Templin, battered and gasping in the thin air, found even that cut off under the remorseless pressure from the other's hands. He struggled with every trick he knew to break the man's grip....

Blindly his hands reached out, closed on something, heaved back. There was a sudden yielding, and Templin felt air reach his lungs once more. But it came too late.

Darkness overcame him...

SOMEONE WAS bending over him. Templin surged upward as soon as he opened his eyes. The figure leaped away and emitted a slight shriek. "Temp!" it said reprovingly.

Templin's eyes swam into focus again; it was Ellen.

He was in bed, in a huge room with filtered sunlight coming in through a giant window. He was on the surface—by the look of it, back at Hadley Dome.

His head throbbed. He touched it inquiringly, and his finger encountered gauze bandage. He stared at the girl.

"We won," she said simply. "The Loonies and I came in as soon as we could—soon as we heard the shooting. You did a terrific job, Temp. The only live ones in the room were you and Olcott. And, just as we came in—Olcott died."

"Died? Died how?"

"You broke his neck, Temp. He was strangling you, and you were fighting back, and you caught him under the chin and pushed. The metal collar of his pressure suit snapped his spine. And then, since you had a skull that's broken in three places, the surgeon says, you went off to sleep yourself."

Templin shook his head incredulously. "And the Loonies?"

"They're free. And very grateful to you, too. They—they massacred all the other Earthmen, down under there. They'd been waiting for the chance for years, you see. And—well, you've been unconscious for two days, and I've been busy. Things are under control now. The mine is back in operation—Culver's outside, waiting to see you—and you're free, too, Temp. You can go back to the Inner Planets whenever you like."

Templin repeated, "The Inner Planets." He looked at her and grinned. "It will be like a vacation," he said. "By the way, how about my honus?"

"Bonus?" Ellen looked puzzled. Then she laughed—but a little strainedly, Templin decided. "Oh, you mean the backing I promised you from Terralune? It's yours, Temp. Ships, and money, and everything you need. Only—" She hesitated. "That is, I had an idea—"

He interrupted, "That's not what I mean," he objected. "My bonus was personnel. You promised me I could have help to settle Venus, if I took care of this mining affair for you. In fact, you said I could take my pick of anybody on the Terralune payroll."

Ellen's face clouded. "Yes," she said. "But, Temp—"

"Don't argue," he commanded. "A promise is a promise. And—well, you're on the payroll, Ellen. My advice to you is, start packing. We leave for Venus in the morning!"

●

SEEDS OF INSECURITY

By Larry Shaw

Hidden behind a maze of bureaus with bewildering titles lay the little known, but all-powerful Department of Insecurity, which did strange and wonderful things. Like taking a little, rabbit-like man — such as Heywood Civin was — and thrusting him into a job where he'd have to fight. And for a bigger reason than Civin, or the weird flower he guarded.

THE PHONE rang.

Heywood Civin, lost in contemplation of one of the most beautiful Rigellian corona-blossoms he had ever owned, ignored it. It rang again. Civin tra-la-la-ed in a voice that threatened to become a soprano without notice and pruned a few more of the plant's sharp, poisonous spikes with a loosely-held incineclipper.

When the phone rang the third time, the willowy florist was waving his hand vaguely in the direction of the switch-bank hidden in the wall; he was not succeeding very well in his attempt to improve the lighting effect upon the flower, because his attention was all on the plant itself and not on the more general matter of what he was trying to do. Anyway, the noise finally penetrated, and Civin did a double-take.

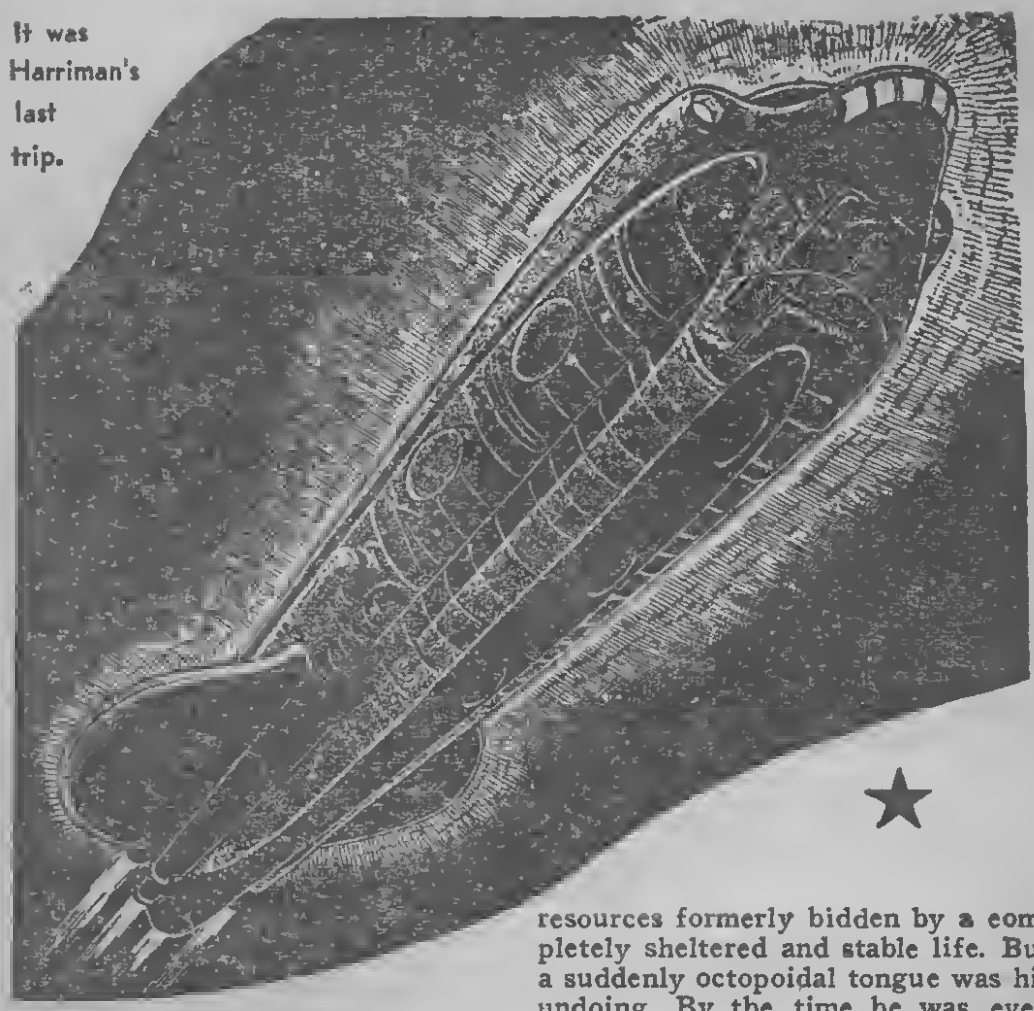
It shouldn't be happening; Civin had set the instrument to receive no incoming calls unless they were replies to calls he had tried to make and hadn't completed. There had been none of the latter, and the cut-out could only be bypassed by someone with almost unlimited authority, using peak emergency powers. Nobody could want Civin that badly...

The caller wanted him worse than that. With a popping protest from the set that was probably heard in the phone company's polar offices—and Civin's greenhouse was in Peru—the screen and speaker suddenly came to life, without Civin's having pressed the *On* stud at all.

Startled, Civin did a loose-jointed backwards prance which ended when his rump met the workbench, narrowly missing the still-hot point of the incineclipper he had dropped there. The hatchet-faced man on the scream smiled and said "Novschmoz!"

Apparently, however, he realized immediately that the internationally accepted demand-for-courtesy would not be enough to bring Civin back to earth. "Look, Civin," he continued rapidly, "I'm sorry to break in like this, but I've got lots to do and no time to flap around. I'm Julian Brinkly, Government priority BZ-4992qg134, Flowers and Plants Sub-Section, Natural Beauties Section, Office of New Discoveries, Division of Intangible Assets, Bureau of Experimental Knowledge, Department of Intragalactic Culture. Got a job for you, be there in ten minutes."

The screen went blank, leaving Civin to his receding astonishment and growing indignation. There in ten minutes, indeed! Civin believed in leading a calm and orderly life, and he exercised the privileges of his high position in the Federated World Florists by making appointments rarely, and at least a week in advance. By Jove! He'd keep the uncouth fellow cooling his heels in the anteroom until he was good and ready to...



PRECISELY TEN minutes later, the inner door flickered open and a short, wiry man wearing the face Civin had seen on the outraged phone strode briskly in.

"Pleasure!" he said, shaking hands with himself almost too briefly for politeness. He kept up a steady stream of patter as he deftly unzipped an obviously custom-tailored knapsack from his custom-tailored back and placed it on the workbench, but Civin didn't really hear it. Frustration and despair were joining his other emotions; he never had learned to say no to a peddler who got this far.

Give him credit; Civin at least made an attempt. He drew himself up to his large, if attenuated height, and said: "*Mister* Bribbry—Brigg—Big—Gink..." For him, this was bravery; with such a beginning, he might have called up any number of resources formerly bidden by a completely sheltered and stable life. But a suddenly octopoidal tongue was his undoing. By the time he was even slightly done again, Brinkly had remove the fantastic flower from the knapsack and placed it on the table.

And then Civin could do nothing but stare in fascination. It was too downright unusual to qualify as the most beautiful flower he'd seen, at least without due consideration. But it was undeniably beautiful, and eye-gluing in its uniqueness.

The main feature, the big attraction, was the almost perfectly transparent sphere which topped the sinuous, silvery stem; and which was partially concealed—different sections appearing and disappearing with enticing unpredictability—by the waving and weaving of broad leaves of various delicate hues. If the leaves seemed to have a strange life of their own, that sphere had an even stranger one. For it contained a blaze of color—it was impossible

to make out exactly what it consisted of—that reminded Civin of nothing so much as a child's kaleidoscope, a constantly changing rainbow of sharp shapes in awesome symmetry. It was inexplicable; it was weird; it was lovely.

Civin's bewildered gaze went back to Brinkly for a brief instant. It was the signal for the alert government man to backtrack just to the right place in his spiel. "As I was saying," he bounced along, "we'll not only pay you a good salary—a bonus for one excuse or another if you succeed at all—and ten per cent on all blossoms sold by the government after our labs, gardens and so on have all they want; but we'll also give you all the plants you can use to play with or sell, as you please. Now if you'll just sign these forms, making you an agent of the Department for the duration of the field trip..."

Civin succeeded in saying a complete word, which was "What?"

Brinkly, to be blunt about this, was a self-important little pipsqueak who would never acquire much more than the small amount he was now flinging about so wildly—but Civin was not to realize that for quite some time. Brinkly made a big business of studying his ringwatch and consulting a mental time-table.

"Look," he said with exaggerated care. "We—the Department—want you to do a l i t t l e job for us. This flower was sent In by an operative on one of the two habitable planets of a recently posted sun that's just been named Smith. He didn't have time to learn much about the flower but his message said it has some extremely peculiar features—especially in the seed stage. Trouble is, there's apparently something about Earth's atmosphere that stunts its growth, or sometbing.

"That is, it stays alive, okay, but nothing happens to it. It don't produce no seeds, even though our agent said it was—uh, ahem—self-pollenating. And as long as we've only got the one plant, we're afraid to experiment with it too much. So you're going to Smith II, flnd the source of the plants, learn as much about 'em as you can, arrange for a supply of 'em to be shipped to earth, make any recommendations you want to about their possible use, et cet. We'll take care of your place here while you're gone..."

"Why," croaked Civin finally, running his flexible fingers frantically through his long, unmanageable hair, "wby can't you just send some member of your department, and leave me alone? I've never even been off earth, I don't want to. Why"—his voice almost broke—"can't *you* go?"

Brinkly sniffed d i s d a i n f u l l y "Really, Mr. Civin, the job isn't that important. Our men, myself included—not bragging, of course—have much bigger matters to attend to. This is small-apples. At the same time," he smiled again, "we need a man who *really* knows his flowers, especially extra-terry types. A man with a good, solid rep, so his name will be useful in any publicity releases..."

He ran on, alternately sneering at the job and offering crude praise of Civin. The kaleidoscope flower—Civin learned eventually tbat the government thought of it that way, too—made its ever-different patterns of flashing gems and crystals. Civin fluttered distractedly, and thought of various ways to say no. He had his own unhurried life to live; he was happy with it. The venture this uncultured interloper proposed was utterly impossible. If only Civin's grandmother were here; she'd tell the fellow so. No. No, no, no...

•THE SPACE-LINER *Harriman* was thoroughly up-to-date, and had facilities for practically every recreation and entertainment humans had invented, or borrowed from other cultures, that did not require a full sized arena. None of them appealed to Civin. He had never taken part in any strenuous physical activity or wasted valuable time learning to play games; few of the entertainments were intellectually dignified enough to suit him, and he was too worried to pay atten-

tion to those that were. Naturally, he didn't worry about dangers the crew and captain might have considered seriously, but about such foolish items as meteors (which weren't dangerous), space-sickness (which didn't exist as such), cosmic rays (which bounced), and ether storms (which had been forgotten by all but the most unimaginative and deadline-harried stereloid writers).

And: *Why* had he allowed himself to be talked into this? *What* would his grandmother, who'd raised him and died in his arms, have thought of such goings-around? *Where* could it possibly end? And *how*...

He spent most of his waking hours in one of the quieter lounges, a place panelled in artificially-aged artificial wood and dimly lit by artificially-antique lanterns, drinking Ksallian-herb tea. His one attempt to sooth his nerves alcoholically, in which he made the serious error of choosing potent Rigellian *Bhulllyordz,* had ended in a disaster of explosive proportions.

"Thought I might find you here. Pleasure." Civin looked up from his snifter to see the owner of an efficient smoothness and an air of massaged well-being standing beside his booth, hand-shaking. "Mind if I sit down?" this gentleman asked, sitting down.

His pleasantly compelling voice continued as he punched out a recipe on the special-drink console beside the booth and waited for the result to pop into the receiver. "Have a little something on me? No? Well, I guess you can spend freely without worrying about the old sin account, eh? Heh-heh! The Department of Insecurity still pays its errand-boys as well as ever, I guess, Mr. Civin? Nice trip?"

"Nice—errand—w h o—what's the Department of Insecurity?" the uprooted florist managed.

"Heh-heh! Your little joke, Mr. Civin? Or," the efficient voice became a fraction more so, "do you really think we don't know about the Department? Let's come to business. I am Mr. Friend; my friends call me Friend for short. Heh-heh! Now, of late you fellows have been interfering with my enterprises annoyingly often. I would like to arrange for this to stop happening, and I would like further information about..."

The soft flow of background music tinkled to a pause, and an announcer's well-modulated tones came from the speaker. "Listen, please. A group of passengers has requested a special guided tour of the ship. Such tours are usually conducted only on first and second days of trips, and this will he a rare opportunity to see and learn about the inner workings of the *Harriman.* Anyone wishing to join this tour, please report in the observation dome immediately..."

Civin saw a chance to escape a situation he didn't like or understand. "Tour!" he said. "I'm going to—I didn't—first trip—some other time, perhaps!" He rose hastily, almost upsetting what remained of his tea, and left the lounge in a hurry.

Friend moved along placidly at his elbow. "Been a long time since I've taken one of these tours myself," he said. "I'll go along, and we can continue our chat afterwards."

• WHEN THEY reached the dome, Civin was panting and his sensitive, bony face was even whiter than usual. He held back an urge to cling to the first person he saw and beg for help, and contented himself with pressing as deep into the middle of the tour group as he could get. Naturally, he didn't notice that the group consisted of six young men who were remarkable for their emotionless deadpans and their incredibly neat but otherwise undistinguished attire. He cowered in their midst as the tour got under way, not

hearing what the guide was saying, much less seeing that these young men seemed determined never to look at him directly. That didn't go for Friend, of course; he was right at Civin's side, smiling benevolently.

The tour swung into a room marked *Danger! Keep Out!* Inside, they clustered hehind a railing and watched the big MacReady-Davidson machine cluck away, renewing the gravitic surface on huge, flat metal plates, which then shot along heavily-hraced tracks through an opening in the deck. To Civin, whose interest in things of the past was second only to that in flowers, the machine looked like nothing so much as an old-fashioned flatbed printing press.

The guide was saying: "Without this machine and the artificial gravity it produces, space trips could not he made in anything like the comfort you-all have come to take for granted. It is incredihly complex, and in untrained hands might even he dangerous. If a plate broke free of those tracks, it would hecome a virtually irresistihle force, shooting out of the machine on a straight line, and could easily tear a hole in the side of the ship. It's nothing to worry ahout, though; the track itself is so strong, and its mounting so carefully engineered, that nothing less than an atomic cannon could put the slightest dent in it. As you-all know, the machine was invented largely as the result of a lucky accident..."

The men in the tour group did a strange thing. They joined hands in a roughly straight line, with Friend at one end. Simultaneously with the appearance of a tiny, gun-like ohject in Friend's free hand, the man on the other end of the line approached an electric wall-socket and inserted a plug which dangled from a wire leading up his sleeve. Friend aimed the instrument at the tracks, which suddenly warped, buckled, and collapsed into powder.

The gravitic plate emerging from the machine shot forward on a straight llne, tearing a gaping hole in the hull.

The MacReady-Davidson screeched to a stop. Hull-plates shrieked and groaned; alarms clanged furiously; the guide yelped; escaping air whistled. Civin covered his ears and cowered against a bulkhead.

Then men in Friend's group—he had ohviously taken over the leadership now—hit Civin and the guide over their heads. They did this to the guide first, and Civin had time to see them shove him into the thinning stream of outgoing air which carried the guide into empty space before he was struck himself.

They either hit Civin carelessly or they didn't want him to remain out long. He didn't go out at all at first, but was dimly conscious of their carrying him through the door, hefore it clanged shut on the airless room, and hustling him into a lifehoat. Friend's voice came to him through a fog as that deadly gentleman snapped orders to seal the boat and release it from its capsule immediately, before any of the panicked passengers or only slightly less excited crew could hoard it with them. Then Civin hlanked out temporarily.

•HE CAME to with a headache, and clung to the ache as the only familiar thing in an upside-down universe. He couldn't help reacting to it normally, however. Civin twisted and groaned, then groaned again as dimly he perceived someone approach; then he heard Friend's voice say solicitously, "Feeling all right, Mr. Civin?"

Something pricked Civin's arm painfully, then all pain disappeared. The florist was almost sorry to feel the headache go. He sat up on the bunk and hlinked; Friend's smile swam into focus.

"Now!" the hated one said smartly. "In just a moment, we can get back to the conversation we were having just before we were interrupted. First, I'd like to point out to you that everything that has happened since I introduced myself was the result of a careful plan. We leave nothing to chance, you see, and our resources are tremendous. We're particularly advanced in the field of weapons, as witness the little gadget we used to wreck the *Harriman*—

in a way that investigators will never be able to trace.

"Even our timing was perfect, Mr. Civin. The *Harriman* was near enough to its next stop, Smith I, so that all of its lifeboats—the ship itself, if it somehow hangs together—will he able to make the colony port there with ease. We were not so far from Smith II, bowever, that this boat can't reach our own destination there—with oxygen to spare, since we have so few passengers. It will be marked down as lost in space, of course. And even the life insurance on the 'dead' passengers will he collected by us, or our associates, under other identities. Heh-heh—about the only thing we didn't figure out was a way to collect *your* insurance, Mr. Civin."

