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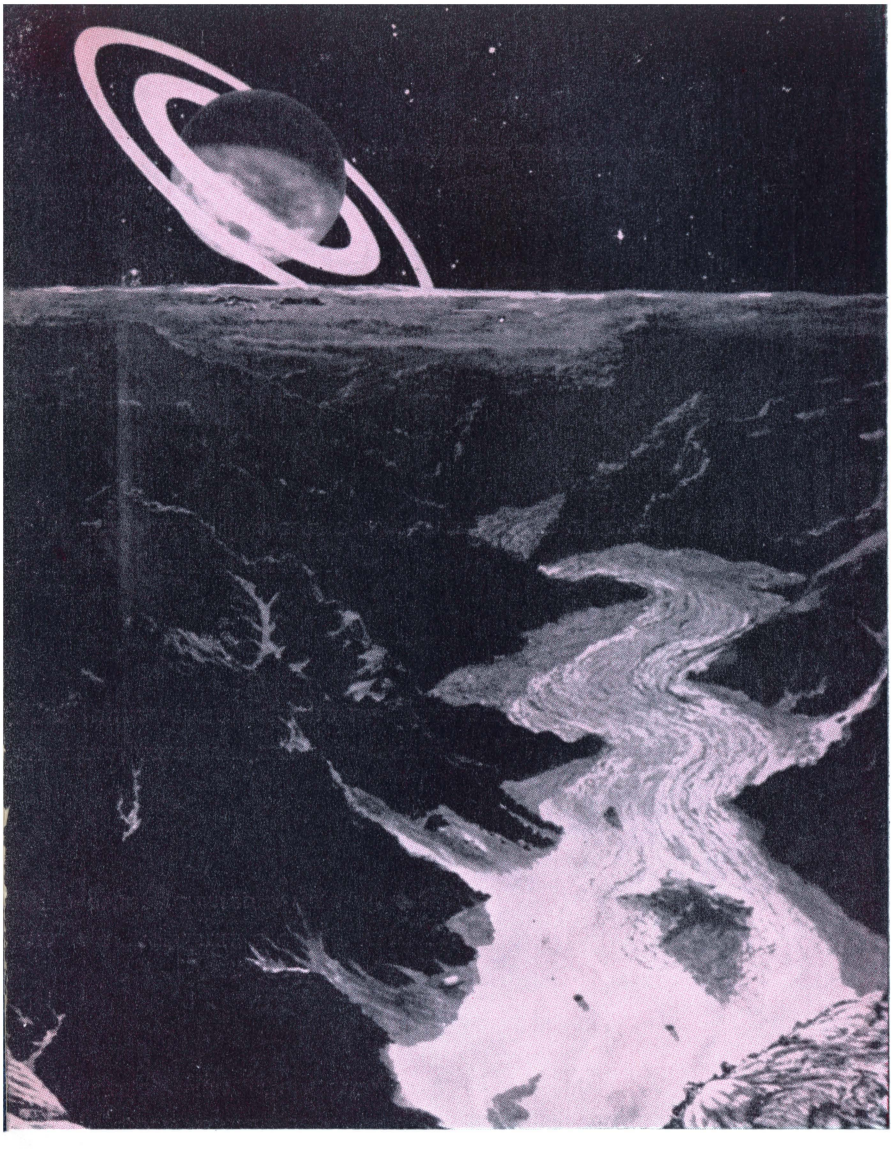
WORLDS OF SCIENCE FICTION

DECEMBER 1955 35 CENTS

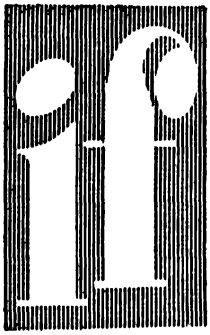
A thrilling new novelette by the author of SHILL!

HOAX

by James E. Gunn



HYPOTHETICAL PLANET—This view, from an imaginary satellite, shows a hypothetical planet with a ring system similar to that of Saturn. Since the rings are separated by a very wide gap, it is possible that the satellite group is both numerous and complex. The one on which we are hypothetically standing is composed of frozen methane and ammonia and a glacier of this ice is flowing into the canyon in the foreground. The sun of this system is a type M, red giant and the reflected rays have vaporized some of the methane-ammonia ice on the far horizon, turning it to fog and ice.



WORLDS of SCIENCE FICTION

DECEMBER 1955

All Stories New and Complete

Editor: JAMES L. QUINN

Assist. Editors: EVE WULFF, ROBERT W. GREENE

Art Editor: MEL HUNTER

NOVELETTES

SHORT STORIES

FEATURES

COVER:

"Heavyweight Champion of the World" by Kelly Freas
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IF is published bi-monthly by Quinn Publishing Company, Inc. Volume 6, No. 1. Office of publication, 8 Lord Street, Buffalo, New York. Entered as Second Class Matter at Post Office, Buffalo, New York. Subscription $3.50 for 12 issues in U.S. and Possessions; Canada $4 for 12 issues; elsewhere $4.50. Allow four weeks for change of address. 35c a copy. Printed in U.S.A.

EDITORIAL AND BUSINESS OFFICES, KINGSTON, NEW YORK

Next issue on sale December 12th

THE ODD genre

THE TITLE of this column, which seems an appropriate one, is a take-off on Olaf Stapledon's famous superman novel, *Odd John.* It is, I hope, an auspicious take-off, and that the items reported here will be as interesting as the source of the title. For instance, the original title by Stapledon—whose first name actually was William and his middle the better known Olaf—was *John Alive.* In the the early summer of 1951, in a sedate but modern home in Simon's Field, Caldy, West Kirby, Wirral, England, with Northern Wales in the background, the charming widow of the late Olaf Stapledon, who was also his first cousin, let me hold in my own two hands the *holoscript* of "John Alive", known for the last two decades as *Odd John* (except in France where it was translated as "Just A Superman"). The handwriting was small, precise, almost Lovecraftian, and covered sheets of paper the same size as his eventually printed book. Dr. Stapledon had even painted his own concept of his *homo superior,* John of the great, darkly luminous, impenetrable eyes, the frontal lobes of power, and the surprisingly woolly white skullcap of close-cropped hair. John Alive, living on after his creator had gone. It is one of the great regrets of my life that Olaf Stapledon died before I had the experience of meeting him. In the unimaginably distant days of the Last Men, he will still be remembered as one of the "First Men of Fantasy."

And now to *genre*: dear old genre! What would we do without it, with or without italics? And *aficionado!* I sometimes wonder how we struggled through the first 20 years of Scifi, we petrifying old pioneers, without knowing we were aficionados of a genre! And how would we ever have had half our anthologies, I wonder, after the atom, if Conklin & Co. (of fellow anthologists) hadn't happened on Destination and Operation and Project and Mission? (Come to think of it, wonder why we never had an atomic anthology called *Mission: Fission.*) Someday, if enough of you indicate that it interests you, I will discuss origins of terms like "stf" and "fen" and "egoboo" and "crifanac"; and even "gafia". There's a new one just taking hold: *shlue,* which is shock value run together like glue.

RALF 124C4E, undergraduate at the University of Gernsback, majoring in 20th Century Motion Pictures, writing in the year 2055 quotes an obscure scienti-film critic

for his term paper on "The Sci-Fi Cinema Factor and the Interplanetary Dream". Courtesy of Tourmalin's Time Travel Service, a portion of this criticism is reprinted here from the century old collectors' item, IF Magazine for December, 1955: If one hundred years from now (Ackerman reported) man has still not conquered space, historians—and s.f. dodderers with century-long memories—can point accusingly to "Conquest Of Space" as the film that sabotaged rocket flight.

I don't know who would want to fly to Mars after seeing this painful picture. In fact, I don't know who'd want to risk seeing another interplanetary film after "Conquest," except diehards like me. Maybe, as Eric Frank Russell and other voices have said, there *are* space people among us who want us to *stay* on Earth, and a picture like this wretched vehicle is an excellent way of discouraging the susceptible.

Take the portrayal of the space cadets in this betrayal of the interplanetary dream: a more unlikely, ill-assorted collection of (s)crewballs you've seldom seen. When I am President, the first law I'm going to pass is that no Texans or Brooklynites can go on space flights —at least not as comic reliefs in movies. In the first place, they are no relief. (Is a second place really necessary?)

A cogent friend of mine, connoisseur of films, called this picture "criminal", by which he did not mean arresting. Not since the mayhem of *Four-Sided Triangle* has murder most foul been perpetrated on what should have been a surefire hit. I don't think people are stupid, but the guys who make the movies think they are. When we consider that all the movies are really intended to be big box-office, and that Hollywood is convinced the way to make a paying picture is to put a lot of money into it, it follows, does it not, the way to succeed is to make them lavish and stupid? All we really need is a little creative effort and integrity. But who's going to do it?

We should have something if Bradbury and Paul Gregory get together on *Fahrenheit* 451 for the legitimate stage. Or José Ferrer produces Bester's IFA winner *The Demolished Man.* Or someone with a big soul (and pocketbook to match) signs me to turn Van Vogt's SLAN into a screenplay. I'm holding my breath on *To Walk the Night,* the modern s.f. suspense classic by William Sloane purchased by Hollywood.

THE THEME music from *Destination Moon, Things to Come* and *The Day the Earth Stood Still* comes to me in a melodic mélange from my front room as I sit in my office typing this. No, it's not canned vibrations arriving via phonograph records or tapes, but the real Jerome Drexel Bixby, whose talented ivory-tickling fingers have also typed many a fine sci-fi story. He's a house guest for the week . . . Longest house guest record: Tetsu Yano from Japan —5 months . . .

(Continued on page 115)

How can you get a man to go through the rigors of hell and learn to live with death at his elbow if you take away the dream? Amos defended his dream and found it a colossal . . .

HOAX

BY DAYLIGHT the room was small and shabby. Amos had outgrown it, as he had outgrown the bed.

But at night it still had its magic.

When the venetian blinds were closed and the light was off, the stars still came out fluorescently, and the planets, spinning gently in the smallest breath of air, seemed real and close. And the moon—pocked and familiar—a boy could almost reach up and touch it.

