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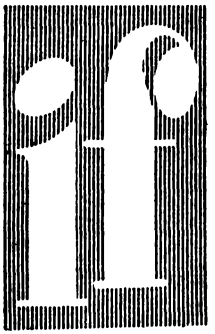

WORLDS of SCIENCE FICTION

APRIL 1957

All Stories New and Complete

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SHORT STORIES

FEATURES

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Editor's REPORT

Maps of the world have been changing fast and furiously of late. Until 40 or 50 years ago, changes were slow and gradual; but, since the first world war, the pace has been almost too fast for geography teachers to keep up with it. Now we're going to have some new changes, and these will not be made by dictators or armies or politicians, but by Project Vanguard, to be launched with the forthcoming International Geophysical Year beginning July 1st. By observing the changes in the orbits of the various satellites to be sent aloft, scientists will very probably learn why maps, of the same location but made at different times, do not always agree. Scientists once argued that continents drifted like boats on the plastic core of the Earth; that land masses, now separated by oceans, were contiguous. Now, with totally new data about the Earth's gravity and the magnetic north, new methods of position determination might cause cartographers to re-do a lot of their work. You probably won't notice it on your local road map and your neighbor won't claim you're growing your petunias on his land. But—there could be some revised boundaries that might provoke new arguments to take the place of the old.

Success Story: A couple years ago we got a letter from an aspiring author who had this to say: "In the past I have sent you approximately six different tales, with no success. Now, curiosity compels me to ask you a simple question. Do you think I have any possibilities as a writer?" I read the accompanying story and returned it with a note that was anything but encouraging. "This story has nothing," I wrote, underscoring the nothing. "You need a *lot* of practice . . . study everything, plot, construction, etc." Last month we got another story and another letter in which he explained that my note (which I had long forgotten) had jolted him into taking a course in short story writing and now, with diploma in hand, he was tackling us again. The writer is George Revelle, of Newburgh, New York, and his story *Operation Boomerang* appears in this issue.

America will be short 100,000 scientists and engineers, within 10 years, according to a recent statement by John F. Collyer, President of the B. F. Goodrich Company of Akron, Ohio. The U. S. now has 950,000 scientists and engineers. Ten years from now we will need 1,379,000; by 1975 we will require the services of 2,040,000 scientists

and engineers. . . That, no doubt, is why a young graduate electrical engineer recently said, "Me *look* for a job?" he laughed. "I can write my own ticket with half a dozen places."

Young man going somewhere in a hurry seems to be the best way of describing Harlan Ellison, who first appeared in IF with *Life Hutch* and *The Crackpots*. Born in Cleveland 22 years ago, Harlan attended Ohio State U. until his English professor told him he would never sell a word. The professor was right—for a couple of years. A couple of years which turned into a hodge-podge of jobs which included runner for a bookie, "top-man" in a carnival, truck driver, door-to-door brush salesman, logger and department store floorwalker. When he first reached New York he joined up with a gang of juvenile delinquents in Brooklyn's tough Redhook section in order to gain experience about kid gangs. He turned his experiences into 250,000 words of saleable juvenile delinquency fiction. He works 16 hours a day (ah, youth!) and during the past year he sold 80 stories of all sorts to various magazines of all sorts. He's in an army uniform now, but we hope he'll soon be making another appearance in IF.

A couple of months ago I bought myself a copy of *American Science and Invention*, by Mitchell Wilson, and promptly forgot about it. Last week, while looking for some lost artwork, I literally stumbled over it (it's a big book!) and realized I hadn't even opened it. Well, I went back to my desk and sat down and opened it—and there went the rest of the day. On the jacket was a blurb that read: "The fabulous story of how American dreaming, wizardry and inspired tinkerers converted a wilderness into the wonder of the world." I used to write book blurbs and ad copy and am somewhat leery about fatuous utterances by literary hucksters or friends of the author. After a couple hours with the book I found I might easily have written the same glowing terms, and I don't even know the author or the publisher, except through the pages of a weekly trade journal. But to continue: the book is a lot of fun and I plan to spend many more hours with it. For here is the story of American invention and ingenuity from the very first patent issued in Boston in 1646 to Joseph Jenkes for the "manifactures of engins of mils to go by water for speedy dispatch of much worke with few hands" to the greatest discovery of modern man, the controlled release of nuclear fission. With their myriad experiments and inventions you meet such giants as Franklin, Priestley, Fulton, Henry, Morse, Goodyear, Underwood, Bell, Edison, Westinghouse, Eastman, the Wright brothers, Michelson, Hale, Compton, Fermi and many, many others. *American Science and Invention* gets my vote for the most interesting book on "popular" science and invention published during the past year—all 130,000 words and 1,200 pictures of it. —jlq

BY JAMES E. GUNN

If the law of cause and effect is overthrown,

and if ultimate understanding is impossible,

and intelligence becomes less than worthless,

where can a man turn—except to madness?

green thumb

Johnny Sundance was seven parts Cherokee Indian and one part tramp printer. He was born in 1972 at the Chilocco Indian School, Oklahoma, where his father taught mathematics.

Johnny's father was all Cherokee, with a Cherokee's fierce pride and a Cherokee's stoicism. When he discovered what his child was, he poured his frustrated ambition and his knowledge into Johnny as his ancestors had once poured powder into a trade musket.

Johnny learned to read when he was three. When he was five he was reading all the books in his father's library, and his father started him on algebra.

Illustrated by Virgil Finlay

His parents died in the last of the great airplane crashes, before automatic avoidance mechanisms became compulsory. They had a reservation on an earlier plane, but their helicab had been trapped in a Los Angeles traffic jam.

Johnny was six years old.

The government put him into a primary grade pool in a modern school at the Haskell Indian Institute. He graduated to the fourth grade at seven, began his scientific education at eight, and advanced at his own best speed until he graduated from high school at eleven, from college at fourteen, got his Ph.D. at sixteen, and passed his boards the same year.

He was a specialist. Those qualified to judge his work considered him the most brilliant quantum physicist in the country.

He won his first contest at nine with an original paper on atomic models. In the years following he published five books on particle physics and innumerable articles in scholarly journals.

He liked poetry, beer, and mountain climbing.

Just after his nineteenth birthday, he disappeared.

THE TYPE bars slamming viciously through the ribbon and paper against the hard rubber platen made the old-fashioned typewriter jump on the cluttered solid walnut desk. Gideon McKenzie glared at the paper as his stubby fingers jabbed at the keys. Occasionally a distant clink of metal against metal made him twitch, miss a key, and swear.

"The principle of specialization became inextricably embedded in the social matrix during the late 1960's," he wrote. "It was based on a recognition of the green thumb phenomenon: everyone has a talent which needs only the proper environment of social approval, favorable circumstances, and frequent, much admired successes to develop genius out of what may be only superior original capacity. It was at once the savior and the curse of Twentieth Century civilization.

"The arguments for it went like this: you can't have a complex civilization without specialists; knowledge has become too extensive for any one man to encompass it all. It's as much as he can do to master one small aspect of a subject. When there was much to learn, a spade was sufficient, but now that all the ground has been turned over, a man must dig deep to find virgin soil. He needs a sharpshooter.

"What has been called a revolution is actually the maturation of tendencies evident in the early years of the Electronic Age, and this is a lot of over-ripe manure!"

Gideon jerked the paper out of the typewriter, crumpling it in his hand, and glowered at the machine as if it were to blame. A McKenzie glare was a terrifying thing, but a glower was enough to freeze even a typewriter's bearings.

Gideon was a lumpy man. He looked like he had been molded in a bass fiddle case and then a clumsy child had stuck on fat blobs for legs and arms. But his face was his

own creation. Once it had been fat and jolly, but it had been carved by indignation and mottled by choler. The nose was a piece of red-veined putty; his eyebrows were dark bushes under which his pale blue eyes lurked in wait for the unwary bungler. His hair was thick, black, and unkempt, like a nest he had slept in.

The typewriter waited, unmoved, amid the precarious stacks of dusty books and tattered manuscripts on the desk. Gideon rolled another sheet of paper into the machine and began to pound the keys again. When he finished, he drew the sheet carefully out of the typewriter and leaning back in the wooden desk chair read it with an expression of Machiavellian delight.

Dear Barney:

I have written many potboilers in my career, but I cannot stomach this tripe. If you want to put out a revised edition of *Green Thumb,* you will have to do it yourself or have some specialist hack it out. Specialization, I am unalterably convinced, is a plague on all our houses.

Gideon

P.S. If you publish that book in any form, I will sue you.

P.P.S. Where are this quarter's royalties?

The chair in which Gideon sat was the only chair in the room. An ancient green wool rug covered the floor. The walls, except for two doors, a real window looking out upon the concrete and aluminum peaks and cliffs of a city, and the desk, were books from rug to ceiling, stacked, heaped, stuck in sideways, backwards, and upside down.

From behind the door on the opposite side of the room the clinking sounds started again. A man cursed. Gideon's eyebrows became a single thicket over his eyes.

Something crashed. In a blur of motion, Gideon was out of his chair. He flung open the door and revealed three men in a narrow, tiled closet. They were standing over the remains of what had been an excellent medicine cabinet.

Gideon thundered, "What in the name of Moloch do you think you're doing? Three men sent to do a boy's job, and you've been here all morning!"

A surly, dark-haired lavatorbot specialist second class said defensively, "This lavatorbot hasn't been repaired for so long it wouldn't work at all. When he tried to remove it, the thing slipped and fell."

Gideon asked dangerously, "Why didn't *you* remove it?"

The young man drew himself up proudly. "I am an electronic lavatorbot specialist. He"—the young man pointed—"is the mechanical lavatorbot specialist."

Muted violence was in his voice as Gideon said, "Did it ever occur to you that the lavatorbot was not a lavatorbot at all? It was a perfectly good medicine chest, and you will procure me a new one immediately—and replacements for all the pharmaceuticals within." He pointed at the old-fashioned, white-china commode in the corner. "That is what I wanted fixed—a simple, three-minute job an idiot

child could perform."

"That is completely outside my specialty!"

Gideon pointed a pudgy finger at the third man, a tall, thin young man with red hair. "Why don't you fix it!"

The young man said indignantly, "I am a plumber, not an antiquarian. If you had a modern disposerbot, it would be a simple matter. That is an atrocity."

Gideon roared, "Keep my personal preferences out of this. Can you fix that thing?"

The plumber flinched. He said meekly, "What seems to be wrong with it?"

"It—won't—flush."

Gingerly the red-haired plumber twisted the handle on the water closet. Water gurgled into the bowl and swirled up dangerously close to the edge before it subsided. Slowly the level dropped. "Well," said the plumber. "Well. My suggestion is that you get rid of the whole affair. I can get a crew of men in a few days, rip this thing out, and put in a modern disposerbot—"

"Young man! I like this commode. I have become accustomed to it. I sometimes stand here for hours and flush it for recreation, just to listen to its long, withdrawing, melancholy roar." Gideon's pale eyes lighted on the plumber's open tool box. "What's that!"

"This?" The plumber picked up a rubber plunger on a stick. "This is known as a plumber's friend."

"No doubt the only one you have," Gregor said scathingly. "Use it!"

"This, sir," the plumber said icily, "is my specialist's badge. It is purely ornamental."

With a roar of rage, Gideon grabbed the plunger and jabbed it several times into the commode. The water surged down and out. "There! Now out! All of you!"

They fled before him, scrambling through the doorway and the room beyond, fumbling with the old-fashioned door into the hall. Gideon pursued them, the plumber's friend waving in one hand like a mace. Finally the lavatorbot specialist, electronic, got the door open, and they scattered in all directions down the hall.

With a triumphant swing of his arm, Gideon threw the plunger after them, narrowly missing a tall, gray-haired man whose hand was raised to knock on the door.

In a voice that was almost pleasant, Gideon said, "What in Beelzebub's name do you want?"

The man stared down the hall toward the spot where the plunger clung to the distant wall like a native spear and then looked back at Gideon with incredulous eyes. He blinked, and his expression sobered.

"I am Carl Vigran, psychospecialist, administrative assistant, personnel, to the president of the University—"

"My time is worth money," Gideon snapped.

Vigran said simply, "Johnny Sundance has disappeared."

The lean, broad-shouldered young man had a face that was hard to forget. It was broad, flat,

and copper-colored beneath a stiff, unruly mass of blue-black hair. The nose was prominent and aquiline, but the dark eyes were dull.

He lurched drunkenly as he stepped off the Fifth Avenue slidewalk. On the stationary pavement he caught himself and began walking aimlessly into the older part of the city.

People turned to look at him as he passed, but he saw none of them. He stopped, finally, and turned his face toward the building, his eyes closed, his forehead leaning against a black, plate-glass window as if he were trying to cool it.

In a moment he reeled back and opened his eyes. Lavender words wriggled across the black glass. He squinted at them as if he were trying to read and couldn't. Then he turned and shouldered his way through the door. He stood, swaying, just inside the entrance, staring blindly into the dim recesses of the room.

Gideon leaned back comfortably in his desk chair, studying without pretense of manners the middle-aged man who stood uncomfortably near the door. Vigran had taken good care of himself; at sixty he was slim and vigorous. His face was thin and sharp, stamped by the aristocracy of intelligence. He looked younger than his prematurely gray hair suggested. Impeccably dressed in a gray, one-piece business suit, he was a brilliant man, a capable man, a specialist.

Gideon said calmly, "Johnny has disappeared. So?"

Vigran's poise shattered with the jerky movements of his hands. "You haven't seen him?"

"Why should I?"

"You were his closest friend."

Gideon looked surprised. "Was I? Poor Johnny. What about women?"

"When he's working on a problem, he hasn't time for anything else. None of them have seen him for months." Vigran said urgently, "We've got to find him, McKenzie. If you can help us in any way, if you can think of any place he might have gone—"

Gideon's pale eyes studied Vigran's face. The psychospecialist's lip was twitching. "What makes Johnny so much more important than any of the others?"

Vigran said quickly, "What others?"

Gideon's voice was sharp. "Don't fence with me. The other specialists who have disappeared, the other particle physicists. You can bury them among the personals, but you can't cover them up completely. How many have there been in the last six months? Six? Seven?"

Vigran said unhappily, "Nine."

"How many have you found?"

"One. He—he came back."

Gideon said shrewdly, "Insane?"

Slowly Vigran nodded.

Thoughtfully Gideon placed the tips of his stubby fingers together. "Quite an epidemic," he said cheerfully.

Vigran said, "They're all important. If we can solve one we'll have a clue to the others. But we need Johnny in particular. His recent work—his associates say it may

be the most important research in the last fifty years. They can't decipher his notes. They jump over whole areas of development and proof to indecipherable conclusions. Interspersed are philosophical ramblings. Most uncharacteristic."

Gideon had tired of the conversation. He swung his chair toward the desk in a gesture of dismissal. "Sic your bloodhounds on him."

Vigran moved quickly to the desk, leaned over it to face Gideon. "They lost the trail, McKenzie. Like they did with the others. Their actions have not followed any anticipated pattern. Their movements have been random. McKenzie—you were Johnny's friend. For Johnny's sake!"

Gideon stared malevolently at Vigran. "I remember you. A year ago you refused me the use of the University library. Said a nonspecialist could not make effective use of it."

"A misunderstanding!" Vigran gasped. "That will be corrected."

Gideon looked down at the palms of his pudgy hands. They were dirty. "How do you know he wants to come back?"

"He had everything he could have wanted. A free hand in his research, unrestricted grants to finance it, prestige, a large salary—why should he leave?" Vigran hesitated. "We're afraid of amnesia."

"Nine times? Amnesia is a myth. It was exploded many years ago. Why was he unhappy?"

Vigran said sharply, "He wasn't! He was at the top of his specialty in a profession that is universally admired. He was doing what he was best fitted for; he was using his talent to the fullest. He enjoyed his work. He had security, admiration, friends . . . What did he lack?"

"What indeed? You make it sound idyllic." Gideon said sharply, "But he ran away."

Vigran's hands fluttered ineffectually. "We don't know that he did. He just—disappeared."

A slow, pleased smile crept over Gideon's face. "You know what's the matter with you? You're a specialist and you've found a problem you can't solve. You're frustrated—just like your bloodhounds. They must be thoroughly useless by now." He chuckled happily. "Unless your problem is resolved, they'll be looking for you one of these days."

Vigran drew himself up stiffly. "You're forgetting yourself, McKenzie."

"No, Vigran, you're forgetting that you came to me. You're forgetting why you came to me. Not because I knew Johnny. Your specialists could dig up more about Johnny than I could possibly know. You came to me because I am the last of the universal geniuses." He put his elbow on the desk, propped his chin in his palm, and stared up complacently at Vigran. He looked like a fat man's version of Rodin's Thinker.

Vigran gasped, "You're mad, McKenzie. But maybe you're mad enough to find an answer. Everything else has failed."

Gideon was not insulted. "I'm interested. Two conditions. First, I must have full access to your personnel and psychological files, as

well as Johnny's papers."

Vigran hesitated and then nodded.

"Two: when I find Johnny, he doesn't have to return unless he wishes."

Vigran said indignantly, "What do you think the University is? A prison?"

"Yes," Gideon snarled. "A prison for minds."

The servandroid stopped in front of the young man with the copper-colored face and the dull, black eyes and said, "You aren't well, sir. Shall I call a doctor?"

He brushed the thing aside and walked unsteadily into the dim room, over the lavender carpet, toward a row of booths against the far wall.

The place was almost deserted. It was quiet. The young man staggered when he reached the booths and caught himself on a gray, plastic table. The schooner of beer on it sloshed some of its contents onto the table. His eyes focused on the glass. His dark hand reached out, lifted it to his lips. He drained it.

"What you think you're—" a hoarse voice began. A hand grabbed the young man by the shoulder. The voice gentled. "Say, you're sick."

Johnny Sundance slumped bonelessly into the booth.

THE LAVENDER words wriggling on the black, plate-glass window spelled "Sam's Place." It was an ordinary neighborhood bar. Inside, it was gloomy, cool, and old-fashioned. The thick carpeting was lavender. The tables were gray plastic. The booths along the walls were upholstered in pink imitation leather. Female servandroids, their bodies sculptured perfection under their tiny, translucent uniforms, carried trays among the tables.

Carl Vigran hesitated blindly at the entrance and then stumbled down three steps before he saw Gideon. He made his way quickly to the booth. "Why did you want me to meet you here?"

Gideon raised to his lips an old-fashioned schooner of beer and sipped the foamy, yellow liquid gingerly. He wiped his mouth on the back of a hairy hand. "To find Johnny. This is where your bloodhounds lost the trail."

Vigran said impatiently, "I know that, but he isn't coming back. This place has been watched for days."

"Maybe," Gideon suggested slyly, "you were watching for the wrong person."

Vigran looked startled and pleased. "You've found him!"

"Sit down." Gideon waited until Vigran had slipped into the seat opposite. "No, I haven't found Johnny. Even a universal genius must have more than twenty-four hours. First I had to learn Johnny inside out. I had to be able to think like Johnny."

"Well?"

"Now I know Johnny like one of my own characters." Gideon drained his glass and summoned a servandroid. "Again," he said. "You see," he said to Vigran, "I

am drinking beer, a drink I detest, because it was Johnny's favorite. Anything more potent was firewater, and the Indian has a notoriously weak stomach for alcohol, he used to say.

"Johnny and I met by accident. He had happened on a potboiler of mine called *Green Thumb,* written during a brief period of insanity when I was under the spell of modern education. He wrote to me, asking where he should continue his work on quantum physics. He was ten at the time.

"I had come to my senses. I tried to discourage him, but he persisted. I turned his letter over to the University, and you recruited him, bending the NCAA regulations somewhat in the process."

Vigran leaned toward Gideon. He said abruptly, "That's better forgotten."

"Later Johnny insisted on coming around and thanking me for my help. Frequently. He had an engagingly inquisitive mind, and my broad range of interests fascinated him. I tried to expand his scope, but he was a specialist and satisfied to be that and nothing more."

The servandroid brought back Gideon's glass. He patted her familiarly as she bent over the table.

Vigran exploded. "That's an android!"

Gideon winked expressively. "You know that, and I know that. But does she know that? Ah, well." He shrugged. "At first I suspected women, but Johnny has had the normal sexual experiences for his maturation group, including some with older women infatuated by his reputation. Lately he became more fastidious. He has led, it appears, a full, satisfying life."

Vigran said, "I told you that much. But why did he disappear?" His lip jerked. It was getting worse.

"For the same reason the others disappeared."

Vigran's hand began to pound on the table. He didn't notice. "Why? Do you have a theory?"

Gideon leaned back contemptuously. "Many. Theories are cheap. For instance, they may have been kidnaped by extraterrestrials."

Vigran made a disgusted face.

"All right," Gideon said mildly, "scratch theory number one. Number two: when men get too intelligent they learn something that the rest of us are too stupid to see, that makes further effort futile.

"Number three: modern education is forced growth. The tendency of many child prodigies to fail in later life is an infantile rebellion against authority.

"Theory number four: thinking is a disease. Intelligence, like size, adaptability, prolificness, speed, and so forth, is an evolutionary experiment. All of them are survival characteristics, and all of them carry within themselves the seeds of their own destruction.

"The trouble with intelligence is that it sees problems and seeks answers. The one thing intelligence must have which it cannot manipulate like its environment is under-

standing. And ultimate understanding is impossible. Result: madness or its equivalent, the rejection of intelligence."

Vigran's expression had progressed from incredulity to contempt. "Which one do you prefer?" he asked sarcastically.

Gideon shrugged his plump shoulders. "All of them. None of them. I always wait for the proof of experimental evidence. Which we are about to get. See that man?"

Vigran looked up. Passing them was a short, thick young man with long, untrimmed blond hair and a pale, scowling face. He glanced suspiciously at everyone he passed. In his hand he had a round, yellow, plastic container. He started up the steps toward the entrance.

Vigran whispered. "That isn't Johnny!"

With great disgust, Gideon said, "Who said it was? He will lead us to Johnny."

It was early morning when they came out. The streets were deserted. There was no one to notice a tall, black-haired, copper-skinned man and the short, thick blond who supported him as they walked.

Johnny reeled and almost fell. The blond caught him, held him up. "Just a little farther, Johnny. Then we'll be home."

"Home?" Johnny said. He began to laugh. "Home sweet home. Home is where the heart is. Home is the sailor, home from the sea, and the hunter home from the hill." The laughter broke into a sob.

"Shhhh, Johnny! Here we are." Carefully the blond young man led Johnny down a short flight of steps and put out a hand against the door plate. The door swung open. Warm, humid air came out to meet them. It was thick with the odor of green, growing things.

As soon as the young man was gone, Gideon moved swiftly toward the door. A servandroid stepped quickly into his path and said pleasantly, "Your bill, sir?"

Gideon jerked a thumb at Vigran. "He'll pay."

When Vigran had caught up with Gideon, the lumpy man was gazing intently into a shop window. It featured a display of stretch shoes. There were all about size five. The sign on the window said, "This is your size."

"You're mad!" Vigran panted.

"Shhhh! He's gone into the seed shop across the street."

The short, thick man came out of the store, glancing both ways. He did not notice Gideon or Vigran, whom Gideon had swung around to face the shop window.

"Now," Gideon said. He turned and walked casually down the street. The stocky man was just turning the corner ahead. Now he had two containers in his hand. "Ah!" Gideon said.

Vigran trotted to keep up with Gideon. "That fellow can't have anything to do with Johnny. He's obviously an unspecialized laborer."

"Hah!" Gideon said. They turned the corner. Their quarry was disappearing into the basement entrance of a decrepit, green-tinted

concrete slab apartment building. "I see now why you couldn't possibly find Johnny. It's because of the very nature of specialization."

Vigran said crisply, "Nonsense! I don't know what you're doing, but I know this much: without specialization our society would have disintegrated long ago."

Gideon breathed noisily through his putty nose. "Specialists are tame animals. They are trained to do one thing well. But what happens when they meet totally unforeseen conditions? They fail. They cannot cope, because that is the function of the wild, unspecialized animal. You couldn't find Johnny because his disappearance was unpredictable.

"Every science that deals with man ignores everything except what it deals with. Medicine deals with the physical man, economics with that simplification known as Economic Man, psychiatry with a fictitious creature in whom it would have no interest if he were 'normal,' and one branch of psychology with I.Q. Man, whose only significant aspect is his ability to solve puzzles.

"Literature is the only thing that deals with the whole complex phenomenon at once. If it were to cease to exist, whatever is not considered by one or another of the sciences would no longer be considered at all and would perhaps vanish completely."

Skepticism battled hope across Vigran's face. "Then he's in there?"

"We shall see." Gideon waddled heavily down the concrete steps. "Carl Vigran to see Johnny Sundance," he said to the red door.

The door cleared its throat rustily. "This is the residence of Otto Haber. There is no one here named Johnny Sundance."

"Announce me," Gideon said sharply. "Carl Vigran."

Vigran asked sharply, "Why don't you use your own name?"

"He's afraid of me." The door stood silent and unmoved. "Come, Otto," Gideon muttered. "We are waiting."

Vigran said, "What makes you think he's here?"

Gideon said, "Johnny was fleeing. He was trying to escape. He needed something he had not had for fourteen years—emotional security."

Vigran said in a pained voice, "You're talking my specialty. That isn't done—not by a layman."

"I'm talking about something you've forgotten: love. The kind that asks nothing but the chance to love. The kind that makes no demands, that incurs no responsibilities. Johnny stumbled into Sam's Place—and met Otto."

Vigran looked startled. "What are you trying to imply?"

Gideon turned his massive head so that his pale blue eyes looked straight and hard at Vigran. "Nothing. I am telling you what happened. If you want to make inferences, I can assure you that they are wrong. No one noticed Johnny when he left Sam's Place because he came in alone and left with Otto. No one saw him on the street because it was very late, and your bloodhounds were looking for one man, not two. And here Johnny

has been ever since."

Gideon turned back to the door and began to bang on it with his fist.

"Please!" said the doorbot in a shocked voice. "Sir!"

Vigran said, "All right, then, how did you find him?"

"I checked the central retail food billings. In this neighborhood, only one person's bill has increased in the last few days without reason. Otto Haber's." A furtive note of doubt crept into Gideon's voice. "Oddly enough, though, only by about one-third."

Disgustedly Vigran said, "Guesswork! I should have known better than to follow a fool on a fool's errand." He took a step toward the street.

The door opened a crack. The stocky young man's blond, suspicious face peered out. "What you want?" he asked hoarsely.

"We've come to see Johnny," Gideon said quietly.

"Never heard of him. Ain't nobody here but me." He tried to slam the door, but Gideon was leaning against it. "Get out of here!"

"When we see Johnny," Gideon said.

Vigran tugged at Gideon's sleeve. "Come on, McKenzie. Don't get us both into trouble."

Otto paid no attention to Vigran. His hard eyes were fixed on Gideon. "You got a warrant says you can break in a man's home?"

Gideon shook his head. "No warrant. We can get one if we have to. But if we get a warrant you'll lose Johnny for sure. All we want to do is see him, and we'll leave. If Johnny doesn't want to come, this man promises to leave him alone."

Otto shifted his glaring eyes to Vigran and back again to Gideon. "Who's he?"

"Administrative assistant to the president at the University. Where Johnny was. He wants Johnny back. Let us in now and that will be the end of it."

Unexpectedly the door swung open. "All right," Otto snarled. "See him and get out!"

Otto carried the packages into the bedroom, for once not stopping to look at his flowers or the tank farm. His face was eager as he handed Johnny the plastic container. "Here, Johnny. Here's your beer."

The copper-faced young man lying on the rumpled bed, his black eyes staring blindly at the ceiling with its intricate network of fine cracks, slowly sat up. He took the container and tore off the strip that sealed the top. He raised it to his thin lips and then spat a mouthful on the floor beside the bed. "It's warm," he said flatly. "You stopped somewhere."

"Honest, Johnny," Otto said. "Just long enough to get some bug spray. It must have been warm when they sold it to me. I'll take it back, Johnny. You want I should take it back?"

"No. I don't want it anyway." Johnny laid down again and looked at the mottled wall.

Hopefully Otto said, "I'm gonna make some stew tonight. I got me some real beef bouillon cubes. I'll

get me some potatoes and carrots and cabbage fresh from the farm—Johnny, is there something wrong?"

"Anybody follow you?"

"No, Johnny. I was careful like you said."

"Then why is somebody at the door?"

Otto raised his head and listened. He could hear it now, the cracked voice of the doorbot saying, "Carl Vigran for Johnny Sundance."

Otto said, "I won't go. They got no business here. They'll think nobody's home. They'll go away."

Contemptuously Johnny said, "They saw you come in. Answer the door."

"Johnny, what are you gonna do?"

"Don't let Vigran in. He'll need a warrant. He's a fool. He'll go away, but he'll be back. As soon as he goes away, I'll leave."

Slowly Otto said, "Where would you go, Johnny? What would you do?"

"Who cares? Now answer the door, stupid!"

Otto said softly, "Don't leave me, Johnny."

THERE WAS a short entrance hall lined on either side with a long box filled with flowers. Their colors were brilliant under the sunlamps beaming down warmly from the ceiling: bright yellow, scarlet, gentian blue, purple, violet, emerald . . . The air was warm and steamy and filled with the odor of green things growing and the mingled scent of many flowers.

Otto had an aersol spray in one hand. He held it as if it were a bomb he was prepared to throw at any moment.

Gideon glanced sharply at the flowers and then led Vigran down the hall over the pitted, green plastic tile. The hall opened into a small living room. The room was dim, but the odor of vegetation was even stronger. The room was made even smaller by a wide, flat tank that covered two-thirds of the floor. There were vegetables growing in it—potatoes, carrots, beets, tomatoes, green beans, corn—their roots floating in a nutrient solution. Somewhere a pump gurgled quietly. It was the only sound in the room.

Gideon's eyes brightened. "Ah. Fresh food!"

Otto sneered. "He's in there!" He pointed to a doorway.

Gideon stopped just inside the next room. It was even smaller than the living room. There was space for a bed, a marred, black table, and two rickety chairs. Curtains closed off an alcove. Gideon guessed that it was a cooking area. The room was sour and dirty.

Johnny was propped up in the bed, the covers wrinkled and gray around him. Beside him was a plastic container of beer. His broad, flat face was turned toward the doorway. He looked at Gideon for a moment with obsidian eyes and then turned his head toward the wall. The room was silent.

"These men," Otto said softly. "They come to see you, Johnny. You know them?"

Johnny didn't move.

Vigran edged into the room and

took it in with one horrified glance. "Johnny! What are you doing here? Why did you run away? What—?"

Gideon said flatly, "Shut up!" He walked over to one of the chairs and drew it up to the bed. Gingerly he eased his massive body onto it, listening to it creak beneath him. When he was sure it would not collapse beneath him, he leaned forward.

He said gently, "Johnny! We aren't going to stay long. We aren't going to take you away unless you want to come. We just want to talk for a moment."

Johnny stared at the wall. Finally, without turning, he said tonelessly, "What are you doing here?"

"Vigran asked me to help."

"Why did you?"

"It was the only way I could be sure he wouldn't cart you off if he did find you. He promised to leave you alone if you decide to stay."

Indignantly Vigran said, "McKenzie!"

"Shut up!" Gideon said wearily.

Johnny said, "How did you find me?"

"Chance," Gideon said.