Civin shrank against tbe wall, unable to answer. "Come, come," Friend went on cheerfully. "We haven't decided what we're going to do with you, after all. And we're not always as destructive as we were just now; this little incident was partly a test of one of our newest weapons. Worked well, didn't it? If you'll cooperate, though, we may be able to give you a good deal."

He moved away. Civin swung his legs over the edge of the bunk and leaned forward; he felt sticky and sick with fear, but he was beginning to look for a path of escape.

Friend approached a tahle in the middle of the narrow room—which Civin noticed was the control room, with autolocked panel at one end—and picked up something which he chuckled at paternally. Civin recogized it as the instrument that had destroyed the *Harriman*. Friend replaced this on a corner of the table, along with several lengths of wire—Civin was able to think clearly enough now to decide that all of the men had had wires up their sleeves and had connected them when they joined hands—and said, "Boys!"

THE SIX men from the tour group appeared from elsewhere in the boat. One of them came forward with a large hlack case, which he handed to Friend. Civin recognized this even more easily; it was the specially insulated and air-conditioned box in which he himself had been carrying the kaleidoscope flower. Friend swung it to the table.

"Ob yes, we rescued your baggage," he smiled. "A minor detail, heh-heh. The only unusual article we found in it was this—*and we'd like an explanation of it now!*"

Civin stood up on shaky legs. No matter how ugly were the circumstances surrounding it, he had come to love that flower; he couldn't let these ruffians harm it! He approached the table, saying, "Now, look here!"

Friend looked straight through him. "We just succeeded in opening this before you woke up," he said. "But even in that short time, we have managed to become quite, quite curious about it. I rather imagine it's valuable," his voice had become almost a purr, "and if it's valuable enough, perhaps some facts concerning it would he enough to purchase your life. Eh?"

He had flipped the case open as be spoke. Civin stared, and the perspiration on his hrow turned cold. The flower was gone! All that remained was the pot of Smith II soil in which it had stood. No, there was something more—lying in the soil, hlending with it, were several small, brownish halls... Seeds!

Seeds. Then they must have entered an atmosphere indigenous to the plant, the atmosphere of Smith II. Only—in that case it couldn't he the atmosphere itself, hut some other property of the planet that was favorahle... Radiation? Civin reached out to pick up the seeds—and Friend's hand chopped down hard on his delicate fingers.

Civin *ouched* and retreated, involuntary tears springing to his eyes, as Friend picked up the seeds and looked at them coyly. Finally, as Civin succeeded in gulping down an undignified soh, Friend said, "Here, boys, take a look," and passed a seed to each of his attentive subordinates. Then, holding the one he retained under Civin's nose in a wary hand, he said, "Well? The explanation?"

If Civin had stopped to think it all out, he might have done just what he did; anyway he might have realized that Friend was a man who planned his campaigns in devious detail, and that direct, impulsive action was foreign to him. He might have decided that the situation screamed for a surprise attack, and that confusion would reign if he removed the group's leader from play. None of this occurred to him, though.

He just got little-boy mad.

The flower case was the handiest thing, so that was what Civin hit Friend with. It was a feeble blow, but completly unexpected—and the case was heavy. Friend fell like a dead boulder.

His men drew back in alarm that was ludicrous under the circumstances. Apparently this penetrated their skulls, too, because only three of them had gotten out the door before they all turned and started to advance again. They came looking for blood. And they came almost in time, because Civin stooped to pick up the seed Friend had been holding before he got behind the table, plucked the fierce-looking little disintegrator from it, and plugged the short wire attached to it into a wall socket that conveniently presented itself. Shakily he levelled the thing in the general direction of the gang and said, "D-d-d-don't move!"

They halted briefly. Then one of them said, "That thing don't work on people." He drew a gun and shot Civin through the shoulder.

● IT WAS a gun that shot tiny steel needles, which could be poisoned or doped, and which hurt badly enough all by themselves. This one hadn't been treated, but it caused Civin to drop—rather, fling—the disintegrator just as he was pulling the trigger.

He learned then that the thing's output had apparently been increased by the multiplied wire and the bodies between it and the power source back on the *Harriman;* its effect now was comparatively feeble. All it did was make a charred mess of the control panel. The boat lurched and danced.

Somebody yelled, "We're going to crash!"

Somebody else yelled, "Get the parasuits!"

A third somebody yelled, "Bring the boss!"

They scrambled through the door again, dragging Friend, ignoring Civin. He followed, clutching his burning shoulder, into a passageway lined with lockers. Fear drove him fiercely, now; logical thinking had been completely short-circuited. He never knew afterwards how he managed to struggle into a suit—one not designed to accomodate his more than six feet, at that— using only one arm; but under the circumstances he probably would have accomplished it even without the benefit of the compulsory spacesuit drill he'd fumbled through on the *Harriman.* Somehow or other, at any rate, he left the boat's lock with the others.

They knew he was there, but they were too busy with their own troubles to do anything about it at first. They'd shoved Friend unceremoniously into a suit, too, and a pair of them carried him out. Once outside, and spaceborne themselves, they locked the arms of Friend's suit into power-flight position and switched on the miniature rocket-motors mounted on them. From there on, it was a one-man job to fly along above him and keep him in control. The remaining five turned their attention to Civin again.

And Civin was diving towards the surface of Smith II at a frightening clip. His action was again the best one—this time because it was the only one. He had not yet learned to handle the tricky powered parasuit, and the arm-rockets were only adding speed to what would otherwise have been a free fall.

The suit began to get hot, and he realized the atmosphere was becoming dense. The heat made him double his frenzied efforts to straighten out. Gradually, he succeded; he was still whistling along at a great rate, but now it was on a sweeping curve towards the surface.

The question of what to do next forced its way into his already spin-

Civin never knew that this girl existed in the deeps of his mind.

ning brain, along with his fright and the throbbing messages from his damaged shoulder. His stomach heaved, and he thought for a horrified second of what it would be like to get sick inside the plastic bubble of his helmet. He bit his lips, and the trickle of warm, salty blood down his throat only made things worse.

He nearly funked out, then. He was crying real tears, and he wanted only to crawl into a safe, warm bed and pull the covers over his head...

Yes, he nearly funked out, and that would have been the end of him. But his brief retreat into childhood was the beginning of the thing that saved him...

• DON'T ASK what made him look backwards over his shoulders towards his pursuers; masochism would be as good an answer as any. Even if the act hadn't made his peril more apparent, it was damned uncomfortable. But aside from all that—overriding it completely, in fact—was the shock Civin got, which was bigger than all the earlier ones put together.

Sittiing on his back, in a miniature saddle with a safety belt made of anachronistic chain, was a girl whose blonde hair streamed behind her. Her costume was equally anachronistic; had Civin been more up-to-date, he probably wouldn't have recognized it as—of all things—a suit-for-bathing. And as Civin gawked, she unlimbered a highly-chromed and inefficient looking rifle, brought it into firing position. *Materialized* it might be a better description, in fact, since she obvi-

ously had no means of concealing it upon her person.

She began to fire, and Civin thought at first that she meant to finish him. But the muzzle-blast—which looked like that from a Roman candle—went harmlessly past his head, and he began to think that she was only attempting to steer him in the direction she wanted to go.

The weirdness of it somehow forced Civin's brain into high gear. There were two twos that had to fit together some way—exactly how he couldn't yet tell. He strained his neck some more, and his gaze went beyond the girl. The fact that his gaining pursuers appeared to have armed and lightly-clad Amazons on their spacesuited backs, too, didn't fit in with his first deductions, and still... There they were.

He returned his attention to the ground, where a minor surprise yet awaited him. He was plunging headlong for a group of tents, surrounded by a small army of men, running about excitedly and looking in his direction. He knew without thinking that this was the main body of the enemy. Even as he watched, they completed setting up a number of objects he recognized as tractor beam projectors, fired a few experimental bursts, and swung the sputtering beams in his direction.

He was too late to check his dive. The fingers of force flicked across him, danced back, and held him in a tight crossfire. His arm-rockets were no match for the steady pull. He was brought up short with a suddenness that rammed his nose into the plastic of his helmet; then he was blinking back tears as he was hauled ignominiously groundwards.

His theory had to be correct now; it was the only possible weapon left. And there was a way to check it. With a mighty effort of will, he made his mind as completely blank as he could.

When he twisted his neck muscles again, the girl on his back had vanished!

He was right! Now, if he could just... The ground came up to meet him as the tractor beams swung him in a wide arc. The beams snapped off just before he touched, leaving him to skid to a nose-first landing which plowed a long furrow in the sandy ground, raised a tremendous cloud of dust, and nearly knocked him out again. The enemy added a bloody nose to their score.

Painfully, Civin stood up and shook his head to clear it. Blood spattered the inside of his helmet. Seconds, he knew, remained, but there was no help for it—he had to get out of the parasuit or he couldn't see. It seemed to take hours, but he accomplished it somehow. Swaying, battered and bloody, thoughts whirling, he looked through the settling dust towards the mob that came charging from the enemy camp.

He clamped down on his thoughts, constructed a mental funnel through which only essentials could pass...

• AND FROM behind him came a herd of raging *grockolumphs,* bigger and fiercer than any he had seen in the zoos of extra-terry c r e a t u r e s back on earth. In eerie silence they thundered past him and bore down on the packed enemy, fire blazing from myriad eyes, steam pouring from myriad hairy nostrils, every wicked claw, fang, hoof, barb and tentacle flashing in the sullen light of the sun called Smith.

As one man, the enemy turned and fled.

As one man, they stopped. Where their camp had been was a forest of Algonian man-eating trees, which quivered and swayed as if to a snake-charmer's piping, and stretched gaping, slimy mouths hungrily for their prey.

The mob shuddered, stupefied—and Civin wondered what to do next. The bigger enemy group, on the ground, was inactive now, but they'd come to life again—Civin couldn't project these mental pictures forever. And the parasuited men above him, apparently unaffected by the apparitions, were swooping in for the kill.

Help finally came.

From behind the forest of man-

eating trees—or rather, from behind where they had appeared to be, for Civin's surprise at the new development forced them from his mind—the tractor beams lanced out again. They caught the mob in their powerful crisscross, and dragged the squealing mass of humanity back across the sand until they were jammed tightly against the big projectors. When they were safely pinned, another beam stabbed the sky, neatly hooking the oncoming fliers.

Running, Civin arrived in the camp just as the beam dropped the men, heavy suits and all, on top of their feebly-struggling fellows. He approached the tiny, dark girl at the central control board. "You're real, aren't you?" he demanded bluntly.

"I'm real," she said. "You're real—and Insecurity? Glad to see you; these lads were ripening to do some real damage somewhere. You did a lovely job of bringing them into the open, pard."

Civin was a new man. He hardly gawked at all before they settled down to work again.

•THEY HASHED and rehashed it on the way back, in the special government rocket which had been sent out to bring them in and take the prisoners into custody. (Civin had supervised the loading bimself, being satisfactorily rough, thank you, with boss Friend.)

He wanted to know all about this Insecurity thing, of course. "It'll take a long time to tell you even the small part that I know," Sara Keyes, his vivacious new girl friend, told him. "Officially, there's no such thing—as a complete, autonomous unit, at least—yet, it does exist under guises of a helluva lot of government agencies with fancy phoney names. Rounding up outright criminals, like these illegal arms and munitions makers and potential warlords, is only one of the things it does.

"The outfit's been growing for years until nobody below the top knows everything it includes. It's

devoted to the principle that security breeds complacency, ignorance, and all sorts of worse things. Insecurity—the Department destroys institutions that have become malignantly old, dangerously entrenched in the past (as warlords are, after all). It sets up new institutions whenever and wherever they become needed. It tries to keep people generally shaken up a bit, constantly on their toes."

"It used me." Civin mused on his new knowledge with some awe. "I was a pawn to force Friend and Co. into an overt move, when they were getting to the danger point and it was discovered the hoss and his chief stooges would be taking the *Harriman*... Neat, if not entirely flattering."

"You were more than that, Hey," Sara told him, making nice eyes. "They wanted you to contact me, and possibly rescue me, in case the bums discovered that I was not just an adventurous ray-moll. That almost happened; I think you *did* save my neck. The Department's latest report to me says they also wanted to use your greenhouse temporarily, as stage-setting for another operation. And I'm sure they figured you for a guy who was worth a little Insecurity treatment, who'd do a lot better knocked out of his rut. You can see how complex it gets."

Civin mused some more. "You know, I think I'm going to see if your Insecurity brass can't use me again—I like it. Guess I had gotten into the habit of living with those silly flowers and in the past too much," he admitted. "Good thing in a way, though. Otherwise I might not have caught on to the amazing protective coloration gimmick the kaleidoscope flower had developed to save its seeds.

"Mental pictures, projected on nothing, by a means I still haven't figured out! Gosh, they must have had some tough predators on Smith II not many years back: things that would think only of themselves, no doubt, and project their twins—but that would be scared silly if they looked in a mirror!"

"And the rugged blonde that appeared on your back was actually *Futuregal*, a character you read about in magazines when you were a kid," Sara chuckled, but it was a nice chuckle. "And your mind projected her, through the seed you were carrying. Shows a strong mind, though, Hey—you blanketed out any thoughts your boat-buddies might have been sending, and all the other seeds picked up ripples from you. A mental superman, by gum!"

The old Civin would have blushed; this one didn't. "Anyhow, I recognized her, and realized my briefly childish mind had been hoping for her to rescue me," he said. "And she showed me how to rescue myself, at least—just project a few monstrosities!"

"And one other thing the Department—which I'm sure can use you—wanted was at least a partial success," Sara went on. "They really did want more dope on the kaleidoscope plant. I hoped they would when I smuggled it out, since I couldn't make direct contact with our boys.

"And now it may be useful to them in making people less certain of the rules their world follows. Too bad, though, that it remains in stasis when removed from Smith II. I wonder if a seed would just continue throwing whatever mental picture it happened to be caught with, if you removed it from its home world..."

This time Civin showed some embarassment. "You mean you haven't noticed?" he asked. "The seeds do just that, and there seems to be no way of getting rid of the image once they're stuck in such a groove. Like the seed I brought aboard with me... See?"

He pointed over the girl's shoulder, and she swivelled on the couch where they were sitting in pleasant proximity. Standing in the doorway to the room, surrounded by a roseate aura, was a figure that appeared to be an exact duplicate of Sara Keyes herself.

That gave rise to some discussion of a different nature.

●

Some figures come under the heading of magic.

★ SCIENCE ★

in

Science Fiction

A Series of Special Articles

by James Blish

2. THE MATHEMATICAL STORY

PURE MATHEMATICS is a realm where nothing has meaning but relationships. It contains no "things," but only symbols without fixed content. For this reason, there has never been a story based on pure mathematics; as soon as the symbols are filled, as soon as some quantity is assigned to them, the math loses its purity and becomes applied math.

We usually think of applied math in limited, practical terms. Geometry, for instance, is most often associated with the measurement of land; trigonometry with the measurement of the heights of inaccessible mountains, or of the distance of the nearest stars.* Technically, a story based on such applications of math is a science-fiction story, but it is likely to be rather a dull one. Nelson Bond's "The Geometrics of Johnny Day" is a fair sample.

Yet actually, the writing of any kind of science-fiction story is a mathematical activity. All science-fiction is essentially extrapolation. This term, borrowed from statistics, means the extending of a curve on a graph beyond the last point which stands for a known fact. In other words the known points, when connected, show a curve of a definite shape—say, a parabola; if that shape is continued, it will *predict* points, tell us where to look for new data.

Of course, such prediction is a risky business, and statisticians don't rely on it too heavily. Curves on graphs have a way of breaking suddenly into a new shape, or dipping back toward their origins, leaving the so-called predicted point stranded 'way out on a coordinate. Extrapolation might be called the mathematician's way of writing fiction—it just might come true, but he doesn't count on its doing so.

A science-fiction writer is doing exactly this: he takes known data, deduces a trend from them, and then writes his story around what things may be like *if* that trend continues. Data that we had many years ago, for instance, showed that there was an enormous amount of energy locked up in the atom; other data showed that this energy was released under a number of different natural conditions; so the science-

*Popular astronomy books sometimes lead the reader to believe that all stellar distances can be measured by triangulation; actually, only the nearest stars show any parallax, and the distances of other stars are computed from their brightness.

fiction writer predicted the liberation of that energy under artificial conditions.

An inevitable conclusion? By no means. Even after the Manhattan Project was well under way, a tiny technical question arose which, if the answer to it turned out to be *No*, would have put controlled release of nuclear energy forever out of our reach.* That question had never even entered into previous speculations on the subject; yet it was a point at which the predicted curve might well have broken off. As events happened, it didn't—whether luckily or not, it is too early to say.

In the same way, almost all the data we have on hand at the moment indicate that we shall have spaceflight within the next ten years at most. But at any point along the line in future research, the curve of that trend might break, over some technical detail about which we know little or nothing now. Some hint of one such difficulty which might arise may be seen in the streaks of meteors across the night skies—those of you who saw the motion picture *Destination Moon* may have noticed how carefully that subject was avoided throughout the picture...

OF COURSE, many science fiction stories have called upon mathematics in a far more specific sense. Particular mathematical disciplines, or even single formulae within special disciplines, have been used as the bases for stories. John W. Campbell's "Uncertainty," for instance, ran itself out to novel length on the Heisenberg indeterminacy principle. Jack Williamson wrote a novelet about ten years ago which was ostensibly based upon matrix mechanics. Everyone from Nat Schachner to L. Ron Hubbard has tried at least one wild punch in the general direction of relativity. Recently, Theodore Sturgeon, George O. Smith, and several other writers have discovered the Mobius strip, and there are signs that other aspects of topology are in for a working-over in the near future.

But perhaps the most interesting thing about the use of mathematics in science fiction—or the most irritating, depending upon how religiously you take your math—is the way it has been abused. It would be possible to construct an entire spectrum of such abuses, from the crudest and most inexcusable, to the extremely subtle ones, without which there might have been no story.

An obvious example of a crude, non-essential error can be found in Edmond Hamilton's "The Star Kings." Hamilton proposes an interstellar drive which would get around the speed-of-light limitation by storing mass as it accumulates, in the form of energy which might be useful later. The difficulty, of course, is that an object which reaches the speed of light attains *infinite* mass.

This obvious blunder is the result of thinking of infinity as a number, like any other number; infinity minus one, Hamilton would have us believe, is a figure less than infinity. But you can't get something from nothing, or add anything to everything. Infinity minus one is still infinity, as zero minus one is still zero.

I doubt that the author greatly cared whether his space-drive would stand up under mathematical examination, even had he been aware that it wouldn't; he wanted something that *sounded* plausible. John Russell Fearn backed himself into a similar corner in his two stories, "Mathematica" and "Mathematica Plus." In the first of these, the secondary hero was pictured as suhtracting his way into the infinitely small; in the sequel, the two leading characters added their way into the indefinitely large.

*See the Smythe report.