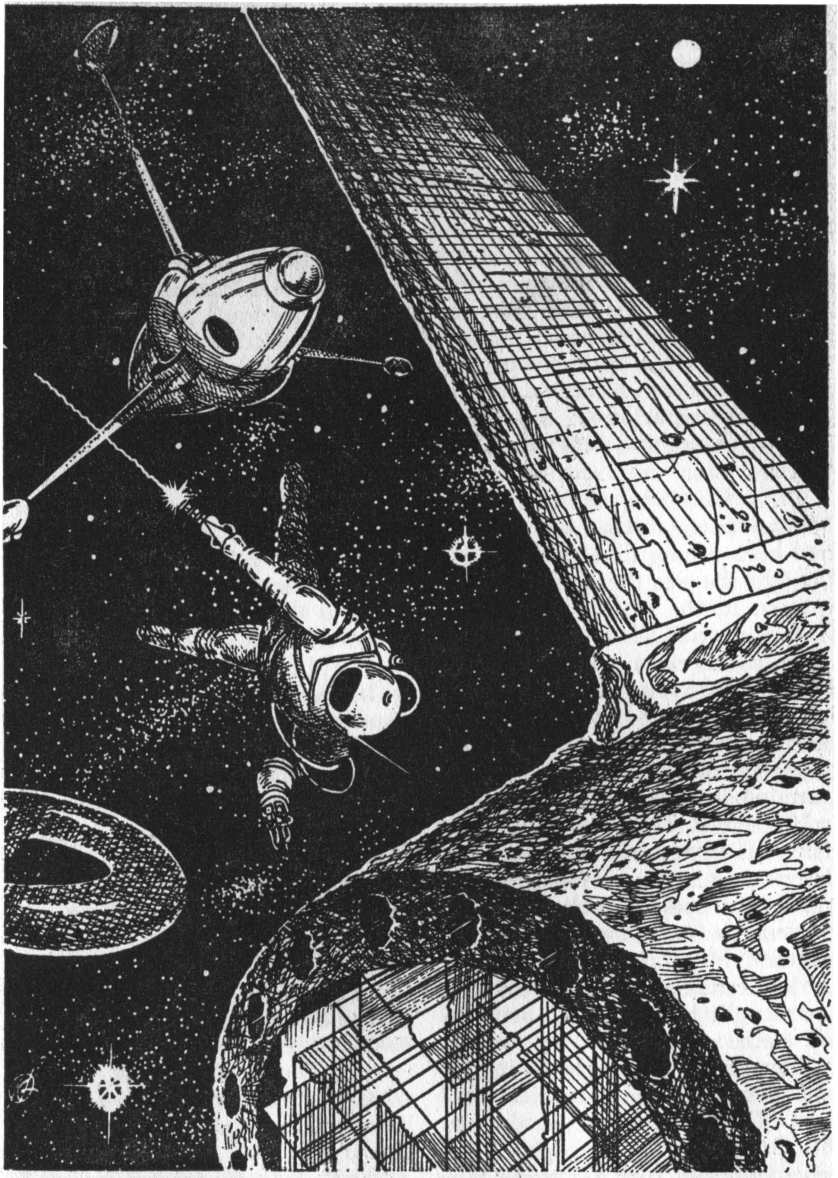
Best of all was the S.1.2.—the Doughnut—glowing right above the bed, and the boy, lying there, was free-falling in space, one of the heroes, one of the spacemen.

The boy was grown now, and the sun bleached the stars into tiny spots of paint and exposed the black thread that held up the planets and the S.1.2. The time for dreams was over.

She bustled around the room. The models spun and swayed. "You'll want this," she said briskly, holding out the book.

He took it, the thumbed, battered *Conquest of Space* with the

BY JAMES E. GUNN



Illustrated by Kelly Freas

achingly beautiful Bonestells, and put it back on the shelf. "Gosh, Mom," he pleaded, trying to make her understand. "I don't need that. I'm through with all this. Give this junk to Tommy."

"The way you talk—a person would think you weren't coming back," she complained, her voice breaking in the middle.

"Now, Mom." He slipped an arm around her shoulder and squeezed. "We've talked this out. I'm grown up; I'm not a boy any more. All these things"—he dismissed them with a careless hand—"I've got to put away. But I'll be back on leaves and Earth-duty and things."

She's faded, he thought. Since he had been at the Academy. It had been a long time since he had thought she was the most beautiful woman in the world. His mother had grown old.

It had been a sad trip home. Maybe it had been a mistake, coming home. Maybe it would have been better to have refused the leave. He had wanted to. But that wouldn't have been fair, either.

He folded over the thin, blue nylon of the spacepack and zipped it shut on his few personal belongings. Her eyes misted. Irritation crossed his face. "Now what's the matter?"

"You're taking so little," she said and caught her lower lip between her teeth.

"You know the weight limit," he said sharply. Then his voice softened. "Ten pounds. To put that on the Doughnut takes sixteen hundred pounds of fuel. Whatever else I need will be there. The Air Force won't let me go naked."

"I know." She sighed. She brightened determinedly. "If you're packed, come right downstairs. I saved a piece of pie."

He slung the spacepack over his arm the way spacemen did. As they went down the stairs, he put his left arm clumsily around her waist. "Now, Mom, I don't want anything to eat, honest. I couldn't eat a bite."

"You aren't going away from home empty, young man!"

"Sure, Mom. All right. Whatever you say." He dropped the bag on a chair in the hall and let himself be led into the kitchen.

She watched him eat, her eyes never leaving his face. He forced down the apple pie, not wanting it, fighting the eagerness to be gone, to be on his way.

The kitchen was a place peculiarly his mother's. There she was in command of things; there she had the courage to say what she had been wanting to say. "I just can't understand why anyone would want to go flying off into nothing. Seems like there's enough trouble right here on Earth without hunting up more. Every time I turn on the television"—her eyes moved to the repeater screen flat against the kitchen wall—"it seems there's some new crisis or the cold war is colder or hotter . . ."

"Oh, Mom! You know I've always wanted—ever since I was a little boy, dreaming, playing rockets . . ."

"Little boys I can understand.

Grown men are something else again. Like you said upstairs, you expect them to put away childish things. Why?—that's all I want to know . . ."

"Because it's there," he said, knowing that to her this was no reason at all. But it was the reason men had always given their women for chasing a dream, not really able to explain.

"It's important," he went on evenly, "tackling something really worth the doing. It's the dream—like the one that led the settlers into the wilderness, that pulled the wagon trains across the prairies. It's where men are making the future, men who really count, men like Rev McMillen and Bo Finch and Frank Pickrell. It's putting something out there where nothing has ever been—the Doughnut. Courage built it out of dreams. Guts holds it up. And that's just the beginning. It's the future out there."

"It's death out there." Absently, she brushed a wisp of graying hair back into place. "Like McMillen in his tomb, frozen, going around and around the Earth forever. The first man out; the first man to die. That should have warned us. It used to be war that took our men from us; now it's that." She looked up at the ceiling as if she were staring through it, as if she could see the little, plastic-and-nylon wheel spinning up there in the sun, where the sky is black and death is never far away.

"Good-by, Mom." He stood up abruptly, kissed her. Her lips were cold. "Don't worry. I'll be all right."

He walked quickly through the house, taking his cap from the closet shelf, picking up the spacepack from the chair. He stopped outside, hesitated, and looked back.

Already the house seemed unreal, fading, like everything in it. Even his mother.

He looked up, not seeing the small, swift glint of the Doughnut, not expecting it. The satellite wasn't visible here until 0319.

He walked a little, letting the Earth tug at him for the last time, thinking that this was fantasy now, soon it would be all as unreal as fiction.

Out there was his reality.

Within a few hours he would step out onto the vast concrete landing strip at Cocoa, Florida.

It was the beginning of the great adventure.

GENERAL FINCH was shockingly old and ill. Amos compared the reality with the pictures at the Academy; The General: shaking hands with Pickrell, facing the Senate sub-committee, giving a memorial wreath to an anonymous pilot to place in orbit for all those men who had given their lives . . .

But then General Beauregard Finch was an old man, four years past retirement age, almost seventy.

The six years since McMillen's fatal flight had aged the General, but with them he had built his own monument. Above him circled the Doughnut to which he had sacrificed his health, his life—as other men had sacrificed their health and their lives.

It was worth it. It was the dream.

In the little waiting room near the platform, the General stood, still straight, still wearing proudly the honorary Doughnut insignia on his shoulder. "You're going out there, Danton, taking with you all our honor, all our pride. We've never sent out a bad one, a coward or a fool. I don't think we've started now. Only a few men have preceded you. Only a few will follow. It will always be a hard, lonely business out there. But there's nothmore worth the doing."

The General had never been out there. By the time it was possible, he was too old.

"What do they call you now—you cadet replacements?"

"Pick's pick, sir."

"Good enough. That's what you are—picked men, selected and sorted and pruned, over and over. The best of the best. You've had the finest training we could give you. Remember though: it's never enough—the picking or the training. The job is always bigger than the man. What you've gone through is nothing to what is waiting for you."

Amos smiled politely. The General could call it nothing, the Academy selection and training program: he had never been through it. Knowing it now, Amos could not have forced himself to go through it again: the unceasing torment of brain and body, the endless tests of physical and pschological endurance, the perpetual cramming of an infinite amount of information into a finite brain . . .

Call it nothing. Call it five years of hell.

Out of 50,000 applications, 1,000 had been accepted. After the intense physical and psychiatric tests, sixty were left.

They received their reward: five years of training. Five years of fighting the books, of taking *g's* in the centrifuge while trying to function as a stage-three crewmember, of working out in the "whirligig," of living in the "tank" with thirteen other men for weeks without end—knowing that the psychologists were watching . . .

And always the growing pressure of failure as classmates dropped out, were culled, disappeared, were mentioned no more.

Until there were five left to graduate.

Five out of 50,000. Those were odds you refused to face when you started. The only way to survive was not to think about it, to take each trial as it came, and when the *g's* built too high, to remember the dream and fight once more and once again.

There couldn't be anything tougher than that. The reality would be fulfillment.

"Go on!" the General growled. "Get out there! I talk too much. The ship won't wait, not even for a general."

He was coughing as Amos, in flight helmet and coveralls with the webbed harness over it, strode across the broad platform toward the tapering spire of the ferry. It was a typical three-stager, gleaming in its white, ceramic coating, its clean lines broken by stabilizer fins and the broad, ungainly wings on which the third stage would glide

through the atmosphere to a powerless landing.

The elevator, part of the giant, hammerhead crane, lifted Amos smoothly up the side of the ship. Across the hull of the third-stage, beside the vast expanse of wing, were painted these black words: McMILLEN'S FOLLY.

Amos read them and frowned. Service irreverences were unavoidable, but they belonged within the service, not out where the public could share them. To call the S.1.2 the Doughnut was not too bad—he did it himself—but this name left a bad taste in the mouth. The hot hand of air friction could not erase it too soon.

The thick, square door stood open and empty. Amos shrugged and stooped through the air lock into the familiar cabin of the M-5 stage-three.

He climbed the rungs of the ladder toward the one unoccupied seat. On this trip he would be radio op.

The others were in their places—captain, co-pilot, navigator, engineer—their smoothly helmeted heads like bowling balls precariously balanced on seat backs. One of the bowling balls turned, became a face, hard, disinterested. The captain.

"Cadet-Trainee Danton, sir," Amos said, saluting crisply, "reporting for transportation."

"Oh, God!" the captain groaned at the co-pilot. His head twisted back toward Amos. "Where've you been? You think we've got nothing better to do than wait for a lousy cadet? Oh, never mind! Get strapped down! We know—old Bo was giving you speech 12B: 'Words of advice and encouragement for cadets making their maiden trips: We've never sent out a bad one, a coward or a fool. I don't think we've started now.' "

Flushing Amos lifted himself into the vacant chair and clicked his harness straps into place. *They'd have been waiting anyway. Take-off time wasn't for five minutes.*

"What's your specialty?" the captain asked.

"Pilot, sir."

"Watch, then. Maybe you'll learn something. Know any radio?"

"Yes, sir."

"Then this is an order: Keep your clammy hands off the instruments! Any communication that's necessary, I'll take care of. Understand?"