A slow tremor ran over Johnny's lean body. "No. You thought it all out. You knew. Why don't you leave me alone?"

"We will, Johnny," Gideon said. "In just a moment. I know why you ran away."

Johnny turned his head to look at Gideon. His black eyes were fierce and hawklike. "Do you? Do you really? Do you know what it is to realize that you have wasted your life, that everything you have tried to do is futile, that nothing has any meaning?"

Gideon said, "Yes."

Johnny said violently, "Chance rules the universe. Man is only a minute flyspeck in the cosmos, tossed here and there by the Brownian Movement of fate. He's still a mindless blob of protoplasm.

"I know now what killed my parents. Not an airplane. Chance. Chance brought me to the University. Chance drove me away."

Vigran whispered to Gideon, "I'll get help."

Gideon didn't look away from Johnny. "Stay where you are! He isn't crazy."

Coldly Johnny said, "No. I'm sane. Too sane. Too sane for my own good."

"Come back, Johnny," Vigran pleaded. "If there was anything wrong with the way we treated you, if—" He looked at Johnny's eyes and stopped.

Gideon said, "He doesn't understand, Johnny. I think maybe you owe him an explanation. Other men have disappeared. It's driving him insane."

"Let him read my notes. It's all there."

Otto had been looking at Johnny without understanding. Now he said, "You want I should throw them out, Johnny?"

Vigran turned on him furiously. "You, Haber! You know what you've got here in this rat's nest? The finest mind of our generation. He's got more than fifty thousand dollars in the bank, and he's lying here in rags and filth."

Otto's puzzled eyes turned back toward Johnny. "Is that right,

Johnny? You got all that money?"

Johnny shrugged. "What good is it?"

"You could go back to that?"

"I'm never going back."

Otto took a step toward the bed. "I been keeping you, buying you beer. And you got fifty thousand. You're no good, Johnny! I don't like you." His voice was climbing toward a scream. "Get out!" He hit Johnny across the face with the back of his hand. "Get out!"

The most important single gift of science to civilization was freedom from superstition: the idea that order, not caprice, governs the world, that man was capable of understanding it. Beginning with Newton's discovery of the universal sway of the law of gravitation, man felt himself to be in a congenial universe; all things were subject to universal laws.

But that conviction arose from the narrowness of his horizons. When he extended his range he found that nature was neither understandable nor subject to law. For this we may thank Planck, Einstein, Bohr, and Heisenberg.

Heisenberg's uncertainty principle set an unsuspected limit on the accuracy with which we can describe physical situations. If we measure one quality accurately we can't do the same for another. Perfect accuracy in the measurement of the position of an electron denies us any measurement at all of its velocity. Therefore an electron can't have both position and velocity.

A physical concept has meaning to the physicist only in terms of some sort of measurement. A body has position only in so far as its position can be measured. If it can't be measured, the concept is meaningless—a position of the body doesn't exist. By choosing whether we shall measure position or velocity, we determine which of those qualities the electron has. The physical properties of an electron are not inherent; they involve the choice of the observer.

The law of cause and effect is invalid; it gives only an approximation (just as quantum mechanics gives its answers only in statistical probability). Events are not causally connected; the concept of cause has no meaning.

Whenever we observe something, our sensory equipment reacts on the object observed, and that interaction can't be reduced below a minimum. When the minimum interaction is taking place, the object can't be observed; we can't measure with an instrument as coarse as the thing we are trying to analyze.

The physicist has come to the end of his domain. He has reached the point where knowledge must stop because of the nature of knowledge itself. Beyond this point, meaning ceases. We do not live in a world of reason, understandable by the intellect of man. As we penetrate deeper, the very law of cause and effect which we had thought to be a formula to which we could force God himself to subscribe, ceases to have meaning.

(Excerpt from the notebooks of Johnny Sundance)

JOHNNY LOOKED at Otto with eyes that were suddenly warm with knowledge. While his cheek slowly grew a darker red, he said gently, "Don't be a fool, Otto. You can't drive me away." He looked at Vigran. "I don't think I can ever forgive you."

Gideon said, "He's desperate. He's lost."

"There's no way of predicting photon movements," Johnny threw at Vigran. "No way at all. They're governed by chance."

Vigran looked bewildered and afraid. "That doesn't make sense. That's no reason to—"

Gideon said ironically, "It isn't your specialty. The function of intelligence is to solve problems. What if it finds a problem for which there can be no solution? It protects itself by going mad or denying its own existence. Johnny is a specialist, and his specialty has led him into a blind alley where the only way to go is out the way he came in."

Johnny repeated, "Chance rules the universe."

"That's—that's nothing but superstition."

Gideon said, "Science giveth and science taketh away."

"Get this," Johnny said. "This is the last time I'll say it, the last time I'll think about it. You're trying to determine the position and velocity of an electron. In order for it to be seen, a photon must strike it and be reflected into your detection instrument, but the very act of striking deflects the electron so that it isn't where it was or it isn't going with the velocity it had. "Make two slits. Reflect a photon so that it may enter either one. Which does it enter? Sometimes one, sometimes the other. And you can't ever be sure which!"

Vigran shook his head desperately. "But that all takes place at the level of the electron. It doesn't affect us."

Gideon said, "Compton suggested an experiment in which a ray of light is diffracted through two slits so that it may enter either of two photoelectric cells. Through one it explodes a stick of dynamite; through the other it throws a switch which prevents the dynamite from exploding. What determines whether the dynamite explodes? Chance."

Johnny said quickly, "In the same way the nervous system of a living organism acts as an amplifier, so that its actions depend on events on so small a scale that they are subject to Heisenberg Uncertainty. A neuron fires or does not fire because at a lower level an electron goes one way or another."

Vigran looked back and forth between them. "But then it's an old idea. You already knew this, Johnny. Why should it bother you now?"

Johnny shivered. "I accepted it intellectually. Now I know it. It's no use trying to understand the universe. Intelligence is worthless. The universe is governed by pure chance." With a finality that seemed beyond argument Johnny turned his head once more to the wall. "Now go away."

Vigran began, "But—"

Otto turned on Vigran savagely as if he was hoping for resistance.

"You heard him. Get out!"

"Just a moment," Gideon said quietly. "I'd like to talk to you a moment, Otto. How would you like a job?"

Johnny turned his head to look back at Gideon suspiciously. Otto's eyes narrowed. "What kind of job?"

"Doing what you're doing here. Growing things. Only all the time and with more equipment."

"Where?" Otto said hoarsely.

"At the University."

"McKenzie—" Vigran exclaimed.

"Shut up, Vigran! What do you say, Otto?"

"What do they want food for?" Otto asked sullenly.

"Not food, Otto—knowledge."

"See here, McKenzie!" Vigran broke in. "We can't hire him. He's a layman. He doesn't have a specialty or a degree—"

Gideon turned on him fiercely. "You're interested in the green thumb phenomenon. Talent isn't all intellectual. How did he do that?" He jerked his thumb toward the tank filled with flourishing vegetation."

Vigran spluttered, "Why he just —He knows—"

"A layman? Without a specialty or a degree? He doesn't know anything. He's got a green thumb. Why?"

"Maybe," Vigran muttered. "Maybe."

Gideon turned back to Otto. "What do you say, Otto? It means two or three times what you're making now. It means a chance to do what you like to do. Grow things. And find out why they grow for you."

Johnny said fiercely, "Don't do it, Otto! They'll tear you apart!"

Otto frowned. "What about Johnny?"

"He can live with you at the University until he decides what he wants to do."

Johnny said, "It's just a trick, Otto!"

"I don't go without Johnny."

"Let me talk to him," Gideon said. "For the last time. Go talk to Dr. Vigran about the job."

Otto hesitated for a moment and then with a long look at Johnny left the room. The little room was silent for a long time while Gideon and Johnny looked at each other.

"Why are you doing this to me?" Johnny asked.

Gideon said, "I know what you're going through."

Violently Johnny said, "You! What do you know?"

"I went through it myself. These others—they can't understand what it is to stake their lives on an idea —and feel the idea vanish beneath them. You're floundering, Johnny, trying to find solid ground. Don't do yourself irreparable damage in the process."

"You're lying to me."

Gideon took a deep breath. For a moment he looked not like a lumpy old man but a hero. "Look at me, Johnny! Why do you think I'm a fat buffoon wasting my talent on potboilers. Why do I punish myself and the world, lashing out at everyone who comes within tongue's range? Because I lived too

long with fear and despair."

Johnny said hopelessly, "There isn't any solid ground."

"Think of this. If cause and effect is overthrown, so is predestination. Free will is given back to Man. He can choose without the inner certainty that the choice was made for him by an inexorable pattern fixed in the instant of the explosion of the primordial giant atom. You're free, Johnny. You can be whatever you want to be—except God."

Johnny laughed, but his voice broke in the middle. "Who wants to be God—that must be a lousy job. But what else is there to be?"

"A man. A suffering, erring, loving man. A free man. God is inextricably bound by his own omniscience. Only man is free."

"But what is there to do?"

"Perhaps there are other routes besides intelligence, other ways to control chance. Ask Otto how he does it; ask him in a way he can answer, as you would ask a question of nature. Other people have similar talents. Find out how they work, and perhaps you can make another assault on the citadel of ultimate knowledge."

Johnny stretched his arms out wide and sat up on the edge of the bed. Suddenly he looked very young. "Perhaps," he said. "I'll—I'll think about it."

Gideon said gently, "Yes, Johnny. You think about it."

In the next room, Gideon said, "Go in with Johnny, Otto. I think he would like to talk to you."

Vigran whispered, "Well? Will he come back?"

Gideon nodded wearily. "Yes. He'll come back." His pale eyes moved slowly around the room. He stared thoughtfully at the hydroponic tank.

"What about the others?"

Gideon spun around angrily. "That's your responsibility! I do not like to play God." His voice dropped. "I do not like it at all."

END

BY ROBERT SILVERBERG

He had been sent to the psiless world to learn to hide his t.k. power. That was very clear. But how was he to survive?

hidden talent

THE SPACEPORT on Mondarran IV was a small one, as might be expected on the sort of fifth-rate backwater world it was. Rygor Davison picked up his lone suitcase at the baggage depot and struck out into the dry, windy heat of mid-afternoon. The sun—G-type, hot—was high overhead, and a dusty brown dirt road ran crookedly away from the rudimentary spaceport toward a small gray village about a thousand meters away.

There was no one on hand to greet him. Not an impressive welcome, he thought, and began to walk down the dirt road toward the village which would be his home

Illustrated by Virgil Finlay

for the next five years—if he survived.

After he had gone half a dozen steps, he heard someone behind him, turned, and saw a small boy, heavily tanned, come trotting down the road. He was about eleven, and clad in a pair of golden swim trunks and nothing else. He seemed to be in a hurry.

"Whoa, youngster!" Davison called.

The boy looked up questioningly, slowed, and stopped, panting slightly. "Just get here? I saw the ship come down!"

Davison grinned. "Just got here. What's the hurry?"

"Witch," the boy gasped. "They're giving him the business this afternoon. I don't want to miss it. Come on—hurry along."

Davison stiffened. "What's going to happen, boy?"

"They're roasting a witch," the boy said, speaking very clearly, as one would to an idiot or an extremely young child. "Hurry along, if you want to get there on time—but don't make me miss it."

Davison hefted his suitcase and began to stride rapidly alongside the boy, who urged him impatiently on. Clouds of dust rose from the road and swirled around them.

A witch-burning, eh? He shuddered despite himself, and wondered if the Esper Guild had sent him to his death.

The Guild of Espers operated quietly but efficiently. They had found Davison, had trained him, had developed his enormous potential of telekinetic power. And they had sent him to the outworlds to learn how *not* to use it.

It had been Lloyd Kechnie, Davison's guide, who explained it to him. Kechnie was a wiry, bright-eyed man with a hawk's nose and a gorilla's eyebrows. He had worked with Davison for eight years.

"You're a damned fine telekinetic," Kechnie told him. "The guild can't do anything more for you. And in just a few years, you'll be ready for a full discharge."

"Few *years?* But I thought—"

"You're the best tk I've seen," said Kechnie. "You're so good that by now it's second nature for you to use your power. You don't know *how* to hide it. Someday you'll regret that. You haven't learned restraint." Kechnie leaned forward over his desk. "Ry, we've decided to let you sink or swim—and you're not the first we've done this to. We're going to send you to a psiless world—one where the powers haven't been developed. You'll be *forced* to hide your psi, or else be stoned for witchcraft or some such thing."

"Can't I stay on Earth and learn?" Davison asked hopefully.

"Uh-uh. It's too easy to get by here. In the outworlds, you'll face an all-or-nothing situation. That's where you're going."

Davison had gone on the next ship. And now, on Mondarran IV, he was going to learn—or else.

"Where you come from?" the boy asked, after a few minutes of silence. "You goin' to be a colonist here?"

"For a while," Davison said. "I'm from Dariak III." He didn't want to give any hint of his Earth background. Dariak III was a known psiless world. It might mean his life if they suspected he was an esper.

"Dariak III?" the boy said. "Nice world?"

"Not very," Davison said. "Rains a lot."

Suddenly a flash of brilliant fire burst out over the village ahead, illuminating the afternoon sky like a bolt of low-mounting lightning.

"Oh, damn," the boy said disgustedly. "There's the flare. I missed the show after all. I guess I should have started out earlier."

"Too late, eh?" Davison felt more than a little relieved. He licked dry lips. "Guess we missed all the fun."

"It's real exciting," the boy said enthusiastically. "Especially when they're good witches, and play tricks before we can burn 'em. You should see some of the things they do, once we've got 'em pinned to the stake."

I can imagine, Davison thought grimly. He said nothing.

They continued walking, moving at a slower pace now, and the village grew closer. He could pick out the nearer buildings fairly clearly, and was able to discern people moving around in the streets. Overhead, the sun pelted down hard.

A shambling, ragged figure appeared and came toward them as they headed down the final twist in the road. "Hello, Dumb Joe," the boy said cheerily, as the figure approached.

The newcomer grunted a monosyllable and kept moving. He was tall and gaunt-looking, with a grubby growth of beard, open-seamed moccasins, and a battered leather shirt. He paused as he passed Davison, looked closely into his face, and smiled, revealing yellow-stained teeth.

"Got a spare copper, friend?" Dumb Joe asked in a deep, rumbling voice. "Somethin' for a poor man?"

Davison fumbled in his pocket and pulled out a small coin. The boy glared at him disapprovingly, but he dropped the coin into the waiting palm of the panhandler.

"Best of luck, mister," the beggar said, and shuffled away. After a few steps he turned and said, "Too bad you missed the roasting, mister. It was real good."

They proceeded on into the town. Davison saw that it consisted of a sprawling group of two-story shacks, prefabs, apparently, strung loosely around a central plaza—in the heart of which, Davison noticed, was a sturdy steel post with something unpleasant smouldering at its base. He shuddered, and looked away.

"What's the matter, mister?" the boy asked derisively. "Don't they roast witches on Dariak III?"

"Not very often," Davison said. He found that his fingers were trembling, and he struggled to regain control over them.

He thought of Kechnie, comfortably back on Earth. While he was out here, on a fly-plagued dust hole of a world, doomed to spend

the next five years in a two-bit village twiddling his thumbs. It was like a prison sentence.

No—worse. In prison, you don't have any worries. You just go through your daily rock-crumbling, and they give you three meals and a place, of sorts, to sleep. No agonies.

Here it was different. Davison barely repressed a curse. He'd have to be on constant lookout, supressing his psi, hiding his power—or he'd wind up shackled to that steel gibbet in the central plaza, providing a morning's entertainment for the villagers before he went up in flames.

Then he grinned. *Kechnie knows what he's doing,* he admitted despite himself. *If I survive this, I'll be fit for anything they can throw at me.*

He squared his shoulders, fixed a broad grin on his face, and headed forward into the town.

A tall man with a weather-creased face the color of curdled turpentine came toward him, loping amiably.

"Hello, stranger. My name's Domarke—I'm the Mayor. You new down here?"

Davison nodded. "Just put down from Dariak III. Thought I'd try my luck here."

"Glad to have you, friend," Domarke said pleasantly. "Too bad you missed our little show. You probably saw the flare from the spaceport."

"Sorry I missed it too," Davison forced himself to say. "You have much trouble with witches down here?"

Domarke's face darkened. "A little," he said. "Not much. Every once in a while, there's a guy who pulls off some kind of fancy stunt. We've been pretty quick to send them to their Master the second we spot them. We don't want none of that kind here, brother."

"I don't blame you," Davison said. "Men aren't supposed to do things the way those guys do."

"Nossir," the Mayor said. "But we fix 'em when they do. There was a fellow down from Lanargon Seven last year, took a job here as a beekeeper. Nice boy—young, with a good head on his shoulders. Saw a lot of my daughter. We all liked him. We never suspected he was a wronger."

"Witch, eh?"

"Sure was," Domarke said. "Swarm of his bees got loose and broke up. They come after him, and started stinging away. Next thing we know, he's looking at them kinda funny and fire starts shootin' from his fingertips." Domarke shook his head retrospectively. "Burned all those bees to tatters. He didn't even try to stop us when we strung him up."

"Strung him up? How come you didn't burn him?" Davison asked, morbidly curious.

Domarke shrugged. "Wasn't any point to it. Those guys in league with fire, you don't get anywhere trying to burn 'em. We hang them on the spot."

One of Kechnie's boys, probably, Davison thought. *A pyrotic sent out here to learn how to control his power. He didn't learn fast enough.*

He chewed at his lower lip for a second and said, "Guess it's about time I got to my point. Who can I see about getting a room in this town?"

THEY FOUND him a room with a family named Rinehart, on a small farm about ten minutes' walk from the heart of the village. They had posted a sign advertising for a hired hand.

He moved in that afternoon, unpacked his meager belongings, and hung up his jacket in the tiny closet they provided. Then he went downstairs to meet his hosts.

It was a family of five. Rinehart was a balding man of fifty-five or so, dark skinned from long hours of toil in the blazing sun, heavy-jowled and jovial. His wife—Ma—was a formidable woman in an amazingly archaic-looking apron. Her voice was a mellow masculine boom, and she radiated an atmosphere of simple, traditional folksiness. It was, thought Davison, a frame of mind long since extinct on so sophisticated a planet as Earth.

They had three children—Janey, a long-legged, full-bodied girl of eighteen or so; Bo, a sullen-faced, muscular seventeen-year-old; and Buster, a chubby eleven-year-old. It seemed to be a happy familial setup, thought Davison.

He left his room—painstakingly opening and closing the door by hand—and ambled down the stairs. He slipped on the fourth from the bottom, started to slide, and teeked against the landing to hold himself upright. He caught his balance, straightened up, and then, as he realized what he had done, he paused and felt cold dropplets of sweat starting out on his forehead.

No one had seen. No one *this* time.

But how many more slips would there be?

He let the shock filter out of his nervous system, waited a moment while the blood returned to his cheeks, and then finished descending the stairs and entered the living-room. The Rineharts were already gathered.

"Evening, Ry!" Rinehart said pleasantly.

"Evening, sir," Davison said. He smiled at the rest of them, and took a seat.

"All unpacked?" Ma Rinehart asked. "You like your room?"

"It's fine, Mrs. Rinehart."

"Ma, if you don't mind."

"All right—Ma. I like the room just fine. I'm going to be very happy here."

"Sure you are," Rinehart said. "Maybe it's not as fancy a place as some, but you'll like it here. We're good people on this world—sound, sane, feet-on-the-ground people. I can't think of any planet I'd rather live on."

"At the moment, neither can I," Davison lied. "After Dariak III, anything would be an improvement."

"It's a damned rainy world there," Rinehart muttered. "You'll get some good sun on your face here. Two weeks out in my fields and you'll lose that fishbelly pale-

ness of yours, Ry."

Janey appeared in the doorway and glanced indolently at Davison. "Supper's on," she said.

Rinehart scooped himself out of his big chair and they followed him to the kitchen, ranging themselves around the table. "That seat down there's yours," Rinehart said.

Davison sat down. Rinehart, at the head of the table, uttered a brief but devout blessing, finishing up with a word of prayer for the new hired hand who had come among them. Then Janey appeared from the back with a tray of steaming soup.

"Hot stuff," she said, and Bo and Buster moved apart to let her serve it. She brought the tray down—and then it happened. Davison saw it starting, and bit his lip in anguish.

One of the scalding bowls of soup began to slide off the end of the tray. He watched, almost in slow motion, as it curled over the lip of the tray, dipped, and poured its steaming contents on his bare right arm.

Tears of pain came to his eyes—and he didn't know which hurt more, the pain of the soup on his arm or the real shock he had received when he had forced himself to keep from teeking the falling soup halfway across the room.

He bit hard into his lip, and sat there, shivering from the mental effort the restraint had cost him.

Janey put down the tray and fussed embarrassedly over him. "Gee, Ry, I didn't mean that! Gosh, did I burn you?"

"I'll live," he said. "Don't trouble yourself about it."

He mopped the soup away from his corner of the table, feeling the pain slowly subside.

Kechnie, Kechnie, you didn't send me on any picnic!

Rinehart gave him a job, working in the fields.

The staple crop of Mondarran IV was something called Long Beans, a leguminous vegetable that everyone ate in great quantities, pounded down into wheat, and used for a dozen other purposes. It was a tough, almost indestructible plant that yielded three crops a year in the constant warmth of Mondarran IV.

Rinehart had a small farm, ten acres or so, spreading out over a rolling hill that overlooked a muddy swimming-hole. It was almost time for the year's second crop, and that meant a laborious process of stripping the stalks of the twisted pods that contained beans.

There were, of course, machines that whisked down the rows of plants, ripping loose the pods and depositing them in a hopper in which the beans were extracted, the pods baled, and the leaves stripped away, all in a moment. Davison had seen them in operation on Earth one summer, when he'd paid a visit to the farmlands of middlewestern America.

They had such machines on Mondarran IV, too. Lord Gabrielson had one—he was the wealthy landowner who farmed a thousand acres on the other side of the river. Lord Darnley, back the other

way, had one too. But Dirk Rinehart and the other small farmers stripped their pods by hand, without complaining.

"You bend down like this and rip," Rinehart said, demonstrating for Davison. "Then you swivel around and drop the pod in the basket behind you."

"Doesn't look like fun," Davison said.

"It isn't." Rinehart straightened up and extended a thick, powerful, corded forearm. "This is what happens to you after a while. But hard work's its own reward, son. Don't ever forget it."

Davison grinned. "Don't worry about me, sir. I'm here to work."

"I wasn't accusing you, boy. Come on—take a furrow through with me, just to get the feel of it."

Rinehart strapped the harness around Davison's shoulders, then donned his own, and together they started through the field. Overhead, the sun was high. It always seems to be noon on this planet, Davison thought, as he began to sweat.

Purple-winged flies buzzed noisily around the thick stalks of the bean-plants. Dragging the basket behind him, Davison advanced through the field, struggling to keep up with Rinehart. The older man was already ten feet ahead of him in the next furrow, ducking, bobbing, yanking, and depositing the pod in the basket, all in a smooth series of motions.

It was hard work. Davison felt his hands beginning to redden from the contact with the rough sandpaper surfaces of the plants' leaves, and his back started to ache from the constant repetition of the unaccustomed pattern of motion. Down, up, reach around. Down, up, reach around.

He ground his teeth together and forced himself to keep going. His arm was throbbing from the exertion of using muscles that had lain unbothered for years. Sweat rolled down his forehead, crept into his collar, fell beadily into his eyebrows. His clothes seemed to be soaked through and through.

He reached the end of the furrow at last, and looked up. Rinehart was waiting there for him, arms akimbo, looking almost as cool and fresh as he had when he had begun. He was grinning.

"Tough sled, eh, Ry?"

Too winded to say anything, Davison simply nodded.

"Don't let it get you. A couple of weeks out here, and it'll toughen you up. I know how you city fellows are at the start."

Davison mopped his forehead. "You wouldn't think just pulling pods off a plant could be so rough," he said.

"It's tough work, and I'm not denying it," Rinehart said. He pounded Davison affectionately on the back. "You'll get used to it. Come on back to the house, and I'll get you some beer."

DAVISON STARTED in as a full-time picker the next day. It was, like all the other days promised to be, hot.

The whole family was out with him—the two elder Rineharts, Janey, Bo, and Buster. Each had

his own harness strapped on, with the basket behind for dropping in the pods.

"We'll start down at the east end," Rinehart said, and without further discussion the entire crew followed him down. Each took a furrow. Davison found himself with Janey on his left, Bo Rinehart on his right. Further down the field, he could see Dirk Rinehart already fearsomely making his way through the close-packed rows of plants, a two-legged picking machine and nothing more. He watched the older man's effortless motions for a moment, and then, conscious that Janey and Bo were already a few steps ahead of him, he set to work.

He was wearing an open shirt and a pair of ragged trousers that he'd had since his college days. It was his most comfortable outfit. Bo was wearing a pair of jeans, no shirt; the upper part of his body, sunbronzed and heavy-muscled, gleamed brightly. Buster, the younger brother, whose body still retained some youthful chubbiness, was clad in the swim trunks that seemed to be the customary boys' garb. Janey wore briefs and a sort of wraparound halter; Davison eyed her lean brown legs approvingly. It was an efficient farming machine, this family. He plunged into his work with a will, happy to be part of their unit.

The morning sun was still climbing in the sky, and the day had not yet reached its peak of heat, but Davison began to perspire after only a few moments of bending and yanking. He stopped to rub his sleeve over his forehead and heard light, derisive laughter come from up ahead.

Flushing hotly, he glanced up and saw Janey pausing in her furrow, hands on her hips, grinning back at him. It was much the same pose her father had taken the day before, and it irritated him. Without saying anything, he bent his head and returned to the job of picking.

A muscle at the base of his right arm began to complain. It was the business of reaching back and thrusting the picked pod into the basket that was doing it, straining the arm-socket muscles in a way they had never been used before.

Kechnie's mocking words drifted back to him. *"You don't want your muscles to atrophy, son."* They had been words spoken lightly, in jest—but, Davison now realized, they carried with themselves a certain measure of truth.

He had relied on his psi for the ordinary tasks of life, had gloried in his mastery of the power to relieve himself of a portion of everyday drudgery. Little things—things like opening doors, pulling up hassocks, moving furniture. It was simpler to teek an object than to drag it, Davison had always felt. Why not use a power, if you have it to perfection?

The answer was that he didn't have it to perfection—yet. Perfection implied something more than utter control of objects; it meant, also, learning moderation, knowing when to use the psi and when not to.

On Earth, where it didn't matter, he had used his power almost

promiscuously. Here he didn't dare to—and his aching muscles were paying the price of his earlier indulgence. Kechnie had known what he was doing, all right.

They reached the end of the furrow finally. Davison and Buster Rinehart came in in a dead heat for last place, and Buster didn't even seem winded. Davison thought he caught a shred of disapproval on Rinehart's face, as if he were disappointed at his hired hand's performance, but he wasn't sure. There was a definite expression of scorn on Janey's face; her eyes, under their heavy lids, sparkled at him almost insultingly.

He glanced away, over to Rinehart, who was emptying his basket into the truck that stood in the middle of the field. "Let's dump here before we start the next row," he said.

The field seemed to stretch out endlessly. Davison lifted his basket with nerveless fingers and watched the gray-green pods tumble into the back of the truck. He replaced it in his harness, feeling oddly light now that the dragging weight no longer pulled down on him.

He had a fleeting thought as they moved on to the next batch of furrows: *How simple it would be to teek the pods into the baskets! No more bending, no swivelling, no arms that felt like they were ready to fall off.*

Simple. Sure, simple—but if Janey or Bo or any of the others should happen to turn around and see the beanpods floating mysteriously into Davison's basket, he'd be roasting by nightfall.

Damn Kechnie, he thought savagely, and wiped a glistening bead of sweat from his face.

What had seemed like a wry joke half an hour before now hung temptingly before Davison's eyes as as very real possibility.

He was almost an entire furrow behind the rest of them. He was disgracing himself. And his poor, unused, unathletic body was aching mercilessly.

He had the power, and he wasn't using it. He was penning it up within himself, and it hurt. It was the scalding soup all over again; he didn't know if it hurt more to keep bending and dragging his numb arm back up again in the blistering heat, or to pen the psi up within him until it seemed almost to be brimming out over the edges of his mind.

Davison forced himself to concentrate on what he was doing, forced himself to forget the power. *This is the learning process,* he told himself grimly. *This is growing up. Kechnie knows what he's doing.*

They reached the end of the furrow, and through a dim haze of fatigue he heard Rinehart say, "Okay, let's knock off for a while. It's getting too hot to work, anyway."

He shucked off his harness and dropped it where he was, and began to walk back toward the farmhouse. With an unvoiced sigh of relief, Davison wriggled out of the leather straps and stood up straight.

He made his way across the field, noticing Janey fall in at his side.

"You look pretty bushed, Ry," she said.

"I am. Takes a while to get used to this sort of work, I guess."

"Guess so," the girl said. She reached out and kicked a clump of dirt. "You'll toughen up," she said. "Either that or you'll fall apart. Last hired man we had fell apart. But you look like better stuff."

"Hope you're right," he said, wondering who the last hired man was and what power it was that he had cooped up within himself. For some, it wouldn't be so bad. A precog wouldn't need a training session like this—but precogs were one in a quadrillion. Telepaths might not, either, since anyone who had tp already had such a high-voltage mind that this sort of kindergarten toilet-training was unnecessary.

It was only the garden-variety espers who needed trips to the psi-less worlds, Davison thought. Telekinetics and pyrotics, and others whose simple, unspecialized powers lulled them into false security.

A new thought was entering Davison's mind as he crossed the field, with Janey's distracting legs flashing at his side. A normal man needed some sort of sexual release; long-enforced continence required a special kind of mind, and most men simply folded from the sustained tension.

How about a normal esper? Could he keep his power bottled up like this for five years? He was feeling the strain already, and it was just a couple of days.

Just a couple of days, Davison thought. He'd been hiding his psi only that long. Then he stopped to think how many days there were in five years, and he began to perspire afresh.

Two more days in the field toughened him to the point where each picking-session was no longer a nightmare. His body was a healthy one, and his muscles adapted without too much protest to their new regime. He could hold his own in the field now, and he felt a gratifying broadening of muscle and increase of vigor, a development of mere physical power which somehow pleased him mightily.

"Look at him eat," Ma Rinehart commented one night at supper. "He puts it away like it's the last meal he's ever going to see."

Davison grinned and shovelled down another mouthful of food. It was true; he was eating as he had never eaten before. His entire life on Earth seemed peculiarly pale and cloistered, next to this ground-hugging job on Mondarran IV. He was rounding into fine shape, physically.

But what was happening to his mind was starting to worry him.

He had the tk well under control, he thought, despite the fairly constant temptation to use it. It hurt, but he went right on living without making use of his paranormal powers. But there was a drawback developing.

Early on the fifth morning of his stay on Mondarran IV, he came awake in an instant, sitting up in bed and staring around. His brain seemed to be on fire; he blinked,

driving the spots away, and climbed out of bed.

He stood there uneasily for a moment or two, wondering what had happened to him, listening to the pounding of his heart. Then he reached out, found the trousers draped over a chair, and slipped into them. He walked to the window and looked out.

It was still long before dawn. The sun was not yet gleaming on the horizon, and, high above, the twin moons moved in stately procession through the sky. They cast a glittering, icy light on the fields. Outside, it was terribly quiet.