At the time these stories were published, I was guilty of an outburst of enthusiasm for both of them; but in retrospect, I can't imagine where I had parked my brains the day I wrote that letter.* Since the operation of an adding machine in no way increases or decreases the operator's size, I can only conclude that the hero of "Mathematica" was reducing himself in size by a process akin to microdissection, and that his way of getting into the realm of the very large would have to be not much different from what a cruder mortal might call "eating one's self to death." Obviously Fearn couldn't have had anything like this in mind. It seems clear that he didn't really have anything in mind at all except a plausible-sounding noise.

Another, more subtle, way in which mathematics gets kicked around by fiction writers is in the extension of some specifically limited formula into a field where it doesn't apply. The most abused of all such expressions in science-fiction is the Heisenberg principle of indeterminacy, which has been used as an excuse for allowing objects to fall up, light to travel to its source rather than away from it, water to freeze over flames—in short, for just about every conceivable physical and plot irrationality in the books.

Now Heisenberg's formulation actually cannot be used to justify any such thing. It is not a natural law; it is not even an expression of any valid relationship in nuclear physics. It is simply a statement of observational limitation. Heisenberg pointed out that the apparatus which we use to observe the atom treats the atom rather roughly, and therefore affects the results we get. He constructed an expression to show how these effects would show up in the math we used to describe the atom. In essence, this expression says that the motion of an electron cannot be described in the same formula which describes its position.

This, as you will observe, was nothing but a limitation in the way we *talked about* electrons. It had virtually nothing to do with the observed or expectable behaviour of physical objects. Incidentally, it turned out to be an unnecessary limitation, and it has been in the discard pile for nearly fifteen years now; you might bear that in mind the next time you find it cropping up in a story.

THE REASON why mathematical formulae are so susceptible to abuse in fiction, even by writers who know a good deal of math, is that most of them do not contain, in themselves, any indication of where they do *not* apply. Mathematical expressions have cut-off points, but they don't show up in the formulae themselves. To find the cut-off point, you have to read the text which explains how the formula is to be used, and how it is *not* to be used.

Two simple examples:

(1) Glass has the property of increasing in tensile strength as it gets thinner. A very thin glass thread has a tensile strength somewhat higher than a comparable steel thread. The formula which describes this also shows that a glass thread of zero dimensions would have a tensile strength of— But wait a minute, a glass thread of zero dimensions couldn't exist! But the formula doesn't show that; as far as the formula is concerned, a glass thread of zero dimensions does exist, and it would be terrifically strong, too!

(2) Human beings learn very rapidly at first. At a certain age, however, their rate of learning slows, and gradually begins to subside. The formula for this curve shows that a 500-year-old human being would be learning at the rate of— But human beings don't live to be 200 years old, let alone 500 years! Very well, that's quite true; but it doesn't show in the formula, which only describes the curve. You must in-

*I liked them, too—irrespective of their fallacious base, they were fascinating stories. Consider this sort of thing as a kind of fairy story, and there's a place for it. Obviously, the basic priniciple is magic. Editor.

troduce that very necessary cut-off point from outside.*

Simple examples of this kind ordinarily don't trap the alert science-fiction writer, but ignoring a cut-off point can get him into trouble in more complicated realms. Some basic expressions in probability math, for instance, seem to indicate that *any* coincidence or violation of physical law, no matter how impossible-sounding, may happen once, or many times more than once in an infinity of time.** Those formulae would justify you in assuming that a whole chair of such improbable happenings might arrive at once. (This is, a matter of fact, Campbell's favorite theme of "variable truths," which has born fruit in such stories as Heilein's "Waldo" and Kuttner's "The Fairy Chessmen.") There is no cut-off point in the formulae proper to forbid you from making such an assumption.

Perhaps the science-fiction writer can be excused for occasionally "riding a curve to Cloud-Cuckoo-Land," as Campbell himself once put it. Many a scientist has been caught in the same trap, among them Eddington and Jeans. Since extrapolation is the essential process which makes science-fiction possible, we can't reasonably expect really rigorous handling of mathematical concepts. I believe the time will eventually come, however, when the impact of such disciplines as quantum mechanics—where the math involved does contain its own safety valves—will begin to affect the writing of science-fiction.

That change, when it comes, will make today's "mature" science fiction seem as naive and simplistic as Jules Verne.

*That is—in such and such a case, the cut-off enters here; if you want to go on, you should account for its extension in your story—and even then, if you want versimilitude, indicate that the cut-off exists further on. Editor.

**Which, of course, has no tangible existence in the world of events. Editor.

READIN' 'N' WRITHIN'

ONCE AGAIN this old classic becomes available, this time from F.F.F. Publishers, at $3.00 per copy. It contains 245 pages; dust jacket by Frank R. Paul, neatly bound and well-printed. There are no inside illustrations which is quite all right with your reviewer who would prefer to imagine any bizarre scenes rather than to have them shown graphically.

The plot of "Skylark" revolves around the discovery of an unknown element that liberates the atomic energy of copper, its exploitation by Richard Seaton and Martin Crane, and the attempts of one Marc DuQuesne to latch onto this fabulous substance by means most foul. Because this opus was written in an era when the characters were cut out of white or black cardboard, the heroes of the piece sing like Caruso, both tenor and bass and strum on the Spanish guitar. They foil the villians with one hand whilst carving a neat course between inimical planets strewn across the whole galaxy with the other. The villians are fiends incarnate whose preferred means of getting anything start with theft, murder, and political chicanery. Ultimately the villians are foiled, true love sets in, and a planet is located with a fabulous lode of the mysterious 'X' element.

But if the dialogue sounds stilted and the love-scenes a trifle fraught with words instead of action, "Skylark" still stands as a landmark in science-fiction. "Skylark" was the first of the supercolossal space-operas wherein each incident of the tale introduces some new idea and where the science approaches infinity along the curve of any hyperbolic*spiral; perhaps the first of all science-fiction stories where the scientific laws were violated without a ream of flanged-up explanation. In "Skylark," the violation of Einstein's speed-of-light law is explained by a simple statement that Einstein's limitation is no more than a theory that has been demonstrated as untrue.

In fact, the Old Master** is guilty of starting a new trend in science fiction with "The Skylark of Space," and, as such, the book is worth reading—if no more than to discover how far science-fiction has come in twenty-three years.

—*George O. Smith*

* Not to be confused with the conic section or the geometric curve of the same name.

** 'Doc' Smith's presentation copy of Skylark is inscribed affectionately: "From the Old Master to the Young Upstart—"

This department is for you, the readers, where you can discuss science, and science fictional subjects in general, and Science Fiction Quarterly in particular. We will pay two dollars for every letter published, regardless of length.

Dear Mr. Lowndes:

There are so many science fiction magazines on the market now, that I shudder every time I pass a newsstand; with so much quantity, average quality is bound to be low. Nevertheless, I was glad to see *Science Fiction Quarterly* back again. I'm not selling myself for two bucks, either; there's a reason for my apparent flattery.

It's a curious thing. I can recall no instance of your using compressed-air trumpet fanfares and multi-decibelled voders to announce the printing of an "off-trail" story. Nevertheless, your contents usually includes one or two stories with distinctly out-of-the-ordinary qualities. Each one is a good, plotted yarn—not moody or pointless enough to be called "off-trail"—but it has something that makes it extra enjoyable to me, and that probably would have classed it as rejectable with other magazines.

"No War Tomorrow" is loaded with action, for instance, but has a wonderful tongue-in-the-cheek feeling to it. "Stopwatch on the World" is in a way more of an adventure story than science fiction, hut it packs a tremendous amount of suspense, and probably wouldn't have been printed elsewhere—not since the general-fiction pulps of the good old days died, anyway.

My personal favorite, though, was "A Matter of Frequency", which was standard science fiction, hut beautifully satiric and ironic. It also touched lightly on a subject I'd like to see given some serious consideration in science fiction—but one which is usually avoided. I'd like just to mention it here; perhaps I'll stir some of your writers to thought on the matter, but I'll be happy if I merely evoke a few comments from readers.

Why is education such a taboo territory in science fiction? Aren't there going to be any advances over the methods used now, which are undeniably riddled with mistakes and half-haked theories? Aren't things going to get even a little better in the future?

I can already hear you saying that, while no stories—or, at least few stories—dealing primarily with education have been published, plenty of writers have mentioned it in passing. But what do these writers really say, when you get down to it? Mostly, they just describe some fabulous machine that teaches kids their ABC's during one night's sleep, and calculus the next. Or they make their characters so superior that learning is no problem at all. (I'm ignoring completely, of course, all the stories in which civilization disappears, instead of progressing; I'm not interested

much in learning to make a bow and arrow.)

I happen to agree that learning from a machine via the subconscious while asleep (or learning a new language hy being shot with a Buck Rogers pistol) would all he very fine, but I don't look for such machines to be developed in the next few years. And the superchild may or may not be highly desirahle, hut the problems of homo saps are more important to me; I think many of them may be solved through hetter educational systems, hut my own ideas on what those systems might he are vague, and I'd be glad to listen to almost anyone expound his theories.

Certainly something has to be done, and done soon, to teach our kids that "I'm going to hit you before you hit me" is not the best way to keep the world intact. If science-fiction writers can't suggest a way of accomplishing that, who can? I don't hlame writers for aiming for checks first, either; hut I think that science-fiction writers are generally intelligent people. They must have *some* thoughts on the subject, and those thoughts shouldn't he too hard to fit into stories in place of the same old gadgets they've been using for years to avoid the problem. And your magazines seem like the logical place for such stories.

Of course, I think science fiction *readers* are generally intelligent people, too.

Allenby Breger
460 West 25th Street
New York, N. Y.

(Now that you mention it, I must agree that the question seems to have been generally neglected. Discussion and stories on the problem will be welcome.)

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Dear Mr. Lowndes:

If I remember correctly, I have the honor of being one of the first who recommended and hinted for you to hring out another brilliant science-fantasy publication along with *Future,* as per my letter in, I think, the third issue of your other magazine. I now feel that in *Science Fiction Quarterly* you have made one of the most valuable contrihutions to the science-fantasy field out of all the new science-fiction magazines which have come out; owing to the big gap in years between the old and the new, revived SFQ, I think we can safely consider it a new publication, and a very good one at that.

For one thing, I am glad that you have preserved the same style of lettering predominant on the cover and spine of the old *Science Fiction Quarterly.* However, the one challenging difference between the new and the old is a lack of *trimmed edges.* And, oh, what a panacea it would be to have a uniformly-edged magazine amidst the legions of science-fiction magazines, whose sole precept seems to lie in a contest between each company as to who can have the roughest edges. Aside of that, I can't realize why science-fiction magazine publishers don't encourage trimmed edges, when it makes it so much easier for the collector to slide his magazines in and out of his book shelves without ripping and wearing out the spine and covers. I rest my case.

In Poulton, you seem to have an artist who's a combination of Finlay and Lawrence at their best. Lnros didn't do a had cover, hut his interior illustrations are terrible. Why not hring Bok hack as in ye goode olde days of *Future* and *Science Fiction Quarterly?* He seems to be staging quite a comeback, as observed hy the quality of his illustrations in *Imagination.*

Here, now, is my listing of the stories, according to preference: (1) "Stopwatch on the World" and "The Deadly Thinkers" tie for first place; (2) "Ahsolntely No Paradox"; (3) "Turn Backward, O Time!"; (4) "A Matter of Frequency"; (5) "Righteous Plague"; (6) "Atomic Bonanza"; (7) "Star Bright"; (8) "No War Tomorrow".

Most of them were so good, I had some difficulty picking them out, from second to fifth place. I also seem to be unfamiliar with the names of Messers. Gilgannon and Beyer, hut they prove themselves a credit to the hetter form of science-fantasy fiction, although Wallace West did not in the least.

The sort of article hy James Blish seems to he the type I have most wanted to find in various science-fiction magazines during the past, but with poor results, and a scarcity of them. I feel that a popular form nf article tn use is this type, more or less in tune with science-fantasy fiction, and not flying off to other tangents of jet propulsion, astronomy, and dry, uninteresting technical details. I believe that a series of articles, which would acquaint

prospective writers with the science-fantasy field, describing what forms of stories are most needed in the field today, good tips and general outlines, more or less on the Blish type of article would be most welcome.

Incidentally, if any of your readers would like to secure back numbers of *Future,* and the old *Future* and *Science Fiction Quarterly,* I have some copies for swap or sale; also several hundred other science-fantasy magazines and books for swap or sale.

Meanwhile, best of luck with the new *Science Fiction Quarterly,* and keep it as it is. . .it's strictly okay.

Calvin Thos. Beck, Founder
American Science-Fantasy Society, Suite 2-C
7312 Blvd. East
North Bergen, New Jersey

(Trimmed edges add to production costs, and production costs defy all known laws of gravity, as it is. However, this isn't necessarily a final "No" to the question. If *Science Fiction Quarterly,* goes over, *and* if the demand is great enough for trimmed edges, then you may see them. But, as much as we may sympathize with collector's problems, we can't trim edges, merely to please ourselves, and a—relative—handful of aficionados. A few thousand requests from all over would be necessary.)

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Dear Mr. Lowndes:

It was with wide-open arms that the science-fiction world welcomed *Science Fiction Quarterly.* If the editorial selection of stories is as good as those in *Future,* success is assured. Together, both magazines should make enough noise to awaken the rest of the science-fiction people from their lethargy—and they'll thank you for it, too!

The tendency for science fiction magazines to use more articles and factual material is commendable. I especially derived enjoyment and knowledge out of James Blish's article, "Science in Science Fictioo". It was truly a lesson in semantics and the "ologies". Such an article serves a double purpose—first, it enlightens readers about the technical terms used by science-fiction authors, and, second, it gives one an emotional rest between fast-paced stories, at the same time sharpening one's intellectual faculties.

I learned more about science fiction from that one article than I could have from five years of reading science fiction stories. And that's how it should be. One's factual; the other fictional. And, though the stories incorporate factual basis, we aren't informed as to their terminology or nature. For this reason, I think it most profitable, intellectually, to use at least one science-fiction article per issue.

Lester del Rey's "Absolutely No Paradox" was a delightful short story; excellent, vivid characterization; a closely-knit plot; an O. Henry style ending in a "future" setting; very easy reading. I still prefer short-short stories over the novel forms. First, because they're quicker to read, and second because short stories give more young writers a chance to break into print.

The cover by Luros was "futureortically" drawn! I'm sure Freud could have found much to comment, and write on, about it. Its symbolism, intentionally or not, is that of man, the victor; woman, the slave. Man the active; woman the passive. Man the conqueror; woman the conquered. Objective man, subjective woman; possessive man, submissive woman! Do my interpretations seem far-fetched? What are the views of other readers on this? Especially in relation with Luros' backdrop of destroyed cities and vanquished men? I liked the cover. It's just that I'd like to find out how it struck others.

Leo Louis Martello
Handwriting psychologist
653 Washington Street
N.Y. 14, N.Y.

(Your analysis of what the cover of our first issue, which was suggested by a passage in "No War Tomorrow", says may be accurate enough. But whether what it says is "true" or "accurate" in itself is another matter. But we'll let the readers wrangle that, before pouring out any golden words of our own.)

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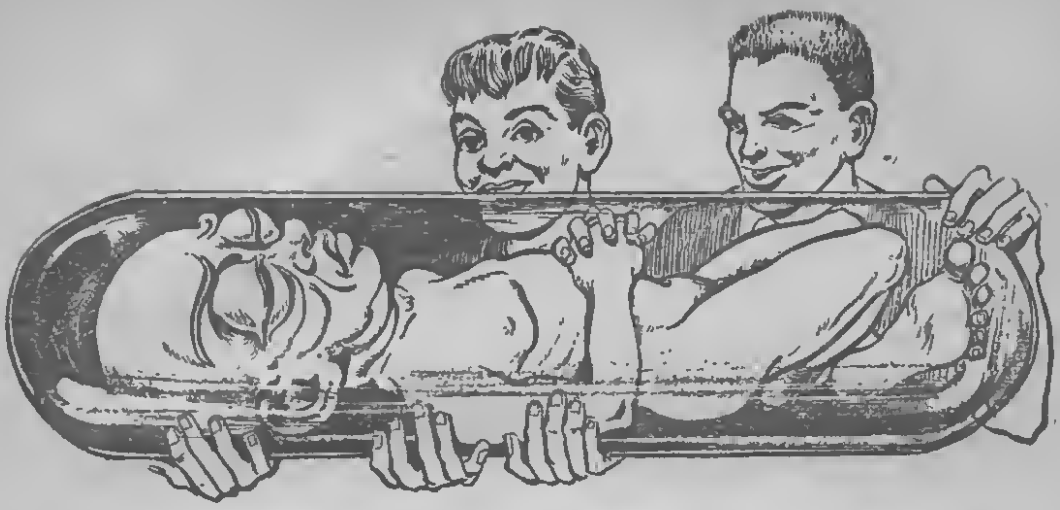
Would you like this department confined to general discussion, or would you like to read story-ratings, cover comment, etc., or both types of comment? Please let us know your preferences.



NO MORE PENCILS, NO MORE BOOKS

by Joquel Kennedy

Pug Stevens wasn't interested in digging up old Martian relics -- but when he dug up an old Martian itself . . . !

THE CITY was, oh, such a wonderful place! It must have been designed for hide and seek. You could duck into a little crumbling doorway where the shadows had gathered for centuries; you could crouch down, holding your breath, and whoever was it would run by. Pipes like hollow tree-trunks tunnelled under the street: there wasn't any water in them now. Lying inside, you could hear footsteps go thudding right over your head—

But Miss Wipple put a stop to the game. "Gertrude! Otto! Gregory! You come *right here this minute!* One of those towers might fall on you and we'd never even find your body—*Laura!* Spit out that gum. Now stay close beside me, all of you —we're only on Mars for today, remember, so let's spend every moment learning things."

Miss Wipple was explaining the commonly accepted theory that the Martians had all been killed by a terrible plague, but ten-year-old Pug Stevens didn't hear very much of Miss Wipple's explanation. He was busy listening to the winds that sang like melancholy ghosts between the towers, busy trying to decide whether the winds were saying words.

Time had eaten away the towers. Of some, only a single wall remained standing. Pug thumped the walls to see if they'd collapse; one of them did, with a roar that made the ground shake.

"Peter Stevens!"

Pug stood transfixed.

"What did you do to that wall?"

"Nothing, Miss Wipple. I just touched it and it fell down."

"Peter, I'm not going to stand for any more of your nonsense! That tower you've destroyed was priceless—do you realize that?—*priceless* from a historical point of view. I'm going to deal with you severely when we get home!"

She resumed her discussion of Martian architecture.

They ate lunch on the bank of a

dried-up canal. One boy got too near the edge and tumbled in; when he crawled out he was covered all over with red dirt. He looked very funny. Miss Wipple said he did it on purpose and sent him back to the rocket for an hour.

• AT THREE O'CLOCK THEY straggled back to the valley where the spaceship sat like a metal egg poked on end in the ground. The valley was a mile-wide bowl of rocks, red sand, and scrubby plants. On the rim of the bowl, the city stuck broken fingers into the sky.

"Aww-w-w, Miss Wipple, do we *have* to go home so soon?"