"Yes, sir."

"Plug in your earphones or not as you choose, but don't put on throat mikes. I don't want you fouling up the circuits."

Amos's face was burning, but he clenched his teeth and said, "Yes, sir."

The captain reached into an elasticized pocket beside his chair and pulled out a plastic bag. He dropped it to Amos. "Put it on."

"I've had free fall, sir," Amos protested. "I won't need this."

"You have, eh? How much?"

"Almost seven minutes."

"Eighty seconds at a time in a Keplerian orbit! Nuts! This time you'll get four hours just as a starter. Put it on! That's an order."

Slowly Amos slipped the elastic behind his helmet and fitted the plastic ring over his mouth. It

wasn't enough to come through the Academy. He had to prove himself all over again.

"Engineer?"

"Engineer check-off complete."

"Navigator?"

"Navigator check-off complete."

"Co-pilot?"

"Co-pilot check-off complete."

"Radio op and captain's check-off complete. Thirty seconds to blast-off."

"You were a little rough on the kid, Skipper."

"He can't learn any younger. Or much older, either. Twenty-five seconds."

Amos twisted his head and looked out the unshielded windows of the canopy. *Forget it,* he told himself. *There is always a Queeg. The services lured them, fed them made them strong. Nowhere else could they achieve satisfaction so easily.*

"Fifteen seconds."

The horizon was a gently curving arc of purple-blue above the gray-black of the sea. Within minutes now, the liberated third-stage would fight its way out of the atmosphere that scattered the blue of the sunlight and gave it to the sky. Within less than an hour, it would be in orbit, its velocity canceling Earth's gravity. Within a few hours, he would be in the Doughnut . . .

"Five seconds."

Anticipation flooded Amos's throat, choking, unbearable. This was what it had been about, the relentless pressures, the endless torment. This was it, about to happen . . .

"Three—two—one . . ."

The cabin began to rumble. Like a torch rising from the ground to light their way, flame shot into the night from the exhaust outlet. Amos could see it reflected from the astronomical dome and the radar saucers and the control tower, etching them into the blackness of the bay.

"Engineering check—all motors blasting."

On the captain's control panel, a red eye opened. "And away we go!" said the captain, exultation in his voice. "Up, beast!"

The cabin roared. The torch outside the window flamed intolerably. Amos squeezed his eyes shut, and the fine, strong net of acceleration pulled him into the seat cushions, fishhooking his cheeks down, tugging at his eyeballs. When he got his eyelids open again, orange-red dials were spinning in front of him, meaningless, the long hours in the centrifuge mock-up wasted. The net pulled, hard, inexorable.

Amos tried to breathe, but his chest couldn't lift against the intolerable weight that held it down. Panic surged, cold, in his stomach, up his throat . . .

A few seconds later, the net dissolved. The seat cushions, released, shoved Amos forward against the harness. His weight dropped from 1,350 pounds down to a little less than 300. He drew a deep, shuddering breath and another.

The first-stage had been dropped, its contribution made. Now the second booster was building its pressures, adding its acceleration to a speed that had already reached more than 5,000 miles per hour.

Slowly the net drew down again. Again Amos's breathing grew difficult. He struggled for one more breath and one more. Then the net was down hard, and there was no more breath.

Seconds passed. The pressure grew, never quite as hard as the first booster's nine *g's* but lasting longer. This time Amos went forty seconds without breathing. Then the second stage dropped away, and the pressure relented.

Amos gasped for breath.

The sky had turned velvet black. The stars were out: unwinking brilliants set in the velvet. The ship was forty miles high; it was traveling almost 15,000 miles per hour.

Third-stage pressures were almost unnoticeable. They never climbed above three *g's*.

They broke into sunlight. His dazzled eyes squeezed shut against the sudden pain, swifter than the metal covers that slid over the canopy to protect it from the massive, unfiltered irradiation of the sun's ultraviolet that otherwise would soon discolor and cloud it.

Afterimages danced in front of Amos's eyes, lasted for minutes. Before they faded, the motors cut out. The net released him completely, the seat cushion shoved, the harness caught him again . . .

But he was falling, hurtling downward from a tremendous cliff, tumbling helplessly and unchecked into infinite depths . . .

He clawed at the chair arms, gripped them until the veins stood out, ropy and blue, in the whiteness. His breath sucked in, rasping. He held it, every muscle braced for the impact . . .

That never came. The pit was bottomless.

It was illusion! The fall reflex. Babies have it; kittens, lowered suddenly, claw wildly for support.

He *was* falling, he told himself. He was falling away from the Earth, coasting upwards at more than 18,000 miles per hour, without that resistance to the pull of gravity which conveys a sensation of weight.

Slowly he let his breath sigh out. Slowly he relaxed stubbornly resisting muscles. He let himself fall.

He opened his eyes and looked up, seeing the seats and helmets above him. For a moment it helped, and then his gravi-receptors told him that this was illusion—there was no up, no down. He was falling in all directions at once.

The cabin was spinning around him. He fought the sensation, fought the feeling of nausea that gripped his throat and stomach. His face perspired, grew cold. A moment later he was violently sick in the plastic bag.

It was almost half an hour before the spasms ceased.

Dimly, through his agony, he heard voices:

"Fuel reserve . . ."

"Skin temperature one thousand . . ."

"Velocity eighteen thousand four . . ."

"Altitude . . ."

"Cocoa. Check flight path . . ."

"On the straight and narrow, Folly . . ."

"Check. Keep us posted will you? Let's make this a nice easy ride—papa's tired."

HEAT WAS a problem. By the time the third-stage left the last, thin traces of atmosphere behind, the temperature of the hull was 1,000° F.

The refrigeration equipment, massive enough to cool a ten-story office building, labored to keep the cabin livable. It took four hours for the ship to reach equilibrium temperature.

The crew couldn't sit back and sweat it out. They had jobs to do. In coasting to the 1,075-mile altitude, the ship had dropped below orbital speed. Between them, by star sights and computations, the navigator and co-pilot determined the ship's altitude. The captain pressed a button on the arm of his chair. Slowly the pattern of stars shifted over the canopy.

Once more the captain pressed the firing button. The ship gained a little more than 1,000 miles per hour.

They were in orbit.

The captain spoke to the Doughnut: "Ess one point two. Folly. In orbit but blind. Give us a hand."

The radio was silent.

"Doughnut!" the captain roared. "Get your finger out! Give us a bearing!"

"Folly. Ess one point two. Thanks for the outburst. Gave us radio bearing. We now have visual. Following are corrections . . ."

Amos hugged to himself the meaning of S.1.2; it was a mark of belonging, and at the moment it was all he had. The "S" stood for satellite, the "1" for the orbit, the "2" for the second satellite in that orbit.

The S.1.1 was McMillen's tomb, leading the Doughnut by one hundred miles.

With the setting of the sun, the shades had been rolled back from the canopy. The ship was in the shadow of the Earth. Amos stared into the star-speckled sky for his first glimpse of the Doughnut, but the night draped it with invisibility.

It wasn't like the model that had hung above his bed; it didn't glow.

". . . and welcome back, Colonel," said the voice from the Doughnut.

The captain growled and gave the ship a gentle boost. Slowly it began to flip over.

Beneath them—above them—the night-dark Earth appeared and swept across the canopy and gave way again to the stars. In that glimpse Amos saw the reddish glow of a city and a star-brightness near it that swept away before he could identify it. He fought back nausea; terror whispered that he was one of those unfortunates who never got over their spacesickness.

The cruising motor turned on again briefly. Weight and fall again. The tumbling stopped. Amos took a deep, relieved breath. Framed in the canopy now, drawing the eyes like a vision of heaven, was the gently spinning wheel of the Doughnut, one great spoke connecting the rim of the wheel, bulging to a hub in the middle.

It was there at last, barely visible, gleaming dully in the starlight. Amos forgot his nausea.

It had been a long way to come: twenty years of dreams and five years of hell and a thousand miles —straight up.

"If you're going over," the captain said, close, sarcastic, "I'd advise you to slip into something a little warmer. Otherwise you might find the last few feet the hardest."

He floated past. Amos hated him. Hated his sarcasm.

Cautiously he released his harness straps, holding desperately to the chair arm to keep from falling. It was no use trying to fool his gravi-receptors and mechano-receptors; they *knew* he was falling.

Slowly, trying to control his nausea, he floated above the ladder, pulling himself along it until he reached the rack of pressure suits. Clinging to a stanchion and struggling to fit his legs into the proper places was a far different experience than when his 150 pounds had been solid and maneuverable at the Academy. Finally he slipped his legs in and wedged one arm far enough down a sleeve to grab the hand controls.

When he had the other arm in a sleeve, the captain was already dressed. He floated over impatiently to help with the fastenings and lower the helmet over Amos's head.

"Radio working?" The voice was loud and harsh inside the suit.

"Yes, sir."

"Good. Check your suit."

Amos stared at the face dimly visible through two face-plates of dark glass. The complete check took a good five minutes, and the suits were thoroughly inspected after and before every trip. "Yes, sir," he said grimly.

Step by step, joint by joint, gauge by gauge, control by control, attachment by attachment, he went through the suit-check manual. "Suit check complete, sir."

The captain turned curtly, swinging himself by a hook around a stanchion, and caught the air-lock controls. By the time the outer door opened in front of them, bulky stevedores were dumping boxes and crates and tubes out of the cargo compartment. The ship and the three taxis hitched to one broad wing were anchors for a vast spider web of cords and safety lines.

Amos looked up into infinity. Slowly the ship tilted; infinity was a dark mouth gaping; he was falling . . .

He grabbed for the edge of the doorway. Where his hands should have been, tools banged against the hull of the ship. The impact threw him forward, arms flailing helplessly.

As he cleared the side of the ship, Earth swung into view beneath. His orientation twisted. Panic was a live thing in his chest and throat, fluttering icy wings. He was really falling now, falling helplessly and endlessly toward death.

He fell through impalpable space unable to tear his fascinated eyes away from the dark Earth below. Something was clanging against his suit, but it was seconds before he could look to see what it was. The captain was clinging to the handle on the chest of his suit.

Something clicked against his waist. The captain released him, swung around, began to recede.

"Wait—!" Amos began, fear distorting his voice, and then he saw that a nylon safety line trailed from

him to the captain.

The ship was only a few yards away. The captain pulled himself to it by his own line and snapped Amos's cord onto a ring beside the air-lock door. Slowly he reeled Amos in like a clumsy metal fish.

"Elementary lesson number one," the captain said in a bored, unpleasant voice, "the moment you reach space: clip on."

"Sorry, sir," Amos said, his suit dripping inside with sweat.

"That's a word we don't have much use for out here. You seldom live to use it. There's your transportation." He pointed to one of the nearby sausages. "Jump!"

Amos hesitated before the blank immensity that separated him from the taxi. Then he closed his eyes and jumped, his safety line unreeling behind. Twice he missed and had to haul himself ignominiously back. On the third try, he caught a hook in the handle on the nose of the little two-man ship and clung.

The captain released his safety line. It disappeared into the reel at Amos's waist.

A round door opened out for Amos. He slipped carefully into the taxi and crawled past the suited pilot to the seat behind.