Davison knew what had happened. It was the reaction of his tortured, repressed mind, jolting him out of sleep to scream its protest at the treatment it was receiving. You couldn't just stop teeking, just like that. You had to taper off. That was it, thought Davison. Taper off.

He made his way down the stairs, sucking in his breath in fear every time they creaked, and left the farmhouse by the side door. He trotted lightly over the ground to the small barn that stood at the edge of the field, brimming over with picked bean pods.

Quickly, in the pre-dawn silence, he hoisted himself up the ladder and into the barn. The warm, slightly musty odor of masses of pods drifted up at him. He dropped from the ladder, landed hip-deep in pods.

Then, cautiously, he brought his tk into use. A flood of relief came over him as he teeked. He reached out, lifted a solitary pod, flipped it a few feet in the air, and let it fall back. Then another; then, two at a time. It continued for almost fifteen minutes. He revelled in the use of his power, throwing the pods merrily about.

One thing alarmed him, though. He didn't seem to have his old facility. There was a definite effort involved in the telekinesis now, and he sensed a faint fatigue after a few moments of activity. This had never happened to him before.

The ominous thought struck him: suppose abstinence hurt his ability? Suppose five solid years of abstinence—assuming he could hold out that long—were to rob him of his power forever?

It didn't seem likely. After all, others had gone on these five-year exiles and returned with their powers unimpaired. They had abstained—or had they? Had they been forced into some expedient such as this, forced to rise in the small hours and go behind someone's barn to teek or to set fires?

Davison had no answers. Grimly, he teeked a few more pods into the air, and then, feeling refreshed, he climbed back out the window and down the long ladder.

Buster Rinehart was standing on the ground, looking up curiously at him.

He caught his breath sharply and continued descending.

"Hey there," Buster said. "What you doin' in there, Ry? Why ain't you asleep?"

"I could ask you the same thing," Davison said, determined to bluff it out. His hands were shaking. What if Buster had spied

on him, watched him using his power? Would they take a small boy's word on so serious a charge? Probably they would, on a psiless, witch-hysterical world like this. "What are you doing out of bed, Buster? Your mother would whale you if she knew you were up and around at this hour."

"She don't mind," the boy said. He held out a bucket that slopped over with greasy-looking pale worms. "I was out gettin' fishbait. It's the only time you can dig it, in the middle of the night with the moons shining." He grinned confidentially up at Davison. "Now what's your story?"

"I couldn't sleep. I just went for a walk," Davison said nervously, hating the necessity of defending himself in front of this boy. "That's all."

"That's what I thought. Having sleepin' troubles, eh?" Buster asked. "I know what's the matter with you, Ry. You're out mooning after my sister. She's got you so crazy for her you can't sleep. Right?"

Davison nodded immediately. "But don't tell her, will you?" He reached in a pocket and drew out a small coin, and slipped it into the boy's palm. Instantly the stubby fingers closed around it, and the coin vanished. "I don't want her to know anything about the way I feel till I've been here a while longer," Davison said.

"I'll keep shut," said the boy. His eyes sparkled in the light of the twin moons. He grasped the can of worms more tightly. He was in possession of a precious secret now, and it excited him.

"What say we go back to bed?" Davison suggested.

"I need couple of more worms. You can go, if you want to."

"See you in the morning," Davison said. He turned and headed back to the farmhouse, grinning wryly. The net was getting tighter, he thought. He was at the point where he had to invent imaginary romances with long-legged farmgirls in order to save his skin.

It had worked, this once. But he couldn't risk getting out there a second time. His private teeking in the barn would have to stop. He'd need to find an outlet somewhere else.

Puzzled, he climbed back into bed and pulled the covers down tight. A few minutes later, he drifted into a troubled sleep.

WHEN MORNING finally came, Davison went downstairs and confronted old Rinehart.

"Morning, Ry. What's on your mind, son?"

"Can you spare me for today, sir? I'd like to have some free time, if it's all right with you."

The farmer frowned and scratched the back of one ear. "Free time? At harvest? Is it really necessary, boy? We'd like to get everything picked before season's out. It's going to be planting-time again soon enough, you know."

"I know," Davison said. "But I'd still like to have the morning free. I need to think some things out."

"Got troubles, eh?" Rinehart said sympathetically. He shrugged. "Okay, Ry. I'm no slave-driver.

Take the morning off, if you want. You can make up the time on Sunday."

"Fair enough," Davison said.

The heat was just beginning as he trudged away from the Rinehart farm and down to the muddy swimming-hole at the far end of their land. He skirted it and headed on into the thick forest that separated their land from that of wealthy Lord Gabrielson.

He struck out into the forest, which was delightfully cool. Thick-boled, redleaved trees stood arrayed in a closely-packed stand of what looked like virgin timber; the soil was dark and fertile looking, and a profusion of wild vegetation spread heavily over the ground. Above, there was the chittering of colorful birds, and occasionally a curious bat-winged creature fluttered from branch to branch of the giant trees.

He knew why he was on Mondarran IV: to learn moderation. To learn to handle his power. That much was clear. But how was he going to survive?

The religious setup here was one of jealous orthodoxy, it seemed, and the moral code made no allowance for any deviatory abilities. Psi meant witchcraft—a common equation, apparently, on these backwater psiless worlds. The farmers here had little contact with the more sophisticated planets from which they had sprung, ten or twenty centuries before, and somehow they had reached a point of cultural equilibrium that left no room for psi.

That meant Davison would have to suppress his power. Only—he *couldn't* suppress it. Five days of watchful self-control and he was half out of his mind from the strain. And what if he ran into a position where he *had* to use his psi or be killed? Suppose that tree over there were to fall directly on him; he could push it away, but what would that avail if someone were watching—someone who would cry "Witch!"

Yet men had come to Mondarran IV and returned, and survived. That meant they had found the way. Davison threaded further on into the forest, trying to arrange his thoughts coherently.

The forest, he thought, was a pleasant place, not at all like the fly-bitten farmland beyond. The curtain of trees effectively screened out the searching beams of the sun, and down at shrub-level it was a cool, sweet-smelling, silent world.

He glanced up ahead. A winding river trickled softly through the trees. And, it seemed to him, up ahead a blue curl of smoke rose up over the bushes. Was someone using a fire there?

Cautiously, he tiptoed forward, cursing every time his foot cracked a twig. After a few tense moments, he rounded a bend in the path and discovered where the fire was coming from.

Squatting at the edge of the river, holding a pan in one hand, was Dumb Joe—the beggar he had encountered on the road from the spaceport. The beggar was still clad in his tattered leather outfit, and he seemed to be roasting a couple of fish over a small fire.

Grinning in relief, Davison came

closer. And then the grin vanished, and he stood in open-jawed astonishment.

Dumb Joe was roasting fish, all right. But there wasn't any fire—except for the radiation that seemed to be streaming from his fingertips.

Dumb Joe was a pyrotic.

Davison hung in midstride, frozen in amazement. Dumb Joe, a filthy, ignorant half-imbecile of a beggar, was casually squatting in the seclusion of the forest, psionically cooking a couple of fish for breakfast. A little further up the bank, Davison saw a rudely-constructed shack which was evidently Dumb Joe's home.

The answer to the whole thing flooded through his mind instantly. It made perfect sense.

It was impossible to live in Mondarran society with a psi power and survive the full five years. It was too hard to keep from unintentional uses of power, and the strains attendant on the whole enterprise were too great for most men to stand.

But one could live *alongside* society—as a wandering hobo, perhaps, frying fish in the forest—and no one would notice, no one would be on hand to see your occasional practice of psi. No one would suspect a flea-ridden tramp of being a witch. Of course not!

Davison took another step forward, and started to say something to Dumb Joe. But Dumb Joe looked up at the sound of the footstep. He spotted Davison standing some twenty feet away, glared angrily at him, and let the pan of fish drop to the ground. Reaching down to his hip, he whipped out a mirror-surfaced hunting knife, and without the slightest hesitation sent it whistling straight at Davison.

In the brief flashing instant after the knife left Dumb Joe's hand, a thought tore through Davison's mind. Dumb Joe would have to be an Earthman like himself, serving his five-year stay out on Mondarran. And therefore it wasn't necessary to hide his own psi power from him, wasn't necessary to let the blade strike—

Davison whisked the knife aside and let it plant itself to the hilt in the soft earth near his foot. He stooped, picked it up, and glanced at Dumb Joe.

"You—teeked it away," the beggar said, almost incredulously. "You're not a spy!"

Davison smiled. "No. I'm a tk. And you're a pyrotic!"

A slow grin crept over Dumb Joe's stubblebearded face. He crossed the ground to where Davison was standing, and seized his hand. "You're an Earthman. A real Earthman," he said exultantly, in a half whisper.

Davison nodded. "You too?"

"Yes," Dumb Joe said. "I've been here three years, and you're the first I've dared speak to. All the others I've seen have been burned."

"*All* of them?" Davison asked.

"I didn't mean that," Dumb Joe said. "Actually hardly any get burned. The Guild doesn't lose as many men as you might think. But the ones I've known about got roasted. I didn't dare approach those I wasn't sure about. You're

the first—and you saw me first. I shouldn't have been so careless, but no one ever comes out this way but me."

"Or another crazy Earthman," Davison said.

He didn't dare to spend much time with Dumb Joe—whose real name, he discovered, was Joseph Flanagan, formerly of Earth.

In their hurried conversation in the forest, Flanagan explained the whole thing to him. It was a perfectly logical development. Apparently a great many of the Earthmen sent to such planets adopted the guise of a tramp, and moved with shambling gait and rolling eyes from one village to another, never staying anywhere too long, never tipping their hands as to the power they possessed.

They could always slip off to the forest and use their power privately, to relieve the strain of abstinence. It didn't matter. No one was watching them; no one expected them to be witches. It was perfect camouflage.

"We'd better go," Flanagan said. "It isn't safe, even this way. And I want to last out my remaining two years. Lord, it'll be good to take baths again regularly!"

Davison grinned. "You've really got it figured," he said.

"It's the simplest way," said Flanagan. "You can't bat your head against the wall forever. I tried living in the village, the way you're doing. I almost cracked inside a month, maybe less. You can't come down to their level and hope to survive; you've got to get *below* their level, where they don't expect to find witches. Then they'll leave you alone."

Davison nodded in agreement. "That makes sense."

"I'll have to go now," said Flanagan. He allowed his muscles to relax, adopted the crooked gait and the character of Dumb Joe again, and without saying goodbye began to straggle off further into the forest. Davison stood there for a while, watching him go, and then turned and started back the way he came.

He had an answer now, he thought.

But by the time he had emerged from the forest and felt the noonday sun beating down, he wasn't so sure. Kechnie had once told him, *"Don't run away."* He hadn't explained—but now Davison knew what he meant.

Dumb Joe Flanagan would last out his five years with a minimum of effort, and when he returned he would get his release and become a member of the Guild. But had he really accomplished his goal to the fullest? Not really, Davison told himself. It wouldn't be possible for him to hide as a beggar forever; sometime, somewhere, it would be necessary for him to function as a member of society, and then Flanagan's five years of shambling would do him little good.

There had to be some other way, Davison thought fiercely. Some way to stick out the five years without burying his head like an ostrich. Some way that would leave him fit to return to society, or to live in some psiless society, and still have his psi power under firm control.

He strode through the hot fields. Off in the distance, he could see the Rinehart family finishing up a furrow. It was noon, and they would be knocking off now. As he looked, he saw sturdy Dirk Rinehart finish his furrow and empty his pods into the waiting truck, and before he had come within shouting distance the rest of them had done so too, and were standing around relaxing after a hard morning's work.

"Well, look who's back!" Janey exclaimed, as Davison drew near. "Have a nice morning's relaxation?"

"I did some heavy thinking, Janey," Davison said mildly. "And I'll be making up my time on Sunday, while you're resting. It balances out."

Old Rinehart came over, smiling. "All thought out, youngster? I hope so, because there's a rough afternoon's work waiting for us."

"I'll be with you," Davison said. He clamped his lips together, not listening to what they were saying, wondering only where the way out might lie.

"Hey, look at me," called a piping voice from behind him.

"Put those down!" Dirk Rinehart ordered sternly. "Get down from there before you break your neck!"

Davison turned and saw Buster Rinehart, standing upon the cab of the truck. He had some bean pods in his hands, and he was energetically juggling them through the air. "Look at me!" he yelled again, evidently proud of his own acrobatic skill. "I'm juggling!"

A moment later he lost control of the pods. They fell and scattered all over the ground. A moment later, the boy was yowling in pain as his father's palm administered punishment vigorously.

Davison chuckled. Then he laughed louder, as he realized what had happened.

He had his answer at last.

Davison gave notice at the end of the week, after working particularly hard in the field. He felt a little guilty about quitting just before planting time, and he had grown to like the Rineharts more than a little. But it was necessary to pull out and move on.

He told Dirk Rinehart he would go after another week had elapsed, and though the farmer had obviously not been pleased by the news, he made no protest. When his week was up, Davison left, gathering his goods together in his suitcase and departing by foot.

He needed to cover quite a distance—far enough from the village so that no one would trace him. He hired one of the nearby farmers' sons to drive him to the next town, giving him one of his remaining coins to do so. Folded in his hip pocket was the crumpled wad of bills that was his salary for his stay at Rinehart's, above room and board. He didn't want to touch that money at all.

The boy drove him through the flat, monotonous Mondarran countryside to another town only slightly larger than the first, and otherwise almost identical.

"Thanks," Davison said simply,

got out, and started to walk. He entered the town—it, too, had its witch-pole—and started looking around for a place to live. He had many preparations to tend to before he would be ready.

SIX MONTHS later, the signs started to appear all over the local countryside. They were gaudy, printed in three colors, bright and eye-catching. They said, simply,

THE PRESTIDIGITATOR IS COMING!

It caused a stir. As Davison drove his gilded, ornate chariot into the first town on his itinerary, the rambling village on the far side of Lord Gabrielson's domain, a crowd gathered before him and preceded him down the main street, shouting and whooping. It wasn't every day of the year that a travelling magician came to town.

He drove solemnly behind them down the wide street, turned the chariot around, and parked it almost in front of the steel witch-pole. He set the handbrakes, lowered the little platform on which he was going to perform, and stepped out, resplendent in his red-and-gold costume with billowing cloak, in full view of the crowd. He saw a little ripple of anticipation run through them at his appearance.

A tall yokel in the front called out, "Are you the presti—prestig—the whatever you are?"

"I am Marius the Prestidigitator, indeed," Davison said in a sepulchral voice. He was enjoying it.

"Well, just what do you do, Mr. Marius?" the yokel replied.

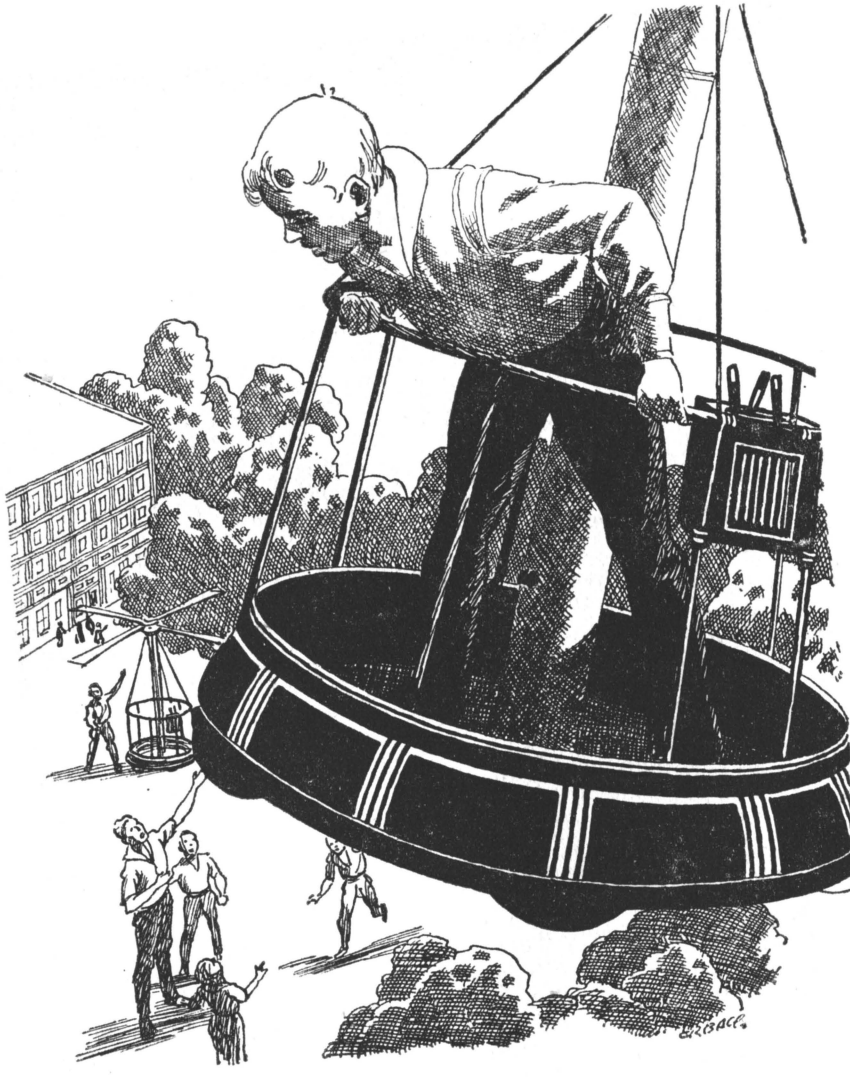
Davison grinned. This was better than having a shill or a trained stooge in the crowd. "Young man, I perform feats that stagger the imagination, that astound the mind, that topple reality." He waved his arms over his head in a wild, grandiose gesture. "I can call spirits from the vasty deep!" he thundered. "I hold the secrets of life and death!"

"That's what all you magicians say," someone drawled boredly from the back of the crowd. "Let's see you do something, before we have to pay!"

"Very well, unbeliever!" Davison roared. He reached behind himself, drew forth a pair of wax candles, struck a match, and lit the candles. "Observe the way I handle these tapers," he said sonorously. "Notice that I handle the fiery flames without experiencing the slightest harm."

He hefted the candles, tossed them aloft, and began to rotate them telekinetically so that whenever they came down, it was the unlit end he grasped. He juggled the two candles for a moment or two, then reached back, drew forth a third, and inserted it into the rotation. He remained that way for a moment, and the crowd grew silent as Davison tottered around under the candles, pretending to be having all sorts of difficulties. Finally, when the wax became too pliable to handle easily, he teeked the candles down and caught them. He waved them aloft. The crowd

(Continued on page 112)



Illustrated by Paul Orban

BY HENRY SLESAR

Ron definitely didn't like what had happened. But who can blame him? How would you like to wake and find your body had been switched for a child's?

BRAINCHILD

RON CARVER'S day was beginning strangely.

For one thing, the legs he swung off the narrow bed wouldn't touch the floor. And his hands, whose ten strong fingers could manipulate the controls of any ship ever launched into space, were weak and clumsy.

He looked at the hands first, looked at them for a long time. Then he screamed.

He screamed until footsteps were loud in the corridor outside his room; shrill, piping screams that didn't stop even when the giant woman-face was bending over him, speaking gentle, soothing words, stroking his thin shoulders with giant, comforting gestures.

"There, there, now," the woman was saying. "You're all right, Ronnie. You're all right. It was only a nightmare . . . a bad old nightmare . . ."

She was right. Only the nightmare hadn't ended. The nightmare was before his face, in her gargantuan features, in her motherly touch on his frail body, in the sight of the small, soft appendages that were his hands.

They were the hands of a boy of twelve. And Ron Carver was thirty years old.

Two men giants joined the woman at his bedside, and one of them forced a small speckled capsule past his resisting lips. Then his viewpoint became detached and distant, and a pleasurable drowsiness overcame him. He stretched out and shut his eyes, but he could still hear the worried tones of their speech.

"Dr. Minton warned us," one of the men said, lifting Ron's bony wrist and feeling for the pulse. "The boy has suffered some severe traumatic shock . . ."

Dr. Minton! Ron Carver's mind grasped the familiar name—the name of his own physician—gratefully. But his body gave no sign.

"Maybe we better call him," the woman said nervously. "I think he's still in the sick bay."

"Good idea."

In another moment, a familiar hairy face was floating over Ron's head like a captive balloon, a face grown grotesque in size.

"Doctor . . ." he said with his lips.

"There." Dr. Minton patted his shoulder. "You're all right now, Ronnie. You're perfectly all right. Just relax and try to sleep." The balloon came closer, and the scraggly ends of the doctor's beard brushed his cheek. Then the doctor's mouth was covering his small ear.

"Play the game," the doctor whispered. "For your own sake. Play the game, Ron . . ."

Then he was asleep.

He awoke to the sound of running feet. He sat up in bed and looked towards the door of the small white room in which he was confined. It was partly open, and the sound of clattering soles and shrill young voices came through clearly.

The door slammed open, startling him. A hoydenish youngster gaped at him. There was a flat lock of reddish hair over his forehead, and his face was freckled.

"Hoy," he said. "What's the matter with *you?*"

Ron stared back wordlessly.

"You sick or something?" the boy said, edging into the room.

"No." His own voice, strange and reedy, frightened him. "No, I'm all right."

"Andy!" A tall man with a frowning face appeared behind the boy. "Come on, fella. Let's not waste any time." He looked at Ron. "You the new chap?"

"Yes."

"Feel well enough for some breakfast?"

"I guess so."

"Fine. Then get some clothes on and come along."

"Hoy," the freckle-faced boy said curiously. "You play airball?"

"That's enough of that." The man paddled the boy's rump. "Get along, Andy. You'll have plenty of time to get acquainted later."

The boy giggled and ran down the hall. Ron got out of bed slowly, and walked towards the undersized clothing that was draped on a nearby chair. He slipped into a gray coverall and said: "Listen—can I talk to you?"

The man looked at his watch. "Well . . . all right, I suppose. But

only for a minute. I promised the boys a game this morning; I'm Mr. Larkin, the athletic director."

Ron hesitated. "Mr. Larkin, I—where am I?"

"Don't you know?" Even the man's smile was half a frown. "You're at Roverwood Home for Boys. Didn't they tell you that?"

"No," Ron said carefully. "I—I don't seem to remember very much. How I got here, I mean."

"Dr. Minton brought you in last evening. He's one of our directors."

"Oh." Ron laced on the tiny scuffed shoes. "And where's Dr. Minton now?"

"Gone back to the city. He's a busy man. Hear they've got him working on some big government project. Well, come on, Ronnie. Breakfast's waiting."

"Yes, sir," Ron Carver said.

He followed the tall man down the hall, having trouble guiding the short stumpy legs that were now his own. They entered a communal dining room, filled with the clatter of dishes and the laughter of boys. He was brought to a long table and seated beside Larkin. The other boys greeted him with only mild interest, but the freckle-faced youth at the other end dropped him a broad wink.

He ate sparingly, choking on the food, his mind working. It was the longest nightmare of his life, and the moment of awakening seemed too far off for comfort.

Then Larkin was standing up and rattling a spoon against a water glass.

"Fellas," he said, "all those interested in this morning's airball game will assemble on the field in half an hour after breakfast. Please don't volunteer unless you're able to handle a PF. Everybody else is invited to see the game."

He sat down, amid cheers. He smiled sadly at Ron, and asked: "How about you, Ronnie? Can you operate a PF?"

"Of course," he answered, without thinking. He'd been using Personal Flyers since he was old enough to dream about flight. On his tenth birthday, his father had bought him one of the earliest models, a cumbersome machine then called a "platform". Since that day, he had become familiar with every man-made thing that flew, from the double-rotored PF's to the sixty-rocket space liners.

"Fine," Larkin said cheerfully. "Then maybe you'd like to play the game."

Ron Carver looked up sharply. *Play the game . . .*

"Sure, Mr. Larkin," he said, forcing his eagerness.

Half an hour later, they were assembled on the huge lawn outside of the main building of Roverwood Home for Boys. The long row of PF's, looking like chrome-plate pot-bellied stoves, gleamed in the morning sun. The boys began to run when they saw their Flyers, and Ron found his arm taken by the freckled youth who had entered his room.

"Hoy," he said. "Follow me. I'll pick you out a lively one!"

The redhead clambered inside a machine marked Seven, and Ronnie followed his instructions by choosing the vehicle marked Nine.

They secured themselves inside, and tested the jet tube set in front of the Flyer. The boys took off from the ground in perfect unison, the redhead bellowing out an introduction over the sound of the wind roaring past their ears.

The PF's descended on a blast from Mr. Larkin's whistle, congregating in the center of the field. Teams were chosen, and Andy was picked as Captain of the Odds. A coin was tossed to decide the playing sequence, and they were ready.

Larkin released the first airball, and the two teams streamed up after it. Andy gunned the engine and reached the ball first. He sent it scooting thirty yards ahead of him with the blast of the airjet pipe, but a member of the Evens team was there to veer it off to the left. Another Evens man, a burly youth of fourteen, took command of it, neatly getting the airball in the sight of his airjet and corkscrewing it towards the goalpost. Ron had grown too old before the game of airball had become popular with the nation's youngsters, but he had seen enough action to have learned some tricks. He pointed his PF directly for the Even machine, and kept coming. The burly youth looked up, startled at the onslaught, and pulled his Flyer away. The fact that the PF's were magnetically collision-proof didn't matter; it was pure instinct. Ron captured the ball in his airjet pipe, and shouted for Andy to block his path towards the goal.

The Odds scored, and the two teams descended for a rest. Andy, the grin wide on his brown-spotted face, said: "You're okay, Ronnie! Hoy, I mean it. You're okay!"

"Thanks," Ron said. He found himself panting.

The game resumed. It ended in a 3-2 score, favor of the Odds. Andy and Ron were cheered as they left the Flyers and headed for the communal showers of the Roverwood Home for Boys.

In the stall, Ron Carver looked down at the spindly frame that was now his body, and began to weep. Andy heard him, but said nothing. Then they dressed and ambled back to the main house, sharing the awkward silence of new friends.

Finally, the older boy said: "I don't mean to butt in, Ronnie. But is somethin' the matter?"

"I—I don't know, Andy. I'm all mixed up. I don't even know how I got here."

"That's easy. Dr. Minton brought you."

"But where is he now, Andy? Dr. Minton? It's very important that I see him."

Andy shrugged. "Not much chance of that. Dr. Minton only comes around once, twice a year.

"But I have to see him! Right away! Will they call him for me?"

"Gosh. I don't think so. He's some kind of big shot in the government now."

They flopped on the grass, and Andy tore out a ragged clump and chewed on it blankly. Ron said: "Andy, I'm in trouble. I need some help."

"No kidding?"

"Yes!" He brought his voice to a whisper. "Andy—what if I told

you that I was really—" He stopped, and examined the open, innocent face in front of his eyes. He knew that it would be useless to tell the truth. "Skip it," he said.

"I don't get you. What's on your mind, Ronnie?"

"Nothing, Andy. I just have to get away from here."

"But you can't. I mean, not until they let you. It's the rules."

"Andy—how long have you been here?"

The boy thought a moment. "Almost nine years," he said blissfully. "Since my folks got killed."

"How long do you have to stay?"

"Why, 'til I'm old enough to work. Eighteen, I guess."

Only six years to go, Ron thought sourly.

He stood up.

"Andy—where do they put the PF's?"

"In the shed."

"Is it possible to get one out?"

"'Course not. Only when we play the game."

"And when will we play another game?"

"Dunno. Tomorrow maybe. It's Sunday."

Play the game. Ron said to himself.

The Evens team member caught the spinning, gas-filled airball in the path of his airjet and kept it moving in front of his Flyer. Andy was after him in a flash, shouting for Ron to join him. But Ron's daring tactics of yesterday seemed to have deserted him. He steered the PF out of the path of the Evens man, and the goal was scored.

On the ground, Andy said: "What's the trouble, Ronnie? Didn't you hear me?"

"Yes, I heard you. Andy, listen. I'm taking off—"

"Sure, in just a minute," the freckled boy said. "But, look, the next time you see me cut across the—"

"You don't understand!" Ron said intensely. "I'm running away!"

"What?"

Larkin's whistle sounded the signal to resume play. The airball shot into the sky, and the two teams sped after it. Andy was late getting started. He looked at Ron and gasped: "You can't do that—"

But Ron Carver was already in flight, and his PF was heading away from the center of the action, heading over the jagged pinetree tops that surrounded the Roverwood Home for Boys, heading for the misty green hills beyond.

Larkin saw what was happening, and he blew his whistle shrilly. The teams descended, thinking a foul had been called. Larkin shouted a command towards the burly youth who had played so aggressively the day before, but then realized it was far too late to stop the swift passage of the PF now disappearing behind the trees.

RON DROPPED the PF to earth as soon as his eyes spotted the first sign of a settled community. He landed the small machine in the shadow of a hillside, and dragged it into the thick underbrush for concealment. Then he trekked to the main highway, until

he reached a road sign that informed him of his location. He was in a town called Spring Harbor, just fifteen miles outside of the city.

He looked down at the waxy newness of his gray Roverwood coverall, and wondered if it was a familiar uniform to the residents. But he had to take the chance. He covered the cloth with dust, and rolled up the trouser legs almost to his knees. Then he broke off a long branch from a sapling and used it as a walking stick. Casually, he strolled into the town proper.

The pose worked. Some people on the porches looked after him with mild curiosity, but no one stopped him. Then he paused at a gas station, and asked the owner of the automatic pump if there was transportation available to the city.

The owner scratched his face and looked at the boy curiously. Ron told a plausible story about being separated from a scouting group, and the man seemed satisfied. He had a pick-up copter going into the city at ten o'clock; he invited Ron to wait inside his house, and even served him a sandwich.

The copter pilot, a genial red-faced man, asked him some gentle questions. Ron answered them guardedly, and told him that his destination was Fordham Terrace. The copter dropped him on the rooftop of the massive office building, and the pilot left with a friendly wave of his hand.

When he was gone, Ron rolled down his trouser legs, brushed his uniform clean, and descended to the fourteenth floor of the building. He walked rapidly along the corridors until he came to the door marked:

WILFRED G. MINTON, M.D.

He rattled the knob. When he found the door locked, he let out an adult oath. It was Sunday, of course. Dr. Minton wouldn't be in on Sunday. And Ron had never known his home address.

He returned to the elevator and went to the ground floor. There was an information booth, and the woman behind the glass was a motherly type. Her eyes softened at his approach.

"Dr. Minton?" she said, lifting an eyebrow. "Why, I guess I do have his adress. But who sent you, young man?"

"Nobody," Ron said. "I was supposed to see him, that's all."

She kept her eyes on his face while her hand leafed through the directory on her desk. "Of course, Dr. Minton doesn't use his office anymore. He gave up his practice here almost a year ago. He was put on an important government project. Dr. Jurgens, his assistant, handles all his patients now. Would you like Dr. Jurgens' number?"

"No," Ron said. "Please. I must see Dr. Minton."

"All right. But I don't know if you can see him without an appointment. He's staying at the Government Medical Center in Washington." She smiled. "That's a long way for a little boy . . ."

"Thank you," Ron said curtly, and walked off.