"Please, Miss Wipple, can't we stay just a little bit longer?"

"Well," the teacher relented, "I suppose it will be all right. If I let you play here for another hour, will you promise not to leave the valley? Perhaps you can find some souvenirs. Why, only last week when the sixth grade were here, someone dug up a beautiful plastic sandal that must have belonged to an ancient Martian! Won't it be exciting if you can bring home something like that? Now I want you back here at four o'clock. *Promptly!*"

In truth, Miss Wipple welcomed a little more time on Mars. The pilot of the spaceship had wide shoulders, a bronze tan, an interesting grin. Miss Wipple's twenties had slipped quickly by, without any offers of matrimony; she had made up her mind that her thirties were going to be different.

"Yahoo!"

"We've got another hour!"

"That big dune's mine to dig in!"

The kids scattered like spilled mercury. All but two of them.

"Otto," said Pug as they trudged across the sand.

"What?"

"Would you be very excited if you found the old shoe off a Martian?"

"Not very," Otto admitted.

"Well, we'd better start looking anyway; Miss Wipple will be mad if we don't dig up something."

They broke sticks from a thornbush and poked around in the sand for a few minutes. It was more fun to duel with the sticks. They parried. Pug tapped Otto in the stomach twice. "Drop dead!" he shrilled. "I got you square through the belly!"

"Aaa-a-ah, you never touched me!"

"How much you wanna bet I didn't? You're dead, boy!"

"I quit," said Otto; "you don't fight fair."

Pug's ire was aroused. He prided himself on his sportsmanship. "Oh don't I? Take off your glasses and I'll show you how fair I fight!"

"I won't fight," said Otto.

"Yaaa-a-a. If they broke you open, your guts'd be yellow. Look. I'll draw a line. Come on, step over it, I double dare you—just take one step, that's all!" The end of Pug's stick scraped a little ditch in the sand.

Clink! Something made a sound like glass being hit.

Pug's jaw sagged. He prodded the sand again. This time some of the sand brushed away and a patch of brightness glittered into view.

Otto sucked in his breath. He made a dive for the shining thing, but Pug was faster. Pug's hand plowed into Otto's face, shoving Otto's nose flat. "It's mine! I found it!" Pug cried.

"I only wanted to look at it," Otto grumbled.

On hands and knees Pug examined his find. He let out a whistle of surprise. "Holy space! This ain't no old shoe! C'mere, Otto, help me dig!"

Excitedly, they scooped sand away. Soon the burnt-red sunlight shone on a hemisphere of glassy stuff like an upside-down goldfish bowl. "Keep digging," Otto gritted. "There's more of it buried yet."

Pug's arms burrowed deep into the sand. "I—I've got it, almost!" Teeth clenched. Sweat ran. Ten-year-old muscles tightened into knots. Pug grunted and heaved and slowly the mass came free.

• IT WAS A TRANSPARENT case, perhaps forty inches from end to end. Something red and wrinkled lay inside. An enormous head. Thin, tapering hands. Great

eyes, larger than teacups, closed as if in sleep.

"It's—it's a man!"

"It's a Martin," Pug breathed.

"But—but there aren't any more Martins! Miss Wipple said all animal life on Mars is ex—ex—"

"Extinct," Pug finished. "That means dead."

"Is *this one* dead?"

"I don't know. It looks like a picture I saw in my Dad's doctor books of a baby when it's still inside the mother!"

"But this looks *old!*" Otto's voice was edged with wonder. "It's all kind of...shriveled up!"

"Look!" said Pug. "It's not heavy—I—I can carry it!"

His knees buckled beneath the weight.

"Watch out!" Otto squealed.

Pug fought to keep his grip on the slippery surface. The case executed a neat flip in the air and bounced off a rock. There was a sickening tinkle like broken glass.

"Oh—oh," said Otto. "Now you've done it."

Pug felt his insides slowly turning to ice. "I—I didn't mean to do it!" he quavered. "It just slipped!"

The "Martin" was stirring. Wrinkled hands beat like bird wings in the air. The great eyelids flickered.. slowly parted...and then the "Martin" was looking right at them.

There weren't any pupils in his eyes.

Water! The thought leaped into their minds: wetness flowing in colorless drops, liquid and cool. The thought was a hundred times more vivid than a spoken word.

"Martin wants water!" said Otto. "He's thirsty!"

"I'll get him some!" Pug yipped. "Stay with him! Don't let him get away!" His feet chopped sand as he streaked for the rocket.

• MISS WIPPLE HAD BEEN progressing nicely. She had just been remarking to the pilot that it must be wonderful to guide a ship through the infinite spaces, and the pilot replied how much more wonderful it was to guide young minds, and the pilot was sitting very close to her. Then footsteps went *thumm thumm thumm* on the ladder outside. The port banged open and Pug came stampeding in.

"Miss Wipple! Got anything I can carry water in?"

"What do you want to carry water for?" she snapped.

Pug hesitated. It wouldn't do to tell Miss Wipple about Martin yet; she might spoil all the fun.

"I—I want to water a plant I found."

"All right, then—take that canteen but be sure you don't lose it."

"Oh no, ma'am, I won't." Pug snatched up the canteen, pressed it to the drinking fountain until water ran over the top. Then off he scampered, not bothering to screw the stopper on. The port clanged after him.

Damn brat, thought Miss Wipple.

The pilot chuckled. "Aren't kids great? With enthusiasm over a plant! Doris, I'll trade jobs with you any day—you must get a real kick out of teaching youngsters like that."

"Oh yes," said Miss Wipple with a demure smile, "it's really not a job—it's a pleasure."

• WHEN PUG GOT BACK with the water, Martin was sitting up.

"You spilled half of it," said Otto.

"Well what did you expect? I had to run with it, didn't I?" Pug stood there catching his breath. "Has he been talking to you?"

"Well—yes, I guess so—only he doesn't *talk,* exactly. He just thinks something and it's there inside your head. But his thoughts don't come out the same way ours do. It—it makes me feel funny to listen to him!"

Martin sipped water slowly.

Come...you...from where? The question was clear and unmistakable.

"We come from Earth," said Pug excitedly. "You know. Earth. Terra. Third planet." With a stick, he scratched four lopsided circles in the sand, then set a big rock in the center. "That's the sun in the middle there and those circles are the orbits of the planets. This one's Mercury and that's Venus, and Earth—

that's where we coms from—and here's Mars. Savvy?"

Martin nodded. Slyly, lnsistently, the thought crept forth: *Water... like this...on Earth...there is?*

"Water? Oh sure, oceans and oceans of it. Earth is three-fourths covered with water—that's what our geography book says."

"Ask him how he got here," said Otto.

Martin had heard the question. His eyss nsrrowed to crescents; his wrinkled mouth frowned in concentration. Rapidly, he sketched pictures in their minds.

"Better than television," Pug breathed.

The city was young. Its towers wers white—not stained red with dust, not crumbling. Beside a canal, a handful of "Martins" stood, watching the waters fall lower. Islands of mud emerged and joined other islands until at last no water flowed. And then the "Martins" walked back to their city and entered glass cases, to sleep until a better time should come. Machines shelved the cases row on row in vaults beneath the city. Machines scooped holes in the deaert, deposited other sleepers, and brushed the sand back again carefully, like robots planting glass seeds. Then the machines stood idle in the desert and the last rains of Mars washed metal into rust until the machines fell down and blended with the sand.

The pictures ended.

•PUG'S LIPS WORKED A long time before words spilled out: "Those vaults underneath the city! Maybe—maybe ths othsrs are alive yet!" And deep down inside, he was praying: *Let Martin take us there. Let me and Otto open some more glass cases and bring all the Martins back to life...* In his mind's eye, he stood upon a flag-drsped platform in front of wildly cheering throngs, while the President of the United States hung solid gold stars all over hls chest.

Behind slitted eyes, Martin was making plans. *We...shall go,* his answer finally came.

"Whoops!" yelled Otto, turning cartwheels.

Martin raised himself as if he weighed a ton. His withered legs collapsed from under him and he tumbled helplessly ln the sand.

"Aw," said Pug sympathetically, "he shouldn't try to walk. He's been sleeping in that case so long his legs have shrunk."

"What'll we do?"

"We'll just have to carry him, that's all."

Gently as though he were picking up a kitten, Pug cradled Martin ln his arms.

Nobody watched them leavs the valley.

•THEY HAD COME FAR—just *how* far beneath the city, Pug couldn't even guess. They had ripped aside bricks from the spot Martin had indicated, and as they plodded downward Pug had counted steps until he couldn't count any more.

Their feet kicked up puffs of dust that got into their noses and made them sneeze. Pug was happy. He was thinking: *Nobody, not even the scientists and explorers, ever saw what we're seeing now!* The beam of Otto's pocket flash swept picture-covered walls. "Martins" planted and harvested...hunted long-dead animals...dredged a network of canals across the sands. There were pock-marks in the pictures where precious stones had dropped out long ago.

Martin lay quietly in Pug's arms. From time to time a thought stole forth: *To the left...stairway turns. Take care...next step...broken. Now stairs end...corridor begins.*

The dust grew deeper, overflowed their shoes. Pug listened, half expecting the chitter of rats, but in the shadows of the corridor the only sound wss the thud of his own footfalls and Otto's, faintly echoing. Pug caught a snatch of Martin's thoughts. *Weapons,* the thoughts ran over and over again. *Workable yet?* A question, worried and impatient. *Must find.* Determination. And then ths thoughts retrested and grew secrst and Pug couldn't follow them any mors.

In one place, stone blocks had tumbled down, almost walling up the passageway. They had to do some climbing before they could go on. "Pug," said Otto, "don't—don't you think maybe we ought to stop? I mean—wouldn't it be better if we just said goodbye to Martin and came back some other time, maybe?"

"Huh!" Pug snorted. "You're not turning chicken on me! For cripesake, Otto, the other kids would just about die to be here now!"

A block of stone, dislodged by their voices, boomed somewhere in the darkness.

"Well I wouldn't," Otto snuffled.

Just ahead, the beam of the flashlight shone on doors of black corroded metal. There were a couple of funny things about the doors. For one thing, they came together horizontally, not vertically, in the middle. For another thing, the doors were graven with a strange design: a maze of lines that twisted in and out of itself. The way Pug felt when he looked at it, he had felt one time before. Once, at a carnival, he had peered into a basket full of snakes.

Martin squirmed impatiently in Pug's arms. *Down!* he commanded. *Can...now...walk!* He tumbled out of Pug's grasp. Eagerness seemed to give strength to his withered legs. He staggered toward the doors, found and pressed a hidden stud. Suddenly with a rasp the doors parted, one sliding upward, the other dropping, like the jaws of a dead man opening.

LIGHT SURGED INTO their eyes. Blinded, Pug and Otto groped their way across the threshold, following Martin. They found themselves within a chamber so vast that it took a full minute to soften into its right proportions. At one time or another during his ten year life, Pug had visited Mammoth Cave, Grand Central Rocketport, and the Capitol Building in New Washington. But all those places seemed miniature now, beside the immensity of the room. An eery white radiance filtered through the walls, in which marbles of radioactive material were imbedded. If he squinted, Pug could barely make out the ceiling.

In the center of the room stood a bubble of glass about four feet high, shaped like a mushroom on a stem. Martin skittered toward it. *He seems awful anxious about something,* thought Pug.

The little red man hammered at the crown of the mushroom with rolled-up fists. The glass shattered, and Martin thrust quivering arms into the opening he had made. He drew forth a golden jar with serpentine handles, which he set on the floor very carefully, he fished into the broken mushroom again and again, produced cones, blocks, pyramids...vases with bright green spots all over...yellow cylinders covered with spikes. Martian thoughts filled the room, gloating and exultant: *Safe...after...such a long time!*

Pug was itching with curiosity. What in heck was so important about a pile of old crockery? The Martian's back was turned now. Placing one foot after the other stealthily, Pug edged toward the collection of pyramids and globes and cones. Martin was hunched over, examining one of the bright-colored objects, apparently too deeply engrossed to notice Pug. A fat, gold-speckled jar caught Pug's fancy. He grabbed it.

Martin, Pug concluded, must have eyes in the back of his head someplace. The little red man suddenly whirled—a clawlike hand shot out, wrenched the jar from Pug's grasp.

Pug scowled. "Aaa-a-ah, you don't have to get so uppity—I wasn't going to hurt your jug!"

Amusement flickered briefly across Martin's face. *Watch,* he thought at them. He pointed the mouth of the jar toward the floor and carefully squeezed. There was a blinding flash as a beam darted out—and when the beam vanished, a small round pit in the floor remained.

"Whew!" Pug breathed. "If I had one of those jars, I could lick a whole army, I bet!"

For the first time, Martin smiled.

Suddenly Pug remembered. "The other sleepers!"

Martin's gesture swept the room.

"You mean," said Pug unbelievingly, "there are that many."

In answer, Martin selected a large cone striped like a peppermint stick. He touched a finger to the cone's base. Out of the point, rays came. The rays bit into one of the shining walls and ate deep. A slice of the wall melted, and through the opening they could see shelves of sleeping Martians like embryos in laboratory bottles.

Otto was leaping up and down with excitement. "Oboyoboy! Wait'll I tell the other kids about this!"

Martin seemed interested. *Other beings...like you...how many came?*

"Eighteen fellas and girls—not counting Miss Wipple, that is."

Miss Wipple?

"She's our teacher," Pug explained.

For a moment, it was as though a finger had been touched lightly to Pug's brain. The invisible finger probed gently, then withdrew. Somehow, Pug had a feeling that Martin knew all about Miss Wipple now.

Again, Martin attempted a withered smile. He succeeded in looking like a death's head.

Gifts I have...for you...not for ...Miss Wipple...bring the others ...here.

Pug's eyes bulged. "You mean *all* the kids?"

Bring...all...of them.

"You betcha, Marty! We'll bring 'em! You just wait right here!"

● EIGHTEEN KIDS, DIGGING in the sand, glanced up. Two clouds of dust were rolling down the valley. As the clouds drew nearer, they developed voices.

"Hey, you guys!"

"And the girls too!"

"C'mere and listen!"

"Aaa-a-ah, Pug's got a bee in his pants again," somebody snickered. But just the same, the diggers dropped their sticks and legged over to see what all the shouting was about. Soon a ring of questioning faces surrounded Otto and Pug.

"We found a Martin!" Pug panted.

"You're nuts!" hooted the ring.

"Honest! Cross my heart and hope to die we did! He took us down underneath the city and showed us lit-

tle jars that can blow the wbole world apart! If you think I'm fibbing come on and see for yourselves!"

Skepticism was slipping from the circle of faces. Pug's story sounded good. They really wanted to helieve it.

"Well-l-l—Miss Wipple said we aren't supposed to leave the valley."

"Ah, we'll be back in ten minutes; she won't even miss us."

"And the Martin said he had presents for everybody," Otto chimed in.

That clinched it.

"Let's go!" someone shouted.

"Well let's go, then," said a fat girl, "but if there isn't any Martin, we'll toss you in the canal, Pug Stevens."

"There's a Martin, all right," promished Pug.

• ALONG THE CORRIDOR, twenty excited children shoved and jostled. Boys sbouted to make stone blocks crasb down and scare the girls. Tbe girls giggled nervously. And somebody struck up the age-old chant—

No more pencils, no more books!
No more teacher's ugly looks!

One girl started sobbing—she was scared, she wanted to go home—but they slapped her until she just whimpered and didn't cry out loud any more.

"Jeez, what kind of presents are we going to get?"

"Atom guns!"

"Time travel macbines!"

"Gold and—and *diamunts!*"

"No," said Otto with an air of superiority, "it'll be hetter than that. You'll see."

And then the flashligbt cast a yellow moon on the doors where geometric snakes coiled. Something ahout the doors made all the talking and laughter stop. Pug stumbled forward, his fingers groping for the stud. Even before he found it, the doors yawned wide—and the children clumped into tbe room, rubbing the light from their eyes.

A semicircle of "Martins" stood watching.

The children halted. They stared. They wanted to turn, wanted to run, wanted to be a thousand miles away, hut none would sbow the otbers he was afraid. It just couldn't be. Tbe whole thing was a scare movie, the kind you see for a quarter, all just mɪke-believe. Soon tbe projector would grind to a stop, the Martins would go away. Yet there stood the Martins, twenty of them, their wbite no-pupil eyes glinting beneath strange helmets of steel.

The homesick girl stifled a scream. Behind the children, doors humped shut.

Inside his chest, Pug's heart was drumming so hard he tbought it would burst through. Tbe otber kids were nudging him forward. He forced himself to put on a hrave front. "We—we brought the others," he quavered, "like we said we would!"

His words sounded small and ten-year-old in the bright ancient room.

The girls huddled together nervously, and their dresses made a rustling, uneasy sound. The boys shuffled their feet uncertainly and glanced about with wonder in their eyes.

Then Martin drifted slowly forward, and a thought leaped into the children's minds: *Gifts...I promised ...for you.*

Msrtin removed his metal belmet and extended it to Pug.

Pug hesitated. He felt all tense and scared deep down inside. It wasn't the kind of fear tbat comes from knowing something is about to happen; it was an unreasoning fear that came instinctively, warning him, hɛ didn't know why.

Pug took the helmet as gingerly as if it were fire, but ss be held it he couldn't help admiring it. It looked almost like a foothall helmet, only witb wires running all around and two little antennas that wobbled on top. It fit Pug loosely, but bis ears propped it up.

And now the other "Martins" were gliding forward, offering a metal headpiece to each child. The children accepted the gifts, timidly at first, tben eagerly when they saw the other kids wearing them.

• AND THEN ALL OF A sudden Pug had a funny feeling. He tried to move his arms, tried to take a step, but he couldn't. It was as if his body had turned to stone. A bubbling scream welled out of Pug's throat. The helmet started to vibrate, it droned, it seemed to tighten about his skull. His gaze grew blurry, as though he were seeing everything through waves of heat. The other kids were tearing at their helmets, their fingers clawing helplessly against the steel. And Pug heard Otto's wail of terror—*"I can't get it off—it won't let go!"*—then Pug's senses were gone, like lights switched out. A river of shadow was spilling into his brain, drowning every part of him that was awake. It was dark, so dark, and the river flowed faster and faster until he felt himself going down before the force of the torrent; then the waters closed above him with a rush and all was dark.

The droning stopped.

The Martians lay tumbled about the room like old rag dolls, carelessly dropped and forgotten.

Cords vibrated in Pug's throat. Words came with difficulty, as if Pug's voice were a tool that its user hadn't mastered yet.

"We...no longer shall need... these things."

Children's footsteps padded softly. Children's arms worked slowly, picking up the Martian bodies like so much cordwood, stacking them, building a pyre. When the last body had been carefully laid in place, the children stood there waiting.

Otto's fingers gripped a jar.

"Now?" asked Otto's voice.

"Now," Pug's voice said.

A pencil-thin beam came out of the jar and scribbled across the heaped-up bodies. Then it winked out.

Dust motes settled to the floor, spiraling a long slow time as they fell.

• MISS WIPPLE WAS NOW positively boiling. When the last child had clambered up the ladder into the ship, her jaw began to function.