As Amos buckled himself down, the pilot turned awkwardly in the starlight coming through the canopy and touched his helmet to Amos's. "If your radio's on, turn it off."

The words echoed hollowly. Amos pressed the button under his left index finger. "It's off," he said curiously.

"Good. Privacy's hard enough to come by up here. No use broadcasting everything, eh? My name's Kovac. Lieutenant Max Kovac. You're new, aren't you?"

"That's right. Cadet Amos Danton."

"Glad to meet you, Amos. You don't know how glad. One more like you, and I get rotated. Then, watch out, fleshpots!"

"You been here long?"

"Twelve long months, brother. That's twelve years by any other calendar. Just let me get my feet back on the ground, and they couldn't drag me out again with a team of wild rockets. Excuse me, Amos. We're being paged."

From the Hub of the Doughnut came a brilliant spot of light. The taxi jockeyed sickeningly back and forth on its two jets until it was aimed at the station and then the rear jet came on full. The Doughnut swelled in front of them like a balloon, spinning. With a single correction, Kovac slipped the taxi into one of the motionless, cagelike landing berths at either side of the Hub killing his forward speed with a brief flare of the nose motor. Amos followed Kovac into the turret, his heart beating swiftly, expectantly.

Beyond the air lock was the Hub. Suits hung in brackets around the curving wall like gleaming white monsters. He was inside the Doughnut, Amos thought, spinning with it, a part of it. He was here.

Amos released his helmet clamps and took a deep breath of the Doughnut's air. It smelled like a machine shop inside a bathhouse. It stank.

Kovac was already out of his suit.

He helped Amos, saying easily, "Don't let it bother you, kid. It's tough your first time out. You can't coordinate because your muscles and senses are still adjusted to gravity. Everybody goes through it. You'll get the knack. Just don't let anybody kid you. At first we're all babies learning to walk."

He slipped the suit and helmet into an empty bracket. "Come on," he said, launching himself toward one tunnel like a champion diver. He caught the landing net that lined one curving wall and pulled his mouth close to a microphone. "Weight control. Kovac coming in on B with new arrival Cadet Amos Danton. One-fifty?" he asked, gauging Amos's size.

Amos nodded. After a moment a bored voice said, "Okay, you're balanced."

They pulled themselves along the net, their weight slowly increasing, their bodies swinging gradually down toward the rim until, when they reached the little weight-control office, they were hanging from the net.

Amos weighed forty pounds.

In front of a compact computer and a schematic of the Doughnut dotted with small, magnetic markers sat an officer in wrinkled, khaki coveralls. "Danton?" he said, raising an eyebrow in cursory acknowledgment. "Welcome aboard, sucker."

His face straightened as he stood up quickly, saluting. "Welcome back, Colonel."

Someone brushed past Amos and turned, stripping off his flight helmet. It was the captain of the *Folly*, his hair a grizzled spacecut. "Danton, eh?" he said sourly. "Let me know when you're ready to go back in." He stooped through a doorway and was gone.

The weight given him by the Doughnut's spin had made Amos's empty, aching stomach feel better, but now it felt like it had a brick in it.

How can a man dream so long, he thought desperately, *and have the reality turn out so horribly?*

With his helmet off, the captain of the *Folly* was unmistakable. He was Colonel Frank Pickrell, commander of the Doughnut.

GENERAL FINCH had been right: the selection and the training was never enough; the job was bigger than the man; what Amos had gone through was nothing to what was waiting for him.

To Amos it seemed that he had never been trained at all; he had to learn everything all over again. Nothing could have prepared him for no-weight. Nothing could have prepared him for the fierce, blazing reality of the sun, for the Earth like a giant, round picture framed in white haze and spanning half the field of vision, for the everyday discomforts of life aboard the Doughnut.

There were never enough men for the jobs that had to be done if they were to justify the expense and sacrifice of putting the Doughnut into space and maintaining it there. The work day was 14 to 16 hours long, back-breaking, physical labor done under the most uncomfort-

able, most dangerous conditions men could endure and still stay sane.

There was never enough space inside the Doughnut even for essentials. If it was a question of function or comfort, comfort lost. Amos's bunk was his for eight hours out of every twenty-four. The two other shifts were alloted to two other men.

He would crawl into the bunk and lie there, too weary to sleep, and wonder if he would survive. There were times he was so homesick for the feel and look and smell of Earth that he cried into the thin pillow, pressing his face deep to muffle the sobs. There were times he would have sold his chance of promotion for ten hours of uninterrupted sleep. There were moments he almost screamed for the lost privilege of a few minutes completely alone.

None of these were possible unless he gave up the dream. And that was the unthinkable. There were fleeting moments he would tell himself that this was fulfillment; he was out there at last—out there in the Doughnut—out with his dreams. So it meant privation and drudgery and psychological starvation—he was out there, and it was wonderful.

It wasn't often he could convince himself. Because this wasn't his dream.

He was given twenty-four hours to acclimate himself, but it was seven days before he could keep down solids. Specialized personnel held down an extra job in maintenance when their regular shift was over, but Amos's specialty was piloting, and he wasn't trusted with a ship. He also knew navigation, engineering, and communications, but these, too, were out of the question. He was assigned to the permanent labor force. He was a janitor, a stevedore, a handyman.

There was little dust. The air-conditioning plant extracted the dirt and lint men brought with them from Earth, but Amos emptied wastebaskets, washed fingerprints off dials, screens, and viewports, scrubbed washrooms, polished brass . . . He answered all calls for working parties; at least once a day he went out to unload a ferry and push the freight to the waiting taxis. In his spare time, he maintained the temperature regulators.

This was a perpetual chore that kept him clinging to the meteor-bumper of the Doughnut for a minimum of six hours a day as he unscrewed the shutterlike regulators with the tools at the sleeve end of his suit and fastened a renovated regulator in its place.

A week in the S.1.2, and Amos began to forget that he had ever known another life. A week: 84 revolutions of the Earth around the Doughnut; 84 sunrises, 84 sunsets, 84 nights.

Food became less a task, more a gripe. Nausea came less frequently and almost never reached the active stage. Strength returned unnoticed. Life became less a torment, more a drudgery. By the same token, it became less a dream, more a cold reality.

Amos fought it.

There were men to envy in the Doughnut, the observers and the scientists: physicists, aerologists, astro-physicists, astronomer . . . They were doing what they wanted to do in the best possible place to do it.

Amos moved through the Doughnut, cleaning, watching, telling himself that this was the dream.

For the physicists, conditions were available that had been unattainable or attainable only with great effort: weightlessness, virtually perfect vacuums, temperatures approaching absolute zero . . . The physicists were in a state of perpetual excitation, like their cosmic ray counters and ionization chambers.

Underneath the radio ops were the aerologists and the slowly unraveling mystery of weather, seen now from above and outside. Weather had never been so predictable.

Next came the observers, preempting two decks for their maps and telescopic enlargements, staring at closely guarded items of military interest. They reminded Amos of pathologists staring through microscopes at viruses and germs and cancer cells—only the things under the lens knew they were being observed and acted accordingly.

Beyond the computer and the telescope control panel was Celestial Observation, two decks tall, where photographs of distant nebulae were projected for study. A few hundred feet from the Doughnut, a free-floating telescope was taking the finest celestial photographs man had ever seen, free from the distortions of a wavering blanket of air.

But, in a sense quite apart from their civilian status, the scientists were a class distinct from the Air Force officers and cadets who manned the Doughnut. The scientists had never left Earth.

For them the S.1.2 was an end in itself, created especially to serve their purposes. It existed as a platform on which to stand as they looked up or down or performed their specialized experiments.

But Amos knew it was only a means, the first of a series of steps that led up to the moon, the planets, and the stars.

The scientists had come out into space to look back at Earth. Amos had come out to reach the stars.

That was the dream.

THE THIRTIETH day, one month: Amos was in the Hub, weightless, stealing moments from sleep to practice doggedly the esoteric techniques of movement without the aid of semi-circular canals and otolith organs. He was climbing out of a suit when the loudspeaker said, "Cadet Danton. Report to Colonel Pickrell. Cadet . . ."

In the middle of the *A* spoke, Amos passed Kovac. The lieutenant gave him a wink and an encouraging smile. "Don't let him make you mad, boy," he whispered. "The Fish is a cold and calculating man!"

Amos smiled briefly.

Across the airtight door was printed: COMMANDER. Amos pressed the buzzer. The door swung open toward him. Pickrell stood behind it, his face set and hard.

"Don't stand there like a fool," he said. "Come in."

"Yes, sir." Amos clenched his teeth and stooped through the doorway.

The cabin wasn't much bigger than a closet and not much better furnished. Like Pickrell, it was cold, gray, austere, built not for appearance or comfort but for efficiency. The only furniture was a bunk, a thin, one-legged table, and a chair; when folded flat against the wall, they left a walking space of almost six feet square.

The aluminum table was let down. Pickrell slid behind it into the chair. "It cost over one thousand dollars in propellants alone to get you out here," he said flatly. "I'm ready to write that off. I'm not even concerned about the five hundred dollars a day it takes to maintain you out here. But you're taking up space a good man might fill. I'm sending you back in the next empty seat."

"Why?" The word was expelled from Amos.

"Some men have the equipment for this kind of life. You aren't one of them. You've been sick, haven't you?"

"Once in a while," Amos admitted.

"There's no such thing as space-sickness. It's fear. We don't have room out here for cowards."

"What have you got against me, Colonel? You had it in for me the moment I stepped aboard the ferry. What is it: hate, fear, jealousy? I'm doing my work. If I had a chance I'd do more. Give me that chance, Colonel! Don't send me back before I—" His hands were wet. He looked down. Blood was trickling from the holes his fingernails had cut into his palms.

"I'll tell you what I've got against you, Danton: you've got stars in your eyes. This isn't a job to you; it's a game. I know your kind; I've seen too many of you. You want to go on out. You gripe about the Air Force marking time on the moon project or the Mars ship or the Venus expedition. I'll tell you something, Danton: this is no glory road. This satellite is out here to look back on Earth, not out at the stars. But you'll never get that through your head. You're dangerous. You'll kill yourself. That I don't care about. But the chances are dangerously great that you'll take the rest of us with you. And that's my business.

"Get out your nice, new space-pack, Danton. You're going in."

Amos stood stiffly in front of the desk, feeling unreal, looking down at the salt-and-pepper spacecut with the bald spot at the crown. But for Pickrell, Danton had ceased to exist.

Amos turned and pushed through the airtight door and let it pull shut behind him. This was the way it ended. This was the bursting of the dream. To destroy it took nothing as powerful or as dramatic as a meteor. A word pierced it, and it collapsed.

But worse than that was the change in Pickrell. This wasn't the man he had idolized. This wasn't the hero, the second man out. This wasn't the man who had stood in

the cabin of Rev McMillen's ship and stared down at the frozen body of the man who had led the way out and got lost in the cave of night, his fuel exhausted. This wasn't the man who had broadcast to the world from 1,000 miles up:

"In accordance with my instructions and his own wishes, his body will be left here in its eternal orbit . . .