His mind was racing, tripping over his thoughts. A year ago! But that was impossible! It seemed only days since he had returned from Andromeda, after a five-year absence. One of his first visits had been to Dr. Minton's office—not just to renew an old friendship, but to allow the physician to examine him thoroughly for traces of the varied and deadly diseases that man was subject to on alien worlds. Could it have been a whole year ago? Where had he spent the time between? And what had happened to give him the body of a twelve-year-old child?

He fought off the questions. He had no time for the puzzle now; there weren't enough pieces to make sense. He had only one thought: to find the doctor.

But that was a major problem all by itself. Washington was a good hour away by fast copter service. And in this big, suspicious city, it wouldn't be as easy to obtain free transport to his destination. He could do nothing—not without money.

When he thought of money, he thought of Adrian.

Adrian . . .

Of course! Adrian would know what to do next. Adrian always seemed to know what to do. Her father's money had opened every conceivable door in this city, and she herself had often suggested that it open doors for him. Doors to the executive heights of the Space Transport Company. Doors to the plush offices in the sky tower, doors to the select circle of cigar-smoking men who controlled the transportation empire of which Ron had been only a spare part. But Ron Carver had been young (he thought now, sourly) and his head had been stuffed with ideals. He detested the groundworms who stayed home and counted the profits of space travel. He wanted the stars.

So he had become a pilot, one of the best in her father's fleet. She had sworn at him for his decision, and turned away from his embrace. But on the night of their parting, the night before the dawn ascent towards the speck of light that was Andromeda, she had softened, and cried in his arms.

He thought now of that moment, and his small fingers rolled into fists.

Adrian, he thought. *I must go to her . . .*

The doorman was magnificent and imposing in his braided uniform, but his eyes were cold when he saw Ron.

"What do you want, son?"

"I—I have a message for Miss Walder. It's very important."

"Okay, son. You just give your message to me."

"No! I'm supposed to deliver it in person!"

The doorman grunted. "Wait a minute." He put in a call to the penthouse apartment. The idea of a twelve-year-old visitor must have amused the girl. He brought back an invitation for Ron to enter her home.

Ron stepped off the elevator, and his stomach was churning. What would she say when she saw him? Would she believe his story? Would

she help him find an answer?

Adrian came to the door herself, and the amusement was evident on her long, smoothly-planed face. Her auburn hair was swept back in Grecian ringlets, and the gown she wore was blindingly white. "Come in, dear," she said, smiling.

The effect of looking up at the girl, now a sort of giantess in his eyes, made Ron dizzy. He swayed against the doorframe, and her cool fingers steadied him.

"You poor boy," she crooned. "Come inside."

She half-carried him to the downy sofa. For a full minute, he was too choked to speak. She offered him a glass of milk, but he asked for water. She brought some to him, and he coughed.

"Now," the girl said, spreading the wide skirt over her knees, "just what was it you wanted to tell me?"

"I—"

"Come now." She smiled endearingly, and brushed back the hair from his forehead. "You must have had something on your mind."

"Yes," he said at last, his voice strained. "Yes, Adrian. I—I'm Ron . . ."

"What?"

"I'm Ron Carver! No, listen, I'm not mad. It's really me, Ron!"

She had stood up, shocked. Then she laughed.

"Adrian, listen to me! Something happened to me when I returned from Andromeda. I don't know what. I found myself at a boy's home near Spring Harbor."

"Now, really! This is the craziest—"

"I know it's crazy!" He wiped his forehead in an adult gesture. "But it's true, Adrian. I've been—changed somehow. I don't know why. But it's something to do with Dr. Minton."

She sat down again, limply. Then she studied his face, and for a moment, Ron thought she was seriously considering his predicament. But then the laugh started again, the same slightly off-key laugh Ron remembered.

"Adrian, you must believe me! I can prove it! Just listen to me for a moment!"

She stopped the laugh and grew serious, her eyes caught by the intensity of his own. "All right," she whispered. "I'll listen . . ."

"My name is Ronald Carver. I'm thirty years old. I'm a Captain of the Walder Space Transport Company. I have been in the Andromeda system for the past five years. I returned to Earth—" he stopped, and swallowed hard. "I don't know exactly when. I went to see Dr. Minton, an old friend and a physician. He examined me, and then—"

She stared, fascinated.

"And then I was a child! A child of twelve, in a home for boys. I ran away from there this morning, and came looking for Dr. Minton. I've been told that he's in Washington. I must get to him. I must find out what's happened to me—"

She was shaking her head, slowly, eyes still fixed on his face. He got up from the sofa and came towards her. His small hand reached out and patted the fine bones of hers.

"You must remember," he said.

"You must believe me, Adrian. Remember our last night together? Right here? We stood by that window, and you cried in my arms. And then we . . ."

She tore her hand away, as if burned. Then she stood up, looking horrified.

"Get out of here!" she shrieked. "You little monster!"

"Adrian—" Only now did he realize what it must have been like to her, to hear those words from his childish lips, to feel the touch of his tiny hand as he spoke of the night they . . .

"Get out!" she cried, covering her face. "Get out before I call the police!"

"Adrian!"

She screamed, piercingly. This time, the sound brought heavy footside clumping outside her front door. It was thrown open, and a uniformed man with bouncing epaulets was striding towards him.

"No," Ron said. "You must listen—"

"Get him out of here!"

"Sure, Miss Walder!"

He struggled in the big man's grip, while the girl turned her head aside. He managed to squirm from his hold, and broke for the door. The houseman started after him, cursing. Ron's hand went out and grasped a solid metal ash tray. He threw it without thought or aim, but it crashed squarely into the man's face and sent him thudding to the carpet.

Adrian screamed again. He looked at her once more, imploringly. Then he ran for the door, just before she reached for the house telephone.

In the elevator cage, he punched the button marked roof, and fell against the wall, panting.

On the rooftop, he galloped across the metallic surface towards the ledge. He peered over it, and his heart sank when he saw that his stratagem had deceived no one. Police were entering the building, and some were pointing fingers in his direction. With a sigh, he dropped to his knees and rested his head against the cool aluminum surface.

"It's no use," he said aloud.

Then he heard the copter overhead.

He looked up, thinking it was a police vehicle. But then he saw the outmoded design of its fuselage, and the young face at the controls.

It hovered over his head, and a rope ladder unfolded. The youthful pilot said: "Quick! Climb in!"

He blinked at the voice, unbelievingly. Then he scrambled to his feet, and grabbed the dangling ladder. He barely made it into the copter; the pilot had to help.

"Who are you?" he said, gasping.

The boy laughed. "I hate cops, too."

Then they were in the air, and speeding towards the west.

RON CARVER watched the back of the young boy's neck for twenty minutes, while he steered the ancient copter expertly across the skies. He figured that the boy might have been fourteen or fifteen,

but there was a competence in the way his hands moved over the controls, and a steeliness in the way his head sat on his thin neck.

They didn't make much conversation, but Ron gathered that the boy was a member of something called the Red Rockets, an organization with some inexplicable purpose.

It was only after the copter had landed on the roof of a half-decayed slum in the worst part of town, that Ron realized who the Red Rockets were. They were kids, all of them, banded together for mutual defense and in common antagonism toward the world. When he clambered out of the copter, his rescuer grinned and said:

"This is it, pal. This is where the gang meets."

"The Red Rockets?"

"Yeah. This is Shock's house. He's the leader."

They had to descend by stairs; there was no building elevator. When they reached the second floor, the boy put a finger to his lips, and rapped one-two, two-two on the apartment door.

A boy no older than Ron's new body opened it. His dark pinched face grew smaller and darker when he saw the stranger. He looked back into the room before letting them in.

The room was a study in decay. Someone had once wallpapered it in an optimistic pink pattern that was now sardonic in the surroundings. The furniture was rudimentary, and there were no working light fixtures. A battery lamp was sitting in the middle of a wooden table, and three youngsters were playing with a ragged deck of cards.

The tallest of them arose when the newcomers entered. He was the only one wearing a jacket; the others were in shirtsleeves. His hair was black, and unruly to the point of being ludicrous. His wide mouth twisted when he spoke.

"Who's this?" he said. "What's the idea?"

"He's okay," Ron's protector said. "He's an okay kid. I spotted him on a rooftop down on Park. A million cops after him. I dropped down in the copter and picked him up."

The tall boy studied Ron's face. "What's your name?"

"Ron."

"What were the cops chasin' you for?"

Ron hesitated. "Any of your business?"

The tall boy smiled. "Maybe not." He looked towards the others, and winked as if pleased. "Guess he's okay." He held his right hand out to Ron, while his left ducked into his jacket pocket. "My name's Shock, pal. And I'm the leader here. And just so's you don't forget it—"

Pain lanced through Ron's arm and struck the base of his skull. He tried to free himself from the tall boy's grip, but his fingers wouldn't part from the other's flesh. He dropped to his knees in agony, until the grip was broken.

He looked up, his face damp.

"That's your 'nitiation," the tall boy grinned. "Now you know what's

what, Ronnie boy. So if you want to join the Rockets, you'll know where your orders come from."

Shock helped him to his feet. "Right, Ronnie boy?"

Ron shook his head, still bewildered.

"Good deal," Shock said. "Now let's finish that game. You play, kid?"

"No," Ron said. He staggered towards a wooden chair on the side of the room and dropped on it heavily. "No," he repeated, still trying to regain his breath.

Play the game . . .

His rescuer sat beside him. "Don't mind that guy," he whispered. "He does that to everybody. He got some kind of a power in his hands. But he's not a bad guy, Honest."

"Sure," Ron said weakly.

"We get a lot of kicks," the boy said eagerly. "You'll see. We have dogfights with the other gangs. With copters. We only got one, that ain't so much. But we're figurin' on gettin' some PF's next year, if we can collect enough dough in the treasury . . ."

"That'll be great," Ron said. Then he dropped his hand on the other's arm. "Listen—is there any chance of takin' a trip? In the copter?"

"Yeah, sure," the boy said warily. "Only you gotta ask for it in advance. I mean, it's Rocket property, and you gotta sign for it. And even then, if Shock wants to use it—well . . ."

"Why?" Ron said. "Why's that? Because he's the leader?"

"Sure," the boy said simply. "That's the reason."

Ron looked across the room at the card players.

"How do you get to be the leader?"

"I dunno. Shock's the leader 'cause he can lick anybody in the Rockets. That makes sense, don't it?"

"Yes. I suppose so." He chewed his lip. "Listen. Let's say *I* was leader. Could I use the copter then? Any time I wanted?"

"Sure. I mean, if you're the leader, who's gonna stop you?"

"Yes," Ron said. He stood up and walked to the table, watching the cards as they were slapped on the wood.

"Hey, Shock," he said.

The tall boy didn't look up. "What is it?"

"You cheat." A thrill ran through Ron's new body as he said it, and he muttered a small prayer that his guess about Shock's power was correct.

"I *what?*"

"I've been watching you play, and you cheat. You don't even cheat good. You cheat sloppy."

The tall boy stood up slowly, and the other chairs were scraped back in anticipation.

"Now that's something," he said. "That's really something! The kid's here ten minutes, and right away he wants to be buried." His face became grim. "Boy, we've had 'em wise before, pal. But never like this."

Ron planted himself in front of him.

"So?" he said.

Shock's face clouded. "Say, are

you kidding? You really like trouble that bad?"

His right hand lashed out, while the left headed for his jacket pocket. But it wasn't the right that Ron avoided. Both of his short arms shot out towards the tall boy's left, and stopped the descent of the arm. Shock's right hand thudded against Ron's shoulder, the blow only stinging him.

"Hey!" Shock cried. "Hey, you—"

It was a triumph for Ron. He had been right about the electrical circuit woven through Shock's clothing, the circuit he couldn't complete without his left hand tripping the mechanism in his pocket. With the power off, Shock's weapon was useless. He was caught by surprise, and Ron's quick-moving hands tumbled him to the floor.

Before he had a chance to do anything else, Ron was upon him with an upraised chair. He closed his eyes before he swung. The sound of the crash might have sickened him in other circumstances; now it sounded good and satisfying.

Ron looked around the room, panting.

"I'm the leader now," he said. "Understand? I'm the leader!"

The looked at each other uncertainly.

"I'm taking the copter for a while," Ron said, backing towards the door. "Any arguments?"

Nobody answered.

"Swell. So long, pals."

Outside the door, he ran all the way back to the roof and was off before the gang could follow.

The trip took almost two hours. Even Ron's experienced guidance of the controls couldn't push the old copter past its limits, and he was keeping a worried eye on the fuel gauge. It was with a sigh of relief that he dropped the vehicle atop a public parking station in the downtown district, within walking distance of the Government Medical Center.

The sun was dropping fast, and the Washington streets were still filled with Sunday sightseers who found nothing odd in the sight of a solitary twelve-year-old. When he entered the enormous U-shaped edifice that housed a hundred and one government medical projects, he was thinking fast about a plausible story for the receptionist. The best he could do was:

"I'm looking for Dr. Wilfred Minton. He—he's my uncle."

"Dr. Minton?" She was young, and the efficient type. "I'm sorry, but Dr. Minton's been on special assignment for some time. It's not easy to locate him."

"Oh, I know about that," Ron said airily. "But I was supposed to see him today. You see, my mom —his sister that is—she was in a very bad accident . . ." He swallowed hard, wondering if he was being believed.

The woman frowned. "Well, if it's an emergency, I suppose I could check with central control. If it's really important."

"Oh, it's important, all right!" He said this with great conviction.

"Very well, then." She picked up her telephone, and there was much transferring from party to

party. Finally, she lowered the receiver, saying: "He's in the east wing. It's Security territory, so I'll have to see about a pass."

It took another ten minutes for her to locate the authority she was seeking. A young man with crinkly hair and a grim expression came briskly to the desk, asked him a few questions, and then signed his name on a document. Ron put the paper into the pocket of his coveralls, and followed the man to a bank of private elevators.

The man waved him inside one, and he couldn't resist a wide-eyed question.

"Gosh, mister. Are you from the FBI?"

The man couldn't conceal a small pleased grin. "That's right, son. Only you keep it a secret."

"Sure," Ron said. When the door closed and the elevator ascended, he grinned too. Being twelve had its advantages sometimes.

He got off the elevator, and a uniformed guard checked his paper and led him into an anteroom.

"You wait here, son," he said, and left.

Ron waited five minutes. When nothing happened, he tried an adjoining door. It was open. He stepped inside the next room, and saw that it was a bare room with nothing but a row of filing cabinets and an abandoned swivel chair with a definite list to port.

He went to the files and peered at the designation cards.

They read:

PROJECT SCHOLAR.

He shrugged, and tried to open the top file. It was locked. He tried the others, with no better luck.

Then he heard the voices in the anteroom.

For some reason, he sensed danger. He knew he shouldn't be in the file room, that if he were found his visit to Dr. Minton might come to a sudden end. He couldn't take the chance. He tiptoed to the front door of the file room and turned the knob. He slipped out, and ran on his toes down the empty corridor.

Quickly, without thought of the consequence, Ron opened still another door and closed it behind him.

He looked at the shining brass fixtures and ultra modern appliances, and wondered what a kitchen was doing in a government medical building. Then, when he heard a sound in the adjoining room, he reasoned that he had stumbled into someone's living quarters.

He went to a brown mahogany door and pushed against it gently, until he widened the crack sufficiently to make out the figure walking up and down in the other room.

When the man crossed his line of vision, Ron's breath tumbled out in a gasp.

It was his own body. His thirty-year-old body, with its six-foot-two frame of big bones and long muscles, its sandy, close-cropped hair, its brooding eyes and full mouth. It was Ron Carver. It was himself as he had been before.

"Here's the little rascal," a voice said behind him.

THE CRINKLY-haired man took his arm roughly.

"Okay, kid. Let's hear it."

"Hear what?" Ron said plaintively. "I wasn't doing anything!"

"Sure," the guard sneered. "He wasn't doin' a thing. Just snoopin' around, that's all."

The swinging door opened.

"What's going on here?"

Ron Carver looked at himself; at his own face, now strange and stony; at his own eyes, now bright and disinterested; at his own mouth, now a thin line of discontent. He heard his own voice, in a dangerous inflection he had never known before.

"Sorry, sir," the guard said, reddening. "Didn't know you were inside. Wouldn't have disturbed you—"

"How did he get here?"

"Gosh, sir, I really don't know. He says he was lookin' for Dr. Minton—"

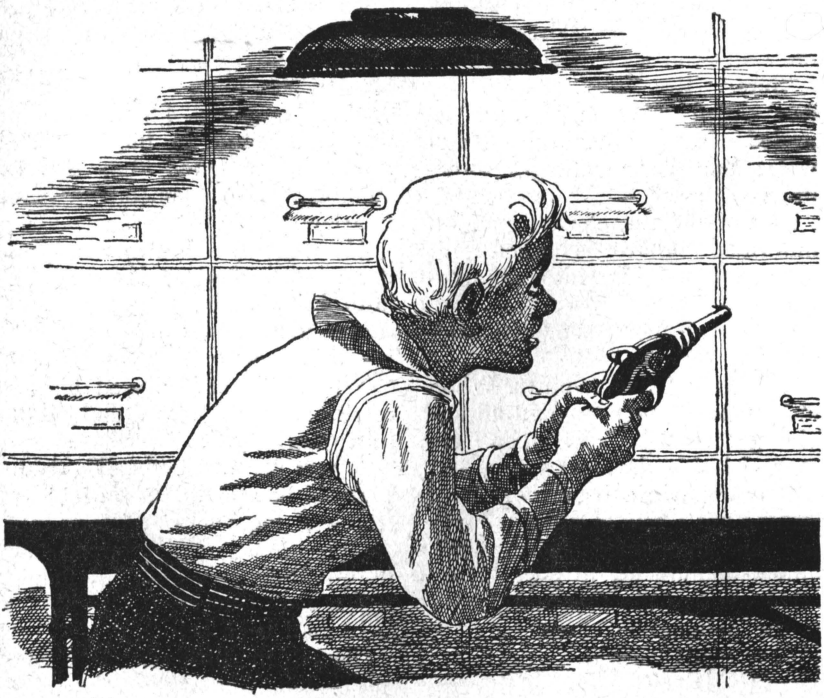
"Minton," Ron Carver's voice said. "Yes, of course. He would be looking for Minton, wouldn't he?"

"Sir?"

"Never mind. Bring the boy into my quarters. Then get Dr. Minton up here at once."

"Yes, sir!"

They pushed the swinging door open and shoved Ron ahead of them. The room was an anomaly in this pristine government build-



ing, a warm room of deep-colored woods and thick carpeting. He was placed in a leather chair, his feet not touching the floor. The two men exited, and Ron Carver's body walked to an oaken desk and sat in the padded swivel chair behind the blotter.

"Well," he said. "This is something of a surprise for me."

"And how about me?" Ron said hoarsely.

The man laughed. "Yes, we are both surprised. Was it Robert Burns? Yes, of course. 'To see ourselves as others see us . . .'" He chuckled, and reached for a cigarette. "Filthy habit, this. Don't know how I picked it up. Possibly a deep-seated trait of yours, Mr. Carver. Odd how these things can be transferred."

The door opened again.

"Dr. Minton!" Ron leaped to his feet.

The doctor's face went white behind the gray beard and moustache.

"Then you've found him," he said softly, to neither of them in particular.

"No," Ron Carver's body answered. "I didn't find him, doctor. Rather, he found us. Isn't that right, Mr. Carver?"

"Yes!" Ron said. "And now I want to know the truth!"

"I, too, need answers," the Ron-body said stiffly. "I need answers

at once, Dr. Minton. I would think this requires an explanation."

"I couldn't do it," the doctor whispered. "I couldn't do what you wanted, Scholar."

"Do what?" Ron said.

"All right, then," the Ron-body said coldly. "You failed once. But you're far too intelligent to make the same mistake twice. So you have your assignment, Dr. Minton. I will get you the help you need. But kill this—this remnant—"

He turned away in disgust, and picked up the telephone. He spoke under his breath for a few moments, and then hung up. "Dr. Luther will be here in just a moment. He'll arrange things with the laboratory. It will all be very painless and quick."

Ron said: "What are you talking about?" He looked wildly towards the old man, who had aged even further since entering the room. "Dr. Minton—"

The door opened. A brisk young man, carrying a small valise, appeared.

"All set downstairs," he said.

"Good," the Ron-body answered. "Then get it over with."

Ron struggled for a moment in the young man's grip, but he found it iron.

"Please, Ron." Doctor Minton's eyes were moist. "Don't make any trouble. Please . . ."

The laboratory was in the basement of the building, an antiseptic room with the acrid odor of chemicals. Dr. Luther prepared something in a hypodermic syringe, while Dr. Minton strapped his former patient onto a padded examining table.

"Doctor . . ." Ron whispered.

"Hush, Ron. It's all right . . ."

"But what is all this? Who am I?"

The doctor frowned. "You're Ronald Carver. You're the same Ronald Carver you always were. But you have made an exchange of bodies. That is all."

"But why? How?"

"I don't really know. God help us. It was *his* project from start to finish—that thing upstairs."

"Who is he?"

"A phenomenon. A mutation. A freak. A genius. A god. I can't explain him. He was born twelve years ago, to normal parents in the middle west. He was a recognized prodigy at the age of six months, a mathematical wizard at one, a scientific genius at three . . . You've heard of this kind of thing, Ron. Once a generation, something like this. And once a millenium—a horror like this one."

"I don't understand! What is Project Scholar?"

"He is. All by himself. The government has taken charge of his abilities, at least for the time being." He snorted. "He's already done things I wouldn't have believed possible in five thousand years of evolution. And yet he is still only twelve years old . . ."

"Only twelve?" Ron squirmed in the straps. "Doctor! This body—"

"Yes, Ron. It's his, of course. He grew angry with it; wanted to discard it, like everything else which doesn't fit his conception of the fitness of things. It was awkward—

a giant's brain in a child's body. So he developed a solution—an operation, involving the total transference of electrical energy . . ."

The doctor's shaggy head bowed. "He needed human help for that. That's when I was brought in as assistant. And it was my function to select the perfect body as a temporary house for his ego . . ."

"Temporary?"

"When this body ages and grows feeble, there will be another. Our friend has outwitted Death itself."

The doctor looked up, his jaw firm.

"I was instructed to destroy his body when the transference was completed. I couldn't do it, Ron. I managed to spirit you away where you would be cared for. It was almost a year before you came to your senses after the operation. By that time, I didn't know what to do with you. My first thought was the Roverwood Home, where I am a director, where you would be lost among many, many boys' faces . . ."

"But why me, doctor? Why me?"

"I had to choose someone, Ron. It was merely a question of who . . ."

Dr. Luther entered, priming the needle.

"Ready?" he said.

"One moment." The doctor's hand covered Ron's mouth, and he felt the contours of a small round pill against his lips. He realized he was meant to swallow it, and he did.

"Ready now," Dr. Minton said.

Dr. Luther performed the injection.

"Good night, sweet prince," he said gently.

When Ron awoke, it was under a blanket of darkness and ice.

He blinked until his eyes became accustomed to the impoverished light that was glowing behind a glass-paned door.

He was on a block of some cold composition, in what must have been the Medical Center's morgue. He reacted with revulsion at the thought, and leaped off. Then he saw that his left hand was holding a sheet of paper. He carried it to the meager light source and read it quickly:

Ron—
Don't wait another moment. You'll find a suit of clothes in the closet left. Leave through back stairway marked N. There is money in suit. Use it to leave the city. Do not return if you value your safety and the life of
M.

He found the clothes as directed, a neatly-cut suit of boy's clothing, with a small wallet stuffed with bills amounting to three hundred dollars. He dressed rapidly, opened the door, and peered down the hall. It was empty as he ran silently towards the exit marked N.

Now he was doubly in debt to Dr. Minton. But he couldn't spare the doctor even now, for his life had been given a new direction and purpose.

He was going to kill the Scholar.

He walked rapidly through the dark streets towards the public

parking lot where the helicopter had been stored. He took the lift to the roof, and walked up to it quickly.

"It's about time, pal."

It was Shock, his hair tousled over his hard, bright eyes. There was a gun in his hand.

"I've been waitin' an hour, you punk. Think you were gettin' off so easy?"

"Look, Shock—"

"You thought you were a clever boy, didn't you? Well, I got news for you—"

"Look, I don't want to be leader. I just needed a copter for a few hours."

"Yeah, sure. Only you forgot something. We put Finder equipment on this baby a long time ago, so we could keep tabs on it."

"You can *have* the copter—"

"I don't want just the copter, Ronnie boy. I want to square a few things with you."

"Look, Shock. I'll make a deal with you. I'll give you two hundred bucks for that gun."

The tall boy's face changed. "What?"

"You heard me. You hand over that gun, I'll give you two hundred dollars."

His eyes narrowed. "Then what? I suppose you'd shoot me and take off. Uh-uh, pal."

"You can check the gun downstairs, and sell me the key."

"Okay," Shock said slowly. "But if you're pullin' something—" He balled his hands menacingly.

They went down to the lower level together. Shock bought himself a public locker, and shoved the gun inside. Then he held up the key.

"Here it is, pal. Two hundred bucks worth."

Ron handed him the money. Shock whistled at the sight of the bills.

"Now," Ron said. "Would you like to make a hundred more?"

He looked at Ron with respect. "Okay. What's the pitch?"

"I want you to make a phone call for me."

"Yeah, sure." Shock looked bewildered. Then Ron explained.

They reached the guard in the East Wing of the Medical Center without much difficulty. Shock crouched over the receiver and said:

"This is Dr. Luther. Something's happened; you better connect me with *him.*"

"Okay, hold on."

There was a wait. Then Ron Carver's own voice, in its eerie new inflection, was on the other end.

"What is it?"

"This is Luther. Something's happened down here. I think the boy got away."

"What? Where are you?"

"In the morgue, downstairs. I think you better come down yourself."

"How could it happen?" The Ron-voice was raging. "How?"

"I don't know. But you better meet me here in ten minutes—"

Ron jabbed Shock in the side, and the tall boy slammed the receiver back into place with a relieved sigh.

"I don't get it," he said. "Who was that guy?"

"Me," Ron said, with a grim smile. He handed Shock the money, and watched him depart, still looking baffled. Then he went to the locker and removed the gun, stuffing it inside his jacket. It bulked large against his narrow chest.

He raced through the streets back to the medical center, heading for Exit N and the morgue.

RON WAS WAITING, gun poised, behind the empty slab. A shadow covered the dim light behind the glass-plated door, and the Ron-body entered the silent room.

He saw his own hand reaching out to flick on the light switch. He saw his own face register dismay and annoyance at the quiet scene.

Then the Ron-body turned and was about to leave.

"Stay awhile," Ron said.

He stood up, revealing the weapon, holding it in both of his small hands for firm control of the trigger.

"Well," his voice said.

"Yes, well," Ron answered. "Very well, thanks. Only I won't speak for you, Scholar. Because I don't think you're well at all. I think you're out of your mind . . ."

The Ron-lips curled.

"Naturally. Genius is akin to madness. It's one of the deep-rooted convictions of the human ego. It reflects their suspicion, their distrust of the superintelligent . . . I understand you, Mr. Carver."

"And I don't understand you! You're something new to me. Maybe you're better than us, maybe you're worse. I don't know, Scholar. But that's not why I'm going to kill you—"

"Oh?"

"No! You think I want to kill you for the sake of the world? Because you're a menace to homo sapiens? Because of your contempt for us ordinary mortals? Hell, no, Scholar! I'm too ordinary myself. I'm killing you for *me,* for Ron Carver! Because I'm sore! Just plain sore!"

He raised the gun.

For a moment, Ron didn't know what had happened. Something else blurred his vision, a fast-moving figure bulking up in front of his target. It was only when he heard the voice that he recognized the intruder as Dr. Minton, and he saw then that the doctor had rescued the Scholar from certain death.

"Stop, Ron—"

"Doctor! Get out of the way!"

"No, Ron. You don't know what you're doing—"

The old man was shielding the Ron-body with his own. Ron put the weapon down.

"But why?" he said.

"Because this is no answer! This is the assassin's way—" He turned to the Ron-body, and his voice was shaking. "Listen, Scholar. I want to arbitrate. Will you listen?"

"Do I have a choice?"

"Yes!" the doctor said fiercely. "Life or death! Will you listen to my terms?"

The Ron-body shrugged. "All right."

"Very well. Then I want you to spare Ron Carver. I want you to

(Continued on page 111)

Illustrated by Ed Emsh

A CASE OF

In the past year the Martian rebels had been pushed back to the wall. All that was left to them was Plan Blue. And what *was Plan Blue . . . ?*

JONNER'S HAND dropped to his pistol and he edged cautiously behind a big rock as another groundcar appeared among the dunes to the south and approached the little group of men. He was sure Sir Stanrich had told him there were to be four others in his little task force: and there were four with him now.

But the new groundcar did not approach like a hostile patrol car. There was an air of confidence about the way its driver swung it up to the others. Jonner held his hand, thinking furiously, as the airtight door swung open and the newcomer leaped lightly to the ground.

The sun was settling over the iron-red wastes of the Isidis Desert. The groundcars clustered like giant beetles at the top of the cliff that dropped straight down to the shadowed lowland of Syrtis Major. The six men in marsuits, huddled at rendezvous, kept their helmet radios low, for Mars City was less than fifty miles east of them.

With the twilight, the blue mist of Mars was beginning to settle toward the ground.

SUNBURN

BY CHARLES L. FONTENAY

Jonner debated with himself. Could he have misunderstood Sir Stanrich? Or could the plans have been changed after he left the Isidis spaceport? No. Then who was the sixth man? And which man was he?

"Regina fell right after I left," said the burly, gray-haired man. That would be Tyruss, the former space captain, who had come here from Regina. "Our troops were falling back along the Hadriacum Lowland. I suppose they plan to make a stand before Charax."

"No, Charax is to be evacuated tonight," said Jonner, and savored the shock of that announcement on his hearers.

He studied the credentials each man had handed him on arrival. There was Tyruss, from Regina. There was Farlan, an astrogator from the Rebel defenses in the Strymon Canals, and there was Aron, who had just arrived, a space engineer from the Hadriacum front. There were Stein, an astrogator, and Wessfeld, an engineer, who had come together in one groundcar from Charax.

The credentials were all alike, except the names. But one of them was—must be—a Marscorp spy.

Jonner could not check with Sir Stanrich by radio—Mars City was too close, and they would be overheard. He had no time to spend investigating his personnel—Sir Stanrich had impressed on him that their mission must be carried out on schedule.

He decided he would not tell them just yet that one of them could not be trusted. He might be able to trip the spy. But he said:

"One or more of us may be killed or captured, so I'm going to brief everyone. No matter how many of us are lost, those who are left must carry out the mission. What were you told about this?"

"I was told to meet you here and follow your instructions. I was told it's a dangerous and important assignment. That's all," said Tyruss. The others murmured agreement.

"The instructions I give you won't be mine, but those of Sir Stanrich O'Kellin, supreme commander of the Rebel forces," said Jonner. He squatted on the sand and the others crowded around in the blue twilight as he sketched diagrams with his gloved hand while he talked:

"As some of you may have learned, the Charax Rebellion is in danger of collapsing, because our supplies have been running out since Marscorp intercepted and destroyed our last space fleet from Earth. Plan Red, which was our master plan for defeating Marscorp in the field by capturing the dome-cities one by one, has failed. Regina and Charax are being evacuated because we couldn't hold them much longer anyway, and all our people are being transported around the Marscorp territory to the secret underground spaceport we established in the Isidis Desert two years ago.