"For heaven's sake, where have you poeple been! Just look at the

---

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time! It's quarter to five! If you can't learn to be grown-ups and accept responsibility, we just aren't going to take any more rocket trips —not ever any more!"

Children's feet shuffled guiltily.

Children's eyes studied the floor.

"Very sorry...are we...Miss Wipple," Pug's voice said.

"Peter Stevens! Is that any way to put your sentences together? And after all I've talked about the subject at the predicate! You've been playing in the city, that's where you've been. I think we'd better have stay-after-school all the rest of this week—"

Suddenly Miss Wbipple stopped short. She stared. Tbe children were carrying strange-looking objects. Cones, blue globes, pyramids. Speckled vases with curious handles. Little green jars with coils wrapped around them. Shiny gray cylinders studded with knobs.

"Wh-where did you get tbese things?"

"In the sand," Pug's voice said. "We wanted...something...to take home."

Miss Wipple snatched up a vase of translucent amber, turned it over and over, with bulging eyes. How ancient it looked! How exquisitely made! "Good Lord," she murmured incredulously. "early Martian pottery!"

Oh, there was no doubt about it—the children had stumbled on a really important find! Tbe archeologists back on Earth were sure to be interested. Maybe the papers would print a big story all about it, complete with Miss Wipple's picture—

"Well, Peter, what did I tell you?" she beamed as the rocket leaped into space. "Didn't I say you'd dig up something to take back home? What beautiful things—why, I can't get over it! Won't your parents be surprised!"

Pug smiled.

"Oh, yes...Miss Wipple," Pug's voice purred ever so softly. "They will be...surprised."

Eartb was one small glitter in the diamond field of stars.

●

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The ship was completely wrecked, and ready to explode.

the Altruist

by Morton Klass

If altruism can be considered as a basis of intelligence, then . . .

JUDD HORTH came up out of unconsciousness slowly. For a long while he seemed to be floating gently in a black sea dotted here and there with yellow sparks. It wasn't at all unpleasant, until the painful throbbing of his left leg intruded itself on his mind. He could have ignored it, though, if it hadn't been for the soft, whining sounds, and the wet thing which kept touching his cheek insistently.

Wearily, he opened one eye and saw that the Atwoods' dog was standing near his head, licking Judd's face and whimpering. With a muffled curse, Judd slapped the dog across the spaceship's deck over to one of the crumpled hulkheads.

The movement brought the ache in his leg into sharp focus, and he really came awake. He noticed the two smashed bodies lying silently in one corner. He tried to struggle upright and the pain in his leg brought tears to his eyes.

"Marooned!" he ground out between clenched teeth. "Marooned, on an uncharted planet! With a broken leg in the bargain, and no company but a damned mutt!"

The dog, brown and mostly Collie, perked its ears at the sound of Judd Horth's voice and wagged its tail tentatively.

Judd cursed it again, then forgot about it as he remembered that the spaceship had been a rickety affair at best; after the smashing it had received, it might be expected to blow its atomic pile drive at any moment.

"Got to get out of here, fast!" Judd groaned, as he tried to drag himself across the sloping deck to a gap in the huckled hull. "The ship's split wide open. Must be a decent atmosphere out there, or I'd be dead by now."

He fell back to the deck when he'd covered about half the distance to the hull, gasping from the exertion and the pain.

"Never be able to make it. Must be close to two gravities," he muttered, looking about him wildly. He saw the dog again; it was following him at a safe distance.

He snapped his fingers at it. "C'mere, mutt! I'm not gonna hurt ya. Nice doggie! Damn you, come here!" His voice rose in desperation as he strove to soften its tones.

The dog inched over to him, hindquarters dropping and tail wagging furiously.

When it was close enough, Horth reached out an arm and drew the animal close to him. The dog stiffened in alarm and Judd patted it awkwardly to reassure it.

After a moment, Horth turned the dog so that it was facing the opening in the hull. Placing one arm over the dog's back and around under its throat, he pushed at the deck plates with his other hand and his good leg.

"Okay, mutt; let's get out of here. Pull! *Pull*, I say!"

It took a few seconds, but the dog got the idea. Its shoulder muscles bunched, strained against the man's arm. The two moved slowly toward the opening.

The blue moss of the planet's surface was only about a foot below the rip in the hull, but even that was almost too much for Horth. His broken leg came down painfully and he felt his consciousness slipping away.

Through the gathering haze, he kept his arm tightly around the dog and whispered fiercely, "Gotta keep going...away from the ship...explosion...don't stop, mutt..."

Feeling the arm still tight about his body, the dog kept pulling, heading—fortunately for Horth—toward a clump of rubbery trees about twenty yards from the wrecked ship.

By the time they arrived at the trees, Horth was practically out cold. He had just enough strength to struggle behind one of the larger trees and collapse face down into the blue moss. As from a great distance, he heard the sound of the ship exploding; then, even more dimly, there was the shriek of lumps of metal hurtling by overhead. The black sea lapped at his mind, encompassed it...

• WHEN HORTH awoke, the planet's fiery red sun had moved closer to the horizon. He had no idea of the length of the planet's day, or of how long he had been asleep, but he found himself extremely hungry. The pain in his leg had abated slightly.

Horth rolled over, groaning. He sat up, propping his back against the tree trunk. He opened the pouch at his side, the one he had taken from Atwood when the man had discovered Horth hiding on his ship. After a moment of fruitless rummaging, his hand touched something that brought a sigh of relief to his lips.

A food-concentrate container! If it were full, there'd be enough food in it to keep him alive for at least a week—maybe longer.

He brought it out of the pouch and opened it with trembling hands. It was full!

Greedily, he pulled out three of the crisp pellets and put them in his mouth. The dog, which had been lying quietly a short distance from Horth, got to his feet at the sound of mastication and came frisking through the blue moss to the man's side.

Horth sent him sprawling with a well-placed blow. Flakes of pellet dripped from Horth's mouth as he shouted after the retreating, whimpering dog, "Get away from me! Ain't got half enough for m'self! Get your own food. Damned mutt!"

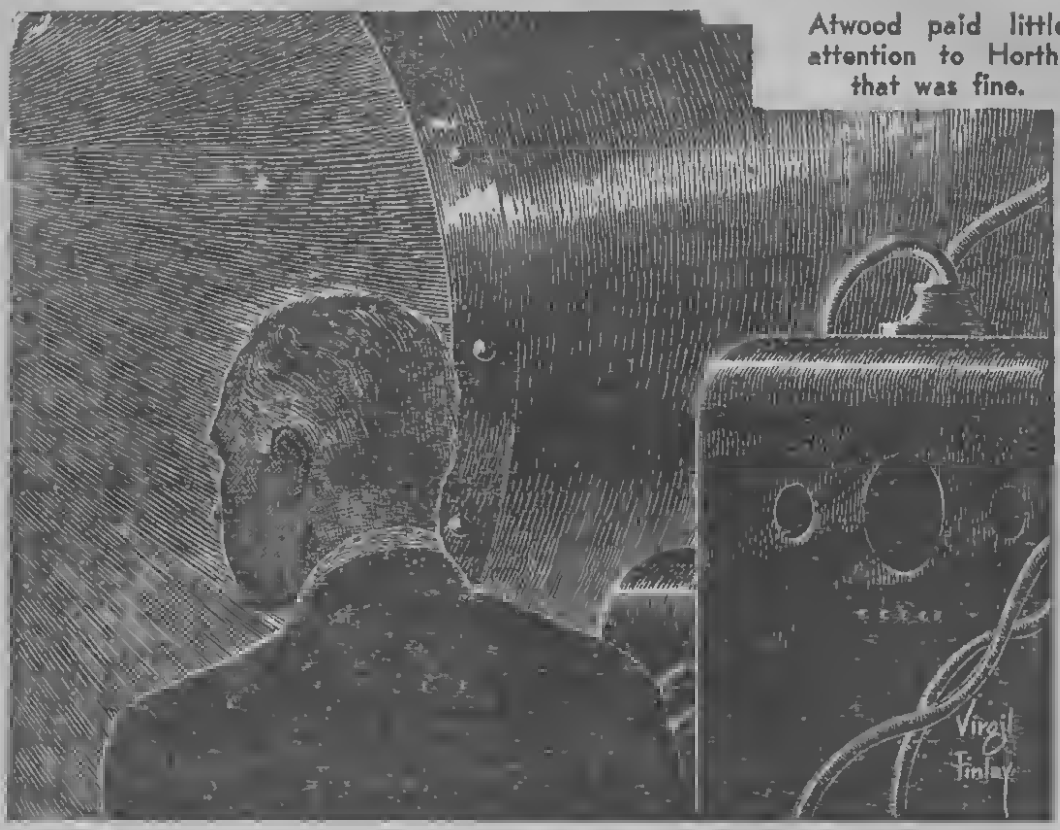
His gaze followed the dog as it slunk out of sight behind the trees. As he looked away from the spot where the dog had disappeared, he noticed the three orange ovals shimmering over the tree-tops. He stopped chewing and his jaw dropped; the ovals were translucent and hard to make out in the deepening twilight, but they were definitely there. Horth found their utter stillness menacing.

He dropped his hand to his side, felt for his knife. It was still there. His blaster had been left, forgotten, on the ship.

The orange ovals had not moved. Horth shrugged and began chewing again. *The hell with 'em*, he thought. *If they'd been dangerous, they'd have tackled me while I was unconscious.* He decided to forget about them.

He glanced around the side of his tree-trunk support. The spaceship was a heap of glowing embers in the center of the clearing. Horth grinned and turned back to the container of food. He decided against eating another pellet.

Things weren't too bad, he thought. In fact, with any luck at all they might break just right for him. Once the spaceship had gotten out of control, the automatic distress signal must have gone on. It would have continued till the pile blew. By now, a patrol ship was probably on its way to investigate the call. A week at the outside, he decided, even for such an out-of-the-way sun. They'd



Atwood paid little attention to Horth; that was fine.

detect the radioactive ruin and rescue him.

Horth grinned. When they found him, he'd tell them he was Atwood, James Atwood, colonist bound for Deneh II with his wife. There'd been a stowaway, a fight...then the crash. Horth would say he just managed to get out in time; his wife and the stowaway had heen killed in the explosion.

He'd pretend to he slightly delirious; it would avoid too much questioning. If he watcbed his cbance, he might get control of the patrol ship. Tbey wouldn't he expecting anything. Why sbould they be? Everything would seem normal enough. And even if be couldn't seize the ship, once they reached an inhabited planet, he'd be able to make a break for it. There would be equipment on tbe patrol sbip that would heal his leg in a matter of hours. It was highly improbable that news of his prison break had reached this neck of the woods in so short a time.

Horth relaxed against the trunk; he was set.

He was lucky be'd thought of changing clothes with Atwood when he'd come out of hiding. He went through the pockets of his jumper quickly and inspected tbe contents of the pouch. Lots of junk, but nothing that would i n d i c a t e he wasn't Atwood.

Damn that Atwood, anyway; it was his fault. Hortb hadn't intended to hurt his wife—not much, at any rate. Horth cbuckled at the memory of her white, frightened face. Just because he'd put his hand on her, that damn fool Atwood had tried to jump him. Then, when Horth had blasted him, Mrs. Atwood had run screaming to the controls, yelling she was going to drive the ship into tbe nearest sun. Horth could bave burned her down hefore she'd had a chance to do any damage, hut that mangy cur bad gotten hetween his legs, upsetting him. By tbe time he'd killed Mrs. Atwood, it was too late to do anything except veer slightly from the sun. Which meant gettlng sucked down hy tbls planet. Horth hadn't had much choice.

• IT WAS GETTING dark rapidly now. Horth hoped the nights wouldn't be too long or too cold. If they weren't, his only other problem would be water, and he had been aware for some time of the sound of a running stream not too far to one side of him.

He decided to wait until the dog got back before drinking. If the dog drank from the stream, it would be safe for Horth to drink.

Horth noted, nervously, that the orange ovals were still floating in the same place he had last seen them. He shivered, then jumped, as something moved beside him. The dog had returned.

The sudden movement of his body had started his leg throbbing again. Horth cursed, raised his arm to strike the dog, then stopped. The dog had something in its mouth. It moved in front of Horth, dropped a six-legged, furry little animal at Horth's feet, and stepped back. Tail wagging, the dog waited for approval.

Judd Horth ignored the dog and gingerly picked up the dead animal. He examined it. Something between an Earth rabbit and a Sirius IV *Shmirt*, he decided.

This wasn't so good, he thought; if there were small animals here, there might be large, dangerous ones, too. Again he wished he hadn't left the blaster behind.

On the other hand, nothing had made itself known, as yet, except for the thing the dog had caught. And the dog didn't behave as if there was anything around to be afraid of. He even ignored the orange ovals.

Besides, in the few moments he had had before the ship crashed, Horth had scanned the surface of the planet looking for signs of life. He had seen nothing but blue moss prairies and small clumps of rubbery trees; nothing else. He'd have to go on that.

The dog sniffed, and turned in the direction of the stream. Horth dragged himself slowly across the ground after it. By the time he arrived, the dog was busily lapping the water. Horth watched for a moment, then cupped his hands and began drinking himself. The dumb animal certainly had its uses.

When he had satisfied his thirst, Horth sat up, wiping his mouth with the back of his hand, and gazed around him. It was becoming quite dark.

He had dragged the six-legged animal along with him. The thing to do now was to build a fire; he should have thought of it while it was still light. A fire would not only cook the animal the dog had brought him, but it would help to keep him warm if the night grew cold. Besides, on the off chance that there *were* predatory beasts around, a fire would serve to keep them away.

Horth crawled about, collecting fallen twigs and branches from the rubbery trees. The wood—if it was wood—had a strange texture, and Horth hoped it would burn. The dog followed him for a few moments, watching his actions, then darted away to a spot behind some trees. He came back hauling the end of a medium-sized branch in his teeth.

Horth piled the wood in one place, breaking the longer branches into suitable lengths. He rummaged in the pouch and came up with a lighter and a folded piece of paper that bore an official stamp and a heading that began, *Colonization Permit, Deneb II, North Continent*....

The rubbery wood took a minute or two to catch fire, and then it burned with an eerie, green flame, but—it burned. Horth drew his knife and skinned and cleaned the animal. He was surprised at the amount of meat it contained. A bit of whittling, and one of the thinner twigs became a servicable spit. Two upright forked twigs on either side of the fire completed the job, and the meat was soon sizzling.

The dog squatted to one side of the fire and watched Horth's operations with interest. When the meat was done, Horth debated whether or not to give the dog a share. He decided to do it; that way, the dog would continue to bring him fresh meat. And if the patrol ship were delayed, it would be a good idea to have the dog friendly. If Horth got

hungry, he could always kill and eat the dog.

Horth cut off a section of the meat and threw it to the dog. The rest, he cut into sections with his knife, and began to wolf down, his mouth watering at the flavor.

So intent was Horth with his meal that he did not see the three orange ovals move from their position overhead, and swoop down on the feeding pair.

• WHEN JUDD HORTH came awake this time, he found it impossible to tell where he was. He seemed to be lying on his back on something hard. Oddly, his leg had completely stopped paining, but he was unable to move, to turn over. He felt nothing restraining him, but his body appeared to be completely paralyzed. All about him was a thick, grey fog, through which he could make out nothing, and overhead—Horth's heart contracted in fear; the orange ovals were floating close over his head!

There were four of them now, and Horth could see that they were almost four feet down their long axis.

A heavy, pounding thought smashed into his brain. ...*We have followed your instructions...both protoplasmic creatures have been studied...we have brought them here for disposal*...

The thoughta ripped at the fabric of Horth's mind, yet he was able to comprehend only parts of them.

A different-timbred thought sounded....*What are your conclusions*...

The other..."voice"... *Hard to tell...both extremely primitive... confused mental emanations...doubtful that both are intelligent...the four-footed one shows definite signs of altruism....this one must be lower order, completely selfish...many incomprehensible factors*...

Horth tried to make a sound, but his throat choked with fear.

The second mind intoned deeply, ...*Sufficient...altruism indication of intelligence...preserve the intelligent one...his fellows will probably come to rescue him...dissect the beast*...

Horth had time for one bubbling shriek before his body twisted inside out.

•

AS I WAS SAYING...

before this series ends, we'll try to follow it up at once with others of equally relevant natnre—relevant to science fiction, I mean. If not, I'll wait until ths upstats rsturns are in, as they say.

Letters and preferencs coupons are still coming in on the first issue, so the ratings listed will not be exact, so far as point-scores go. (Do you want me to wait another three months befors reporting? If yon do, I'll comply.) But the trend has been set—I've found in the past that the late returns do not shift any of ths top place-ordere around. (And, you know, I still get a letter or conpon, now and then, on the first issue of *Future*—May-Juns 1950; we can't go on making alterations on the ratings indefinitely.)

For the next issue, we'll have a very fine novelst by C. H. Liddell, entitlsd "Ws Shall Come Back", dealing with tbs distant futurs, wben bumanity bas been driven underwater for refuge. George O. Smith will be with us in "The Black Alarm", a novelet equally concerned with character development and action. Wallace West bas one of the most chilling stories I've read in years, a short one called "The Belt"; it's based on one of the lesser-regarded scientific theories, but that is a privilege of science-fictionists: they don't have to stick to the current opinion in scientific matters where final "proof" isn't available. (Of course, no proof can be regarded as "final", but—well, it's pretty well established that the Earth *isn't* a flat plane supported by elephants.) I bope Larry Shaw, who seems to be on his way to making a name as an author, will bs with ns continuing the "Insecurity" series, but I don't know yet. However, I *do* know that Milt Lesser's deligbtful short, "Wild Talents, Inc." won't be crowded out again if it can possibly be included.

RWL.

Second Dawn

Complete Novelet Of Worlds Beyond

The aftermath of victory was terrible, but even worse was the realization that there must be more wars, unless the necessity could be removed...