"From this moment, let this be his shrine, sacred to all the generations of spacemen, inviolate. And let it be a symbol that Man's dreams can be realized, but sometimes the price is steep . . ."

Pickrell had changed, surely, not the dream. He had grown old and used up, and the dream was too much for him.

And in his hands was the future of space flight.

The dream was betrayed.

Tears stung Amos's eyes. He blinked rapidly to keep them back. Tears weren't manly, but there are times when even a man must weep.

When his eyes cleared, he was inside the Hub, and the idea was complete.

Pickrell could send him home like a boy who has been naughty at school. Pickrell could break his heart. That was Pickrell's right; he was the Commander. But he couldn't send Amos home until Amos had one chance to do what he had been trained to do.

It took only seconds to get into a suit. Amos pulled up the zippers, pulled down the helmet, clamped it to the suit. He refilled the oxygen tanks at the petcock against the wall. He selected a hand rocket from the rack and slipped through the air lock and out the turret.

It was night; the Earth swam nearby, circling around him, giant and dark.

When he released the landing-berth cage, centrifugal force threw him gently away on a tangent. His stomach sank: he was completely on his own. There were no cords connected to anything: no umbilical cord, no apron string, no safety line.

He spun slowly. The Doughnut swung into view; the sausage-shaped taxis were hitched along the inner edge of the wheel. He could have reached them by the spoke, but that took time. It was all he had, and there was little left . . .

He was going to miss the rim. He swiveled the hand rocket to one side and gave it a cautious, one-second burst. It shoved him toward the rim, but it made him spin more rapidly.

Quickly he turned the rocket in the opposite direction and let it push until his spin had stopped. Then he was spinning the other way, faster now. Panic gripped his throat; he couldn't swallow.

How long did a hand rocket last? He couldn't remember, but once the fuel was exhausted, he had lost all chance of helping himself.

He closed his eyes to shut out the vast, pancake disk of the Earth flipping crazily over and over; he tried to think. All he could remember was his Academy instructor saying, "Keep it against your belly button! Belly button, I said!"

That was it. All force had to be exerted through his center of grav-

ity—roughly the navel—or it created spin.

He opened his eyes, swung the rocket to the right, and gave it a flicker of a burst. His spin slowed. Another flicker. His spin almost stopped. That was good enough, because the rim of the giant wheel was only two arm-lengths away. When he was faced away from the Doughnut, he pressed the rocket to his navel and fired briefly.

As he passed the rim, he caught the line of a taxi with one hook and let himself slide along it until the taxi stopped him. Its hydrazine and nitric acid gauges stood at only half full.

He took a deep breath and launched himself toward the next taxi in line. This time his reaction flight was perfect. One burst turned him to face the taxi, a second, in the opposite direction, stopped his rotation, a third killed his forward speed.

This one had just been refueled.

Amos unsnapped the hitching line and let the taxi drift tangentially away from the Doughnut. He was weightless, but he had a ship under him. He had power. He had a goal.

Before the chance was gone, he was going to pay a final tribute to a dream. He was going to visit the icy tomb of Rev McMillen.

THE TOMB was in the same orbit as the Doughnut, but one hundred miles ahead.

He had to head in the right direction, where there was no simple method of determining direction. He had to compute distance traveled, where even fully equipped ships found that difficult. He had to increase speed, when every increase in speed meant an increase in altitude.

And if he strayed off course by just a few minutes of a degree at the start, he would be miles from his goal at the end.

There were no instruments in the taxi, no built-in octants, no patent logs, no computers . . . Taxis were built for short hauls when both ends of the journey were always in view. Two gunsight telescopes were fixed immovably at eye level, one pointing straight forward, the other straight back. The controls were crude: two sticks, one at each side of the pilot's chair, firing the front and the rear rockets, which swiveled within a limited arc in response to the movement of the sticks. The throttles were buttons on top of the sticks.

The taxi was roughly horizontal and spinning gently. The Earth tipped lazily around the canopy, chased by the flat, black-velvet curtain of the night hung with its small, unblinking lanterns. The stars were alien. Where was he?

The Earth rolled around him, the continents and oceans sliding down across the disk: the dark, familiar shape of Cuba, Florida sliding south. That meant the Doughnut was on its northern leg of the orbit that reached as far north as Nome, as far south as Little America on the Antarctic continent.

The stars snapped into place. There was the Big Dipper. And there—indicated most beautifully by the Pointers—was Polaris.

He drew dividends on his long labor of memorizing the Doughnut's timetable: in five minutes, by the taxi's chronometer, the Pole Star would make an angle with the orbit of—he figured quickly—430.

Amos killed the taxi's spin and placed his horizontal axis parallel with the Doughnut's orbital plane—as near as he could estimate the angle. He could think of only one way to check altitude; he dropped the taxi's nose until the forward sight nicked the Earth's horizon.

Instead of a pilot's suit with its specialized manipulators, he had a handyman's sleeve-end tools. He held the right-hand control stick firmly in a pair of pliers and poised a screwdriver above the throttle button—and hesitated.

Rocketing one-hundred miles by the seat of his suit was a desperate gamble: there are no railroad tracks in space. There was sacrilege in it, too, but Amos shrugged that away. No shrine has ever been profaned by an honest worshipper.

His jaw tightened. The danger didn't matter. The dream was dying; there would be no other chance.

He pressed the throttle button. The accelerometer climbed quickly to one *g;* he held it there for ten seconds. When he released the throttle, he had added roughly four miles a minute to his velocity. He had used up—he checked the instrument panel quickly—two-tenths of his fuel supply. The nose of the taxi was still pointed at the horizon.

At 2103 the sun rose, flashing blindingly on the nose of the taxi.

At 2116 Amos passed over Nome, his first check point.

At 2119 Amos checked to see that the forward sight was still bisecting the horizon and pressed the left throttle button for ten seconds after the accelerometer reached one *g.*

Given well-matched motors, his increase in speed and altitude were canceled. He should be back in orbit within sight of McMillen's tomb.

He turned slowly to scan the entire field of vision, ignoring the glare of the sun, fierce against his eyes as he looked back.

There was no stage-three in view.

He had failed. There was no use searching a cubic area of space that might be hundreds of miles in volume. *Head back, fool!* he thought. *If you can get back—and I wouldn't bet a used sick-bag on it.*

Cubic, he thought. *Cubic.*

Recklessly, he tumbled the taxi over on its back. For a moment the glare from the polar ice cap blinded him, then he saw it.

To the right, three or four miles away, it gleamed in the sun; highlights ran along one wing and down the cone-shaped hull.

Expertly, Amos killed the tumbling and centered the stage-three in his front sights; he poured on the fuel. The ship swelled but not as quickly as the exultation that filled his throat, hard, choking. He blasted to a stop, careless of fuel.

McMillen's tomb hung a few feet away, its air-lock door gaping open to invite him in.

He didn't move for a moment. He sat quite still for a few seconds, trying to savor the moment, trying

to analyze his emotions. They were too complex; he gave it up.

As he crawled out the port, he snapped his safety line onto the taxi. For an instant, holding himself to the taxi, he studied the opening opposite him. Then he dived for it, kicking the taxi back.

He hit glancingly against the open door, caught the jamb with one hook, and pulled himself in. As the taxi reached the end of the safety line, it tried to tug him away, but he had a good hold. Bracing his feet on each side of the doorway, he reeled in the taxi until it was tight against the ship. He turned. The inner air-lock door was open.

He hesitated, thinking about what he would find inside, and reality began to edit his dreams.

He had thought of McMillen sitting in the captain's chair, staring out through the canopy toward the stars he had brought within man's reach, a rueful smile frozen upon his face, his body perfectly preserved by the chill airlessness of space.

It wouldn't be like that at all.

If the ship had ever had a ceramic coating, micro-meteorites had scoured the metal clean years ago. The hull temperature was more than 800° F. That was no deep freeze.

Amos had seen pictures of explosive decompression. If these air-lock doors had been opened quickly, McMillen wouldn't be in one piece. If, on the other hand, the air had leaked out slowly, his body fluids would have started boiling when the air pressure reached six percent of sea level, the blood in the lungs evaporating, blood ballooning under the skin . . .

It was no picture for a dreamer. Amos straightened his shoulders inside his suit, feeling older, as if he had lost something and would lose more. He drifted through the inner doorway and hooked a girder to pull himself toward the nose of the ship.

Under the canopy, he caught himself by another exposed girder, his eyes puzzled, his face wrinkled in an effort to understand.

The interior of the ship was only a shell. There were no seats, no instruments, no inside sheathing. There had been no shutters for the canopy; ultraviolet had turned it almost completely opaque; micrometeorites had etched it.

There was no pilot, no hero named McMillen. There never had been. No one had ever planned for any.

The only useful object in the shell was a compact radio transmitter bolted to a girder. Attached to it was a tape recorder with an oversized reel. The tape had run out.

It had been a hoax. The great epic of man's first flight into space, the magnificence of Earth's response to his plea for help—it had all been false. The contributions that had made the Doughnut possible had been tricked from a credulous American people.

Amos clung to the girder and grew old. The orange protective coating had never even been painted over. Amos scratched at it until the steel gleamed through: DREAMS END HERE.

Coldly he pushed away. He

swung back through the air-lock door and crawled into the taxi. His movements sent it floating away from the ship.

Icily he computed his return. He had spent more than half of his fuel and almost half of his oxygen.

Ten minutes later Polaris became visible. A ten-second blast from the forward motor slowed the taxi. He waited for the Doughnut to catch up.

A little over twenty-five minutes later, he speeded up again, and the needle of the fuel gauge tapped against the zero peg. He released the throttle button and looked up.

The Doughnut hung above him.

For the first time, he turned on his radio receiver. Immediately, it burst into speech: "Danton! Give us some indication of your position. If your radio is working, answer so that we can get a bearing. We can't send out searching parties until . . ."

Amos flipped it off, aimed the taxi at the Doughnut, and touched the throttle of the right-hand stick. The motor coughed, just once. It was enough. The ship floated gently toward the ring. Amos crawled out, caught a line as he passed, and snapped the taxi to it.

He hit the landing berth with his first try.

When he came into the Hub, Kovac was climbing into a suit. He stopped, one leg drifting sideways, and stared incredulously at Amos. "Where in the—? My God, man, you've got the whole Doughnut in a—!"

"Took a joy ride," Amos said, releasing his helmet and stripping off the suit. He gave a short, mirthless laugh. "Joy ride! The Colonel is sending me in."

"Sending you in my chilblained foot! You gave him cause!" He drifted closer, glancing at the nearby microphones. "Didn't you understand me? As long as a man obeys instructions and does the work assigned him with any degree of competence, the Fish can't send him in. They took away that power; he was sending in too many men. You had to let him ride you into making a break!"

"I was a sucker," Amos agreed flatly. "I guess I always have been."

He dived for spoke B and pulled himself quickly along the landing net. "I'm back," he threw at the weight-control officer as he passed. Wide-eyed, the lieutenant spun quickly to his phone.

Amos made his way, unhurried, to the cramped, communal sleeping quarters for rim B personnel and slipped into his bunk and lay there, his hands under his head, staring at the smooth bulge of the bunk above.

Two minutes later Colonel Pickrell arrived.