"This is a temporary measure, to prepare for Plan Blue, our last-gasp emergency plan. Marscorp will no doubt find the location of the underground base by observation of the refugees, but we hope

to have Plan Blue in operation before they can shift their forces from Hadriacum to the desert and break through our defenses."

"I've heard rumors of this Plan Blue," said Farlan, a slight man with blond hair. "What is it?"

"I don't know," conceded Jonner candidly. "I don't think anyone does but Sir Stanrich and a few of our top strategists. But our part of it is this:

"You may not know it, but we lost our last G-boat when we pulled that unsuccessful attack on Phobos early this year. We do have an old spaceship, riding in a polar orbit, that Marscorp doesn't know about, but no way to get up to it. Our job is to capture a Marscorp G-boat, get to that spaceship, capture The Egg and tow it into an Earthward orbit."

"The Egg?" repeated Stein, a dark, chubby fellow. "You mean that ovoid space station of Marscorp's with the antennae sticking out all over it? I've seen that thing floating up there. I always wondered why we didn't blast it."

"Not important enough," said Jonner. "It's an experimental laboratory that amplifies the magnetic field of Mars, and they've been experimenting with it as an auxiliary power station. But neither side is bothered by any lack of power from the atomic energy sources on Mars."

Tyruss appeared annoyed at this.

"Tell me something, Jonner," he demanded. "If it wasn't important enough to blast when we had the ships to do it, why is it important enough for us to capture now?"

"I don't know," said Jonner. "Those are our orders. Now, we leave the groundcars here and go on foot to Marsport. Check equipment, everyone."

"Say," commented Farlan after a moment, "I don't seem to have any sunburn lotion."

"You can have mine," said Aron, laughing. "This far from the sun, I haven't been sunburned yet, and don't expect to be."

"Haven't been on Mars a year yet, have you?" suggested Tyruss.

"No," admitted Aron. "I came from Earth with the last space fleet and escaped in a lifeboat. Why?"

"There's an Earth-sun conjunction coming up. Every time the Earth swings between Mars and the sun, everybody on Mars gets a bad sunburn. When it comes, you better cover yourself with lotion, because clothes don't protect you and even if you're in a city, the domes and house roofs are transparent to pick up the sun's heat."

"We have enough among us," said Jonner. "Besides, if our mission goes off on schedule, we'll be back at base by the time the Earth-sun conjunction starts. Let's head for Marsport."

The six men crouched in the concealing canal sage near the edge of Marsport, the spaceport outside Mars City. The blue mist was a heavy fog that swirled around them.

In the lighted circle of the spaceport area three stubby, two-stage

gravity-boats sat upright, about a hundred yards apart. These were the heavy duty rockets that plied back and forth to Phobos, Mars' inner moon and Marscorp's natural space station, entering the planetary atmosphere of Mars where spaceships could not go. Workmen stirred busily around one of the G-boats; a guard stood at the entrance port of each of the other two.

Jonner tried to assess the evidence, to decide which of his five companions was the Marscorp spy. How Marscorp had found out about the expedition, how the credentials had been forged, how the rendezvous had been learned, did not matter now. Marscorp could not know their plans beyond the rendezvous in the desert, because only he and Sir Stanrich had known the orders Sir Stanrich had given him for this mission.

The fact that Stein and Wessfeld had arrived together from Charax eliminated them as suspects, for the Charax command would have known whether one or two men were to be sent from there.

Jonner did not believe Tyruss was the spy. Jonner had won his space papers just before the Rebellion began, but it was logical that Sir Stanrich would send a more experienced space captain to handle their ship.

That left Farlan and Aron, from different sections of the Hadriacum front. Which one? In their specialties, Farlan was an alternate to Stein as an astrogator, Aron an alternate to Wessfeld as an engineer. But every spaceman could handle every other spaceman's duties in an emergency, and it was hard to say which task they had decided to double up on.

Jonner expected the spy to make some move here, tonight, and he had prepared for it on the way from the desert. One earphone of his helmet receiver was tuned with his speaker to the Rebel band they used, the other was tuned to the local frequency used by Marscorp. Jonner listened with one ear to the occasional reports and orders that were passed around the spaceport.

Jonner punched Tyruss, next to him, twice on the shoulder. It was the signal. The six men rose and moved forward together.

The sentry who loomed before them had no chance. A heat-gun beam is invisible. They cut him down and scurried to the edge of the spaceport, into the circle of light, running in long leaps toward the nearest G-boat.

It was as they broke from the canal sage that the thing happened which Jonner had expected. The words were shouted into the earphone attuned to the Marscorp band: "Attention, Marscorp! Att . . ."

Jonner pressed a button on his belt, and his other defense went into action. A scrambler beam cut in on the attempted warning, and everything on that channel dissolved into a buzzing roar.

Jonner cast a glance down the line of his companions, but they were too far separated for him to see whether any of them was talking into his helmet microphone.

Some of the workmen at the far

G-boat saw them running across the field, and scattered in alarm, but the scrambling prevented them from warning others through helmet communicators. The guard at the G-boat that was their goal saw them when they were fifty feet away. He was cut down as he tried to duck around the G-boat.

They ran up the ramp. Jonner, first to reach the port, stopped and tried to watch his companions as they hurried past him. Tyruss was fumbling at some control on the belt of his marsuit. His radio channel control?

Armed men were converging on the G-boat from all over the field as Jonner slammed and fastened the port. They scrambled up to the nose of the G-boat, and he and Tyruss sank into the pilots' seats.

"Strap down for blast-off!" shouted Jonner, and wished viciously that the spy would still be tuned on the Marscorp band and fail to hear him. But everyone strapped down, hurriedly.

A score of Marscorp soldiers were standing around the G-boat, firing up at its ports with heat-guns. The beams were futile, for G-boats were built to stand frictional temperatures it would take a heat-gun minutes to build to. Halfway across the field, a squad of men wheeled an anti-tank gun into position.

The gentle gravity of Mars quadrupled as the G-boat strained upward on roaring jets, gathering speed. Through the port, Jonner saw the anti-tank gun's muzzle elevate and blossom flame. There was no impact; and there was no opportunity for another shot.

The G-boat curved eastward in a long ascending arc. The first stage dropped off over the Aerian Desert, and in a few moments they were in free fall.

JONNER UNSTRAPPED and floated to each man in turn, examining his control belt. Farlan's channel dial was a fraction off the band they used.

"Farlan, your radio control's off center," said Jonner quietly.

"What?" said Farlan's voice, blurred a little. He fumbled at the dial, and his words came in clearly. "Must have hit it against something."

Or he could have missed a little when he returned the dial to channel after trying to warn Marscorp. But Tyruss had been fumbling with something on his belt as they ran onto the G-boat. No, it wouldn't do to make an accusation against the wrong man.

An automatic calendar on the G-boat's control board showed the date: upright, the Martian date, Aster 32, 24; reversed, the Earth date, June 1, 2020.

Jonner looked down through the port at the inhabited hemisphere of Mars unfolding below them. Those green lowlands, those red deserts, now were all in Marscorp hands—even the cradle of the Charax Rebellion, the dome-city of Charax, at the edge of the edge of the Tiphys Fretum Lowland in the south polar area.

There, six Martian years ago, the rebellion had flared bravely against

the Mars Corporation. Marscorp had held a monopoly on space travel between Earth and Mars since the first Martian colony was established at Mars City in the Earth year 1985. For the supplies Marscorp brought from Earth, the price was kept high. Marscorp also was the OGM—the Official Government of Mars, or, as the colonists read the initials, "Old Greedy Marscorp"—and Marscorp made and enforced the laws.

It had been a fairly even match at first. Marscorp's initial monopoly of the supply lines had been overcome when many of the people on Earth were roused to sympathy for the Rebel cause. Gradually, the Rebels had invested much of the Hadriacum Lowland with its dome-farms and had captured Regina, another of the planet's six dome-cities.

That had been before the disastrous space battle of the year 23. Now, in the past year, the Rebels had been pushed back to the wall. All that was left to them was Plan Blue. And what was Plan Blue?

Jonner looked over his five companions. All helmets were off now, and Jonner couldn't detect a guilty look in any face. He had never seen such pure unanimity of apparent innocence and loyalty.

"Now that we're aspace, we'll go on the customary shifts," he said: "eight hours duty, eight hours sleep, eight hours free time. We'll pair off: Stein with Farlan, Wessfeld with Aron, Tyruss with me.

"And these are special orders: no one is to let the man with whom he is paired out of his sight."

He would not tell them more than that now; he hoped to trap the spy when they approached The Egg.

The spaceship slid up orbit, overtaking the shining ovoid from which antennae sprouted like pins from a pin-cushion. The captured G-boat was lashed to the spaceship's side.

"You'd think they'd have some defenses, anyhow," grumbled Tyruss, watching the ovoid on the screen.

"Why?" countered Jonner. "They knew we didn't have any G-boats left, and they didn't know we had any spaceships left, either. Of course, they don't know this is our target, but I'll bet they have some ships from Phobos on the way here now, anyhow."

Their timing was just right. Thirty minutes later The Egg would swing around the limb of Mars, in line of sight with Marsport. But so far there had been no chance for The Egg to receive a radio warning of the stolen G-boat.

The spaceship pulled abreast of The Egg and Jonner and Tyruss went across to it in spacesuits. They passed through the airlock to find The Egg's crew of three waiting with welcoming smiles. The smiles faded at the sight of their levelled heat-guns.

"Sorry you weren't expecting us," said Jonner, opening the faceplate of his spacesuit with his left hand. "You'll have to get into spacesuits."

They sent their captives through the airlock and across the interven-

ing space to the spaceship, where the others would be awaiting them. Then Jonner and Tyruss searched The Egg for other Marscorp personnel. They found none.

"We'd better get a line on her and get under way before those ships from Phobos can get here," said Tyruss.

"Right," agreed Jonner, and they got busy.

A towline secured between the two vessels, Jonner and Tyruss returned to the spaceship. The three Marscorp captives had been secured by chains to stanchions on the storage deck, just above the engine deck. Stein and Farlan, the engineers, were standing by.

"We're getting under way," Tyruss told them.

Stein and Farlan descended to the engine deck, and Tyruss and Jonner climbed to the control deck. On the centerdeck, Aron and Wessfeld, the astrogators, were asleep.

Tyruss climbed into the control chair and switched the radio to the Marscorp band. A voice blared from the communicator:

"Marscorp calling The Egg. Marscorp calling The Egg. Come in, Egg. Can you hear us, Egg? Rebels captured G-boat here. Double alert. Marscorp calling . . ."

Tyruss switched it off, laughing.

"A little late," he commented.

"Yes," said Jonner. "Keep the receiver on that band, Tyruss, because we won't be hearing from our side. But, until we finish our mission, I'm going to disconnect the sending equipment."

Jonner floated to the other side of the control deck and moved around behind the control board. He was busy disconnecting wires, a few minutes later, when he heard an exclamation from Tyruss.

He peeked around the edge of the control board. The three Marscorp captives were floating up the companionway from below, heat-guns in their hands!

"Keep your hands off those controls, Reb," warned one of them. "This ship's staying right here."

"Wasn't there another one in this gang, Robbo?" asked another.

Tyruss twisted in his chair and reached for his heat-gun. One of the Marscorp men rayed him through the throat.

Cautiously, Jonner poked the muzzle of his heat-gun around the edge of the control board. Methodically, he shot the three Marscorp men, one by one. They died without discovering the source of the invisible heat-beam that cut them down.

Tyruss was dead. Cursing, Jonner went below, heat-gun in hand. On the centerdeck, Wessfeld's body floated. Wessfeld was dead, burned through the chest. Aron was not there.

He found all three of the others, locked in the airlock, without spacesuits. Jonner watched Aron suspiciously as they emerged.

"What happened?" he demanded of Aron.

"I don't know," disclaimed Aron. "They woke us up. They had heat-guns then. Wessfeld tried to reach his, and they shot him. Stein and Farlan were already in the airlock when they brought me down."

"Stein, were you and Farlan con-

stantly in sight of each other, as ordered?" asked Jonner, watching Aron. Did Aron's eyes widen apprehensively?

Stein started.

"Why, no," he admitted. "Farlan was on the engine deck, and I was down in the airlock checking the spacesuits before blast-off. That's routine, you know. They herded Farlan down and caught me by surprise."

"That's right," said Farlan. "I was checking the engines when they came through the hatch from above with heat-guns."

"Damn!" exploded Jonner. "I gave everyone strict orders—all right, it's too late now. It just cost us two men, and one of the four of us left is a Marscorp spy. Everyone get above and strap down for acceleration."

The spy was Aron or Farlan, but he still didn't know which. Aron could have feigned sleep, and slipped down to the storage deck to release and arm the Marscorp men. Or Farlan could have climbed from the engine deck and done it while Stein was in the airlock. Whoever it was, he had chosen to be locked in with the others—probably in case the sortie failed.

Now they were two men short, and still he would have to pair off with Aron and pair Stein with Farlan. They would have to go on twelve-hour duty shifts, with only four hours free time.

And to what purpose? As Tyruss had suggested several times, why couldn't they have just blasted The Egg out of space, if the purpose was to get rid of it? Why go to all the trouble of shifting it to an Earthward orbit? The Earth would be nowhere near the intersection point when The Egg reached Earth's orbit, if that made any difference.

Jonner had at last let the others know, as he should have before, that one of them was a spy. But he would not tell them, as he had told Tyruss, that he had disconnected the radio transmitter. Let the spy try to get in touch with Marscorp now!

"Jonner," said Aron, "there are a couple of blips on the radar screen that shouldn't be there."

Jonner swung the control chair to look at the screen. There were two dots there, almost directly to the rear of the spaceship. Jonner watched them. They held their position on the screen.

"I don't know," he said. "Pretty large for meteors, and there doesn't seem to be any lateral movement."

Their ship had just begun acceleration, following a hyperbola that would break them free of Mars' gravity. It was a hyperbola that swung the ship against the direction of the planet's orbital travel, and, while speeding the ship away from the planet, slowed it in relation to the sun.

Jonner and Aron were on duty on the control deck. Stein and Farlan slept on the centerdeck below. Two 24-hour periods had passed since they captured The Egg and maneuvered it into the right orbit for their departure from the Martian area.

The blips grew on the screen,

and still they did not move laterally.

"Spaceships," Jonner decided. "They're following our course, and overtaking us."

"Marscorp ships!" exclaimed Aron. "But Jonner, we never were in radar range of any Marscorp ship or installation. How could they know our position and course?"

Without replying, Jonner arose from the control chair and went around behind the control board. The wires to the radio transmitter, which he had disconnected so carefully, had been reconnected.

"Aron," said Jonner, coming back to the control chair, "go down and chain Farlan to his bunk. He's our Marscorp spy."

"He is?" Aron's eyes widened. "How do you know?"

"Because you haven't been out of my sight since we took The Egg in tow, and you haven't been near that control board while we were on duty. Stein must have let Farlan get away from him again."

"Why not Stein?"

"You forget. Stein and Wessfeld arrived together from Charax, at the rendezvous. They had to be clean."

Aron unstrapped and arose.

"Shouldn't we boost acceleration and try to evade them?" he asked, gesturing at the radar screen.

"We can't now," said Jonner. "We're on an escape hyperbola and we've got to hold this acceleration until she runs out, or we'd throw it completely off."

Aron went below. Jonner watched the screen anxiously. The Marscorp ships must have set an interception course, for their acceleration was much too high to be following their own escape orbit. They were getting closer rapidly.

Jonner looked at the chronometer and at the tape still ticking through the ship's control mechanism. Eleven minutes was a brief time, but it seemed long when enemy ships were overtaking them at twice their acceleration.

Towing The Egg, this old ship could not match the Marscorp attackers' acceleration. It could accelerate much faster than it was, but if he was to hit the Earthward orbit he had been ordered to take he would have to hold his present acceleration until the eleven minutes was up.

And the Marscorp ships got closer by the minute.

Aron climbed back to the control deck from below.

"Farlan's tied up, and he's madder than hell," Aron reported. "Stein said Farlan *did* go behind the control board on their last duty stretch, to 'adjust' the radio. What's the situation now?"

"They've started decelerating to match our pace when they get abreast of us," said Jonner, indicating the rocket flares that now appeared on the aft visual screen.

The tape suddenly ran out, and the rockets' roar faded. They were in free fall again.

"Get into a spacesuit and cut that towline," commanded Jonner. "We're going to make a run for it."

"We're not going to stay and guard The Egg?" asked Aron, getting a suit off one of the hooks.

"No outside guns. This hulk was a supply ship. As soon as you get back in and secure the outer airlock, holler and we'll start partial acceleration. When you've strapped down somewhere below, holler again and we'll blow the tubes."

While Aron went below to carry out his assignment, Jonner swung the ship end-to with the gyroscopes. He prayed silently that the towline to The Egg wouldn't foul. They'd have to head back toward Mars, for further acceleration in this direction would throw them, helpless, in a path toward outer space.

The radio loudspeaker boomed:

"OGM ship Phobos-29 to Rebel spaceship. Stand by for boarding or get blasted."

The Marscorp ships were within a few miles now, slowing to match the pace of the Rebel ship.

The outer airlock warning light flashed red, then green again.

"Ready!" said Aron's voice on the ship's communicator.

Jonner flicked his radio transmitter to the Marscorp beam.

"Go to hell!" he announced, and depressed the firing buttons.

It was uncomfortable for Aron, climbing out of the airlock, but Jonner threw the ship into a full G acceleration. The Marscorp ships loomed suddenly to each side, then faded behind them. A few futile flashes of gunfire blossomed from their noses. Then rings of fire appeared behind them as they gave chase.

"Strapped down!" called Aron, and Jonner gave the rockets full blast.

The ship leaped like a frantic old war-horse. Jonner was pressed down heavily in his control chair. Its beams and plates groaned as G was piled on G.

The Egg was gone from the rearward screens, released and floating free in an Earthward orbit. The Marscorp ships fell farther behind. Then they stopped receding and began to grow on the screens again. Newer and more powerful, they were overtaking the Rebel ship.

Suddenly the ship's rockets ceased firing again, and they were in free fall. A moment later, Aron popped up from below.

"Are we hit?" he asked.

"No, they aren't back in range yet," answered Jonner. "We're out of fuel. Maybe it's just as well they came along, because I don't believe this clunk had enough fuel to overtake Mars again, even if we hadn't blown it in that escape try."

The Marscorp attackers apparently interpreted the Rebel ship's dead rocket tubes as a surrender. Within half an hour they had drawn alongside, and armed men in spacesuits came through the airlock. Farlan was freed of his chains, and Jonner, Stein and Aron were herded onto the centerdeck of one of the Marscorp ships and secured to stanchions.

The Marscorp captain floated before them, looking them over quizzically.

"I don't know what you fellows were trying to prove, but you're lucky," he said. "If you hadn't cut your rockets when you did, we'd have blasted you out of space."

Jonner answered out of the knowledge that no ships which had

accelerated as these two had in the past hour would have more than enough fuel left to get them back to Phobos. The Egg, trailing far behind Mars now, would overtake the planet gradually as the pull of the sun sped it up, but it would pass Mars well to sunward in its plunge toward the orbit of Earth. Any ship that tried to intercept it from Mars now would fight increasing solar gravity and would run the risk of not getting back to Mars.

"Well, we accomplished our mission, anyhow," Jonner said resignedly, "for whatever it's worth."

"A fool's mission," said the Marscorp captain, and Jonner was inclined to agree with him. "The Egg was an experimental laboratory and an auxiliary power station, and we can build another cheaper than we could recover it. As for you fellows, you're better off than you realize."

"How's that?" asked Stein.

"Why, if you aren't tried as war criminals, you ought to be freed pretty quickly. According to the latest news reports from Mars City, our armies are driving your people back into your underground base in the Isidis Desert. The war will be over as soon as we've cracked that."

JONNER, STEIN and Aron lay around in the Marscorp brig on Phobos for more than a month. To be precise, they floated around, for Phobos had little more surface gravity than a spaceship in orbit. When there was no indication they were going to be transferred from Phobos, Jonner set up a howl that at last was heard in the little moon's officialdom.

Jonner was taken before the adjutant of the Phobos base to air his complaint.

"Look," said Jonner, placing both hands belligerently on the official's desk, "the terms of the terrestrial Space Compact apply to Mars, too. No prisoners of war shall be confined beyond a planetary atmosphere, except for so long as it is impracticable for them to be transferred to a surface prison."

"That provision was written into the compact to permit inspection by neutral powers and because, ordinarily, a prisoner has some hope that a surface prison will be overrun by troops of his own side and he will be released," answered the adjutant mildly, peering at Jonner over old-fashioned rimless spectacles. "In your case, that's not likely to happen and I can't see why you're raising such a fuss. The last we heard up here, our troops were about to overrun your last base."

"What do you mean, the last you heard?" demanded Jonner. "I heard that two days before we were brought to Phobos."

"Radio communication with Mars has been out completely," explained the adjutant good-naturedly. "Static's always bad during the Earth-sun conjunctions, as you ought to know, being a spaceman. This time we haven't been able to get anything through at all."

"Well, maybe it's true that we've lost and the war's about over," said

Jonner. "But the three of us still want to be transferred to the surface. Free fall can drive you nuts when you're in an eight-by-eight cell."

"As a matter of fact," said the adjutant, "there hasn't been any G-boat traffic to and from the surface since the radio went out. It's a dangerous business, trying to land at a spaceport without any radio guide. But we have to send a G-boat down for supplies in a couple of days, and if you fellows are insistent about it, we'll send you down to Marsport on it."

It was not two days, but more than a week later than the three of them were allowed to get into spacesuits and were escorted out to a G-boat anchored to the surface of Phobos.

Above them, the orange disc of Mars filled the sky. Phobos was swinging across the inhabited hemisphere now, and the dark green areas of Syrtis and Hadriacum were plainly visible.

Jonner strained his eyes upward at the red spot that was the Isidis Desert. Somewhere in the heart of that red spot, Sir Stanrich O'Kellin was directing the last-gasp stand of the Charax Rebels. They would be manning the underground chambers of the base, perhaps fighting in the corridors as the Marscorp troops battled to effect an entry.

It might even be that the base had fallen by now, overrun by the government forces, and he and his companions would be, technically, free men by the time they landed at Marsport. Jonner sighed unhappily. He didn't want that kind of freedom.

Following Stein and Aron, he climbed into the G-boat. It had a crew of two, plus an armed guard for the prisoners.

"There'll be no unstrapping during free fall," announced the G-boat pilot. "Everybody will remain strapped down until we land. With the Earth-sun conjunction over, we've re-established radio communication partially, but it's spotty, and we may crash."

"Is the war over?" asked Jonner.

"How the hell should I know?" grunted the pilot. "We haven't had a single news broadcast that makes sense since the radio came back in. They're all chopped up with static."

The G-boat lifted gently from the surface of Phobos and began its spiral downward toward Mars. The six men, crowded together in its single passenger compartment, listened to the radio that spat and growled over their heads.

What they heard was unintelligible.

"Sector Four . . . squawk . . . spsst!" snarled the loudspeaker. "Colonel . . . squawk . . . troops in . . . squawk . . . move tank squad to . . . spsst-crack-crack! . . . more ambulances . . . squawk . . . ninety per cent disabled . . ."

Periodically the pilot tried to establish contact:

"G-boat MC-20 to Marsport. G-boat MC-20 to Marsport. Come in, Marsport."

The attempts were futile until the G-boat had entered the atmosphere and was gliding high above

the desert on its broad wings. Then, miraculously, the airwaves were clear for a moment.

"Marsport to G-boat MC-20," said the loudspeaker. "Go ahead."

"G-boat MC-20 to Marsport," said the pilot hurriedly. "Give us a beam. We're coming in for a landing."

"Don't land! We're . . .!" exclaimed the loudspeaker, and exploded into static in midsentence.

"What the hell do they mean, don't land?" snorted the pilot, fiddling frantically and uselessly with dials. "They think I've got enough fuel to get back to Phobos?"

The G-boat held its glide and swooped down on Marsport, a tiny landing field and a miniature group of buildings set apart from the dome of Mars City. Groups of men were scurrying about at the port like ants. A column of smoke rose ominously from one of the buildings.

The G-boat touched ground and skidded to a stop in mid-field. Its passengers unstrapped and the pilot opened the port.

Men crowded into the G-boat, men with drawn heat-guns, men in the blue-and-gold marsuits of the Charax Rebels!

JONNER, A FREE man again, rode into Mars City in a ground-car with Sir Stanrich O'Kellin. Stein and Aron had remained at Marsport for the time being. Marsport was completely in the hands of the Rebels, and efforts were being made to get through by radio to Phobos to give the Marscorp forces there a surrender ultimatum.

"What's happened to the Mars City dome?" asked Jonner in astonishment as they approached the city. The once-transparent dome was cracked and badly discolored.

"Plan Blue," answered Sir Stanrich with a smile.

"Look, sir, how about telling me what happened?" said Jonner. "When we got captured in the middle of our wild goose chase with Marscorp's Egg, our troops had been driven into the ground at the Isidis base and we got the impression it was only a matter of time before that fell. Then the radio goes out for a few days and we land here to find Mars City overrun with our troops."

"Why," said Sir Stanrich, his mustache quirking mischievously, "we counter-attacked. We came out of the base, defeated the Marscorp army there, drove across the desert to Mars City and took it. Task forces are out now, taking over the other cities. That's all there is to it."

"Simple!" snorted Jonner. "Except that they outnumbered us four or five to one, and probably outgunned us more than that."

"Science wins wars now, my boy, not numbers and guns."

They had entered the Mars City airlock and were driving down the broad Avenue of the Canals. Rebel soldiers swarmed through the city. The few men and women they saw in Marscorp uniforms staggered around, groping blindly, their faces and arms fiery red and peeling from sunburn.

(Continued on page 120)

He was worse than Dillinger, the James Boys, Captain Kidd and Benedict Arnold put together—all because he was

FILTHY RICH

BY FRED SHEINBAUM

THE THURSDAY morning executive meeting of the General Products Corporation was adjourned, as usual, with the Consumer's Pledge. The same pledge recited each morning by children in schools across the nation.

J. L. Spender, Assistant Vice-President of Cotter Pin Production for Plant Five was proud to put in these extra Thursday mornings. Let the common herd work their three day, twenty-one hour week. He was part of the management team, working behind the scenes, constantly raising the standard of living of the American Consumer.

A silent elevator whisked J.L. to the roof of the Administration Building where the heliport attendant rolled out his new helicopter, a June, 1998 Buick Skymaster. It was a sculpture in chrome and plexiglass; a suitable vehicle for the assistant vice-president as prescribed by *Consumer's Guide.* A loyal con-

Illustrated by Paul Orban

sumer, he bought the new model every six months.

Once in the air and on course, J.L. set the Ultramatic autopilot—a new feature on the '98 model—and pushed the chrome seat control lever to semi-reclining. Scarcely a cloud marred the pristine blue, and below nestled the neat, colorful homes of happy American consumers, but his problem was not to be soothed by sinking back to enjoy the crisp spring air.

Life, J.L. felt, would be all sweetness and light were it not for the unaccountable affection his pretty young daughter, Glory, bore for an ascetic looking young man of doubtful integrity as a consumer.

There had been a parade of acceptable young men through his front door, none of whom had excited more in him than apathy.

But this one. He wore spectacles with heavy black frames

when almost everyone used disposable contact lenses. His suits were at least a month behind the current style. And with all those young men to choose from, Glory picked him to ask to dinner that evening.

Glory had been taught to respect the might of the dollar and the disaster that comes of not spending it. She was a credit to her family; a sound, patriotic consumer. She could spend money faster, more sensibly than any of her frivolous friends. One fortunate young man would find her an excellent wife. No dollar-hoarder would fill her mind with subversive notions if he could prevent it.

Much as J.L. disliked having that particular young man to dinner, it did afford the opportunity to spend some of the extra money that always collected if you didn't watch very carefully. Being forced to pay a savings tax wouldn't do his career or social position any good, and he certainly wouldn't think of putting it into a secret bank account.

The Hudson river was beneath him. He would soon be home. The thought reminded him that though the family had already passed the five year mark in this house, he had still not made an appointment with his architect.

Just before landing J.L. took the controls. The autopilot was supposed to land itself, but somehow he felt better doing it himself. A control on the dash opened the garage, another retracted the overhead rotors. He drove in, closed the garage door, and got out.

He paused in the hall only long enough to throw his hat and topcoat into the waste receptacle. From the kitchen he heard the familiar crackling of packages being unwrapped.

"Home at last," he sighed, pecking Marge, his wife, on the cheek. "What did you buy today, Honey?"

It was a treat to watch the pleasure with which Marge unwrapped packages. J.L. bought most things out of a sense of duty, but Marge and Glory really enjoyed spending money, God bless them.

"Oh, lots of things." Marge answered. She held a cut crystal goblet to the light watching it sparkle. "A new set of china, this exquisite stemware, and the loveliest linen tablecloth, and . . . oh, and they're sending a genuine oak table for the dining room. The shop I bought it in has the cleverest service. The man who delivers the table cuts up the old one so it can be used in the fireplace. Isn't that practical?"

"That *is* clever." J.L. said. "It's a pity to waste it all on that good-for-nothing, whatever his name is."

"Stringer."

"What?"

"That's his name, Ernest Stringer. Why is he a good-for-nothing? He does dress oddly, I admit, but Glory seems to like him."

"That's exactly why I'm worried. If she asked him for dinner there's no telling what's going on. A person like that is a bad influence." J.L. said, punctuating by jabbing the air with his index finger.

"Now really, Dear. You hardly know him."

"I know him well enough. You are the one who claims to be such

a good judge of character. Look at those glasses he wears. Why doesn't he wear disposable contact lenses like everyone else. It's positively unsanitary. And did you see that suit? I'll say he dresses oddly. That thing hasn't been in style for a month. I bet he doesn't spend half his salary."

"Oh, I don't know." Marge said, abstractedly. She was admiring the floral pattern on her new china. "But do be nice to him. Don't say anything to embarrass Glory."

"Oh, I'll be nice all right. I guess I know how to act. You and your daughter have trained me. And there are worse things than being embarrassed." He would have gone on, but at that moment Glory sauntered into the room.

"Hi, Dad. Back from the grind, I see." Her hair was the color of lemon and in her blue eyes was reflected a youthful zest for life.

"Do you like the new dress? It comes in seventeen colors. I bought them all. And hats and shoes and gloves and bags to match." She said, walking as she had seen professional models walk, with arms akimbo and swinging hips.

"Very pretty," he said, "but shouldn't there be a little more to it? Style is style, but leave something to the imagination. They can't be using up much fabric with a number like that."

"See, Mom. Didn't I tell you exactly what he'd say? Daddy is so mid-century. Aren't you, Darling?"

"Glory, at the risk of seeming . . . ah . . . mid-century, I think you owe your mother and myself some information about this person you've asked to dinner."

"What kind of information? You've met him," she said. Her eyes narrowed slightly.

"Yes, I've met him. What is his background? What does he work at? What kind of a consumer is he?"

"Dad, you are not being fair."

"Not fair? Why not? Are you ashamed of him?"

"No, I'm not ashamed of him. Ernie is a dear sweet boy. He lost both of his parents when he was very young. Bringing himself up has made him different from most people, I guess. But he has done very well. And all by himself, too. He's an OE, you know."