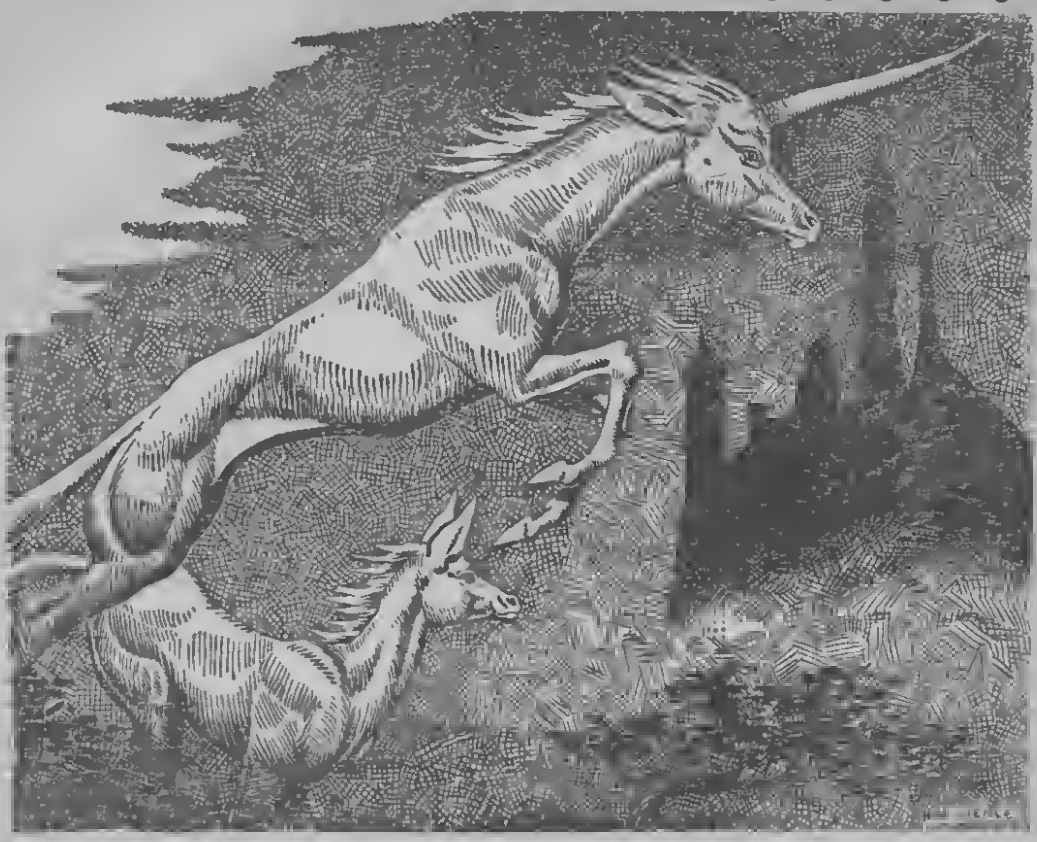
"HERE THEY come," said Eris, rising to his forefeet and turning to look down the long valley. For a moment tbe pain and bitterness had left his thoughts, so the even Jeryl, whose mind was more closely tuned to his than to any other, could scarcely detect it. There was even an undertone of softness that recalled poignantly the Eris sbe had known in the days before the War—the old Eris who now seemed almost as remote and as lost as if he were lying with all the others out there on the plain.

A dark tide was flowing up the valley, advancing with a curious hesitant motion, making odd pauses and little bounds forward. It was flanked with gold—the thin line of tbe Atheleni guards, so terrifyingly few compared with the black mass of the prisoners. But they were enough: indeed, they were only needed to guide that aimless river on its faltering way. Yet at the sight of so many thousands of the enemy, Jeryl found herself trembling; instinctively, she moved towards her mate. silver pelt resting against gold. Eris gave no sign that he had understood or even noticed the action.

The fear vanished as Jeryl saw how slowly the dark flood was moving forwards. Sbe bad been told what to expect, but the reality was even worse than she had imagined. As the prisoners came nearer, all the hate and bitterness ebbed from her mind, to be replaced by a sick compassion. No one of her race evermore need fear the aimless, idiot hoard that was being shepherded through the pass into the valley it would never leave again.

The guards were doing little more than urge the prisoners on with meaningless but encouraging cries, like nurses calling to infants too young to sense their thoughts. Strain as she might, Jeryl could detect no vestige of reason in any of those thousands of minds passing so near at hand. That brought home to her, more vividly than could anything else, the magnitude of the victory and of the defeat. Her mind was sensitive enough to detect the first faint thoughts of children, hovering on the verge of consciousness. The defeated enemy had become not even children, but babies with the bodies of adults.

The tide was passing within a few feet of them now. For the first time, Jeryl realized how much larger than her own people the Mithraneans were, and how beautifully the light of the twin suns gleamed on the dark satin of their bodies. Once a magnificent specimen, towering a full head above Eris, broke loose from the main body and came blundering towards them, halting a few paces away. Then it crouched down like a lost and frightened child, the splendid head moving uncertainly from side to side as if seeking it knew not what. For a moment the great, empty eyes fell full upon Jeryl's face. She was as beautiful, she knew, to the Mithran-



eans as to her own race—but there was no flicker of emotion on the blank features, and no pause in the aimless movement of the questing head. Then an exasperated guard drove the prisoner back to his fellows.

"Come away," Jeryl pleaded. "I don't want to see any more. Why did you ever bring me here?" The last thought was heavy with reproach.

Eris began to move away over the grassy slopes in great bounds that she could not hope to match, but as he went his mind threw its message back to hers. His thoughts were still gentle, though the pain beneath them was too deep to be concealed.

"I wanted everyone—even you—to see what we had to do to win the War. Then, perhaps, we will have no more in our lifetimes."

HE WAS waiting for her on the brow of the hill undistressed by the mad violence of his climb. The stream of prisoners was now too far below for them to see the details of its painful progress. Jeryl crouched down beside Eris and began to browse on the sparse vegetation that had been exiled from the fertile valley. She was slowly beginning to recover from the shock.

"But what will happen to them?" she asked presently, still haunted by the memory of that splendid, mindless giant going into a captivity it could never understand.

"They can be taught how to eat," said Eris. "There is food in the val-

By Arthur C. Clarke

ley for half a year, and then we'll move them on. It will be a heavy strain on our own resources, but we're under a moral obligation—and we've put it in the peace treaty."

"They can never be cured?"

"No. Their minds have been destroyed; they'll be like this until they die."

There was a long silence. Jeryl let her gaze wander across the hills, falling in gentle undulations to the edge of the ocean. She could just make out, beyond a gap in the hills, the distant line of blue that marked the sea—the mysterious, impassible sea. Its blue would soon be deepening into darkness, for the fierce white sun was setting; presently there would only be the red disc—hundreds of times larger but giving far less light—of its pale companion.

"I suppose we had to do it," Jeryl said at last. She was thinking almost to herself, but she let enough of her thoughts escape for Eris to overhear.

"You've seen them," he answered briefly. "They were bigger and stronger than we. Though we outnumbered them, it was stalemate: in the end, I think they would have won. By doing what we did, we saved thousands from death—or mutilation."

The bitterness came back into his thoughts, and Jeryl dared not look at him. He had screened the depths of his mind, but she knew that he was thinking of the shattered ivory stump upon his forehead. The War had been fought, except at the very end, with two weapons only—the razor-sharp hooves of the little, almost useless forepaws, and the splendid frontal horn that was the chief pride of every male. With this, Eris could never fight again, and from the loss stemmed much of the embittered harshness that sometimes made him hurt even those who loved him.

Eris was waiting for someone, though who it was Jeryl could not guess. She knew better than to interrupt his thoughts while he was in his present mood, and so remained silently beside him, her shadow merging with his as it stretched far along the hill-top.

Jeryl and Eris came of a race which, in Nature's lottery, had been luckier than most—and yet had missed one of the greatest prizes of all. They had powerful bodies and powerful minds, and they lived in a world which was both temperate and fertile. By human standards, they would have seemed strange, but by no means repulsive. Their sleek, fur-covered bodies tapered to a single giant rear-limb that could send them leaping over the ground in thirty-foot bounds. The two fore-limbs were much smaller, and served merely for support and steadying. They ended in pointed hooves that could be deadly in combat, but had no other useful purpose.

Both the Atheleni and their cousins, the Mithraneans, possessed mental powers that had enabled them to develop a very advanced mathematics and philosophy: but over the physical world they had no control at all. Houses, tools, clothes—indeed artifacts of any kind—were utterly unknown to them. To races which possessed hands, tentacles or other means of manipulation, their culture would have seemed incredibly limited: yet such is the adaptability of the mind, and the power of the commonplace, thst they seldom realised their handicaps and could imagine no other way of life. It was natural to wander in great herds over tbe fertile plains, pausing where food was plentiful and moving on again when it was exhausted. This nomadic life had given them enough leisure for philosophy and even for certain arts. Their telepathic powers had not yet robbed them of their voices and they had developed a complex vocal music and an even more complex choreography. But they took the greatest pride of all in the range of their thoughts: for thousands of generations they had sent their minds roving through the misty infinities of metaphysics. Of *physics*, and indeed of all the sciences of matter, they knew nothing—not even that they existed.

"Someone's coming," said Jeryl suddenly. "Who is it?"

Eris did not bother to look, but there was a sense of strain in his reply.

"It's Aretenon. I agreed to meet him here."

"I'm so glad. You were such good friends once—it upset me when you quarrelled."

Eris pawed fretfully at the turf, as he did when he was embarrassed or annoyed. "I lost my temper with him when he left me during the fifth battle of the Plain. Of course, I didn't know then why he had to go."

Jeryl's eyes widened in sudden amazement and understanding. "You mean—he had something to do with the Madness, and the way the War ended?"

"Yes. There were very few people who knew more about the mind than he did. I don't know what part he played, but it must have been an important one. I don't suppose he'll ever be able to tell us much about it."

STILL A considerable distance below them, Aretenon was zig-zagging up the hillside in great leaps. A little later he had reached them, and instinctively bent his head to touch horns with Eris in the universal gesture of greeting. Then he stopped, horribly embarrassed; there was an awkward pause until Jeryl came to the rescue with some conventional remarks.

When Eris spoke, Jeryl was relieved to sense his obvious pleasure at meeting his friend again, for the first time since their angry parting at the height of the War. It had been longer still since her last meeting with Aretenon, and she was surprised to see how much he had changed. He was considerably younger than Eris—but no one would have guessed it now. Some of his once-golden pelt was turning black with age, and with a flash of his old humour Eris remarked that soon no one would be able to tell him from a Mithranean.

Aretenon smiled. "That would have been useful in the last few weeks. I've just come through their country, helping to round up the Wanderers. We weren't very popular, as you might expect. If they'd known who I was, I don't suppose I'd have got back alive—armistice or no armistice."

"You weren't actually in charge of the Madness, were you?" asked Jeryl, unable to control her curiosity.

She had a momentary impression of thick, defensive mists forming around Aretenon's mind, shielding all his thoughts from the outer world. Then the reply came, curiously muffled, and with a sense of distance that was very rare in telepathic contact. "No: I wasn't in supreme charge. But there were only two others between myself and—the top."

"Of course," said Eris, rather petulantly, "I'm only an ordinary soldier and don't understand these things. But I'd like to know just how you did it. Naturally," he added, "neither Jeryl nor myself would talk to anyone else."

Again that veil seemed to descend over Aretenon's thoughts. Then it lifted, ever so slightly. "There's very little I'm allowed to tell. As you know, Eris, I was always interested in the mind and its workings. Do you remember the games we used to play, when I tried to uncover your thoughts, and you did your best to stop me? And how I sometimes made you carry out acts against your will?"

"I still think," said Eris, "that you couldn't have done that to a stranger, and that I was really unconsciously cooperating."

"That was true then—but it isn't any longer. The proof lies down there in the valley." He gestured towards the last stragglers who were being rounded up by the guards. The dark tide had almost passed, and soon the entrance to the valley would be closed.

"When I grew older," continued Aretenon, "I spent more and more of my time probing into the ways of the mind, and trying to discover why some of us can share our thoughts so easily, while others can

never do so but must remain always isolated and alone, forced to communicate by sounds or gestures. And I became fascinated by those rare minds that are completely deranged, so that those who possess them seem less than children.

"I had to abandon these studies when the War began. Then, as you know, they called for me one day during the fifth battle. Even now, I'm not quite sure who was responsible for that. I was taken to a place a long way from here, where I found a little group of thinkers many of whom I already knew.

"The plan was simple—and tremendous. From the dawn of our race we've known that two or three minds, linked together, could be used to control another mind *if it was willing,* in the way that I used to control you. We've employed this power for healing since ancient times. Now we planned to use it for destruction.

"There were two main difficulties. One was bound up with that curious limitation of our normal telepathic powers—the fact that, except in rare cases, we can only have contact over a distance *with someone we already know,* and can communicate with strangers only when we are actually in their presence.

"The second, and greater problem, was that the massed power of many minds would be needed, and never before had it been possible to link together more than two or three. How we succeeded is our main secret: like all such things, it seems easy now it has been done. And once we had started, it was simpler than we had expected. Two minds are more than twice as powerful as one, and three are much more than thrice as powerful as a single will. The exact mathematical relationship is an interesting one. You know how very rapidly the number of ways a group of objects may be arranged increases with the size of the group? Well, a similar relationship holds in this case.

"So in the end we had our Composite Mind. At first it was unstable, and we could only hold it together for a few seconds. It's still a tremendous strain on our mental resources, and even now we can only do it for—well, for long enough.

"All these experiments, of course, were carried out in great secrecy. If we could do this, so could the Mithraneans, for their minds are as good as ours. We had a number of their prisoners, and we used them as subjects."

• FOR A MOMENT the veil that hid Aretenon's inner thoughts seemed to tremble and dissolve, then he regained control. "That was the worst part. It was bad enough to send madness into a far land, but it was infinitely worse when you could watch with your own eyes the effects of what you did.

"When we had perfected our technique, we made the first long-distance test. Our victim was someone so well-known to one of our prisoners—whose mind we had taken over—that we could identify him completely and thus the distance between us was no objection. The experiment worked, but of course no one suspected that we were responsible.

"We did not operate again until we were certain that our attack would be so overwhelming that it would end the War. From the minds of our prisoners we had identified about a score of Mithraneans—their friends and kindred—in such detail that we could pick them out and destroy them. As each mind fell beneath our attack, it gave up to us the knowledge of others, and so our power increased. We could have done far more damage than we did, for we took only the males."

"Was that," said Jeryl bitterly, "so very merciful?"

"Perhaps not: but it should be remembered to our credit. We stopped as soon as the enemy sued for peace; and, as we alone knew what had happened, we went into their country to undo what damage we could. It was little enough."

There was a long silence. The valley was deserted now, and the white sun had set. A cold wind was blowing over the hills, passing, where none

could follow it, out across the empty and untravelled sea. Then Eris spoke, his thoughts almost whispering in Aretenon's mind. "You did not come to tell me this, did you? There is something more." It was a statement rather than a query.

"Yes," replied Aretenon. "I have a message for you—one that will surprise you a good deal. It's from Therodimus."

"Therodimus! I thought—"

"You thought he was dead or worse still, a traitor. He's neither, although he's lived in enemy territory for the last twenty years. The Mithraneans treated him as we did, and gave him everything he needed. They recognized his mind for what it was, and even during the War no one touched him. Now he wants to see you again."

WHATEVER emotions Eris was feeling at this news of his old teacher, he gave no sign of them. Perhaps he was recalling his youth, remembering now that Therodimus had played a greater part in the shaping of his mind than any other single influence. But his thoughts were barred to Aretenon and even to Jeryl.

"What's he been doing all this time?" Eris asked at length. "And why does he want to see me now?"

"It's a long and complicated story," said Aretenon, "but Therodimus has made a discovery quite as remarkable as ours, and one that may have even greater consequences."

"Discovery? What sort of discovery?"

Aretenon paused, looking thoughtfully along the valley. The guards were returning, leaving behind only the few who would be needed to deal with any wandering prisoners.

"You know as much of our history as I do, Eris," he began. "It took, we believe, something like a million generations for us to reach our present level of development—and that's a tremendous length of time! Almost all the progress we've made has been due to our telepathic powers: without them we'd be little different from all those other animals that show such puzzling resemblances to us. We're very proud of our philosophy and our mathematics, of our music and dancing—but have you ever thought, Eris, that there might be other lines of cultural development which we've never even dreamed of? *That there might be other forces in the Universe besides mental ones?*"

"I don't know what you mean," said Eris flatly.

"It's hard to explain, and I won't try—except to say this. Do you realise just how pitiably feeble is our control over the external world, and how useless these limbs of ours really are? No—you can't, for you won't have seen what I have. But perhaps this will make you understand."

The pattern of Aretenon's thoughts modulated suddenly into a minor key. "I remember once coming upon a bank of beautiful and curiously complicated flowers. I wanted to see what they were like inside, so I tried to open one, steadying it between my hooves and picking it apart with my teeth. I tried again and again—and failed. In the end, half mad with rage, I trampled all those flowers into the dirt."

Jeryl could detect the perplexity in Eris' mind, but she could see that he was interested and curious to know more.

"I have had that sort of feeling, too," he admitted. "But what can one do about it? And after all, is it really important? There are a good many things in this universe which are not exactly as we should like them."

Aretenon smiled. "That's true enough. But Therodimus has found how to do something about it. Will you come and see him?"

"It must be a long journey."

"About twenty days from here, and we have to go across a river."

Jeryl felt Eris give a little shudder. The Atheleni hated water, for the excellent and sufficient reason that they were too heavily-boned to swim, and promptly drowned if they fell into it.

"It's in enemy territory: they won't like me."

"They respect you, and it might be a good idea for you to go—a friendly gesture, as it were."

"But I'm wanted here."

"You can take my word that nothing you do here is as important as the message Therodimus has for you—and for the whole world."

Eris veiled his thoughts for a moment, then uncovered them briefly.

"I'll think about it," he said.

2

IT WAS surprising how little Aretenon managed to say on the many days of the journey. From time to time Eris would challenge the defences of his mind with half-playful thrusts, but always they were parried with an effortless skill. About the ultimate weapon that had ended the War he would say nothing, but Eris knew that those who had wielded it had not yet disbanded and were still at their secret hiding place. Yet, though he would not talk about the past, Aretenon often spoke of the future, with the urgent anxiety of one who had helped shape it and was not sure if he had acted aright. Like many others of his race, he was haunted by what he had done; the sense of guilt sometimes overwhelmed him. Often he made remarks which puzzled Eris at the time, but which he was to remember more and more vividly in the years ahead.

"We've come to a turning-point in our history, Eris. The powers we've uncovered will soon be shared by the Mithraneans, and another war will mean destruction for us both. All my life I've worked to increase our knowledge of the mind; but now I wonder if I've brought something into the world that is too powerful, and too dangerous, for us to handle. Yet—it's too late, now, to retrace our footsteps: sooner or later our culture was bound to come to this point, and to discover what we have found.

"It's a terrible dilemma; and there's only one solution. We cannot go back, and if we go forward we may meet disaster. So we must change the very nature of our civilisation, and break completely with the million generations behind us. You can't imagine how that could be done: nor could I, until I met Therodimus and he told me of his dream.

"The mind is a wonderful thing, Eris—but by itself it is helpless in the universe of matter. We know now how to multiply the power of our brains by an enormous factor: we can solve, perhaps, the great problems of mathematics that have baffled us for ages. But neither our unaided minds, nor the group-mind we've now created, can alter in the slightest the one fact that all through history has brought us and the Mithraneans into conflict—the fact that the food supply is fixed and our populations are not."

Jeryl would watch them, taking little part in their thoughts, as they argued these matters. Most of their discussions took place while they were browsing, for like all active ruminants they had to spend a considerable part of each day searching for food. Fortunately, the land through which they were passing was extremely fertile—indeed, its fertility had been one of the causes of the War. Eris, Jeryl was glad to see, was becoming something of his old self again. The feeling of frustrated bitterness that had filled his mind for so many months had not lifted, but it was no longer as all-pervading as it had been.

THEY LEFT the open plain on the twenty-second day of their journey. For a long time they had been travelling through Mithranean territory, but those few of their ex-enemies they had seen had been inquisitive rather than hostile. Now the grasslands were coming to an end, and the forest with all its primeval terrors lay ahead.

"Only one carnivore lives in this region," Aretenon reassured them, "and it's no match for the three of

us. We'll be past the trees in a day and a night."