THE LOW overhead forced him to bend his neck. He glowered at Amos. "Danton—" he began.

"Excuse my not getting up, Colonel," Amos said, "but there isn't room for two of us between the bunks. If I'd known you wanted to see me, I'd have come to your room."

Pickrell tried to straighten up, couldn't. "All right—everybody but Danton, out of here!"

The bunks emptied swiftly. Men grabbed their clothes and squeezed past Pickrell, glancing backwards curiously. When they were alone, Pickrell sat stiffly on the edge of the bunk across the narrow aisle. Amos didn't look at him.

"All right, Danton, let's have it."

"Have what, Colonel?"

Pickrell stared at him icily. "The explanation for stealing a taxi. For absenting yourself from your post."

"I borrowed the taxi. It's been returned. You can deduct the cost of the fuel from my pay."

"Thanks," Pickrell said sarcastically. "But maybe we should let the courtmartial decide that."

"As for absenting myself—I was on my off-shift, just as I am now. What I choose to do with my off-time is my own affair."

"Ridiculous! There are specific instructions against the unauthorized use of equipment for personal reasons. Where did you go?"

Amos turned his head and met Pickrell's eyes squarely. "I took a little trip," he said gently. "I visited McMillen's tomb."

"You're mad!"

Amos looked back at the bunk above him.

"You couldn't possibly get there in a taxi," Pickrell continued sharply. "Without instruments, without radio bearings! And if you got there, you couldn't possibly get back."

Amos lay motionless, his hands under his head, uncaring.

"You're lying," Pickrell said.

Amos looked at him again, at the blue-agate eyes in the hard, weathered face. The lenses had several tiny cataracts. "Why did you do it?" he asked. "Why did you do it that way?"

Pickrell's eyebrows almost met. "You *were* there," he muttered, disbelief lingering in his voice. "Fantastic! I wouldn't trust myself to come back from a trip like that."

"Hoax!" Amos said.

Pickrell took a deep breath and let it sigh out. "Yes," he said, "the ship was empty. McMillen wasn't in it. He wasn't the first man into space. He didn't die there. The messages back—all planned, all taped. Why did it happen that way? To understand you'd have to be one of us, back in 1957."

Amos didn't look at him. What Pickrell said didn't matter. There were no reasons good enough.

"We couldn't get the money," Pickrell said. His eyes seemed to be seeing something a long way off. "That was the only thing we needed—the money. We used all we had—government money, our own; it wasn't enough. We built a ship. We slaved on it. But we couldn't finish it. By stripping the third stage to a shell, we could put a payload of only one hundred pounds into an orbit.

"I don't remember now who suggested the idea—maybe it was McMillen himself. But it was the answer. We all knew it. We couldn't put McMillen up here really because we were the only ones with the imagination to see what space flight could mean. So we pretended." He made a sweeping gesture that included the satellite and everything it entailed and meant. "None of us has ever regretted it."

Amos looked at him silently.

"But we didn't want it that way. We could put a man out here, you see—except for the money. So we got the money the only way we knew how. And we put men out here. That's what counts. That's our justification. We didn't want it this way, but we've never been sorry we did it."

"I'm so glad," Amos said softly.

Pickrell turned fierce eyes on him. "None of us is happy about it—understand that! Bo isn't. He was the last one we convinced; he was the one who really put it over, and it's killing him. McMillen isn't. Who wants to be a hero when you're only a fake hero and you're alive to know it? Do you know who was the first man into space? Me."

Amos chuckled. "And the honor belongs to a living ghost!"

"Who wants it?" Pickrell asked violently. Then, reflectively, "We did what we had to do, to do what had to be done. The other way was too risky. We couldn't leave it to time and chance."

"Where's McMillen?"

"Alive. In New York probably. He's had plastic surgery, and he's under twenty-four hour guard. Not because we don't trust him; we just can't take chances. He gets whatever he wants, within reason."

"Except the privilege of coming out," Amos said. "He can't come out. Ever. He'll die there, the fake hero."

"Yes." Pickrell's eyes snapped back to Amos. His face smoothed. "And you, poor dreamer," he said sardonically, "you see now why I can't keep you here. Only fabulous luck kept you from killing yourself. You might have cost the Air Force a fantastic sum in futile search and lost time."

"But I didn't."

"Give you time," Pickrell said confidently, "—you would. I told you to get packed." He glanced at his wristwatch. "The ferry is due in thirteen minutes."

Amos turned his head curiously. "Why are you so determined to get rid of me, Colonel?"

"Out here dreamers die young," Pickrell said flatly. "We should weed them out early—before we spend millions training them—but they won't listen to me at the Academy. To stay alive out here you have to be ruthless. We got out here by a hoax, but we can't live on illusions. I don't want to die because some fool burns a hole in the Doughnut while he's gazing at the stars. Out here is reality. You can't dream your way around it."

The Colonel's face was no colder than Amos's.

"We're out here on sufferance," Pickrell continued. "We have to bring our environment with us wherever we go, and it isn't enough. The air stinks. The food is awful. The water tastes of human waste material. There's no privacy. Try as we can, we never really become completely adjusted to no-weight. We live with death at our elbow: too much heat, too much cold, too much acceleration, too much ultraviolet, too little air, too thin a barrier against the night and the invisible bullets that speed through space, too many unfiltered rays and particles. . . .

"I've got five blind spots from heavy primaries plowing through the center of my retina. If an accident doesn't take me first, I'll die before I'm sixty."

"Or if someone doesn't kill you," Amos murmured.

A tight grin slipped across the Colonel's face. "Could a dreamer take that?" he asked. "He'd crack up—if he lived that long. We need men out here, not boys. That's why you're going back."

He stood up as straight as the overhead would allow and started for the doorway as if everything had been said.

"Colonel," Amos said, lifting his voice a little. "How do you get a man to go through five years of hell at the Academy and then come out here to live with discomfort and death—if you take away the dream?"

Pickrell swung back, frowning.

"I thought I'd tell you, Colonel: I'm not going back."

"What did you say?" Pickrell asked slowly.

"Send me back," Amos said clearly, "and I'll expose the hoax."

Pickrell grinned. "Blackmail?"

"Call it that."

Pickrell studied Amos as if the cadet had suddenly changed faces. "I've got a hunch I've been wrong about you. I've decided to let you stay."

Amos accepted it as if he had expected nothing else.

"I'll tell you the real reason," Pickrell went on. "Not because of what you might say—who'd believe a courtmartialed officer, disgruntled, out for revenge? Or maybe a little accident—they're easy to come by out here and they're usually fatal. No—you did make that trip; there must be something of a pilot in you. And I see now that you can be ruthless, too."

Pickrell chuckled. "Blackmail! Danton, I think I like you after all. Now that you've got this foolishness about heroes and the great adventure knocked out of you, maybe you'll be a spaceman yet. You're right—it's the best solution. We can't let you go back. Not ever. You'll be McMillen's counterpart, out here. Next shift you take over a taxi. Good night, *Lieutenant.* Sweet dreams."

He stooped through the doorway: a hard, unhappy man—a dreamer who had sold his dreams for the means to make them real. When his dreams came back to haunt him, they must be bitter.

Amos grimaced as a tiny spot of pain burned briefly in his chest. A heavy primary had passed through a pain receptor.

He touched the button beside the viewport, and the outside cover lifted away. Out there was Mars. Somewhere was Venus and the rest. Nearer, almost within reach, was the moon.

They weren't the same, he and the Colonel, Amos thought.

The dreams a man absorbs from his society, as naturally as the air he breathes, aren't important. Soon or late—they die. Call it: growing up.

And when a man grows up he has to make his own dreams. His were still out there. • • •

What Is Your Science I. Q.?

THIS QUIZ is way up in space. However, you've encountered the answers numerous times in IF and in other science fiction magazines. Count 5 for each correct answer and see if you can hit a score of 80. The answers are on page 120.

1. What is the only naked-eye object visible in the northern sky which does not belong to our galaxy?
2. Generally speaking, a satellite will ——— its orbital speed if it finds a small amount of resistance along its orbit.
3. What is the only even prime number so far discovered?
4. The largest lunar crater, about 147 miles wide, is called ———.
5. How many prime numbers are there in the first 100?
6. Titan, Ganymede and ——— are all satellites larger than the planet Mercury.
7. What's the name given to the "counter earth" which supposedly travels in an orbit which keeps the sun between us and it?
8. The axis of Uranus is tilted ——— degrees from the vertical.
9. What is the term used to describe the common center of gravity of two revolving masses such as the Earth and the moon?
10. Jonathan Swift wrote about the two moons of Mars about ——— years before they were actually discovered.
11. Which is the heaviest element in terms of specific gravity rather than atomic number?
12. Kepler's Third Law states that the ——— a planet is to the sun, the faster it will revolve around it.
13. What is the name of the mythical planet supposed to be inside the orbit of Mercury?
14. Electromagnetic waves of any wave length travel at a rate which is roughly equal to the speed of ———.
15. What is the name given to the geometric conception of a fourth dimensional super-solid?
16. The apex of a cone of light, such as the needlebeam of a star's light is approximately ——— millimeters wide.
17. What is the approximate temperature at the sun's center?
18. Our moon ranks ——— in size among the satellites.
19. Are trans-uranic elements considered artificial?
20. There are about 3 eclipses of the moon to every ——— of the sun.

The Levels System was a very democratic process, but the rules were strict—and the worst part was not knowing who the Inspectors were . . .

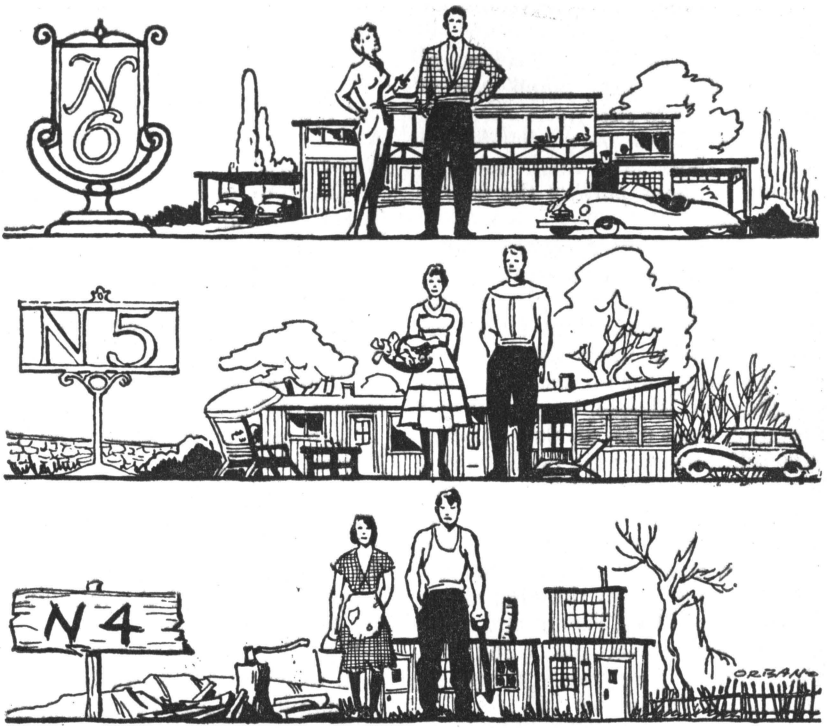
N6 N5 N4

BY JAMES McKIMMEY, JR.