This only added heat to J.L.'s burning suspicion. "I don't want to sound narrow minded, Glory, but I've met a good many Opinion Engineers in business and darned few of them are fit company for a young girl. They picture themselves as independent thinkers. They don't spend their money as they should."

Glory's lips whitened as she pressed them together. J.L. saw the gathering storm in her eyes. "That's not fair," she said. "Ernie is perfectly all right. He just needs looking after. Mother, help me."

Marge smiled calmly, and said, "Your father is just acting like a father, that's all. He is trying to protect you."

"Well, I'm twenty years old, almost. And it's practically the twenty-first century, but it looks like the middle ages around here. I'm sorry I asked him to come. I'll never ask anyone again." She threw her head

back and pressed the back of her hand to her forehead.

"Now don't start getting dramatic. I only want what's best for you." J.L. said. But it was only bluff. He knew when he was licked.

"All right, all right," he said, trying to prevent her tears from brimming over. "I promise to be good tonight." It was time for him to retreat, as gracefully as possible, to his study and the latest issue of *Consumer's Guide.*

Which he did.

AT A QUARTER of seven J.L. tottered into his living room. He was fully dressed except for a bright red sash hanging slack, like a sail in the doldrums, just brushing the tops of his patent leather shoes.

Dressing was a nerve-jarring, thirst-making business. He was in full sympathy with the need for changing men's styles so frequently, but those overpaid designers could surely dream up easier outfits to get into.

He separated a decanter of bourbon from its fellows on the mirror-backed shelves and from it poured a lavish helping. Using the tip of his index finger, he twirled the ice cubes and, with a sigh, lifted the golden fluid to his lips.

Over the rim of the glass he saw Glory come floating into view. She was dressed, mostly below the waist, in yards of a light gauzy fabric that seemed to have life of its own.

She stopped at the door while her eyes slowly swept the room. J.L. was reminded of a spider making sure the web would be cosy. Her glance came to rest on the portly figure of her father.

She exhaled a sigh of controlled exasperation. "Daddy, your sash is hanging. It looks like a flag at half mast."

"I am perfectly aware that my sash is hanging." He wasn't sure he approved of the tone of her voice.

"Well tuck it up then. Ernie will be here any minute."

"It refuses to stay up. How do you know? Maybe it is supposed to hang. Those designers should be forced to dress themselves in these things before they loose them on an unsuspecting public."

She glided towards him and, with a few deft touches, the sash was neatly in place. "Dad, promise you'll be nice to him."

J.L. smiled. Much as he protested, he liked being fussed over. "Of course, I'll be nice. When am I not nice? I just said those things about him because . . . well, I wanted you to be wary."

"Don't worry about Ernie. He's a dear. And, please, no economics lectures. That business about thrift being a menace to prosperity may have been a new idea when you were young, but now every kid in school is taught it. So spare us. It makes you sound like an old fuddy duddy."

Fuddy duddy? J.L. was about to make a stunning rejoinder when he heard the whirring of helicopter rotors overhead.

"There he is." Glory said, excitedly, "Let him in."

"Where are you running?" he asked, surprised. She was as fully

dressed as she was likely to be.

"You know I can't be here when he comes in," she said.

"Can't be here? Where else should you be?" J.L. asked. The situation was getting out of hand.

"Strategy, my dear parent. I can't just be sitting here waiting when he walks in. He is supposed to be waiting for me . . . with bated breath. It makes my entrance more effective. Ta ta for now." She was gone.

The prospect of dining at the same table with the young man was repellent enough. Now he would have to provide entertaining conversation until Glory chose to appear.

The door chimes sounded.

J.L. drained his glass, stiffened his spine, and strode to the door pulling it open with a jerk, like a doctor removing adhesive tape.

Any hope J.L. might have had was dashed when the door opened to reveal Ernest Stringer, his piercing brown eyes, a tight lipped smile, and the traditional gift of candy under his arm.

"Good evening, Mr. Spender," he said. "You are, I believe, expecting me." He was so thin that the current, tight fitting style made him look very like a figure constructed with pipe cleaners.

J.L. did his best to appear gracious. "Come in, come in," he said, taking his hat and coat. "Glory will be in soon."

The suit was up to date, but J.L. spotted other telling details. His heels were slightly lighter in color than the rest of the shoes, indicating they had been reheeled. It was also evident, to a trained eye, that the collar and cuffs of his shirt had been resized, proof that the shirt had been laundered; perhaps, even more than once.

"What can I get you to drink?" J.L. asked, leading the way into the living room.

"Nothing, thank you. I seldom take alcohol," the young man said.

"Is that right? A young fellow like you. It certainly is fortunate that the rest of your generation doesn't share your prejudice. Alcoholic beverages account for more than five percent of total consumer purchases."

"Five percent. As much as that? Well, in that case I should have something. Ah . . . a glass of sherry, I think," he said, smiling with lips unparted.

"Sherry? Sure you don't want something more . . . more substantial?"

"Sherry will do nicely, thank you."

A sherry drinker is capable of anything, J.L. thought. He poured the wine into a high stemmed glass and mixed another bourbon for himself; this time going a little easier on the ice.

The young man held the stem between spidery fingers, turning it slowly, delicately sniffing the bouquet.

J.L. wished Glory or Marge would rescue him. He couldn't think of a thing to say. What could one say to a male sherry drinker?

"What do you think of the international situation?" J.L. asked, just to break the uncomfortable silence.

"What international situation?"

"I mean do you think we are headed for war?" J.L. was sorry he had asked the harmless question.

The young man laughed derisively. "What an idea. Of course there won't be a war," he said.

"Why do you say that?" He wanted to see how far Stringer would go.

"It's quite evident isn't it? War has been threatening for more than fifty years. It will probably continue to threaten for fifty more. It gives our government and that of our enemies the excuse to build enough munitions to take up the slack in the economy between production and the ability to consume what we produce."

"That's ridiculous. I've never heard such nonsense." The young idiot, he thought, anyone with sense knew that to be true, but no one made a fuss about it for fear of upsetting a system that worked so well.

It was an accepted fact of life, certainly preferable to actual war, and never mentioned in polite society.

Stringer continued, speaking slowly, as if explaining to a very small child. He clasped his long fingers over his left knee hugging it almost to his chest, and rocked himself slightly. "Don't you see? If there was a real war millions of consumers would be taken out of the market for the duration, and many permanently. But this way governments can spend as much as they need to on war goods, to balance the economy, without disturbing the consumers at all.

"The politicians love it, too. It supplies them with political issues, not easily come by these days." Stringer concluded. He seemed pleased with himself.

J.L.'s glass was again empty. He rose to fill it saying, "That is a very interesting theory. Have you told it to many people?"

Stringer did not answer.

J.L. turned to see what had caused this sudden reticence. The young man sat with wide-eyed stare and loosely hanging jaw; obviously incapable of speech.

Glory had made her strategic entrance.

"Ah, there you are, Dear," J.L. said. "Mr. Stringer, here, has just been explaining international politics to me."

"Doesn't he have a fine mind, Daddy?" she said, catching the young man's hand and favoring him with a smile that set his adam's apple to dancing.

Fine? J.L. thought, narrow would be more accurate. He was about to make an audible comment along those lines when Marge called them in to dinner.

All through the meal Marge fawned upon the young man, indulging the predatory instinct of a mother with a marriageable daughter.

With the clam bisque she told of Glory's childhood; the prettiest child in the neighborhood. With the pressed duckling she told of an army of suitors, each more desirable than the last, that Glory had discarded like week-old overcoats. And with the fresh tropical fruit supreme she praised the condition of matrimony with such fervor that

J.L. could feel the warmth of a blush on his cheek.

When the young people left for the evening Marge sighed and said, "Don't they make a nice couple?"

"Have you lost your mind?" J.L. replied, with almost saintly restraint.

"Is something the matter, Dear?"

J.L. threw up his hands in despair. "Is something the matter, she asks. Why did you butter him up like that? Did you see his face? He looked like a dog being scratched behind the ear. If he proposes to Glory tonight it's your fault."

"Well, I think he'd make a fine son-in-law."

"That non-consumer? I'd sooner drop him from the helicopter," he said. He noticed she was smiling. "Don't laugh, Marge. This is serious. I'm going to have a good long talk with Glory when she gets home. I'll put a stop to this."

"Be careful what you say, Dear," she said.

"Don't worry. I guess I know how to talk to my own daughter. I'm as modern as the next parent, you know that. But there comes a time when every child needs guidance, and I . . ."

"Don't stay up too late, Dear," Marge interrupted, squelching a yawn. She kissed his cheek and left the room.

J.L. poured another drink and settled in a comfortable chair to wait and to plan.

Perhaps he should be imperious. On the screen of his imagination he saw himself. He was taller. His arms were folded high on his chest; his legs were spread wide like two sturdy trees. He had grown a full handle bar mustache. "Glory," he could hear himself say, "I forbid you ever to see that man again."

Unfortunately the screen showed the probable result. She salaamed before him, touching her forehead to the carpet, "I hear and obey O Magnificent One." Sarcasm was more than he could bear. If only he had some proof. If only Marge hadn't been so approving.

The slam of the front door dragged him from a nightmare in which Glory, having married Ernest Stringer, was drowning in a roomful of coin and currency. The level of money had just reached her frightened eyes.

In the dim light of the hall he saw her leaning against the door she had slammed. Her shoulders were hunched with sobbing.

"Glory, what's the matter?"

She looked up, saw her father, and ran to her room.

J.L. heaved out of the chair and followed, slowly. Her door was open a crack. He hesitated, then knocked lightly. No answer. He pushed the door wide enough to see in. She was perched on the edge of the bed, elbows on her knees, crying silently in the darkened room.

"Mind if I come in?"

Still no answer.

He stepped in and sat gingerly on the bed beside her. Several minutes passed. "Want to tell me?" he said gently.

She shook her head violently without looking up.

(Continued on page 119)

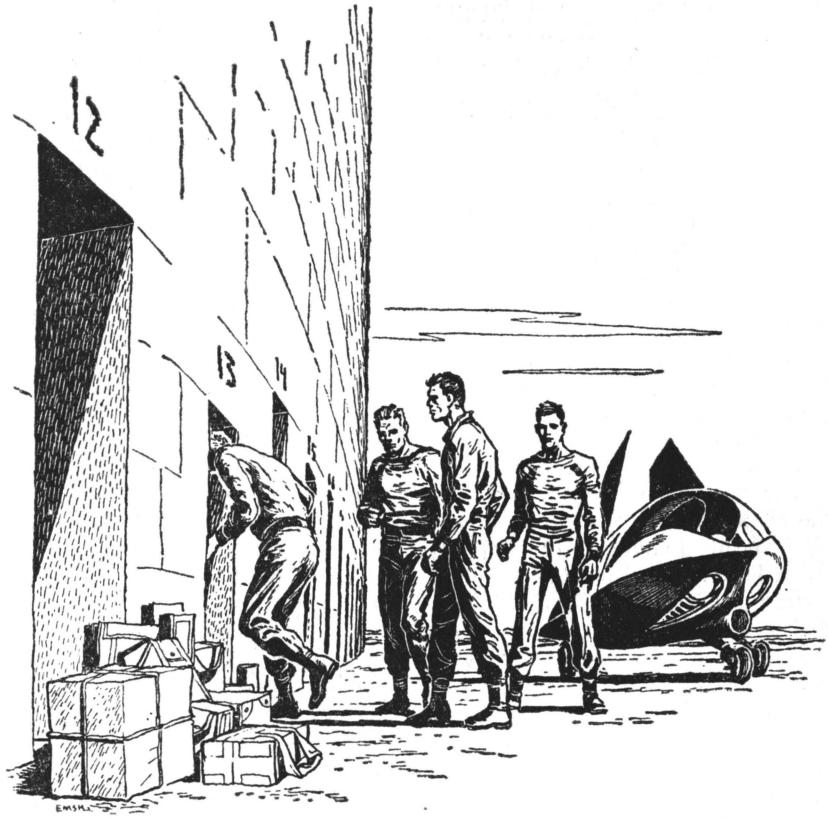
The puzzle left by the Martians had *to be solved. Could the four Terrans do it? Or was death to be the* only *answer that lay within . . .*

THE *maze*

MY NAME is George Balmain. I am forty years of age—or should it be a minus quantity? I am well known (Was? Will be?) as a compiler of the more esoteric type of puzzle published by the highbrow literary weeklies. My main claim to fame was, I like to think, the invention of the Three Dimensional Cryptic Crossword. A steady trickle of royalties from this source maintained me in a state of comfort if not of luxury. My life was pleasant enough for the times in which I lived—the Cold War, with occasional flareups of "police activity", had been in progress for over a century, and most of us were able to keep the fear of the Hot War—which would, of course, spell the end of civilization if not of the planet itself—well below the surface of our minds.

I was, of course, interested in Space Travel—but it was largely a professional interest. After all, new

Illustrated by Ed Emsh



BY BERTRAM CHANDLER

words, new expressions, new technicalities were the tools of my trade. And I was interested in the Maze. This remarkable artifact had been uncovered by one of the frequent Martian dust storms. It was, so far as could be seen from the outside, a low building, devoid of all ornamentation, circular, about two Earth miles in diameter. It was built of closely fitting blocks of stone. Inside was a veritable warren, a labyrinth, of passages. People had gone in—armed, with lights,

with an ample supply of food and water and oxygen, with spools of strong thread to pay out behind them—and had never come out.

It must be, I always thought, no more than a huge puzzle—and the penalty for failure to solve it must be death. Now and again I allowed myself to hope that I might, some day, be the man to solve the puzzle—after all, the Martians were, according to the archaeologists, beings similar to ourselves. It was reasonable to suppose that their minds worked in a similar way.

But I knew that my hopes were wild. I should never be able to afford a one way passage even to the Moon—and, in any case, Mars was out of bounds to all but those on Governmental business. Even so, the Maze was a subject for conjecture. Using what scanty data I could lay my hands upon I wrote a series of articles on it. The third of this series was returned by the editor to whom it was submitted, accompanied by no more than a rejection slip. At the same time I noticed that no news or speculation concerning the Maze was being published in any newspaper or periodical, and that it was never mentioned by the TV news services. All of this, naturally, intrigued me the more.

Even so, I never expected, some nine months after the rejection of my article, to find myself on Mars. I'll not go into details about the voyage—I'm a poor spaceman and my belly takes kindly to neither acceleration nor free fall. Suffice it to say that I was interviewed in my home by two Senior Civil Servants, offered the opportunity of solving the Martian puzzle and then, before I had a chance to consider all the implications of my acceptance, sworn into the Space Navy Reserve with the rank of Lieutenant. It was not until I arrived on Mars that I was told what it was all about.

It was the Admiral himself who told me. Not at once—when I was shown into his office I found him working with one of my Three Dimensional puzzles. He was stuck on 43 North—"I leave the corn and become mystified on Mars . . ." I told him that he, of all persons, should know *that* one. Take "I" from "maize"—and what have you got? He cursed his stupidity, then asked me if I'd ever thought of having diagonals, and why not "Up" as well as "Down", and "South" and "West" as well as "North" and "East"? We chatted for a while about the mechanics of Crossword compiling, then he said, "You know, Balmain, it's my idea bringing you out here. I've always been a fan of yours. A mind like yours should be able to solve the puzzle—and without wasting too much time about it."

"And what is the urgency, sir?" I asked him.

"War," he said. "Not tomorrow (we hope)—but, perhaps, the day after. Our friends on the other side of the Curtain may soon be strong enough to launch a swift, decisive blow . . ."

"But what's the Maze got to do with it?"

"That's for you to find out. But I'll put you into the picture—as much of a picture as we have at

present. We've been pushing ships out as far as the Asteroids for quite some time now—although the news hasn't been made public. We've learned a lot. We've learned that the war that devastated Mars, that all but sterilized her, wasn't a war between the Martian nations but a war with—Outsiders. Outsiders from Planet Five."

"Jupiter?" I asked.

"*No.* Jupiter is Planet Five *now.* The old Planet Five was hit by something that blew it into the debris that is now the Asteroid Belt —some super fission-fusion-fission bomb, perhaps. At about the same time the Maze was built—and used. And after the Maze was completed intelligent life vanished from Mars."

"How?"

"That's for *you* to find out, Balmain. There are two theories: one is that the Martians were stricken by conscience and committed mass suicide; the Maze being or containing some sort of super weapon. (It'd be nice to have . . .) The other is that the Maze offered some sort of escape from the vengeance of the warships that were in Space, and well clear, when Planet Five blew up. (That'd be nice, too . . .)

"Anyhow, I'm sending you into the Maze tomorrow. I'm sorry that I can't give you time to get properly acclimatized—but, as I've told you, time is the one thing that we're liable to be short of. I'll be sending three other Lieutenants in with you—all volunteers. Hall is regular Navy. Welsh is a physicist. And Pontefract's one of our archaeologists."

"Pontefract Castle . . ." I muttered to myself. "Broken bridge . . . A castle that puts one in mind of broken bridges . . ."

The Admiral laughed.

"She won't put you in mind of any castles or broken bridges."

"She?"

"Our Lieutenant Pontefract. You don't mind working with women, I hope?"

"I don't know," I said. "I've never tried it before."

I was favorably impressed by my three fellow explorers at first sight. Hall looked like what he was —a professional spaceman, trained to react instantaneously in any emergency. Welsh, like myself, was an obvious civilian in uniform, in about the same age group. And Sue . . . (She's reading this over my shoulder as I write, but I'd have said what I'm saying now in any case.) She was in uniform, too. No doubt it was of the correct cut—but she made it look, with her slim, dark elegance, like something straight from Paris ornamented with gold braid and buttons. She looked as much like a naval officer as she did like an archaeologist—which was not at all.

We'd barely time to get acquainted before we were hustled into the big turret-drive Spurling. The Admiral—bulky in his outdoor clothing, his face all but hidden by his respirator, came out to see us off and wish us good luck. His pale blue eyes behind the thick glass of his goggles looked worried. Oh, I know that the eyes are supposed to be incapable of showing expression,

and that ascribing expression to them is a literary fiction—but his eyes looked worried.

That flight, from the Spaceport to the Maze, was all I ever saw of Mars. (There had been a hemisphere-wide sandstorm the day I arrived and we had dropped down through a thick, yellow dust haze.) I saw the canals and the oases—wide, weedy ditches in the desert, straggling clumps of scrawny, tattered shrubs and trees—and the occasional ruined city with an odd, broken tower or two, survivors of atomic blast, of sandstorm, of erosion, still standing. I saw the sky that was too dark a blue, the sun that was too small and not bright enough. I saw the desert and the low, smoothly rounded hills, and the marching dust devils swirling across the arid waste.

And then I saw the Maze.

There was, at first glance, nothing spectacular about it. It was only when we were coming in for a landing that we could appreciate its size. Imagine a penny dropped on an orange tablecloth—a slightly rumpled tablecloth. That's what it was like. When we had landed on the leeward side of it I saw that this penny had a thick rim—a very thick rim, towering all of three hundred feet above our heads. The sight of all that dark brown stone, worn shiny-smooth by the wind and the sand, towering against the dark blue sky was, somehow, frightening. I had a moment of near panic, a feeling that I had bitten off rather more than I could chew, that this was one puzzle I'd never solve.

Sue and Sam Hall were the efficient ones. Whilst Bill Welsh and I were gawping through the ports at the Maze they were hustling round inside the cabin, getting equipment together, checking off various items and, eventually, practically forcing the respirators on to the heads of the physicist and myself.

We said goodbye to the two pilots, clambered out through the little airlock on to the powdery sand. We slung equipment about ourselves until we looked like walking Christmas trees—the light gravity had its advantages—picked up other gear that we had stowed in carrier bags.

"Now, puzzle expert," said Sue, her high, clear voice muffled by her respirator, "what do we do?"

"Where's the door, archaeologist?" I asked her.

"There are thirty doors," she said, "evenly spaced. A door every point two one—give or take a couple of hundredths—of a mile. Do you think that has any significance?"

"I don't think so," I said. "The fact that this building is circular indicates that the actual point of entry is of no importance. (I am assuming, of course, that the Martians thought as we do.) On the other hand, it might be as well *not* to use a door used by past expeditions. We *know* that they did not come out again."

"Sound reasoning," said Sam Hall. "Number thirteen is the nearest—we numbered the doors with paint. It hasn't been used yet—some people are superstitious . . ."

"I take it that it was an absolutely arbitary numbering system," I

said. "Whoever did the marking just called the door that he started with 'One' and carried on from there . . ."

"That's the way it was," said Sue.

"All right, then. We'll make it thirteen."

Welsh and I followed Sue and Hall, who took the lead. The door —the white numerals standing out boldly on the wall above it—was lower than I had anticipated. I watched the others go down on to their hands and knees—having first removed most of their equipment —and crawl through. I stayed outside to pass the gear in to them. A screaming roar startled me. I saw that it was the Spurling. It had lifted on its jets, was slowly following us. It would land outside the door and wait there until we emerged, or until relieved. I wondered what would happen if we came out another way.

There was no more gear to pass in. I backed into the Maze, making the end of the reel of stout line I carried fast to the pole we had placed athwart the entrance. I was surprised at the spaciousness of the chamber in which I found myself. Hall and Welsh were sitting on the floor, tinkering with the radio. "There's nothing wrong with it, Sam," Welsh was saying. "It's happened with every expedition. Once inside the Maze, the radio dies. We might as well leave it here."

"No," said Hall. "We shall need it when we get out—after all, we might come out through a different door."

I joined Sue as she walked along the wall of the chamber. We shone the beams of our torches on the bas-reliefs.

"Human," she said. "According to the biologists it couldn't have been so, shouldn't have been so. But every picture, every sculpture we've found tells the same story, Men and women . . ."

"What about bones?"

"There aren't any. They must have cremated their dead. We're hoping that we may find something eventually—somebody who died by accident miles from a city and whose body was never found—but we haven't done so yet. Well—what do you make of all this?"

"It seems fairly obvious," I said. "Those men and women, and, as you say, they could be a crowd from any city street on Earth in fancy dress, are all depicted walking the same way. It's an indication that we should do likewise."

"We haven't much choice," she said. "The only other way out of this chamber is back outside."

The others agreed. Before we passed through the door into the passage beyond I examined the carvings carefully, trying to find some clue. There was none, at least not so far as I could see. They depicted a procession of men, women and children, all in long robes and with strange headgear, all marching in the direction that we were taking.

The passage we entered was narrow and we had to walk in single file. After some discussion Welsh took the lead—he had some theory that I never quite understood about radio-activity in the Maze, and

was carrying a counter of his own invention and manufacture. Sam Hall followed him, and then Sue. I brought up the rear, paying out the thin, strong cord behind me.

The walls of the passage were smooth and dark, as was the floor. The only ornamentation—if ornamentation it was—was in the ceiling—a stippling of light yellow dots, grouped, apparently, at random. The same pattern was evident on the ceiling of the circular chamber we entered. Besides the doorway we had come through there were three others.

By common consent the choice was mine. I decided that the clue lay in the ceiling decoration. There were thirty ways into the Maze. We had to choose between three doorways. Over the one through which we had come was a group with exactly thirty dots. One of the other doors was marked with twenty nine, one with twenty eight and the other with twenty seven. Twenty eight and twenty seven might be, I decided, short cuts to the center of the Maze. Might be. After all—I hadn't yet got into the mind of the long dead compiler of this puzzle. I threw the beam of my torch into the entrance over which were the twenty nine dots.

I said, "*This* one."

Once again Welsh, nursing his precious counter, took the lead. This tunnel was not straight, as the first one had been. The physicist rounded a bend with more enthusiasm than caution. We heard him cry out. We heard a thud like a heavy door, a heavy stone door, slamming back into place.

We found the trap—knowing that it was there. It was a flagstone, the entire breadth of the passageway, cunningly pivoted. We forced it down and open without any difficulty, revealing a polished chute that slid down, at a steep angle, into absolute blackness. Hall took a deep breath and then removed the facepiece of his respirator. He shouted. He shouted again. Apart from the booming echoes there was no answer. He unslung the radio transceiver from his shoulder, saying, "This is one piece of equipment that isn't much use." He held it over the chute, then dropped it.

We never heard the sound it made when it hit bottom.

"One of us," I said, "had better go back for help."

I hurried back into the circular chamber. Of the doorway through which we had entered it there was no sign—no sign, that is, save for the thin, white cord that seemingly vanished into a solid wall. The door, obviously, had been actuated by the pivoting flagstone.

We did all the obvious things and a few that weren't so obvious. We might just as well have tried to open that door with our fingernails.

It was then that we had the argument with Hall. It wasn't a question of courage—he would never have held his rank in the Service of his choice had he not been brave beyond the average. But he didn't see things the way we—Sue and I—did.

"I'm afraid we'll have to write Bill off," he said. "There must be some indication of a pitfall that he missed . . ."

"There is," I told him. "That tiny yellow star set into the floor."

"Then that's a sign we'll have to watch for in future. Meanwhile, we can jump across the pivoted slab quite easily. It's hardly more than a long step . . ."

"And leave Bill?" flared Sue.

"Yes. He made a mistake, and paid for it. The way I see the layout of this Maze we're supposed to profit by his mistake. Furthermore, I need hardly remind you and George that you're both commissioned officers of the U.N.S.N. You have a definite mission to perform —and it would be incorrect to jeopardize the success of this mission by risking all our lives to attempt the rescue of one man, who is probably dead."

"If that's military logic," I told him, "I'm glad that I'm a civilian. But there're other kinds of logic, Sam. And I'm beginning to get faint glimmerings of the purpose of this puzzle. Only the fittest will survive to solve it."

"Fitness for *what?*" asked Hall.

"I don't know, Sam. But I'm trying to put myself into the compiler's mind. He was humanoid—or human. He had lived at a time when, no doubt, the military virtues were very much in fashion. He had seen one world wrecked by the exercise of these virtues, another one ruined. Therefore—he would be inclined to think that some—*some,* mark you, not all—of the military virtues were not worth perpetuating."

"Such as?" queried Sue.

"Such as 'Orders is orders'. I think—again, I may be wrong—that loyalty to one's own kind is a virtue of far greater importance."

"All right," said Hall. "I still think that you're wrong—but I'm going down."

"I'm not wrong," I said. "If this had been a death trap there'd have been a vertical drop. All the same, I hope that our ropes reach to the bottom."

WE BENT them all together, but they didn't reach.

Then, when we had Hall dangling at the extreme end of our tether, I slipped. I make no excuses for what followed. I let go of rope, put out my hands to steady myself. The rope was fast around my waist. I had made it fast myself. I don't think that I should ever be able to duplicate that hitch—it had seemed secure enough. It didn't hold.

After a long, horrid pause we heard Hall shouting. We could hear and recognize his voice but could not distinguish his words. There was only one thing for us to do. We rearranged the equipment with which we were hung, slung the carrier bags to our sides. Carefully we lowered ourselves into the chute in such a way that we were face to face and with our backs pressing against the polished sides. We let go.

We did not have as much control over our movements as we had hoped—even so, our descent was not suicidally rapid. We were able to slow down—although it was a painful process—when we heard confused shouting below us. Then, to our intense relief, the angle at

which we were falling became far less steep. When, at last, we slid out to a horizontal, polished floor we had almost lost our momentum.

My torch had been on the whole time. I swung the beam; it fell on Hall. He was bending over the body of Welsh.

"Thank God for a light," he said. "I'm afraid that Bill's dead."

He was right. The cause of death was obvious. The physicist must have struck the back of his head when he fell into the chute. I am sure that the designer of the Maze had not intended this, that it was just an unlucky accident. But it was irrevocable.

We left him there. We didn't like doing it, but we had no choice in the matter. We left him in that hemispherical chamber with its polished floor and walls—a tomb of which a Pharaoh would have been proud. But we did not leave him—as the Pharaohs were left—with the possessions that he would need in the next world. We took his water and his compressed food tablets. We took the oxygen cylinder from his respirator, and the spare one. We took his knife and his pistol. Hall, whose own torch had been smashed, succeeded in repairing it from the unbroken parts of the dead man's.

Then we had to decide, once again, which way to go. To return up the chute was out of the question. As before, we had a choice of three doors. As before, we had the same random pattern of stippling as a guide. It was obvious to me that we had taken some sort of short cut. One doorway was marked with a group of fourteen dots, one with a group of thirteen, and the other with a group of twelve.

I said that fourteen was a logical choice.

"We took the logical choice before," said Hall. "And Bill's dead because of it."

"It was accidental, his death," I said. "And if the numbers are any guide we have made more progress than we would have done had we taken the other doorways."

Sue laughed shakily. "You're the crossword puzzle expert, George. Has it occurred to you that 29 was 29 down?"

"It has," I said. "And it may be that this will be 14 down. I'll take the lead—and I'll keep my eyes skinned for a little star in the floor."

I saw the star in the floor. It was, as the other had been, just at a bend in the tunnel. We found the pivoted flag—it opened over a chute similar to the other one. I thought at first that we should slide down it, then decided against it. The first chute had been both a warning and a test. The little yellow star was a warning. I switched my torch off, told the others to do the same. When our eyes became accustomed to the darkness we saw a dim, ruddy glow at the bottom of the chute. I pulled the glove off my hand, held it over the opening. I could detect the waves of heat striking my bare skin.

"Whoever they were, they played for keeps," said Hall.

"It's like one of those mazes they use to test the intelligence of rats," said Sue shakily.

We threw one of our heavy packs over the pivoting flagstone. The floor on the other side seemed solid enough. Then Hall jumped over; he made the other end of his rope fast around my waist with his own hands. Sue went next. I brought up the rear, but resumed the lead when I was safely over.

So we carried on. We wandered through a monotony of tunnels interspersed with hemispherical chambers. After the usual narrow, warning escapes we learned to be alert for booby traps, to distinguish the warning signs in floor or walls or ceiling. They weren't all visual.

Then—it was shortly after we had rested in one of the chambers to nibble our tasteless tablets and sip from our water bottles, we struck a new kind of booby trap; or, rather, it struck us. There was no warning—or, if there was, it was one not apparent to our senses. There was a sudden flash—not bright, although I thought at first that it had blinded me. I realized then that the torch in my hand was gone, that I was holding some queer object of irregular shape (it was the battery—or part of the battery). The pack on my back was suddenly light. The facepiece of my respirator fell to pieces.

But I could breathe comfortably. The air was quite dense, sufficiently rich in oxygen. That was all that I could do. I was completely baffled.

Hall, however, was trained to work, if need be, in complete darkness. His hands must have been busy touching, feeling. When he spoke there was wonderment and admiration in his voice.

"What a weapon!" he said. "What a weapon it would make!"

"What was it?" I heard Sue ask.

"Some sort of radiation that, somehow, destroys all metals. The casing of my torch—all that's left in my hand is a sprinkling of very fine dust. My oxygen cylinders. My knife. My gun. The zipper of my coveralls . . . Well, George, you're the expert. What do we do now?"

I waited until my own hands had verified the truth of Hall's statement.

I said, "That was intentional."

"You're telling me," replied Hall.

"I mean that it wasn't a booby trap. We've been tested in various ways, and come through the tests. Now we've been reduced to the status of primitive man . . ."

"All right. I believe you. What do we do now?"

"The only thing we can do. Carry on."

So we carried on in the pitch darkness. I stayed in the lead. Sue put her two hands on my waist, just above the hips. Hall, bringing up the rear, kept in touch with the girl in the same way. I shuffled ahead through the blackness. I was scared—and had every right to be.