"A night—in the forest!" gasped Jeryl, half petrified with terror at the very thought.

Aretenon was obviously a little ashamed of himself. "I didn't like to mention it before," he apologised, "but there's really no danger. I've done it by myself, several times. After all, none of the great flesh-eaters of ancient times still exists—and it won't be really dark, even in the woods. The red sun will still be up."

Jeryl was still trembling slightly. She came of a race which, for thousands of generations, had lived on the high hills and the open plains, relying on speed to escape from danger. The thought of going among trees—and in the dim red twilight while the primary sun was down—filled her with panic. And of the three of them, only Aretenon possessed a horn with which to fight. (It was nothing like so long or sharp, thought Jeryl, as Eris' had been.)

She was still not at all happy, even when they had spent a completely uneventful day moving through the woods. The only animals they saw were tiny, long-tailed creatures that ran up and down the tree trunks with amazing speed, gibbering with anger as the intruders passed. It was entertaining to watch them, but Jeryl did not think that the forest would be quite so amusing in the night.

Her fears were well founded. When the fierce white sun passed below the trees, and the crimson shadows of the red giant lay everywhere, a change seemed to come over the world. A sudden silence swept across the forest—a silence abruptly broken by a very distant wail towards which the three of them turned instinctively, ancestral warnings shrieking in their minds.

"What was that?" gasped Jeryl.

Aretenon was breathing swiftly, but his reply was calm enough. "Never mind," he said. "It was a long way off. I don't know what it was."

And Jeryl knew that he was lying.

They took turns to keep guard, and the long night wore slowly away. From time to time Jeryl would awaken from troubled dreams into the nightmare reality of the strange, distorted trees gathered threateningly around her. Once, when she was on guard, she heard the sound of a heavy body moving through the woods very far away—but it came no nearer and she did not disturb the others. So at last the longed-for brillance of the white sun began to flood the sky, and the day had come again.

Aretenon, Jeryl thought, was probably more relieved than he pretended to be. He was almost boyish as he frisked around in the morning sunlight, snatching an occasional mouthful of foliage from an overhanging branch.

"We've only half a day to go now," he said cheerfully. "We'll be out of the forest by noon."

There was a mischievous undertone to his thoughts that puzzled Jeryl. It seemed as if Aretenon was keeping still another secret from them, and Jeryl wondered what further obstacles they would have to overcome. By midday she knew, for their way was barred by a great river flowing slowly past them as if in no haste to meet the sea.

Eris looked at it with some annoyance, measuring it with a practised eye. "It's much too deep to ford here. We'll have to go a long way upstream before we can cross."

Aretenon smiled. "On the contrary," he said cheerfully, "we're going *downstream*."

Eris and Jeryl looked at him in amazement.

"Are you mad?" Eris cried.

"You'll soon see. We've not far to go now—you've come all this way, so you might as well trust me for the rest of the journey."

THE RIVER slowly widened and deepened. If it had been impassable before, it was doubly so now. Sometimes, Eris knew, one came upon a stream across which a tree had fallen, so that one could

walk over on the trunk—though it was a risky thing to do. But this river was the width of many trees, and was growing no narrower.

"We're nearly there," said Aretenon at last. "I recognize the place. Someone should be coming out of those woods at any moment." He gestured with his horn to the trees on the far side of the river, and almost as he did so three figures came bounding out on to the bank. Two of them, Jeryl saw, were Atheleni: the third was a Mithranean.

They were now nearing a great tree, standing by the water's edge, but Jeryl had paid it little attention: she was too interested in the figures on the distant bank, wondering what they were going to do next. So when Eris' amazement exploded like a thunderclap in the depths of her own mind, she was too confused for a moment to realise its cause. Then she turned towards the tree, and saw what Eris had seen.

To some minds and some races, few things could have been more natural or more commonplace than a thick rope tied round a tree trunk, and floating out across the waters of a river to another tree on the far bank. Yet it filled both Jeryl and Eris with the terror of the unknown, and for one awful moment Jeryl thought that a gigantic snake was emerging from the water. Then she saw that it was not alive, but her fear remained. For it was the first artificial object that she had ever seen.

"Don't worry about *what* it is, or how it was put there," counselled Aretenon. "It's going to carry you across, and that's all that matters for the moment. Look—there's someone coming over now!"

One of the figures on the far bank had lowered itself into the water, and was working its way with its forelimbs along the rope. As it came nearer—it was the Mithranean, and a female—Jeryl saw that it was carrying a second and much smaller rope looped round the upper part of its body.

With the skill of long practice, the stranger made her way across the floating cable, and emerged dripping from the river. She seemed to know Aretenon, but Jeryl could not intercept their thoughts.

"I can go across without any help," said Aretenon, "but I'll show you the easy way."

He slipped the loop over his shoulders, and, dropping into the water, hooked his fore-limbs over the fixed cable. A moment later he was being dragged across at a great speed by the two others on the far bank, where, after much trepidation, Eris and Jeryl presently joined him.

It was not the sort of bridge one would expect from a race which could quite easily have dealt with the mathematics of a reinforced concrete arch—if the possibility of such an object had ever occurred to it. But it served its purpose, and once it had been made, they could use it rapidly enough.

Once it had been made. But—who had made it?

• WHEN their dripping guides had rejoined them, Aretenon gave his friends a warning. "I'm afraid you're going to have a good many shocks while you're here. You'll see some very strange sights, but when you understand them, they'll cease to puzzle you in the slightest. In fact, you will soon come to take them for granted."

One of the strangers, whose thoughts neither Eris nor Jeryl could intercept, was giving him a message.

"Therodimus is waiting for us," said Aretenon. "He's very anxious to see you."

"I've been trying to contact him," complained Eris, "but I've not succeeded."

Aretenon seemed a little troubled. "You'll find he's changed," he said. "And after all, you've not seen each other for many years. It may be some time before you can make full contact again."

Their road was a winding one through the forest, and from time to time curiously narrow paths branched off in various directions.

Therodimus, thought Erls, must have changed indeed for him to have taken up permanent residence among trees. Presently the track opened out into a large, semi-circular clearing with a low white cliff lying along its diameter. At the foot of the cliff were several dark holes of varying sizes—obviously the openings of caves.

It was the first time that either Eris or Jeryl had ever entered a cave, and they did not greatly look forward to the experience. They were relieved when Aretenon told them to wait just outside the opening, and went on alone towards the puzzling yellow light that glowed in the depths. A moment later, dim memories began to pulse in Eris' mind, and he knew that his old teacher was coming, even though he could no longer fully share his thoughts.

Something stirred in the gloom, and then Therodimus came out into the sunlight. At the sight of him, Jeryl screamed once and buried her head in Eris' mane, hut Eris stood firm, though he was trembling as he had never done before battle. For Therodimus blazed with a magnificence that none of his race had ever known since history began. Around his neck hung a band of glittering ohjects that caught and refracted the sunlight in a myriad colours, while covering his body was a sheet of some thick, many-hued material that rustled softly as he walked. And his horn was no longer the yellow of ivory: some magic had changed it to the most wonderful purple that Jeryl had ever seen.

Therodimus stood motionless for a moment, savouring their amazement to the full. Then his rich laugh echoed in their minds, and he reared up upon his hind limb. The coloured garment fell whispering to the ground, and at a toss of his head the glittering necklace arced like a rainbow into a corner of the cave. But the purple horn remained unchanged.

It seemed to Eris that he stood at the hrink of a great chasm, with Therodimus heckoning to him on the far side. Their thoughts struggled to form a bridge, but could make no contact. Between them was the gulf of half a llfetime and many battles, of a myriad unshared experiences—Therodimus' years in this strange land, his own mating with Jeryl and the memory of their lost chlldren. Though they stood face to face, a few feet only between them, their thoughts could never meet again.

Then Aretenon, with all the power and authority of his unsurpassed skill, did something to his mlnd that Eris was never quite ahle to recall. He only knew that the years seemed to have rolled back, that he was once more the eager, anxious pupil—and that he could speak to Therodimus again.

3

IT WAS strange to sleep underground, hut less unpleasant than spending the night amid the unknown terrors of the forest. As she watched the crimson shadows deepening beyond the entrance of the little cave, Jeryl tried to collect her scattered thoughts. She had understood only a small part of what had passed between Eris and Therodimus, hut she knew that something incredible was taking place. The evidence of her eyes was enough to prove that: today she had seen things for which there were no words in her language.

She had heard things, too. As they had passed one of the cave-mouths, there had come from it a rhythmic, "whirring" sound, unlike that made hy any animal she knew. It had continued steadily without pause or hreak as long as she could hear it, and even now its unhurried rhythm had not left her mind. Aretenon, she believed, had also noticed it, though without any surprise: Eris had heen too engrossed with Therodimus.

The old philosopher had told them very little, preferring, as he said, to show them his empire when they had had a good night's rest. Nearly all their talk had been concerned with

the events of their own land during the last few years, and Jeryl found it somewhat boring. Only one thing had interested her, and she had eyes for little else. That was the wonderful chain of coloured crystals that Therodimus had worn around his neck. What it was, or how it had been created, she could not imagine: but she coveted it. As she fell asleep, she found herself thinking idly, but more than half seriously, of the sensation it would cause if she returned to her people with such a marvel gleaming against her own pelt. It would look so much better there than upon old Therodimus.

●

Aretenon and Therodimus met them at the cave soon after dawn. The philosopher had discarded his regalia—which he had obviously worn only to impress his guests—and his horn had returned to its normal yellow. That was one thing Jeryl thought she could understand, for she had come across fruits whose juices could cause such colour changes.

Therodimus settled himself at the mouth of the cave. He began his narration without any preliminaries, and Eris guessed that he must have told it many times before to earlier visitors.

"I came to this place, Eris, about five years after leaving our country. As you know, I was always interested in strange lands, and from the Mithraneans I'd heard rumours that intrigued me very much. How I traced them to their source is a long story that doesn't matter now. I crossed the river far up-stream one summer, when the water was very low. There's only one place where it can be done, and then only in the driest years. Higher still the river loses itself in the mountains, and I don't think there's any way through them. So this is virtually an island—almost completely cut off from Mithranean territory.

"It's an island, but it's not uninhabited. The people who live here are called the Phileni, and they have a very remarkable culture—one entirely different from our own. Some of the products of the culture you've already seen.

"As you know, there are many different races on our world, and quite a few of them have some sort of intelligence. But there is a great gulf between us and all other creatures. As far as we know, we are the only beings capable of abstract thought and complex logical processes.

"The Phileni are a much younger race than ours, and they are intermediate between us and the other animals. They've lived here on this rather large island for several thousand generations—but their rate of development has been many, many times swifter than ours. They neither possess nor understand our telepathic powers, but they have something else which we may well envy—something which is responsible for the whole of their civilization and its incredibly rapid progress."

Therodimus paused, then rose slowly to his feet.

"Follow me," he said. "I'll take you to see the Phileni."

●HE LED them back to the caves from which they had come the night before, pausing at the entrance from which Jeryl had heard that strange, rhythmic whirring. It was clearer and louder now, and she saw Eris start as though he had noticed it for the first time. Then Therodimus uttered a high-pitched whistle, and at once the whirring slackened, falling octave by octave until it had ebbed into silence. A moment later something came towards them out of the semi-gloom.

It was a little creature, scarcely half their height, and it did not hop, but walked upon two jointed limbs that seemed very thin and feeble. Its large spherical head was dominated by three huge eyes, set far apart and capable of independent movement. With the best will in the world, Jeryl did not think it was very attractive.

Then Therodimus uttered another

whistle, and the creature raised its fore-limbs towards them.

"Look closely," said Therodimus, very gently, "and you will see the answer to many of your questions."

For the first time, Jeryl saw that the creature's fore-limbs did not end in hooves, or indeed after the fashion of any animal with which she was acquainted. Instead, they divided into at least a dozen thin, flexible tentacles and two hooked claws.

"Go towards it, Jeryl," commanded Therodimus. "It has something for you."

Hesitantly, Jeryl moved forward. She noticed that the creature's body was crossed with bands of some dark material, to which were attached unidentifiable objects. It dropped a fore-limb to one of these, and a cover opened to reveal a cavity inside which something glittered. Then the little tentacles were clutching that marvellous crystal necklace, and with a movement so swift and dexterous that Jeryl could scarcely follow it, the Phileni moved forward and clasped it round her neck.

Therodimus brushed aside her confusion and gratitude, but his shrewd old mind was well pleased. Jeryl would be his ally now in whatever he planned to do. But Eris' emotions might not be so easily swayed, and in this matter mere logic was not enough. His old pupil had changed so much, had been so deeply wounded by the past, that Therodimus could not be certain of success. Yet he had a plan that could turn even these difficulties to his advantage.

He gave another whistle, and the Phileni made a curious waving gesture with its hands and disappeared into the cave. A moment later that strange whirring ascended once more from the silence, but Jeryl's curiosity was now quite overshadowed by her delight in her new possession.

"We'll go through the woods," said Therodimus, "to the nearest settlement—it's only a little way from here. The Phileni don't live in the open, as we do. In fact, they differ from us in almost every conceivable way. I'm even afraid," he added ruefully, "that they're much better-natured than we are, and I believe that one day they'll be more intelligent. But first of all, let me tell you what I've learned about them, so that you can understand what I'm planning to do."

●

The mental evolution of any race is conditioned, even dominated, by physical factors which that race almost invariably takes for granted as part of the natural order of things. The wonderfully sensitive hands of the Phileni had enabled them to find by experiment and trial facts which had taken the planet's only other intelligent species a thousand times as long to discover by pure deduction. Quite early in their history, the Phileni had invented simple tools. From these they had proceeded to fabrics, pottery, and the use of fire. When Therodimus had discovered them, they had already invented the lathe and the potter's wheel, and were about to move into their first Metal Age with all that that implied.

On the purely intellectual plane, their progress had been less rapid. They were clever and skillful, but they had a dislike of abstract thought and their mathematics was purely empirical. They knew, for example, that a triangle with sides in the ratio three-four-five was right-angled, but had not suspected that this was only a special case of a much more general law. Their knowledge was full of such yawning gaps, which despite the help of Therodimus and his several score disciples, they seemed in no great hurry to fill.

Therodimus they worshipped as a god, and for two whole generations of their short-lived race they had obeyed him in everything, giving him all the products of their skill that he needed, and making at his suggestion the new tools and devices that had occurred to him. The partnership had been incredibly fertile, for it was as if both races had suddenly been released from their shackles. Great manual skill and greater intellectual powers had fused in a fruitful union

probably unique in all the universe—and progress that would normally have taken millenia had been achieved in less than a decade.

AS ARETENON had promised them, though Eris and Jeryl saw many marvels, they came across nothing that they could not understand once they had watched the little Phileni craftsmen at work and had seen with what magic their hands shaped natural materials into lovely or useful forms. Even their tiny towns and primitive farms soon lost their wonder and became part of the accepted order of things.

Therodimus let them look their fill, until they had seen every aspect of this strangely sophisticated stone-age culture. Because they knew no differently, they found nothing incongruous in the sight of a Phileni potter—who could scarcely count beyond ten—shaping a series of complex algebraic surfaces under the guidance of a young Mithranean mathematician. Like all his race, Eris possessed tremendous powers of mental visualization, but he realized how much easier geometry would be if one could actually *see* the shapes one was considering. From this beginning (though he could not guess it) would one day evolve the idea of a written language.

Jeryl was fascinated above all things by the sight of the little Phileni women weaving fabrics upon their primitive looms. She could sit for hours watching the flying shuttles and wishing that she could use them. Once one had seen it done, it seemed so simple and so obvious—and so utterly beyond the power of the clumsy, useless limbs of her own people.

They grew very fond of the Phileni, who seemed eager to please and were pathetically proud of all their manual skills. In these new and novel surroundings, meeting fresh wonders every day, Eris seemed to be recovering from some of the scars which the War had left upon his mind. Jeryl knew, however, that there was still much damage to be undone. Sometimes, before he could hide them, she would come across raw, angry wounds in the depths of Eris' mind, and she feared that many of them—like the broken stump of his horn—would never heal. Eris had hated the War, and the manner of its ending still oppressed him. Beyond this, Jeryl knew, he was haunted by the fear that it might come again.

These troubles she often discussed with Therodimus, of whom she had now grown very fond. She still did not fully understand why he had brought them here, or what he and his followers were planning to do. Therodimus was in no hurry to explain his actions, for he wished Jeryl and Eris to draw their own conclusions as far as possible. But at last, five days after their arrival, he called them to his cave.

"You've now seen," he began, "most of the things we have to show you here. You know what the Phileni can do, and perhaps you have thought how much our own lives will be enriched once we can use the products of their skill. That was my first thought when I came here, all those years ago."

"It was an obvious and rather naive idea, but it led to a much greater one. As I grew to know the Phileni, and found how swiftly their minds had advanced in so short a time, I realized what a fearful disadvantage our own race had always laboured under. I began to wonder how much further forward we would have been had we the Phileni's control over the physical world. It is not a question of mere convenience, or the ability to make beautiful things like that necklace of yours, Jeryl, but something much more profound. It is the difference between ignorance and knowledge, between weakness and power."

"We have developed our minds, and our minds alone, until we can go no further. As Aretenon has told you, we have now come to a danger that threatens our entire race. We are under the shadow of the irresistible weapon against which there can be no defense.

"The solution is, quite literally, in the hands of the Phileni. We must use their skills to reshape our

world, and so remove the cause of all our wars. We must go back to the beginning and re-lay the foundations of our culture. It won't be *our* culture alone, though, for we shall share it with the Phileni. They will be the hands—we the brains. Oh, I have dreamed of the world that may come, ages ahead, when even the marvels you see around you now will be considered childish toys! But not many are philosophers, and I need an argument more substantial than dreams. That final argument I believe I may have found, though I cannot yet be certain.

"I have asked you here, Eris, partly because I wanted to renew our old friendship, and partly because your word will now have far greater influence than mine. You are a hero among your own people, and the Mithraneans also will listen to you. I want you to return, taking with you some of the Phileni and their products. Show them to your people, and ask them to send their young men here to help us with our work."

There was a pause during which Jeryl could gather no hint of Eris' thoughts. Then he replied hesitantly: "But I still don't understand. These things that the Phileni make are very pretty, and some of them may be useful to us. But how can they change us as profoundly as you seem to think?"

Therodimus sighed. Eris could not see past the present into the future that was yet to be. He had not caught, as Therodimus had done, the promise that lay beyond the busy hands and tools of the Phileni—the first faint intimations of the Machine. Perhaps he would never understand: but he could still be convinced.

Veiling his deeper thoughts, Therodimus continued: "Perhaps some of these things are toys, Eris—but they may be more powerful than you think. Jeryl, I know, would be loath to part with hers...and perhaps I can find one that would convince you."

Eris was sceptical, and Jeryl could see that he was in one of his darker moods. "I doubt it very much," he said.

THE RECKONING — A Report To Our Readers

EACH PREFERENCE coupon, or letter, is counted in the summing up, wherever you have listed your preference in stories. A "liked best" or "1" rating is given one point; a "next best" or "2" rating is given two points, and so on. The total score is then divided by the number of voters for each stories. This divisor varies, as everyone does not list all the stories.