I CERTAINLY never thought that when Joe Bedlow went crazy two years ago and ran up into the Sierra Nevada Mountains with that waitress from C3, that it would have anything to do with whether or not Elaine and I would make our promotion from N5 to N6. I know absolutely that I wasn't thinking about Joe Bedlow that Friday night when Elaine and I were waiting for Tom and Edith Weathers to come over from Small Orchard, which, as anyone at all knows is an N4, not an N5 like Hill Grove, our little section here in Northern California.

It was an evening in spring, and I was sitting in the living room reading the History. I knew, of course, that there wasn't much time left to try to learn history. Our five years would be up the next night at midnight; and if we didn't make it, we would be stuck with N5 for at least another period. Yet I kept thinking that sometime between now and then perhaps an Inspector might ask me a question about the History, and I wanted to be ready if I could. You never knew who an Inspector was.

I was particularly trying to con-



Illustrated by Paul Orban

centrate on that part where it went into the reasons why we developed the Levels System.

"The Levels System," I read, *"is a product of our World Democracy; however it is thought that the first germs of the System, as we know it today, appeared in the late 1950s.*

"At that time Doctor Joseph Atwell presented his theory of identification and noted precisely the general distaste generated by human nature when confronted with an unidentifiable experience particularly if the experience is of a nature superior to any previously known.

"For example, Doctor Atwell proved conclusively, in his experiments, that such a condition as popularity was not at all like the myth of that time supposed it to be.

"He offered as evidence certain advertisements of that period which extolled the idea that to be able to play a piano well would insure one's popularity. This type of misconception enjoyed a strong vogue in the middle of the Twentieth Century; yet even this early, Doctor Atwell had begun to point out the fallacy of confusing popularity with dis-

comfort, if not downright envy or jealousy.

"Perhaps, then, it is because of Doctor Atwell that piano players are now able to enjoy one another's company, rather than provide distress to those who know nothing whatever about playing the instrument, and . . ."

I was interrupted by the sound of Elaine calling me from the bathroom. I took off my glasses and slammed the book shut. I was not angry at being interrupted—I was always happy for an excuse to quit reading the History, because it was so much more difficult than reading the self-improvement books which we received in N5 and twice as difficult as reading the historical romances which we had during the years we spent in N4. It was just the fact that I kept thinking about how it would be if Elaine and I did not go on to N6, and I felt like slamming a good many things in addition to the book.

"John," Elaine said, "did you hear me?"

"No."

"I asked you if you had tied your tie yet?"

"I have not," I said.

"It's almost eight o'clock."

"It's almost doomsday."

Elaine appeared at the bedroom door and looked at me. Elaine is thirty-five, two years younger than I, but she still looks like the same sweet girl I married back in twenty-nineteen. She looked particularly nice that night, because she was wearing the pale blue taffeta that I'd always liked so well.

"John," she said, "you said we weren't going to talk about it tonight. You said we wouldn't even think about it."

I put my feet up on the hassock and looked at my toes. "I'm sorry. And I promise I won't think about it anymore."

"Just put on your tie and your jacket. Tom and Edith will be here any minute."

"I wish they weren't coming."

"John, please."

"I just wish they weren't coming."

"You can show Tom the Wanecruiser-Eight."

"I'm sick of showing Tom the Wanecruiser-Eight."

"John, you promised you'd stop thinking about everything."

"Well, I'm sick of showing Tom the Wanecruiser-Eight, that's all. Aren't you sick of showing Edith the Mist Coffee Urn?"

"No, I'm not, because we worked hard to get into N5. All Edith has is a simple Hi-Class Percolator, and I like to show the Mist Coffee Urn to Edith."

"Do you like to have Cathy Stanwell show you her Gold Spiral Server?"

Elaine blinked, and I thought she was going to cry. I stood up quickly and patted her on the shoulder. "Don't mind me. I'm sorry. I'm sure we'll make it. I really am."

Elaine kept blinking, then finally she wrinkled her nose at me and went back to the bathroom. Elaine and I have always believed in spirit and positivism. We'd taken the hard knocks together before, and we could, I told myself, take them again.

However, as I tied my tie in the bedroom, my mind kept wandering back to the fact that our deadline had just about arrived, and I couldn't help becoming irritated all over again that someone in Arrangements had somehow scheduled our weekly visit with Brad and Cathy Stanwell in their section of N6 to be the very next night after Tom and Edith Weathers visited us from their section in N4.

As a matter of fact, I even got to doubting the worth of the entire System, even though I'd voted the straight Levels ticket ever since I was twenty-one.

I tried to get my thoughts back to normal by thinking about the History again and remembering how things were when each Level kept to itself and there was no visiting between Levels at all. I knew that that hadn't worked, because one couldn't very well appreciate what one had if there wasn't someone around to show it to who didn't have it.

I remembered, of course, that the people in Z99 (Reinvested Interest Profits) got to enjoy visits from the Level below them but didn't have to visit anyone in the Level above because there wasn't one higher. But I recalled what Harry Woodly always said about that: "It's no skin off my nose, we can't all be President."

It did help to remember that there were the Als (Intellectual) who had to visit the next Level up but were unable to have anyone at all visit them from a Level below because they were on the very bottom. I had never gotten too straight about why the Als, who had the highest IQ rating, were on the lowest Level, when in every other instance the IQ rating rose in correspondence to the Level. The History explained something about the Als not caring about anything really worthwhile materially, and so they didn't care if there was anybody around to show it off to or not. But I'd never been completely clear on it.

At any rate, thinking about the Als and their being on the bottom of the heap didn't help my own attitude very much, and I kept wishing that whoever in Arrangements had scheduled our visits program hadn't done it the way he had. Regardless of what I'd told Elaine, it was a lot of fun to show Tom the Wanecruiser-Eight; but not nearly so much as it might have been if the very next night I hadn't had to stand around while Brad Stanwell showed me his Hydro-Ten.

Finally, my thoughts were broken when the front door chimes sounded, and I put on the jacket of my dress suit and walked out to let Edith and Tom in.

"Hi, folks!" I tried to make my greeting bright, but it was an effort.

"Hi, John!" Edith said.

"Well, hi, John!" Tom said.

We shook hands all around and beamed at one another, and then I said, "sit down, folks. Elaine'll be right out."

They crossed the living room to the sofa, and I noticed that Edith was wearing that black satin dress again. It was not nearly as nice as Elaine's pale blue taffeta; as a mat-

ter of fact, it was rather cheap-looking. Yet somehow I had never disliked it. Edith had an awfully good figure which was accented in that black dress It may have been an illusion, but there seemed to be a good deal more movement in that black dress than there was when she wore something else.

"Well, folks," I said, getting my mind back to the affairs at hand, "how about a Martini?"

We always served Martinis, just as Tom and Edith always served blended whiskey and the Stanwells always served bonded Scotch; but it was always nice to ask anyway.

"Why, sure, John!" Tom said.

"I'll have a wee sip, kiddo," Edith said. It was that kind of talk that always ruined the other attributes that Edith had.

I mixed the Martinis and poured them, and by that time Elaine came out and said hello to Tom and Edith. We all sat down and sipped at our drinks, then I said, "How's the Hublo-Six, Tom?"

I knew pretty well how the Hublo-Six was because I'd flown one all the time we were in N4, but it seemed like the thing to say. I kept remembering Brad Stanwell's Hydro-Ten and what it would be like if we didn't make it into N6 and never got to own our own Hydro-Ten; and it seemed more important than ever that I remembered that Tom owned only a Hublo-Six.

"Well," Tom said, "she's really a beauty when you come to think of it. I didn't think so at first, but now I think she's a pretty swell little copter."

I was rather surprised by Tom's answer; as a matter of fact, I'd never heard him answer like that about the Hublo-Six in all the years that we'd been entertaining them.

"I guess," I said, "that's because you've never flown a Wanecruiser-Eight, Tom. Wait until you do that, then you'll know what a copter is really like."

"Well," Tom said, smilingly brightly at me, "everyone to his own taste."

I know that I didn't smile back at him. I'd never heard Tom talk like that, and I wasn't certain that he was feeling well. I should have let it go, but I was getting a little angry. "Would you like to take a look at her, Tom?"

"The Hublo-Six, John?"

"No," I said, trying to keep my voice calm, "the Wanecruiser-Eight, Tom."

"Oh, why, sure. Let's do it now!"

Right away, I felt a little better. "You girls take your time with those drinks," I said. "Then we'll be on our way."

Just as Tom and I were leaving the room, I heard Edith say to Elaine, "Honey, I've drunk up already. Do you think just one more wee sip would hurt anything?"

I was getting rather confused. We never served more than one Martini before we left for the club.

"That Edith," Tom said, "she's a regular card tonight. I don't know what's got into her."

I didn't know what had gotten into either one of them. I wondered, in fact, whether everyone was going crazy. However, in the garage, I tried to get back into the spirit of things. I slapped the left

wing of the Wanecruiser-Eight and said, "There she is, Tom. Sweetest little copter you'd ever want to own."

Tom walked around it slowly, looking at everything. We'd been doing this for quite a while now, and I thought I knew pretty well what he was going to say. I was surprised, therefore, when he said, "Well, for speed maybe she's all right, John. But I'll take that little Hublo-Six for just plain maneuverability."

"Well," I said. And then because I couldn't think of anything else at all to say, I said, "Well, well."

"She's a real looker, John," Tom said, slapping the front end, "but she's a little heavy, you know?"

I got out a cigarette and lit it, thinking that the main thing was that I should stay calm regardless of what had happened to Tom. Elaine and I still had a chance to get into N6, even though it looked pretty slim by now; and I didn't want to lose even that by letting anything at all bother me and tip me off balance.

AFTER WE'D flown to the club, we sat down at the usual table and said hello to the usual people who stopped by. Then Tom and Edith went out on the floor to dance. They always wanted to dance the first thing. Of course, the club's music was good and the dance floor was nice; I couldn't really blame them because I knew that all they had was the hall in N4. Yet I knew, too, that they would have to learn more restraint if they were ever going to get into N5, and jumping up to dance the first thing was not showing a whole lot of restraint.

"What in God's name is wrong with them tonight?" I asked Elaine.

"I don't know, John. Maybe nothing is wrong with them. Maybe it's just us. I wish you wouldn't look so worried. If there's an Inspector around here tonight—"

"Please just don't talk about Inspectors," I said. "I just want to know what's wrong with Tom and Edith."

Elaine stared out at the dance floor as they danced by. "I know one thing that's wrong with Edith. That dress. It's perfectly ugly."

I watched Edith do a tricky little step which did not involve too much footwork, but which seemed to involve about everything else. "That black dress?" I said.

"Yes," Elaine said. "It's perfectly ugly."

I knew that we were both tense about everything, and I knew that the black dress was not in good taste like Elaine's pale blue taffeta. But it irritated me that Elaine was throwing in something else to worry about when there was enough already. Elaine, I thought, had a marvelous capacity for worrying about inconsequential things when there were the big things to worry about. Finally I said, "I don't see much wrong with that black dress."