I screamed when I felt the floor tilt beneath me. I heard Sue scream, and heard the spaceman curse. I tried to check my descent down the chute with knees and elbows, but could get no purchase on the polished sides. I was aware of light, and remembered the trap into which we had almost fallen. But this light was blue, and not red, and there was no fire waiting to re-

ceive us in the vast cavern into which we tumbled—no fire but bitter cold that seared our exposed flesh almost as a flame would have done.

The light seemed to have no source. It seemed to come from the air itself—the dry, still, bitterly cold air. Our breath condensed into little clouds of sparkling frost crystals.

"Keep moving!" shouted Hall. "Keep moving!"

"Where to?" asked Sue reasonably enough.

"Wait a minute," I said. "There's a clue here—or another test. Or both."

"What do you mean?" asked the others.

"This cave is cold. It's meant to be cold. But here are the means of survival."

I walked across to the untidy litter of dry sticks and twigs, kicked it. Judging by the sound it made, the wood was as dry as it looked.

"So we're supposed to make a fire," said Sue slowly. Her voice was shaky—but that was caused by cold rather than by fear.

"Yes," I said.

"How?" she asked.

"You're an archaeologist, you should know. Or don't you study primitive man?" I squatted down, began rummaging in the debris. I found a flat piece of fairly soft wood, a straight stick with a fairly sharp point to it. "Primitive man knew how to make fire without pocket lighters."

"Can you do it, George?" asked Hall.

"I don't know, Sam. I've never tried before."

I found another length of wood that would do for a bow, strung it with what remained of my reel of cord. (That cord was eventually of use to us.) I took a couple of turns with the bowstring round the pointed stick, stood on the flat piece of wood and held the pointed stick upright between my boots. I began to saw the bow back and forth.

"I don't think that anybody will mind if we cheat a little," said Hall at last. "This is fascinating to watch—but it seems to be a long time in getting results. Whatever the radiation was that destroyed our metals it didn't affect organic compounds. My pistol holster is full of dust—and some of that will be the powder from cartridges . . ."

He poured some of the dust from his holster into the hollow I had worn in the flat piece of wood. He tore pages from his notebook and placed them around the firestick. I resumed my sawing—and did not have long to wait for results. I escaped with an only slightly scorched foot—and in a very short time we had a cheerful blaze going.

We sat down around it, grateful for the heat. We thawed our water bottles and drank. We nibbled the food concentrates with their delicate flavour of old sawdust. We began to feel a little better.

We discussed the advisability of sleep, then decided against it. The problem of which way to continue our exploration next exercised our minds. It was Sue who pointed out that the smoke from our fire did not stream straight up but drifted

lazily towards the far end of the cave. It was Sue—she was catching on—who suggested that we take with us torches and a good supply of spares. I agreed with her. The nature of this clue argued that we should have need of fire again.

We trudged what seemed like miles over the dry, sandy floor. Now and again we came upon more deposits of the dry sticks and, but more rarely, evidence of long dead (how long dead we didn't care to think) fires. At last we reached the sheer, smooth cliff that was the far wall of the cavern.

There was a strong draught into a gloomy tunnel mouth. We followed the smoke of our torches, making fair progress over the sandy floor. Other tunnels opened to left and to right of us, but we ignored them, following the smoke.

We heard rustlings—ahead of us, behind us—in the side tunnels. We heard something croaking. I looked back—and saw eyes glowing crimson in the torchlight. I heard Hall cry out—and saw more eyes ahead of us.

"Don't stop!" ordered Hall. "They, whatever they are, will be afraid of fire!"

"They might be attracted by it," I said. "But, in any case, we're surrounded."

Slowly we advanced. The glowing eyes ahead of us held their ground. There must have been at least six animals there, assuming that they had one pair of eyes apiece.

Hall shouted. He lit another torch from the half consumed one in his hand. Waving both torches he ran forward. There was a scuffle and a high pitched squealing. The eyes vanished. The spaceman hurled one of his blazing brands after them. Something screamed.

"Another of your tests, or lessons, or clues," panted Hall. "The lower animals are afraid of fire—and they're more scared of us than we are of them. Lord! What a stink! It smells like a fire in a featherbed factory!"

And then we saw light ahead—not cold blue, not ruddy, but yellow, like sunlight.

WE COULD NOT even make a guess as to the extent of the next cavern. Its lofty roof was hidden by grey mists, as were the further walls. Furthermore, it was a huge hothouse teeming with luxuriant, brilliantly green vegetation. What the trees and the shrubs were I cannot say. They were similar, perhaps, to rain forest growths on Earth. They bore no resemblance to the leathery, ragged trees on the surface of Mars.

The air was hot, humid, and full of strange, strong scents that made us drowsy. We shed our outer clothing, but we didn't dare to leave either it or our equipment behind; neither did we dare to dump our torches and our supply of dried sticks.

There was a path for us to follow. I didn't like it—it was all too obviously made by the regular passage of some huge, heavy beast. But we had now no means of hacking our own way through the jungle.

There were things in the undergrowth, among the trees. We heard them rustling and calling to each other, but we never saw them. We hoped that they weren't hostile—we had no weapons but our torches. Even so, we soon abandoned all attempts to walk silently. We weren't bushmen, and the only end achieved by our caution was to slow our progress.

The thing that came after us wasn't cautious either. It didn't need to be. It was at least as large as an Earthly elephant and had a mouth that could have swallowed a cow. I can't describe it. I didn't stop to look at it.

"Run!" I yelled to Sue, gave her a push that sent her reeling down the track. I wasted no time in following her. I assumed that Hall would follow suit.

As I have said before, he was a brave man. But bravery, carried to extremes, is foolhardiness. I heard him yell, and paused in my flight. I turned round and saw him.

He wasn't running, he was walking. He was walking *towards* the monster, waving a flaming torch in each hand. Perhaps it had never seen fire before—in any case fire is not nearly so impressive when seen in broad daylight or its equivalent.

The beast never even paused in its ponderous advance. One massive, armored foot smashed Hall into the ground. He started a scream, but never finished it. There was nothing that I could do.

When I resumed my flight I saw that Sue had vanished.

It was another of those pitfalls of which the maker of the Maze was so fond. I found it when the ground opened suddenly beneath me—and not a moment too soon either. Once again I was in darkness, once again I was falling. But this time it was different. On past occasions it had been a straight drop; there had been no gut wrenching twists, no sensation of being turned inside out, no consciousness of the passage of aeons of time.

I was sprawled on soft grass—by the feel of it—and somebody was holding me very tight. I opened my eyes, and saw Sue's face. I saw the sky—the night sky and the stars, and the yellow, full moon, with its familiar markings, almost at the zenith. My body, when I tried to raise myself to a sitting posture, was oddly heavy.

"I thought you were never coming through," she said.

I asked, absurdly enough, "Where am I?"

I saw her smile.

"There's your clue," she said, pointing to the moon. "We're on Earth. But just where I can't say. Somewhere in the Tropics is my guess . . ."

"There must be a town or village close by," I said. "We must get to a radio transmitter at once."

"Must we?" she asked. *"Can* we?"

"What do you mean?"

"While I was waiting for you I saw a tiger—but far bigger than any tiger I've ever seen in a zoo. And it had teeth too long for its mouth . . ."

"Sue! What are you suggesting?"

"Oh, I know it's fantastic. But we've quite calmly accepted the idea of teleportation through Space. It's been through Time as well. Don't ask me how, or why . . ."

"You *can* ask me why," I said. "It's all beginning to make sense. The Maze isn't a puzzle so much as a school—a school designed to teach lessons in primitive living. Our last lesson—but I wish we hadn't learned it at Sam's expense—is that it is sometimes wiser to run than to stand and fight . . ."

"But what for?" she asked.

"This is only a guess," I said, "but will have to do. There was—or will be—this war between the Martians and the beings of the Fifth Planet. Mars was ruined—the Fifth Planet utterly destroyed. But the Fifth Planet must have had a large and dreadfully armed fleet that survived the catastrophe. The surviving Martians escaped both in Time and Space.

"They decided to start from scratch, literally, on Earth. They knew that if they built up a technological civilization too fast they might either attract the attention of their enemies or, possibly, develop space travel and interfere with their own history as Martians. I don't know if you've read any time travel stories—but they're full of paradoxes. The makers of the Maze were determined to avoid them."

"You may have something," she said slowly. "It may account for the true men co-existing with the Neanderthaler. Neanderthal Man must have been the aborigine—his supplanter an invader . . ."

Something roared not too far away. Something else screamed. We remembered the last lesson of the Maze and spent what should have been—but somehow wasn't—a miserable night in a tree.

We survived. We found ourselves a cave when the daylight came and moved in. We used the powder remaining in my holster to start a fire. We learned—sometimes by painful experience—what berries were edible and what weren't. We managed to snare the occasional not-quite-rabbit. I even—and of this I still feel proud—managed to make a quite deadly bow and a set of arrows. It brought down a small deer.

In a way I am sorry that our lonely life is now finished—but we have decided to join the band of nomads who have camped in our valley. They're friendly enough people, and I don't think that we shall have much trouble in learning their language. They have spears, but not the bow—Sue tells me no depiction of a bow has ever been found in Martian records or statuary—so it looks as though I shall be able to make quite a good living by manufacturing that weapon. Sue tells me, too, that they are, at the most, but two generations removed from the original Martian colonists.

There is very little pencil left, and I am on the last sheet of paper. I will bury this record, and then we will go to join—but not in the Biblical sense—our ancestors.

"But we're ancestors ourselves," Sue has just reminded me. **END**

Illustrated by Ed Emsh

OPERATION

BY GEORGE REVELLE

WADE BOEMAN let his eyes wander up the hull of the huge silver ship. He thought; *if only Tomer were here now!* He caught himself and quickly erased the thought before he remembered more . . . things that were better left alone, hidden behind the thin veil he had created in his mind.

The quick blink of a signal light from the tower caught the corner of his eye. H-hour minus fifteen minutes. The ground crews had cleared the area. He hadn't noticed. He turned to the huge, blond man standing beside him.

"Well, Allen. This is it. I've checked everything myself. You should have no trouble. Be sure and strap yourself in tightly and don't forget to check the gyro. Its the only thing we can't double check from the tower."

"You're all through instructing

There are all kinds of heroes. And the irony of it all lies in the fact that the bravest are those who are unknown and unsung.

BOOMERANG

now, *teacher,*" the blond man said. "I can take it from here. And I can't say I'm sorry."

Wade wanted to say then all the little things that had been building up within him during the past long months. He bit back the words. It took much effort.

He said: "Good luck, Captain. I really mean it."

Allen gave him a tight smile. "Drop dead, Colonel."

Wade dropped his outstretched hand as the big man ignored him. Ackerson turned his back and began to climb the metal rungs leading up the hull of the ship.

Tomer, Wade thought. If only it could be Tomer instead of Ackerson.

He waited until the blond man entered the hatch before he climbed into the jeep. He glanced once more at the silver hull of the *Starfrost,* then he jammed down on the accelerator. Hate was a word Wade seldom used. There was too much of it in the world already. But he was beginning to hate Ackerson.

He parked the jeep beside the concrete and steel structure housing Operations. The instant his hand touched the door handle he tried to cease being Wade Boeman the man. He tried to become Colonel Wadon G. Boeman, senior officer in charge of 'Operation Boomerang,' with no personal feelings. It didn't come off fully.

The four walls were lined with banks of instruments. Small lights flickered and died, only to come alive again the next instant. A man coughed.

He nodded at a communications man, a civilian, as he hurried to the small table where the television set was resting. The closed circuit showed the *Starfrost* resting alone on the sand with her nose pointed toward the sky.

He took off his cap, then lighted a cigarette. He checked his wrist watch with the large clock on the wall. He set the sweep second hand to coincide with the larger one.

"Twelve minutes, Colonel," someone behind Wade said.

He wiped his dry lips as he flicked his eyes in the direction of the Major in charge of the control panel. The Major gave him a tight smile. Wade nodded. Major Gormely was a good man . . . they were all good men. Wade felt proud to be part of the team.

He took in the radar man checking the never-ending sweep of the beam. Frank Piluis, a tall, lanky man of twenty-three. He was checking the screen, adjusting, as if his own life depended on its operation instead of a man he hardly knew.

Wade checked his own screen again.

The *Starfrost* was so silent . . . so latent . . . so important. Wade found Tomer creeping into his thoughts again. He shut the thought out quickly. Wade was a military man. He had orders to forget Tomer. He gave orders. He also had to take them.

Wade became mindful of someone standing behind him. He turned. The man was tall, wearing the cloak of authority in the very way he smiled. Distinguished looking streaks of gray ran over his once

brown hair. Tiny wrinkles at the eyes told that he was a man with a sense of humor even though pressed with responsibility.

"A penny for your thoughts, Wade." The Secretary of Defense said as Boeman got up. Wade wondered if the man had been in the control room all the time. He hadn't seen him.

"They aren't worth it, Harry," he answered, offering his hand.

"As bad as that," the Secretary laughed. "Here we are on the edge of a History making moment and you're wasting your time with worthless thoughts."

Worthless thoughts. Wade wondered if they were, really.

Wade first met Harry Lowe a long time ago when the project was just a dream on the drawing boards. Since that time he had come to know the Secretary intimately. Now, suddenly, he felt awkward before the man. Perhaps it was because Lowe seemed to have a special talent for reading peoples' expressions, converting them into sentences. Like now, Wade felt the man was reading his face like a book.

"That's right, Harry. History *is* being made isn't it?"

The Secretary's face became very serious. "More than that, Wade. Perhaps salvation depends on it."

"Ten minutes," a voice said.

Wade nodded at the technician. Tiny lights came into play on the control panel as Major Gormely began closing circuits. The communications man made a final type check on the huge P.C.R. set.

"*Starfrost.* This is Mother. How do you read me? Over."

"Mother. This is *Starfrost.* Loud and clear. Five by five." Ackerson's strong voice came from the loudspeaker located in the center of the equipment. "Oxygen checks. I've bedded down. Give the Colonel my love."

The radio man looked at Wade. There had been no mistaking the sarcasm in Ackerson's voice. Wade felt his face grow red.

"He hasn't changed," he heard the Secretary say.

"No. He hasn't changed." Wade said softly.

"Don't let it throw you, Wade. "You've done a good job. We both know that nothing counts but the Project."

Nothing counts but the project. Personal feelings, ideals, not even human lives. *Nothing counts but the project.* How many times had *he* said that to himself, trying to be convincing.

"It's Tomer. Isn't it?" the Secretary said.

Wade's eyes locked with those of the older man. There was no sense going over that now. They had had it out a dozen times already.

"That and other things," he said.

"Like Ackerson's attitude, I suppose."

"Like Ackerson's attitude."

The Secretary gave a tight smile. "We all have reasons for doing things, Wade. To you this is a military feat that could spell security for years to come. To me it does that and more. It could be the opening of a new frontier, something that will provide a new outlet for humanity instead of war."

Wade said: "And to Ackerson it will mean fame and fortune. Nothing more. His name will go in the history books. There will be personal appearances, contracts, money. He has no feelings at all about what this will mean to his country."

The Secretary nodded. "You're a professional military man, Wade. You're making it your life. I understand how you feel."

Wade laughed bitterly, inside. *Did* Harry know how he felt? Did he think that military men were just brass and polish with no feelings, no friends to worry about, no cares outside of regulations and orders!

"Eight minutes." The voice came again.

Wade left the Secretary, went to the mike resting on the communications desk.

"*Starfrost.* This is Mother," he said.

"Go ahead, Mother." Ackerson recognized his voice.

"Double check everything. Repeat. Double check everything, oxygen, hammock straps, loose objects, everything."

"Relax, Mother! You sound like you're going to have another baby." Ackerson laughed over the loudspeaker.

Wade gave the mike back to the radio man carefully. He walked back to the small television screen and sat down. The *Starfrost* looked like a silver monument standing alone out there on the sand. Soon there would be nothing there but sand. Wade felt like a mother hen waiting for her first egg.

He adjusted the contrast, brightened the picture. Perhaps the Secretary was right. Everyone had their reasons for doing things. He wondered what Tomer's were?

"Do you think he will make it, Wade?"

The Secretary sat down on the edge of the desk. He looked out of place. He should have been behind one, a large mahogany one.

"I think he will," Wade said softly. "The test ship we sent made it. There is no reason to believe a ship with a man in it should fail."

"Do you want him to make it?"

The words jarred Boeman. He searched the Secretary's face. "Of course I do. What makes you say a thing like that?"

The Secretary toyed with his tie. He said nothing.

Wade got up. He could feel the anger begin to seep through his body. "You know what this trip means to me—to the country." He faced the gray-haired man squarely. "If you're insinuating that I want him to fail because I disagree with his reasons for volunteering, you're wrong. Dead wrong."

Wade found himself lighting a cigarette. "Sure. I dislike Ackerson. Dislike him violently. I've taken more lip from him in the past months then I've taken during my entire life. And when he returns that will be finished or I'll finish him. One way or another." Wade inhaled deeply. "It's the project that counts. Only the project. It's bigger than one man . . . it's bigger than all of us put together."

Lowe smiled. His face seemed younger. "I knew you felt that way,

Wade. I just wanted you to say it for your own benefit. Perhaps it will make this entire thing easier for you."

The Secretary moved then, over to the communication panel.

"Three minutes," someone said.

Wade looked at the narrow back of Harry Lowe. And he knew how the man became Secretary of Defense. It was shrewd getting him to open up like that. They both knew how lucky they were to have Allen Ackerson. Finding men capable of making such a flight hadn't been easy. Of the dozen volunteers only Ackerson remained. Mental and physical tests had eliminated all but a few. Those remaining were unfit for space travel, weeded out by the psychological teams, unable to cope with the morbid phobia of being alone so long wrapped in a metal cocoon. Only Ackerson and Tomer had succeeded. Now there was only Ackerson.

"Colonel!" Wade turned and faced the rawboned sergeant standing beside him. Meyers was a big man with a deep tan browning his face.

"What is it, sergeant?"

Meyers handed him a large white envelope. "Captain Ackerson said to give this to you just before take-off."

"Thanks, sergeant."

"Two minutes," someone said. Wade stuffed the envelope inside his jacket. Then he hurried over to the radar man. The envelope had to wait, there was no time now.

"Are we set?" he asked. The man nodded as he adjusted the dials. Wade smiled. These men were experts in their fields. To double check them would be to insult them. Besides, this wasn't the first time for them. The same crew had been operating when they fired the test rocket. He knew they wouldn't fail.

"One minute . . . 59 . . . 58 . . . 57 . . . Wade found himself counting under his breath while he stared at the small screen on the table. Would the reactors work? They would go on at 30. And the *Starfrost*! Would it lift—or would it, like some others before it, slowly hesitate, then begin a weird, frightening slide to the side to become a flaming blowtorch of death.

"30!" Major Gormely closed the switch. Wade became conscious of the Secretary watching the screen with him.

". . . 5 . . . 4 . . . 3 . . . 2 . . ." The counter continued. "FIRE!"

The *Starfrost* shivered.

Wade felt his heart skip a beat. Slowly, ever so slowly, the huge ship began to move. Dust, sand and smoke mingled with the sheets of flame pouring from her stern. The platform disappeared in a puff of smoke.

The *Starfrost* lifted.

"Thank God!" the Secretary sighed.

"Amen." Wade muttered. He took out another cigarette. He was glad it had begun; the project. Now there was only the long wait.

"Ackerson's a brave man." The Secretary said.

"Of course he is." Wade never had any doubts about Allen's intestinal fortitude. The man had a

good war record. Confidence seemed to ooze out of the man. It was his attitude, damn it.

Wade drew deeply on the cigarette. Tomer had been the same type in many ways. Eager, filled with the enthusiasm, unafraid. A small man compared to the blond Ackerson, he seemed to carry himself tall. And his attitude. He felt the same intensity about National defense as Boeman did himself. Perhaps that was another reason he had felt close to the boy. Tomer would have made this trip with no thought whatsoever about the financial rewards or what the history books would have to say about him.

". . . Sixty thousand . . ." someone said.

"Start communication," Wade commanded automatically.

"Romeo." The commo picked up the small hand mike. All eyes in the room centered on the silent speaker on the wall.

"*Starfrost.* This is Mother. How do you read me, over?"

The speaker remained silent.

"*Starfrost.* Can you read me. Over!"

The Secretary looked at Wade. His face was tight and drawn. "What do you think, Wade. Are we getting through?"

"It's hard to say. He's moving pretty fast. He could outrun the signal. We've never had a practical voice test."

Lowe's face had a worried expression covering it. "Didn't you have communications with the test rocket?"

"That was unmanned . . . remember?"

"This silence doesn't worry you?" the Secretary asked with amazement.

"Ackerson was trained for this. He knows there is nothing we can do for him. *He's on his own.* Communications would be to our advantage, to be sure. But Ackerson knows that ship like you know the back of your hand. Besides . . . perhaps he is too busy to answer right now. He has to be sure there is no wobble."

"Wobble!"

"Sure. The ship could begin to oscillate. If it does that he is done. He has to keep his eye on the gyro."

The Secretary's eyes penetrated. "I can't help but feel that you would be more concerned if Tomer were in the *Starfrost* instead of Ackerson. Wade . . . don't let the fact that you hate Ackerson cloud the issue. He is doing us a great service."

"Stop it, Harry!"

"After all. The first man to circle the Moon is entitled to a place in the history books. I can share his feelings, in a way. It's a great thing he's doing."

"Others have done more," Wade said sharply.

"Of course they have. But remember one thing. If Ackerson succeeds we will get the appropriations we need to *build* up there on that cold chunk of rock. We need that . . . need it badly."

"I tell you we have nothing to worry about yet," Wade said quickly.

"Have it your way, Wade. But

remember, we can't land on the Moon until we have appropriations for installations. It all takes money; landing sites, protection against the elements, and most important, take-off facilities. It's a big order. Ackerson can give us all of that if he is successful. The public will back us to the limit if we prove we have mastered space travel." The Secretary watched Wade carefully. "Ackerson *is* important!"

"I never said he wasn't."

"I know, Wade." The Secretary toyed with his tie. "But did you let your feelings toward Tomer interfere with your attitude toward Ackerson! He came to me you know, about halfway through the course. He said you were babying Tomer to the point where it was interfering with *his* instruction."

"He lied," Wade cut in. He threw down the cigarette he was holding and ground his heel into it. "You know me better than that!"

"Of course. But perhaps Ackerson did have *something*. Perhaps you spent more time with Tomer than you intended. Unconsciously you may have favored him to the point where Ackerson did suffer."

Wade let his eyes wander over to the small television screen. It was still operating. Flat, empty sand and a burned out area was all that remained of the *Starfrost*. He wondered: Did I do that? Did I forget to teach Ackerson something while I was working with Tomer?

The loud-speaker crackled.

"Mother. This is *Starfrost*. Over."

The operations room came alive. Wade and Lowe hurried over to stand beneath the speaker, as if that would put them closer to the *Starfrost*.

"Go ahead, *Starfrost*. This is Mother." The communications man held the mike in a hand that wasn't quite as steady as it should be.

"This is *Starfrost*. Everything in the green. Repeat, everything in the green. Over."

Wade took the mike. "How is the gyro, *Starfrost*!"

The loud-speaker laughed. "Tsk, tsk, Colonel. Where is your radio procedure? You forgot to say over." There was a pause and Boeman knew why. "Don't tell me you're worrying about ole Ack. I've got this thing sewed up. Why don't you take a walk around the park and see if you can find that little guy? What was his name? You know the one I mean. The one who got cold feet and dropped out before you finished feeding him. Over."

Wade handed the mike back to the commo man without a word. He looked at the Secretary. Lowe's eyes cautioned him. Wade swallowed the things he was going to say. Orders. Damn them. He wanted to stick a pin in Ackerson's ego. And it would be so easy. So damn easy. Orders. He gave them and he had taken them.

Wade turned and got the mike again. "This is Mother. Keep an eye on the hull temperature. Watch that gyro. If you feel the slightest vibration be sure to start the auxiliary immediately. Over."

"Romeo, Mother. Take care of my letter. I—" the speaker became silent.

Major Gormely moved like a

blur of light. Wade knew what was wrong the instant he looked at the pip on the radar scope. Major Gormely hurriedly began checking instruments. But he had seen too. The equipment was in order. It was the *Starfrost*. It had all indications of a "wobble".

"This is serious, isn't it, Wade?"

Boeman didn't look at the Secretary when he answered. His eyes were glued to the radar scanner. "Pretty much. It could be the end if he doesn't catch it in time."

"What can we do!"

"Nothing but wait. He isn't finished yet. He has the extra gyro. That should do it. If not he can try the fuel as a last resort. It's only theory plus but he might be able to blast something with substance against the dorsel fin. If he plays it carefully he might be able to give the gyro a hand. It will be tricky but we think it can be done."

"What effect will that have on the mission? He has only so much fuel!"

"He can waste thirty seconds. After that he is cutting himself short on the leg home."

"The wobble stopped," Major Gormely said quickly.

It was true. The course was slightly erratic but Ackerson had the *Starfrost* back under control. Wade wiped the back of his hand over his lips. Suddenly he felt tired and old. He wanted to sit down. "Keep trying on the radio, Mike," he said.

He walked over to the small table with the television set on it. He switched it off. He didn't want to look at that empty sand. He lighted another cigarette. Then he reached inside his blouse and withdrew the letter Ackerson had left for him. He didn't want to read it. For the first time he had felt close to the blond man . . . felt sorry for him. The letter could say something to change that.

"Why don't you read it, Wade?" the Secretary said.

Wade looked up quickly. The Secretary was smiling with that know-all look of his. Wade reached in his pocket and brought out the pack of cigarettes. Then he caught himself. But the older man hadn't missed the one smoldering in the ashtray.

A tight smile creased Wade's face. He felt like a small boy caught with his hand in the cookie jar. "I know a nice quiet spot in upper New York. Phonecia! There's a nice trout stream beside the only hotel. The people are simple and tolerant. And there is a small, private bar where a man can really relax. I think I'll go up there for a few years when this is all over."

"Now you're reading *my* mind." the Secretary said.

They both laughed.

"Seriously, Wade. I think you should take a long rest when this is over. A man with your knowledge of the human body should realize that you're fighting fatigue. In fact I've already spoken to General Dominick about it."

Wade shook his head. "You know I can't do that. I've got another job I have to take care of first."

"Tomer?"

"Of course."

"I thought we settled on that. Someone else can take over in your place and handle that. You can supervise if you wish. But not until after you've had a rest."

"You know better, Harry. This is my baby and I'll handle it. It isn't that I haven't tried to keep him out of my mind. I have. Yet he always comes back to haunt me. If not because of my own feelings, then it's Ackerson reminding me. It's no use. I can't rest with him on my mind."

"Not even when you've had orders?"

Wade snuffed out the cigarette. "I'm finding out that feelings can sometimes rebel against orders."

"That isn't a good trait for an Army Officer to acquire."

Wade's face took on a sardonic expression. "No. It isn't, is it?" he said softly.

The time piece on the wall was broken. It had to be. Wade had been watching it for hours and it hardly seemed to move. The *Starfrost* had disappeared behind the dark side of the Moon and a press release had been duly passed on to the anxious public. The world was electrified. Man had ventured into space. The public hadn't been told that there was no communication with the *Starfrost*. It was better that way.

Wade fished for another cigarette as he followed the sweep second hand with his eyes. It was ironic, in a way. Man had ventured to the Moon and could not land. He dared not. To set foot on the cold, dead satellite when there was no possible way of return would be inviting suicide. The test rocket fired at the silent world, and the *Starfrost* had eaten up the last of the appropriations and it would take a battery of ships to carry the supplies necessary for the building of take-off facilities.

That was what Wade wanted, an installation on the Moon before another nation could make it. It was no secret that the nation that controlled the Moon in the next war would be in the driver's seat. It would be a fortress in the sky. And it was no secret that another nation was almost ready to launch a ship. Wade wanted to get there first.

Wade could feel the sweat on his hands. They felt cold and clammy. The *Starfrost* should have reappeared on the radar set an hour ago. He dared not think of what would happen to Ackerson if the big blond man miscalculated while in orbit. To shoot off alone into black, empty space, hurtling out into a void of nothing, where there was only a cold, quiet death awaiting was no way for a man to die.

Damn it. Where was that silver cocoon? Ackerson had to make it. Everything depended on the success of the *Starfrost*.

"I think I've got something," Major Gormely cried.

Wade came out of his dream world with a rush. His swift steps covered the distance to the radar set in a matter of seconds.

Gormely was bending over working with Pilius. And it was there . . . a tiny speck that could only be one thing.

Wade heard himself mutter: "Thank God!"

The control room became a beehive of excitement. These men were accustomed to success in the face of overwhelming pessimism. Yet this was almost the ultimate. They were part of a team that had projected an earthbound object into space. Now it was coming home. "Operation Boomerang" was nearing fulfilment. The long hours of sweat and worry were beginning to pay off. The cork was ready to burst out of their bottled up emotions.

Sergeant Meyers' face was beaming. He was exuberant with excitement. "I guess that calls for a drink." He took Wade by the arm. "I've been saving a quart of homemade corn for just this occasion."

Suddenly Meyers stopped. His tan face became a gray mask.

". . . pardon me, Colonel . . . sir!" He came to rigid attention.

Wade laughed heavily. "I think one drink would be in perfect order, sergeant. Where do you hide this liquid cob?"

Meyers' face became bright again. He almost tripped as he tried to salute, about-face, and run at the same time. He was going out the door when he called back over his shoulder. "In the water closet on one of the thrones in the latrine . . . Sir."

IT WAS Wade Boeman who ruined Allen Ackerson's exit. He had the staff car pick up the pilot as soon as the hull of the *Starfrost* cooled. The official car had sped back over the barren sand, through the waiting throng of newsmen, straight to the small office located in the control building, without a stop. To say that it peeved Ackerson would be putting it mildly. His face was still burning with anger after twenty minutes of interrogation. Wade knew it was only the presence of the Defense Secretary keeping him in line. For that reason he tried to keep each question brief and simple. Ackerson was dying to get outside that door and receive some of the acclaim that he was being denied.

"You say you had a chance to look at the test rocket we fired?" Wade asked.

"Yes sir. It was resting in a red crater, fairly well beat up. It must have come down hard. In fact it looked like it may have struck a wobble at the last minute. Of course the terrain is pretty rough up there and it could have toppled after it hit. I'm sure the camera shots I took will tell us much more."

Wade felt a sudden twitch in his shoulder. "You said the crater was red."

"Yes, sir. A bright red. I thought it was strange. It was as if something spilled out of the ship when she hit."

Wade and the Secretary exchanged glances.

"It was a marking dye so you could pick up the location of the ship," Wade said too quickly.

Allen twisted his head as the sound of many voices pierced the quiet room. Someone cheered loudly. Allen shifted his large frame.

"How was she lying?" Wade asked.

Allen brought his attention back to the two men. It was obvious, he was becoming annoyed. "Down tail-first. The nose section looked intact. That's what makes me believe she took on a wobble at the last second. The nose should have been buried out of sight."

Another cheer forced its way into the room. Suddenly Allen burst out. "Tell me, Colonel. How's Tomer these days. You remember, that little guy who quit on you just before the training ended."