If everyone agreed, then the point scores would read "1.00" for the best-liked story in the May issue, and "9.00" for the last-place tale. There is one thing that these scores (approximate as they are, at best, for they can only suggest a partial sampling of our audience) do not show, and that is whether the last-place stories were *disliked*. There's a difference between the coupon which says "I liked them all" and one which listed the bottom-rated stories as "disliked". I put down any story listed as "disliked" in red, and I'll let you know when any story receives a majority, or even a plurality of tomatoes.

Here's how they came out:

1. The Deadly Thinkers.....3.05
2. Stopwatch On The World.....3.21
3. Turn Backward, O Time!.....3.80
4. Absolutely No Paradox.....4.57
5. Righteous Plague.....4.94
6. No War Tomorrow.....5.00
7. Atomic Bonanza.....5.74
8. Star Bright.....5.77
9. A Matter of Frequency.....6.00

Only one story failed to pick up at least one no. 9 rating, and a couple didn't get any first-place votes. "The Deadly Thinkers", "Stopwatch on the World", and "Righteous Plague" received no red marks. Most controversial was the del Ray short-short, "Absolutely No Paradox", being almost completely confined to near-top or near-bottom ratings—there was a little ripe fruit thrown, but no one listed it in last place! Highly controversial, also, was "A Matter of Frequency". A number complained, correctly, that it didn't really have a plot. Nope, it didn't; the story was actually a fable. But those who liked it went all-out for it! RWL

"Well, I can try." Therodimus gave a whistle, and one of the Phileni came running up. There was a short exchange of conversation.

"Would you come with me, Eris? It will take some time."

ERIS FOLLOWED him, the others, at Therodimus' request, remaining behind. They left the large cave and went towards the row of smaller ones which the Phileni used for their various trades.

The strange whirring was sounding loudly in Eris' ears, but for a moment he could not see its cause, the light of the crude oil lamps being too faint for his eyes. Then he made out one of the Phileni bending over a wooden table upon which something was spinning rapidly, driven by a belt from a treadle operated by another of the little creatures. He had seen the potters using a similar device, but this was different. It was shaping wood, not clay, and the potter's fingers had been replaced by a sharp metal blade from which long, thin shavings were curling out in fascinating spirals. With their huge eyes the Phileni, who disliked full sunlight, could see perfectly in the gloom, but it was some time before Eris could discover just what was happening, then suddenly he understood.

●

"Aretenon," said Jeryl when the others had left them, "why should the Phileni do all these things for us? Surely they're quite happy as they are?"

The question, Aretenon thought, was typical of Jeryl and would never have been asked by Eris.

"They will do anything that Therodimus says," he answered; "but even apart from that, there's so much we can give them as well. When we turn our minds to their problems, we can see how to solve them in ways that would never have occurred to them. They're very eager to learn, and already we must have advanced their culture by hundreds of generations. Also, they're physically very feeble. Although we don't possess their dexterity, our strength makes possible tasks they could never attempt."

They had wandered to the edge of the river, and stood for a moment watching the unhurried waters moving down to the sea. Then Jeryl turned to go upstream, but Aretenon stopped her.

"Therodimus doesn't want us to go that way, yet," he explained. "It's just another of his little secrets; he never likes to reveal his plans until they're ready."

Slightly piqued, and distinctly curious, Jeryl obediently turned back. She would, of course, come this way again as soon as there was no one else about.

It was very peaceful here in the warm sunlight, among the pools of heat trapped by the trees. Jeryl had almost lost her fear of the forest, though she knew she would never be quite happy there.

Aretenon seemed very abstracted, and Jeryl knew that he wished to say something and was marshalling his thoughts. Presently he began to speak, with the freedom that is only possible between two people who are fond of each other but have no emotional ties.

"It is very hard, Jeryl," he began, "to turn one's back on the work of a lifetime. Once I had hoped that the great new forces we have discovered could be safely used, but now I know that is impossible, at least for many ages. Therodimus was right—we can go no further with our minds alone. Our culture has been hopelessly one-sided, though through no fault of ours. We cannot solve the fundamental problems of peace and war without a command over the physical world such as the Phileni possess—and which we hope to borrow from them.

"Perhaps there will be other great adventures here for our minds, to make us forget what we have had to abandon. We shall be able to learn something from Nature at last. What is the difference between fire and water, between wood and stone? What are the suns, and what are those millions of faint lights we see in the sky when both the suns are down? Perhaps the answers to all these questions may lie at the end

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of the new road along which we must travel."

He paused.

"New knowledge—new wisdom—in realms we have never dreamed of before. It may lure us away from the dangers we have encountered: for certainly nothing we can learn from Nature will ever be as great a threat as the peril we have uncovered in our own minds."

The flow of Aretenon's thoughts was suddenly interrupted. Then he said: "I think that Eris wants to see you."

Jeryl wondered why Eris had not sent the message to her: she wondered, too, at the undertone of amusement—or was it something else?—in Aretenon's mind.

● THERE WAS no sign of Eris as they approached the caves, but he was waiting for them and came bounding out into the sunlight before they could reach the entrance. Then Jeryl gave an involuntary cry, and retreated a pace or two as her mate came towards her.

For Eris was whole again. Gone was the shattered stump on his forehead: it had been replaced by a new, gleaming horn no less splendid than the one that he had lost.

In a belated gesture of greeting, Eris touched horns with Aretenon. Then he was gone into the forest in great joyous leaps—but not before his mind had met Jeryl's as it had seldom done since the days before the War.

"Let him go," said Therodimus softly. "He would rather be alone. When he returns, I think you will find him—different." He gave a little laugh. "The Phileni are clever, are they not? Now, perhaps, Eris will be more appreciative of their 'toys'."

●

"I know I am impatient," said Therodimus, "but I am old now, and I want to see the changes begin in my own lifetime. That is why I am starting so many schemes in the hope that some at least will succeed. But this is the one, above all, in which I have put most faith."

For a moment he lost himself in his thoughts. Not one in a hundred of his own race could fully share his dream. Even Eris, though he now believed in it, did so with his heart rather than his mind. Perhaps Aretenon—the brillisnt and subtle Aretenon, so desperately anxious to neutralize the powers he had brought into the world—might have glimpsed the reality. But his was of all minds the most impenetrable, save when he wished otherwise.

"You know as well as I do," continued Therodimus, as they walked upstream, "that our wars have only one cause—Food. We and the Mithraneans are trapped on this continent of ours with its limited resources, which we can do nothing to

increase. Ahead of us we have always the nightmare of starvation, and for all our vaunted intelligence there has been nothing we can do about it. Oh yes, we have scraped some laborious irrigation ditches with our fore-hooves, but how slight their help has been!

"The Phileni have discovered how to grow crops that increase the fertility of the ground many-fold. I believe that we can do the same—once we have adapted their tools for our own use. That is our first and most important task, but it is not the one on which I have set my heart. The final solution to our problem, Eris, *must be the discovery of new, virgin lands into which our people can migrate.*"

He smiled at the other's amazement.

"No, don't think I'm mad. Such lands do exist, I'm sure of it. Once I stood at the edge of the ocean and watched a great flight of birds coming inland from far out at sea. I have seen them flying outwards, too, so purposefully that I was certain they were going to some other country. And I have followed them with my thoughts."

"Even if your theory is true, as it probably is," said Eris, "what use is it to us?" He gestured to the river flowing beside them. "We drown in the water, and you cannot build a rope to support us—" His thoughts suddenly faded out into a jumbled chaos of ideas.

Therodimus smiled. "So you have guessed what I hope to do. Well. now you can see if you are right."

They had come to a level stretch of bank, upon which a group of the Phileni were busily at work, under the supervision of some of Therodimus' assistants. Lying at the water's edge was a strange object which, Eris realized, was made of many tree-trunks joined together by ropes.

They watched in fascination as the orderly tumult reached its climax. There was a great pulling and pushing, and the raft moved ponderously into the water with a mighty splash. The spray had scarcely

[*Turn Page*]

ceased to fall when a young Mithranean leaped from the bank and began to dance gleefully upon the logs, which were now tugging at the moorings as if eager to break away and follow the river down to the sea. A moment later he had been joined by others, rejoicing in their mastery of a new element. The little Phileni, unable to make the leap, stood watching patiently on the bank while their masters enjoyed themselves.

There was an exhilaration about the scene that no one could fail to miss, though perhaps few of those present realized that they were at a turning point in history. Only Therodimus stood a little apart from the rest, lost in his own thoughts. This primitive raft, he knew, was merely a beginning. It must be tested upon the river, then along the shores of the ocean. The work would take years, and he was never likely to see the first voyagers returning from those fabulous lands whose existence was still no more than a guess. But what had been begun, others would finish.

Overhead, a flight of birds was passing across the forest. Therodimus watched them go, envying their freedom to move at will over land and sea. He had begun the conquest of the water for his race, but that the skies might one day be theirs also was beyond even his imagination.

• ARETENON, Jeryl and the rest of the expedition had already crossed the river when Eris said good-bye to Therodimus. This time they had done so without a drop of water touching their bodies, for the raft had come down-stream and was performing valuable duties as a ferry. A new and much improved model was already under construction, as it was painfully obvious that the prototype was not exactly seaworthy. These initial difficulties would be quickly overcome by designers who, even if they were forced to work with stone-age tools, could handle with ease the mathe-

matics of metacenters, buoyancies and advanced hydrodynamics.

"Your task won't be a simple one," said Therodimus, "for you cannot show your people all the things you have seen here. At first you must be content to sow the seed, to arouse interest and curiosity—particularly among the young, who will come here to learn more. Perhaps you will meet opposition: I expect so. But every time you return to us, we shall have new things to show you and to strengthen your arguments."

They touched horns: then Eris was gone, taking with him the knowledge that was to change the world—so slowly at first, then ever more swiftly. Once the barriers were down, once the Mithraneans and the Atheleni had been given the simple tools which they could fasten to their fore-limbs and use unaided, progress would be swift. But for the present they must rely on the Phileni for everything: and there were so few of them.

Therodimus was well content. Only in one respect was he disappointed, for he had hoped that Eris, who had always been his favorite, might also be his successor. The Eris who was now returning to his own people was no longer self-obsessed or embittered, for he had a mission and hope for the future. But he lacked the keen, far-ranging vision that was needed here: it would be Aretenon who must continue what he had begun. Still, that could not be helped, and there was no need yet to think of such matters. Therodimus was very old, but he knew that he would be meeting Eris many times again here by the river at the entrance to his land.

4

THE FERRY was gone now, and though he had expected it, Eris stopped amazed at the great span of the bridge, swaying

[*Turn Page*]

slightly in the breeze. Its execution did not quite match its design—a good deal of mathematics had gone into its parabolic suspension—but it was still the first great engineering feat in history. Constructed though it was entirely of wood and rope, it forecast the shape of the metal giants to come.

Eris paused in mid-stream. He could see smoke rising from the shipyards facing the ocean, and thought he could just glimpse the masts of some of the new vessels that were being built for coastal trade.

Aretenon was waiting for them on the far bank. He moved rather slowly now, but his eyes were still bright with the old, eager intelligence. He greeted Eris warmly. "I'm glad you could come now. You're just in time."

"The ships are back?"

"Almost: they were sighted an hour ago, out on the horizon. They should be here at any moment, and then we shall know the truth at last, after all these years. If only—"

His thoughts faded out, but Eris could continue them. They had come to the great pyramid of stones beneath which Therodimus lay—Therodimus, whose brain was behind everything they saw, but who could never learn now if his most cherished dream was true or not.

There was a storm coming up from the ocean, and they hurried along the new road that skirted the river's edge. Small boats of a kind that Eris had not seen before went past them occasionally, operated by Atheleni or Mithraneans with wooden paddles strapped to their forelimbs. It always gave Eris great pleasure to see such new conquests, such new liberations of his people from their age-old chains. Yet sometimes they reminded him of children who had suddenly been let loose into a wonderful new world, full of exciting and interesting things that must be done, whether they were likely to be useful

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or not. However, anything that promised to make his race into better sailors was more than useful. In the last decade Eris had discovered that pure intelligence was sometimes not enough: there were skills that could not he acquired by any amount of mental effort. Though his people had largely overcome their fear of water, they were still quite incompetent on the ocean, and the Phileni had therefore become the first navigators of the world.

Jeryl looked nervously around her as the first peal of thunder come rolling in from the sea. She was still wearing the necklace that Therodimus had given her so long ago: hut it was hy no means the only ornament she carried now.

"I hope the ships will he safe," she said anxiously.

"There's not much wind, and they will have ridden out much worse storms than this," Aretenon reassured her, as they entered his cave. Eris and Jeryl looked round with eager interest to see what new wonders the Phileni had made during their abscence: but if there were any they had, as usual, been hidden away until Aretenon was ready to show them. He was still rather childishly fond of such little surprises and mysteries.

There was an air of absent-mindedness about the meeting that would have puzzled an onlooker ignorant of its cause. As Eris talked of all the changes in the outer world, of the sucess of the new Phileni settlements, and of the steady growth of agriculture among his people, Aretenon listened with only half his mind. His thoughts, and those of his friends, were far out at sea, meeting the on-coming ships which might be hringing the greatest news their world had ever received.

• AS ERIS finished his report, Aretenon rose to his feet and hegan to move restlessly around the chamber.

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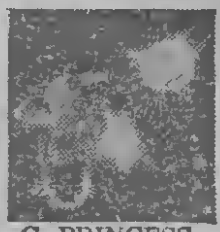

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"You have done better than we dared to hope at the beginning. At least there has been no war for a generation, and our food supply is ahead of the population for the first time in history—thanks to our new agricultural techniques."

Aretenon glanced at the furnishings of his chamber, recalling with an effort the fact that in his own youth almost everything he saw would have appeared impossible or even meaningless to him. Not even the simplest of tools had existed then, at least in the knowledge of his people. Now there were ships and bridges and houses—and these were only the beginning.

"I am well satisfied," he said. "We have, as we planned, diverted the whole stream of our culture, turning it away from the dangers that lay ahead. The powers that made the Madness possible will soon be forgotten: only a handful of us still know of them, and we will take our secrets with us. Perhaps when our decendants rediscover them, they will be wise enough to use them properly. But we have uncovered so many new wonders that it may be a thousand generations before we turn again to look into our own minds and to tamper with the forces locked within them."

The mouth of the cave was illuminated by a sudden flash of lightning. The storm was coming nearer, though it was still some miles away.

"While we're waiting for the ships," said Aretenon rather abruptly, "come into the next cave and see some of the new things we have to show you since your last visit."

It was a strange collection. Side by side on the same bench were tools and inventions which in other cultures had been separated by thousands of years of time. The Stone-Age was past: bronze and iron had come, and already the first crude scientific instruments had been built for experiments that were driving back the frontiers of the unknown. A primitive retort spoke of the be-

[*Turn To Page* 130]

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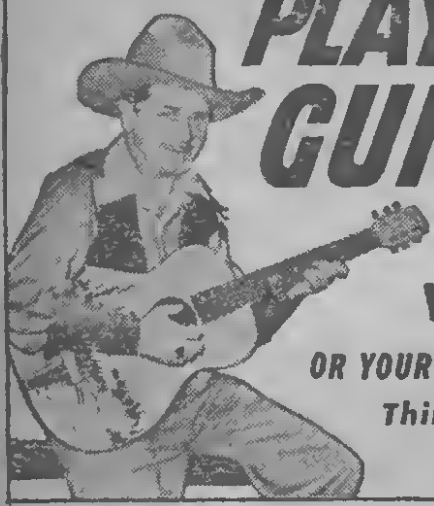

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ginnings of chemistry, and by its side were the first lenses that the world had seen—waiting to reveal the unsuspected universes of the infinitely small and the infinitely great.

The storm was upon them as Aretenon's description of these new wonders drew to its close.

"I've shown you everything of importance," he said, "but here's something that may amuse you while we're waiting. As I said, we've sent expeditions everywhere to collect and classify all the rocks they can, in the hope of finding useful minerals. One of them brought back this."

He extinguished the lights and the cave became completely dark.

"It will be some time before your eyes grown sensitive enough to see it," Aretenon warned. "Just look over there in that corner."

Eris strained his eyes into the darkness. At first he could see nothing: then slowly, a glimmering blue light became faintly visible. It was so vague and diffuse that he could not focus his eyes upon it, and he automatically moved forward.

"I shouldn't go too near," advised Aretenon. "It seems to be a perfectly ordinary mineral, but the Phileni who found it and carried it here got some very strange burns from handling it. Yet it's quite cold to the touch. One day we'll learn its secret: but I don't suppose it's anything at all important."

• A VAST CURTAIN of sheet lightning split the sky, and for a moment the reflected glare lit up the cave, pinning weird shadows against the walls. At the same moment one of the Phileni staggered into the entrance and called something to Aretenon in its thin, reedy voice. He gave a great shout of triumph, then his thoughts came crashing into Eris' mind.

"Land! They've found land—a whole new continent waiting for us!"

Eris felt the sense of triumph and victory well up within him like water bursting from a spring. Clear ahead now into the future lay the new, the glorious road along which their children would travel, mastering the world and all its secrets as they went. The vision of Therodimus was at last sharp and brilliant before his eyes.

He felt for the mind of Jeryl, so that she could share his joy—and found that it was closed to him. Leaning towards her in the darkness, he could sense that she was still staring into the depths of the cave, as if she had never heard the wonderful news, and could not tear her eyes away from the enigmatic glow.

Out of the night came the roar of the belated thunder as it raced across the sky. Eris felt Jeryl tremble beside him, and sent out his thoughts to comfort her. "Don't let the thunder frighten you," he said gently. "What is there to fear now?"

"I do not know," replied Jeryl. "I am frightened—but not of the thunder. Oh, Eris, it is a wonderful thing we have done, and I wish that Therodimus could be here to see it. But where will it lead in the end—this new road of ours?"

Out of the past, the words that Aretenon had once spoken had risen up to haunt her. She remembered their walk by the river, long ago, when he had talked of his hopes and had said: "Certainly nothing we can learn from Nature will ever be as great a threat as the peril we have uncovered in our own minds." Now the words seemed to mock her and to cast a shadow over the golden future: but why, she could not say.

Alone, perhaps, of all the races in the Universe, her people had reached the second cross-roads—and had never passed the first. Now they must go along the road that they had missed, and must face the challenge at its end—the challenge from which, this time, they could not escape.

In the darkness, the faint glow of dying atoms burned unwavering in the rock. It would still be burning there, scarcely dimmed, when Jeryl and Eris had been dust for centuries. It would be only a little fainter when the civilization they were building had at last unlocked its secrets.

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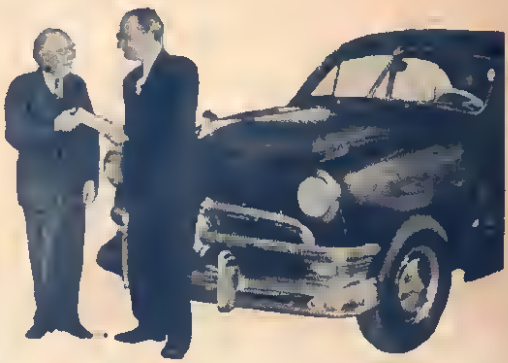

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