The words had the effect the big man had hoped for. Boeman came out of the chair. His face was a vivid white. "You . . ." he began.

The Secretary moved quickly. He was between the two men before Wade could continue. "That's all for now Captain Ackerson," he said, "or should I say Mister Ackerson. Your papers have been processed as you wished. You're a civilian, after sixty days terminal leave, of course."

Ackerson watched the play of emotions on Wade's face. He was enjoying every second of it. Wade wanted to smash that smug face all over the floor. Yet he was powerless. Ackerson was still an officer and there was too much left undone to risk everything now. He sat back down on the chair. There would be time when the blond man was a civilian.

"Thank you, sir." Allen grinned.

The Secretary extended his hand. "Congratulations again for a job well done." They shook hands.

"Don't forget, Ackerson," Boeman said as Allen hurried to the door. "The next week is mine. Solid interrogation. You're still in the service."

"Yes, Sir."

"And one more thing, Ackerson. I know your communication was working. Why didn't you answer our calls?"

"I thought that would make you sweat a little. I can see that it did."

The door slammed shut.

Neither man spoke when the door closed behind Ackerson. The silence was long. Finally it was Boeman who moved. He opened the top left drawer of the desk and withdrew a small glass and a bottle. He poured a drink and offered it to the Secretary with a glance of his eyes. The Secretary shook his head.

Boeman lifted the tumbler to his lips and poured the liquid down with a quick motion. He made a face as it burned. He poured another, toyed with it before he tossed it down.

"Well, he made it." Boeman said finally, placing the empty glass on the desk. "To the Moon and back —non stop."

"You knew he would, didn't you."

Boeman nodded, staring at the glass.

There was another awkward silence as both men were wrapped in thought.

"Disappointed, Wade?"

"Not disappointed. Disgusted."

"He gave us what we wanted. The appropriations will be easy now."

"I know."

"Then what's wrong. Certainly you can't blame Ackerson fully. He doesn't know the entire story."

"Perhaps that's what's wrong. If I could just tell the full story I might feel better."

"Impossible. Can you imagine the entire nation carrying a load on its back the way you are now?"

Wade laughed bitterly. "It might wake them up."

"I understand, Wade. My insides feel it too. But let him be the hero."

"He will be," Wade said, reaching for the bottle again. "He will be."

"Then let him. We have more important things to think about now." The Secretary got up. Wade grasped the empty tumbler in the palm of his hand, squeezing tightly.

"Ackerson said red."

"I know," replied the Secretary.

"Red means danger. The crater should have been stained yellow."

"Perhaps there was a mix-up in containers."

"You don't believe that, Frank."

"But the radio is still operating! A steady C.W. beam is coming in. If there was any danger we would be getting code."

Wade forced a smile. "You should have been a minister. There is always hope . . . is that it?"

The Secretary placed his hat carefully on his head. "I'd better get over to the lab and take a look at those movies he took."

"It must be so lonely . . ." Boeman said loosely.

"Perhaps not. Tomer was a quiet man. Those kind don't seem to mind."

A sudden, loud cheer broke the near silence in the room. Wade glanced toward the window. Then he got up slowly with the action of an old man. He went to the window and looked out.

Ackerson was being carried through a path of humanity aloft on dozens of shoulders. He was waving to the hundreds of well-wishers as he was carried toward the battery of microphones waiting on the wooden platform erected for the occasion. Wade couldn't help but think of a hero of another age. Lindbergh. It must have been the same then. And who remembered those that followed him? Or those that paved the way so he could make it? Wade shook his head.

He turned away from the window quickly, heading for the desk and the bottle. The Secretary followed him with his eyes, undecided.

Boeman lifted the bottle high above his head in a toasting gesture. "To the hero."

"Don't, Wade."

The bottle paused there while the eyes of the two men met. Finally the bottle returned to the desk as Wade surrendered. Then he slumped down in the chair.

The Secretary placed his hand on Wade's shoulder. Boeman shook it off, and he was sorry instantly. "O.K. Frank. You win. Ackerson wins."

"Good," the Secretary said softly. "That's the way we want it. We have to prevent everyone from feeling the way you do now. It isn't that you're jealous of Ackerson getting the glory. And you know that Tomer doesn't mind. It's your worrying about him that's cloud-

ing your mind. Everyone would be feeling the same way."

The Secretary looked out the window. "We couldn't have that. It would have set space travel back years. Ackerson is powerful evidence that space flight is safe. Tomer is our insurance. We need that just as badly. We had no choice. We had to stake a claim on the Moon."

Wade poured another drink. "And that conceited ass is getting all the credit while Tomer is sweating it out up there on that cold chunk of rock—while everyone thinks he quit the project because he got cold feet."

"True." The Secretary shook his head. "But Tomer is our ace-in-the-hole if the iron curtain announces their intentions to land up there.

"Tomer can be contacted. He can set off the signal for the world to see. In the meantime we will be working to make the next flight a complete one. It won't take long. Tomer will manage."

"But Ackerson said the crater was red!"

"I know. And I'm wasting time talking with you. I should be looking at those movies he took."

Wade didn't watch the Secretary leave. He picked up the bottle and glass and went to the window.

Down on the ramp the P.A. began to crackle. Ackerson was beginning his speech.

Wade took out the letter that Ackerson had sent to him. He took out a match and touched the flame to it. It was better that way. He was finished with Ackerson. He had a job to do now, one that would consume him. He had to get the *Starfrost II* underway. He had to get there to get Tomer.

Suddenly he understood. There were all kinds of heroes. Men like Ackerson were driven by the lure of fame and money. Tomer became one because the job had to be done and there was no one else to do it. Lowe was one, in a way, fighting for peace against a world that was always in unrest. In a way Wade himself might fall in one category. The thought made him smile.

The Secretary was right, of course. The public would crucify them if they knew Tomer had been in the supposedly unmanned test rocket fired at the Moon with no way home.

Wade lifted his drink high in the air as Ackerson's deep voice carried into the room from the ramp below. "To a hero," he said. "A lonely hero." Wade's eyes were on the sky when he said it, on a spot where the Moon would be some hours later. **END**

What Is Your Science I. Q.?

A SCORE of 80 or more is excellent, 60 to 80 is average, less than 60 means you'd better bone up. Answers on page 118.

1. What is the only compound of platinum known to occur in nature?
2. ——— inches of snow is equal in water content to 1 inch of water.
3. Using chain measure, how many chains equal 1 statute mile?
4. The average weight of the human brain is ——— ounces.
5. What shape is a sphenoid?
6. The melting point of Sodium is ——— C.
7. What is the name of the deepest spot in the ocean?
8. A number that cannot be resolved into two or more factors is called a ———.
9. The tilt of the Earth's axis is ——— degrees away from the perpendicular.
10. Which of the following two chemical elements has the longest "life"—Curium or Rhodium?
11. Which unit of weight is the same in avoirdupois, troy and apothecary weight?
12. Southwest by south would be ——— degrees ——— minutes south of due southwest.
13. The actual curvature of the surface of the Earth for the first mile of visibility is about ———.
14. What is the name given to that region of the air which is the dividing line between the troposphere and the stratosphere?
15. Schizogenesis is a term used to describe reproduction by ——.
16. In what months is the axis of the Earth at right angles to the sun?
17. A scruple is a measure of weight equal to ——— grains.
18. The potential difference between a terminal and a neutral point of a 3 phase armature is called the ——— potential.
19. The anthropological term Pithecanthropus refers to the ——— man.
20. Air rests on the Earth's surface with the weight equal to a layer of water ——— feet deep.

(Continued from page 59)

allow me to deliver him into the hands of friends, deliver him alive and safe. In return, I promise that your twelve-year-old body will leave this Earth virtually at once. I will send it to the colony on Mars, where it will stay until adulthood. Will you allow this?"

The Scholar's smile was thin. "And that is your only condition?"

"My only one!"

"Doctor—" Ron stepped towards him. "You can't leave things as they are—"

"Are you willing, Scholar? Will you let Ron Carver live his life in peace?"

The Ron-body stiffened.

"Yes," he snapped.

"Ron—" the doctor waved towards him. "Hand him your gun."

"What?"

"Give it to him! We've made a pact."

Ron hesitated, and then extended the butt towards the Scholar. He took it with a slight bow, weighed it in his palm, and then slipped the weapon into his pocket.

"You did wisely," the doctor said, with noticeable relief. "If you had turned that gun on us, Scholar, I would have killed you on the spot." He patted the metallic bulk beneath his own coat. "I came prepared, too . . ."

The copter rose serenely towards the heavenly vault. Ron's small body was feeling the effects of the day's strain. It collapsed against the leathery cushions, the short arms and legs limp and dangling.

The doctor patted his knee. "Another few moments," he said.

"Where are we going?"

"To the spaceport in Winnipeg. I have a friend there. He has two children of his own, both born in the Mars Colony. He'll be returning there within the week."

"And you want me to go with him?"

"Yes, Ron. I want you to grow up all over again, and then return to Earth. It won't be easy for you, but there will be advantages. Your life span has been lengthened. And right now, you know, you're something of a prodigy yourself." He chuckled dryly.

"And what happens here?" Ron said bitterly. "What kind of Earth will I find on my return?"

"An older Earth. Perhaps a wiser Earth . . ."

"No, doctor." Ron forced himself to a sitting position. "Not with the Scholar alive and thriving, growing stronger and more intelligent with every passing year. It'll be *his* Earth when I return . . ."

The doctor stared at the night sky before answering.

"No, Ron. He'll never live to see it. I knew that when I selected *your* body to house his mind . . ."

"What do you mean?"

"I chose you for a reason, Ron. A vital reason. When you came to my office on your return from Andromeda, I discovered something about you which made up my mind. An ailment without a name or a symptom, found only rarely in the bodies of a few space travelers. You had it, Ron, and in

a year or two, it would have struck you down with the savagery and surprise of lightning.

"It was then that I agreed to the Scholar's plan to exchange bodies. Agreed to it on my own terms, with the body of Ron Carver . . ."

"Then I'll die!" Ron said.

"No, Ron. You will live. It's the Scholar who has made the bad bargain . . ."

In the distance, the lights of the Winnipeg spaceport blinked a welcome. **END**

HIDDEN TALENT

(Continued from page 39)

responded with a tinkle of coins.

"Thank you, thank you," he said. He pulled out a box full of colored globes, and began to juggle them without prologue. Within a few seconds he had five of them going at once—actually manipulated by tk, while he waved his hands impressively but meaninglessly beneath them. He sent up a sixth, then a seventh.

He smiled pleasantly to himself as he juggled. Quite possibly these people had encountered telekinetics before, and had burned them for witches. But those were *real* telekinetics; he was only a sleight-of-hand artist, a man of exceptional coordination, a wandering charlatan—a fake. Everyone knew magicians were phonies, and that it was by tricky fingerwork that he kept all those globes aloft.

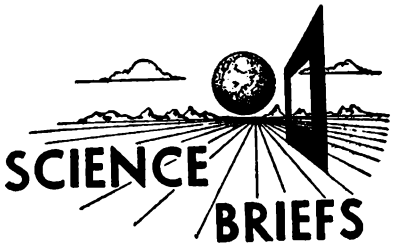
When the shower of coins had stopped, he caught the balls and restored them to their box. He began a new trick—one which involved a rapid line of patter while he set up an elaborate balancing stunt. Piling chairs on top of thin planks and adding odd pieces of furniture from the back of his chariot to make the edifice even more precarious, he assembled a balanced heap some twelve feet high. He ran round it rapidly, ostensibly guiding it with his hands, actually keeping the woodpile under a firm tk control.

Finally he was satisfied with the balance. He began to climb slowly. When he reached the uppermost chair—balanced crazily on one of its legs alone—he climbed up, braced himself, and, by teeking against the ground, lifted himself and balanced for a long moment by one hand. Then he swung down, leaped lightly to the ground, and waved one hand in triumph. A clatter of coins resulted.

This was the way, he thought, as the crowd roared its approval. They'd never suspect he was using a sort of *real* magic. He could practice control of his psi in ordinary life, and this charlatanry would give him the needed outlet as well. When he returned to Earth, he'd be adjusted, more so than the ones like Dumb Joe. Davison was remaining in society. He wasn't running away.

A small boy in the first row stood up. "Aw, I know how you did that," he shouted derisively. "It was just a trick. You had it all—"

"Don't give the show away, sonny," Davison interrupted in a loud stage whisper. "Let's just keep these things secret—between us magicians, huh?" **END**



One of the dangers of future space travel may well be that of body waste. To throw out wastes would put the ship off its carefully plotted flight path, upset the conservation of total mass, and be impractical because of the tremendous speeds. Scientists working on the problem of sewage disposal in space are considering incinerating or chemically changing wastes by solar energy, and reusing the treated wastes to grow algae. An alternative would be burning them with the heat generated by supersonic flight; or possibly using such wastes as fuel in the space ship's propulsion system.

Today's housewife will probably need a diagram or map to find her way around in the pushbutton kitchen her daughter or granddaughter will have twenty years from now. Today's electric ranges and ovens in the wall will be replaced by a marble counter top that heats to roast meat or bake a pie and then, in a moment or two, is cold enough to touch and use as a counter top or table. Ultrasonics, silent sound waves, will wash dishes in three minutes. Other gadets will include a serving cart, with self-contained motor, that runs itself into the dining room with food and returns with the empty dishes, and an electrically-driven, partly-refrigerated turntable at the kitchen entrance which will receive milk and groceries to save the housewife from having to leave the telephone or other activity to answer the door and put groceries away. A kind of electronic "brain" will produce the day's menus, the housewife merely pushing button "two" or "five" or whatever she feels like. And a simple touch to the sliding paneled walls will produce the cake that's been baking, clean dishes or washed and ironed clothes.

To protect the ears of an aircraft carrier's personnel from the noise of future jet planes, an island structure with a sound-proofed double wall has been suggested. Even now it is difficult or impossible for important ship's officers to communicate. With both turbojet engines at full power, the present military jet plane develops about 169 decibels, well above the limit of the largest power amplifier system and the threshold of painful noise. Jet planes of the next few years are expected to rise to about 190 decibels. Since the noisiest time is when a jet plane is running up to full power for a take-off, and since take-offs are spaced thirty seconds apart, the results to island personnel could be disastrous unless steps are taken to reduce the noise.

A crash-proof car, whose safety innovations could cut the death rate on the nation's highways in half, is now in production. Passengers in

the rolling safety package could emerge uninjured from a head-on collision at 50 miles per hour. Externally, the "crash-proof" car looks just like any other four-door sedan. Inside, however, there are some radical changes. The steering wheel has been eliminated and replaced by a hydraulic, two-handled, lever-type control system set parallel to the floor. The steering device is covered with a chest cushion and beneath the chest protector is a body restraining U-shaped webbing yoke. Passenger and driver sit in bucket seats and the seats behind the driver face toward the rear. Doors are on rollers and move rearward, folding outward, like a single accordion pleat. Metal stiffeners, similar to the "roll bars" for stock car racing, are built into the roof. The passengers have chest pads and body yokes similar to those of the driver. The car has roof padding throughout, shock absorber material between the bumpers and the body frame, spring mounted wrap-around bumpers and an air scoop on the roof to minimize exhaust gases.

Farmers of the future will be able to control the sex of their chicks before they are hatched. A new egg-dipping process, which forces hormones under pressure through the porous eggshell, is being experimented with, and results have been remarkably effective. Which will you have, hens or roosters?

Creating new skulls for humans may soon be standard practice among plastic surgeons. Recent reports have described such an operation in which doctors removed four ribs from a child in four separate operations and used them to cover the skull which had been crushed in an auto accident. The rib grafts form a scaffolding along which new skull bone is built; and the defect in the chest wall regenerates with new rib in as little as 34 days. Because the amount of bone available from ribs is almost unlimited, doctors of the future may look on ribs of the chest cage as a "bone bank within the human body."

Steps toward the direct conversion of atomic radiation into chemical energy, one of the most important objectives in atomic energy development, were revealed recently by the Brookhaven National Laboratory. Ionizing radiations were used to oxidize an iron salt, ferrous sulfate, in the research aimed at understanding the decomposition of water by radiation. This gives information on the direct effects of radiation on chemical change. Most atomic energy is used by degrading the radiation energy into heat and then using the heat to produce chemical or other effects. But the short-cut to direct conversion is a giant step forward in atomic research.

Smaller electronic computers with larger "memories" than those in present use may be expected in the near future. Heart of this new device is an information storage tube which is an inch-square honeycomb gadget that will store up

nearly a million bits of information. The honeycomb is a thin sheet of glass in which small holes have been etched and filled with metal. Information written on one side of the honeycomb by an electron-beam scanning method, similar to that used in television, is picked up from the opposite side. Holes in the device are 500 to the inch, so that each square inch has 250,000 individual storage cells—and each cell will recognize at least ten different levels of intensity from the writing gun.

The ramprop, a jet-driven propeller turning at supersonic speeds, could give planes that land and take-off vertically the speed and load-carrying capacity of modern aircraft, scientists predict. The ramprop performs better than the turbojet, the turbofan or the turboprop. It can also attain high speed in level flight. The ramprop propulsion system, consisting of rotor blades driven with supersonic speeds by ramjets or ramrockets at the blade tips, are most suitable for heavy vertical take-off and landing, because large diameter propellers present fewer structural limitations.

Some day cities may be "weather conditioned" by plastic pillows filled with helium and joined together to make a mile-high dome. Such a set-up would provide year-round sub-tropical weather without rain or bugs. The sun's light and heat would penetrate (with harmful rays filtered out), and rain pouring off the edges would be caught to provide a pure water supply for all purposes.

Polarized lenses may soon be standard equipment for automobile headlights and windshields. Blinding glares to approaching drivers will be eliminated as well as those from approaching cars. In daytime driving the polarization will be cut with the flick of a switch.

Chemical firms of the future may "employ" microbes as helpers. Recent laboratory research has shown that if lakes in the hot desert could be contaminated with the right kind of sewage or "broth", and stocked with specially cultivated sulphur-producing bacteria, the process of building up sulphur deposits could be speeded up to six times faster than it takes nature to do the job. With such a system in full swing, sulphur production would no longer be a problem.

Dehydrofreezing may be a word to conjure with in the not too distant tomorrow. It's a name given to a new process which combines the space saving of dehydration with the advantages of freezing. Ordinary freezing tends to rupture the cellular structure of foods. Partial dehydration does much to overcome the objection, and dehydrofrozen foods retain the right amount of moisture. They can be reconstituted by simply soaking them in water. Scientists report that the process costs somewhat more, but lower packaging, freezing, storage and distribution costs should result in an overall saving for the consumer.

Dear Sir:

I read Dr. Riedel's article in your December issue, and after some lengthy compositive reflection have added a few more decimal intervals to his list as it appeared in *This Lonely Earth.* Its conclusion, though prim, was startling (as it turned its phantom head to stare thoughtfully at me), so I'm forwarding the critter for post-mortem:

KNOWN INTERVAL

M—approaches 1
N—less than 10

1) (N) million years—animal state proportionate to surroundings, nature

$\langle 1<N<10 \rangle$

2) M million years—animal state—impressions of surroundings, and finally mythical or abstract or attributive speculation following early mental processes

$\langle 1/N<M<(N-1)\ (N>2) \rangle$

3) (N) thousand years—man proper — considerable mental capability, indefinite dimensional systems of coordination, such as nation — final abstract resolution of mythical, space, surroundings, nature into religious philosophic concept

$\langle 1<N<10 \rangle$

4) M thousand years—civilized man—philosophic, mathematic approach to science

$\langle 1/N<M<(N-1)\ (N>2) \rangle$

5) N, hundred years—modern man—acquirement of advanced math, approach to approximate "border control of molecule and atom

$\langle 1<N<10 \rangle$

Present time (1950's) should be located somewhere through this interval

UNKNOWN INTERVAL

6) M hundred years—future man—beginning of acquirements of exact instrumentation as a natural sequel to the simultaneous ac-

$\langle 1/N<M<(N-1)\ (N>2) \rangle$

quirement of total exact mathematics

7) N decades ??????? $\langle 1<N<10 \rangle$

8) M decade (s) ??????? $\langle 1/N<M<(N-1) \rangle$ $(N>2)$

9) (N) years—This final period of the appearance of evolutate man would be uncertain measure since it could be terminated at interval 8 $\langle 1<N<10 \rangle$

CONCLUSION—The mathematically rhythmical decimal variation could represent (for example) man's immergence into his surrounding three-dimensional world. That is, through 6 to 9. As a reverse of the emergence from 1 to 5.

—Howard Beorn
Chicago, Ill.

Anyone draw any other conclusions?

Dear Sir:

Dr. Riedel makes out a depressingly good case for Man's enforced isolation due to his inability to explore, at this stage of his development, the world outside the solar system. I am only a sometime reader of science fiction (although a very enthusiastic one) and score very low on your I.Q. tests; but if we are limited in our efforts at exploration, isn't it possible that some of the intelligent life which Dr. Riedel hypothesizes must exist in millions of communities throughout the universe, has already solved the problem of interstellar space flight? If this point is conceded, I have this suggestion: Why not build an automatic broadcasting machine to send throughout the galaxy, as far as we can make it go, a repetitious set of easily understood signals which could be immediately recognized as originating from living intelligence? For example, constant repetition of the numbers one, two and three. Then leave it up to them to locate us.

If it is argued that this is dangerous, I will answer that it is doubtful that any large attack fleet could make an interstellar flight, but if they could, would they be able to survive terrestrial conditions and remain strong enough to fight? And why would they necessarily be hostile? And, dammit, since we only have one life to live, wouldn't it be worth it to discover once and for all that life does exist in immensity? I say, let's take that chance!

—Robert Greengard
New York, New York

Dear Mr. Quinn:

The argument that Man isn't ready for space because he hasn't perfected a social system on earth is idiotic. The two points have no correlation, excepting one: a problem most easily solved with a maximum of factors known, and if space travel brings us a greater knowledge of the physical universe we'll be that much closer to complete knowledge of ourselves. Man

will reach his full potential when he understands best his relationship to the universe, because sometime he'll meet a race that hasn't the same relationship to the universe that we have and we shall find ourselves with a problem.

—Donald Dixon
New Britain, Conn.

Dear Sirs:

I didn't get in at the beginning of the argument, but I heartily agree with whoever said that the human race isn't ready for space travel when as yet it can't hold others as equals and live in peace.

As far as aliens from space being friendly or inmical is concerned, both opinions are wrong. What makes anyone think that a superior race capable of space travel would have anything to do with us? Do we try to show the baboon his shortcomings? He's a very intelligent animal too, but he hasn't got a thing we want. I believe we've already been visited by space ships, not manned—but recording devices. I'm going to grab the same bobcat by the tail; my name isn't Bellows and I'm not a fatalist. Now, anyone want to argue?

—Robert Raffey
Minneapolis, Minn.

Dear Mr. Quinn:

Unlike practically all of your correspondents, I am not a scientist of any sort, nor do I have more than a tenth grader's view of science in general. But may I say that I do enjoy every story in IF as does my father who started me on an infamous career of avid science-fictionism. I'm not writing just to congratulate you all. I would also appreciate a little advice. What can you suggest as an appropriate answer when accused of reading science-fiction as an escape mechanism? I'm sure more than a few readers have the same problem, especially those who, too, happen to be under someone else's jurisdiction. (Since I don't know anything about science, that can't be used as a proper explanation for me.)

—Marcia Burtt
North Hollywood, Calif.

We have memories of having the same trouble with our own "science-fictionism" way back when. How about some help for the gal from our readers?

Dear Mr. Quinn:

The concept of a "fixed" future, just because Mr. Einstein's theory views time as the fourth dimension, seems to me to be a very foolish one. We fill space (height, width, depth) with "things" and until a

WHAT IS YOUR SCIENCE I.Q.?

ANSWERS: 1—Sperrylite. 2—Ten. 3—80 chains. 4—45.8 oz. 5—Wedge. 6—97.5°. 7—Mariannas Trench. 8—Prime number. 9—23°27′. 10—Curium. 11—Grain. 12—11° 15′. 13—Nine inches. 14—Tropopause. 15—Fission. 16—March & September. 17—20. 18—Y. 19—Java. 20—34.

body occupies space it is virtually empty. Why then can't time be "empty" until we fill it with events?

I would like to take this opportunity to thank you for having a letter column that is really a letter column, not a space reserved for letters of praise to the editor. There is nothing more sickening than to read the childish (and endless) letters of praise in some of the other magazines. Keep up the good work.

—Larry Casey
Dallas, Tex.

FILTHY RICH

(Continued from page 81)

Suddenly, she turned and pressed her face to his chest. The sobbing subsided a little and her words came haltingly.

"It was awful. He's a subversive —a criminal—and I didn't even guess." She caught her breath. "We flew over to Staten Island. He parked near the water. Then he said, 'I want you to marry me.' Just like that. I liked him a lot—but I didn't know what to say. Then he said—Oh Daddy, it was horrible —" Her sobs increased again and she fumbled for his pocket kerchief. "He—he said, 'Look at this'. And Daddy it was one of those secret bankbooks! He has one hundred thousand dollars—and he's only twenty-five—and he's proud of it! He's worse than the old time gangsters, worse than—oh, Daddy—he's a non-consumer . . ." The last word trailed off in a wail and she was sobbing again.

J.L. tightened his grip on her shoulders. "Be thankful, Baby," he murmured. Be thankful you found the dirty so-and-so out in time."

END

A CASE OF SUNBURN

(Continued from page 73)

"You'll get a medal out of it, too," commented Sir Stanrich.

"Why? Why me?"

"Because you followed orders, even though your mission appeared useless. It was your 'wild goose chase' that made our victory possible.

"You see, only the blue mist of Mars protects its surface from the hard rays of the sun. Without it, we'd have no more protection than a naked man in space. The reason we're in for a bad sunburn every year is that the blue mist dissipates partially at every Earth-sun conjunction."

"But what would The Egg have to do with that?" asked Jonner.

"The Egg amplifies the effect of magnetic fields, the way a lens concentrates light rays," answered Sir Stanrich. "It's the Earth's magnetic field, not that of Mars, that interferes with the blue mist every time the Earth passes between Mars and the sun. And to amplify Earth's magnetic field, we had to place The Egg directly between Mars and Earth during the Earth-sun conjunction—and you put it there when you got the Egg into an Earthward orbit on schedule."

"But, Sir Stanrich, I've been sunburned a dozen times at these conjunctions . . ."

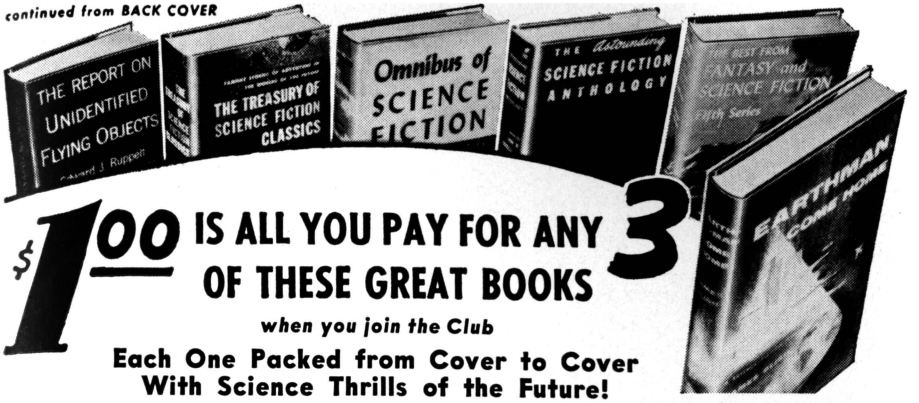
"Not like this. When the blue mist was stripped away completely this time, everyone on the surface was affected. Marscorp's troops were put out of action as an effective fighting force when they received severe burns over most of their bodies and were afflicted with acute conjunctivitis so badly they were half blinded. That's why we abandoned Charax and Regina and pulled all our people to the Isidis base—while the conjunction was under way, we were all protected from the sun . . . underground!"

They had reached the center of the city. Above the old Syrtis Major Hotel, which had served as Marscorp's supreme headquarters, the flag of the Charax Rebels was fluttering in the breeze from the city's air circulators.

Marscorp was beaten. Mars was free. **END**

In Russia, every physics undergraduate, regardless of his or her specialty, must take a course in nuclear physics.

continued from BACK COVER



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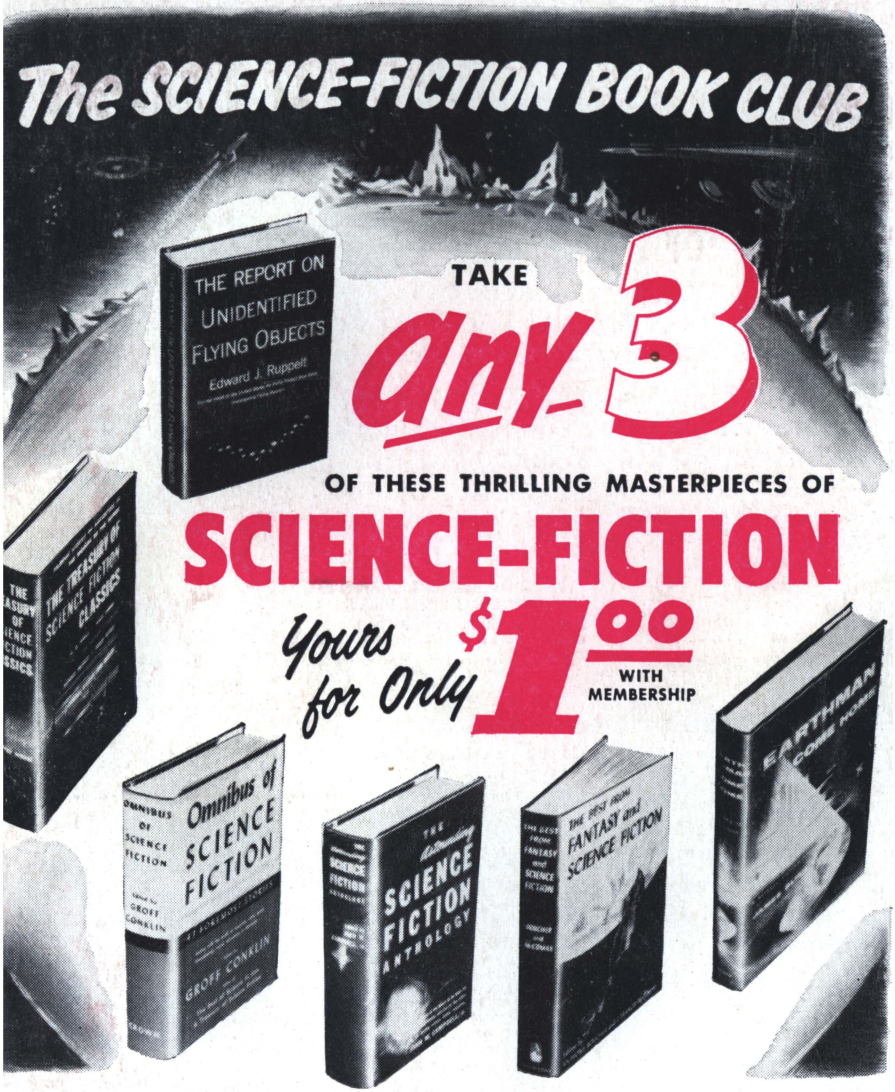

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