Elaine looked at me in a way that I hadn't seen since that time I accidentally put the Wanecruiser-Eight down on her bed of gladioli, but Edith and Tom came back to the table before she had time to

say anything.

"Isn't this grand music?" Tom said. "Why don't you folks get out there and shake a leg?"

Elaine was silent, and I looked at my glass. We were having bonded whiskey, but I had barely touched mine; in the club it was always much better just to sip at your drink and make it last.

Then I noticed that Edith was tipping up her glass and draining her drink. I was surprised, but not so surprised that I failed to notice how becoming her neck looked when her head was tipped back that way.

I glanced at Elaine and saw that she was looking away angrily, then Edith put down her glass and said, "I've got a beautiful idea, everyone."

Tom grinned at her. "What's that, Edith?"

"Let's all get swizzled tonight!"

In approximately twenty-six hours we'd either be in N6 or we wouldn't, and frankly I was beginning to think absolutely that we weren't going to make it. I suppose that I was becoming really frightened, and perhaps that was why I got into the same mood that Edith was in.

In the time that we usually took to drink two drinks, Edith and I had drunk four. Tom didn't seem to notice, but Elaine was becoming angrier by the minute.

Even the waiter seemed a little surprised, I noticed. I wondered why he should be, because I happened to have known that he was an E3, and I'd heard that E3s got drunk once and twice a week on just beer.

But I didn't care much what anybody thought; matching drinks with Edith seemed to be about the only way to combat all that tension I was feeling.

"Let's have another one," I said.

Elaine glared at me. Then Tom said, "Let's dance, shall we, Elaine?"

Elaine was certainly angry at me, I knew, but I stood up and smiled very brightly at her as she and Tom left the table. Then Edith and I were alone. We touched glasses, and I said, "Here's to it, Edith."

"Here's to what, John?"

"Here's to anything, Edith."

"Let's dance, shall we, John?"

Of course, I'd noticed before how it was to dance with Edith, but I'd always been pretty careful about it, holding her away and such. But tonight I wasn't very careful at all, and I didn't care that I wasn't.

We went around the floor slowly, and I caught sight of Elaine watching us over Tom's shoulder; but I looked the other way. Near the bandstand I saw that Fred Wicket was also watching us in a very peculiar manner. For a moment I did move Edith away—I'd always had the suspicion that Fred Wicket was an Inspector. But then Edith said, "What's the matter, John?"

"Nothing," I said, letting her move back where she had been. "Not one little solitary thing, Edith."

I was even beginning to feel that if I could do something to ruin everything, it would be better than all this waiting.

"John," Edith said. "The music's stopped."

"Oh, has it?"

"John, I feel a little wobbly-headed. Let's go outside. Do you want to?"

"Yes," I said. "Let's go outside."

There was a yellow moon shining over the golf course which bordered the north side of the clubhouse, and Edith and I walked across the soft grass of the eighth hole. "I feel so funny tonight, John," she said.

"Funny?"

"Yes. I just feel kind of crazy, like I don't give a damn."

"I feel pretty much the same way, Edith."

"I feel like I just wouldn't care what in the world happened tonight, John."

We reached the area where the copters were parked and walked between the rows of Wanecruiser-Eights. "That's just about the way I feel, Edith."

We stopped beside one of the copters, and Edith leaned back against the door of the cabin.

"What's the matter with us tonight, John?"

"I don't know," I said. "I thought that you and Tom both were acting funny earlier, and now I'm acting the same way."

"Let's not think about Tom, shall we, John?"

"All right," I said.

Edith reached up and patted my cheek, and I took her hand.

"Let's not think about Elaine either, shall we?" I asked.

"All right. What shall we think about then?"

"I don't know. Can you think of something?"

"Yes."

"What?"

"Can't you guess?"

It was kind of confused after that. I found myself kissing Edith, and we kind of bumped around between the cabin door and the left wing, and I almost fell down. Then, suddenly, I remembered about Joe Bedlow and how they had demoted him down to M2 because of all that trouble he'd gotten into with that waitress, and I regained my senses. "Edith," I said, "we shouldn't be doing this."

"Don't you like it, John?" she asked.

"I don't think that's quite the entire point," I said. "I just don't think we ought to be doing this."

"Oh, John," she said sadly, "and I just don't give a damn at all what happens."

"Edith, let's get back inside."

"All right, John."

We walked back between the copters, and I wiped at my mouth with my handkerchief while Edith tried to smooth her hair. We'd gotten to the rim of the golf course, when I saw Fred Wicket. He was standing just outside the broad French windows of the clubhouse, staring at us. I suddenly felt very ill.

"What's the matter, John?" Edith asked. "You look pale."

"I still feel a little funny, I guess."

"Do you want to go back to the parking lot, John?"

"I don't mean that kind of

funny," I said. "I mean I feel a little weak."

"Poor John." She reached up and patted my cheek.

"Edith, don't do that." I knew that everything was ruined now and that it wouldn't make much difference if Edith patted my cheek or not. But I just wanted to forget what had happened. I just wanted to get out of there.

Inside, Elaine looked at me, and it seemed to me that her eyes had actually turned to ice. "You're back," she said.

"Yes, ma'am," I said. "And I don't feel very well either. I think maybe I'd like to go home."

It was all very uncomfortable and embarrassing, but we got up and got our coats; then we flew home in the Wanecruiser-Eight.

When Tom and Edith had left in their Hublo-Six, Elaine said, "Well, you couldn't have picked a better time to do what you did tonight, could you?"

Before I could say anything, Elaine had gone into the bedroom and slammed the door.

I spent the night on the couch in the study, but I didn't sleep very much. Elaine had certainly been right; I'd picked a beautiful night for losing my balance. Whether or not I'd really done anything serious didn't make any difference. The fact was that I'd shown a great deal of instability, and if there was anything that you shouldn't show in Hill Grove, I thought, it was instability. I kept remembering how Fred Wicket had looked at us as we'd crossed back from the parking lot, and I knew that Elaine and I were going to be in Hill Grove for a good long while.

THE FACT that we had to go to Tall Oaks and be entertained by Brad and Cathy Stanwell the next evening did not help matters at all. Elaine had not spoken to me all through that next day, and it was a great effort on my part even to smile when we faced Brad and Cathy that night.

Brad is a large ruddy-faced fellow, and Cathy is pretty and trim—although not at all like Edith Weathers. I'd always felt that we were rather lucky to have them for our N6 couple, and I'd always thought that when we moved on to N6 ourselves, we'd go right on seeing them of our own desire. Now, all of that was changed, I knew. I knew that we weren't going to go into N6, and nothing at all seemed important.

However, Brad and Cathy seemed particularly gay, and so I tried my very best to look enthusiastic.

"Sit down, children," Brad said, "and let old pappy pour you a Scotch and soda!"

"Right," I said.

"Just wonderful," Elaine said.

"Have some hors d'oeuvres," Cathy said.

We sipped our drinks and tasted the hors d'ouevres, and I kept glancing at my watch. It was eight-thirty, three and a half hours away from our deadline. I wondered why I'd done what I'd done the night before, but I knew the reasons didn't matter; I'd done it, all right.

I tried to smile and nod as Cathy and Brad chatted on happily.

Then finally Brad said, "Cathy, let's not hold out on them any longer, shall we?"

Cathy smiled very prettily. "All right. You tell them, Brad."

They both looked at us, their eyes dancing, and Brad said, "John, how would you like to go out and take a look at the Hydro-Ten?"

Going out and taking a look at Brad's Hydro-Ten was just about the last thing in the world that I wanted to do right then, but I nodded and said, "Why, sure, Brad. I'd love to!"

Brad kept grinning at me. "Especially if you knew you were going to start flying one yourself, eh, John?"

I stared at him and put my drink down and rubbed my palms over my knees. "How's that, Brad?"

"Children, you've done it!" Brad said laughing. "You are now in N6!"

I blinked at him, then I looked at Elaine. There were tears in her eyes, but she was smiling just as though she might never stop.

"You're kidding," I said.

"No, sir, John. I am not. They told us to give you the message. It's authenticated. You're in!"

I opened my mouth and closed it. "Well, by golly!" I said.

The next minute, Elaine was kissing me and I was kissing her. Brad pumped my hand, and Elaine and Cathy hugged each other, laughing and crying. I'd never been so happy in my life.

"Well," Brad said finally. "don't you want to look at that Hydro-Ten now, John?"

"Brad," I said pretty loudly, "you bet your life I do!"

I walked to the door with Brad, then I stopped and looked back at Elaine and waved at her. She blew me a kiss. It was wonderful.

In the garage I kept walking around the Hydro-Ten, and Brad just stood there and watched me, grinning widely. "Great feeling, isn't it?"

I nodded and finally leaned back against the copter. "It really is, Brad. Only a few minutes ago, I thought—"

"That you weren't going to make it?"

"Yes."

"I felt the same way, John. Just exactly. I was worried about it for weeks. And then, near the end, I thought absolutely that we wouldn't do it."

"I surely didn't think *we* would, Brad. I really didn't."

"I'll tell you this, John. You ought to feel proud. Not everybody makes it, you know. And the reason they don't is because they don't have the balance. John, to progress this way, you've got to have balance—that's the whole thing. Some try too hard. Others don't try hard enough. The ones who make it show they've got the balance. And you made it, John."

"Yes. But I still don't understand it."

Brad nodded understandingly. "I'll tell you, I didn't either. Not for a little while anyway. But here in N6 you learn more, John. You get some perspective. You get the viewpoints of the boys here in Tall Oaks. And now that I think back

on when Cathy and I were in N5, I realize that it was balance, just good old natural balance, that got us through."

"Balance," I said.

"Right." Brad got out two cigars and we lit up. "Listen, John, I'll tell you a little story—something I don't want to get out, you understand. Just a little story, man to man."

"All right," I said, puffing on the cigar.

"This happened one day before our deadline was up in N5. We'd just about given up, and then we went to that club dance they have back in Hill Grove, you know?"

"I know," I said.

"I'll tell you, I don't know what got into me that night. I was scared, I guess. Both Cathy and I were scared, and we were fighting each other. And—well, we were entertaining this couple from N4, and I was drinking a little too much, and bango! First thing I knew I was outside with the wife of this N4 fellow, and—" Brad motioned a hand. "It wasn't anything serious, you understand, John. It wasn't anything at all, really, and I didn't feel any different about Cathy or anything like that. It just happened."

"I'll be damned," I said.

"Somebody saw us, I was certain of that. And right there I gave up. I really did. Only the next night we were told, just like you were tonight, that we'd made it into N6."

"Well, well, well," I said.

"Now, the point of this, John, is that I think maybe that's what did it. I couldn't say for certain, but I think maybe that's really what did it." Brad looked at his cigar reflectively. "You see I'd been trying too hard up to then, not being very human and natural, you know? And you've got to be human and natural to get along here in N6. All the boys, all the girls, we're all human and natural here—how would it be if we had someone in here who wasn't?"

"Not so hot," I said.

"Right. Only you never need to worry about that, John. Those boys and girls won't get in, I'll tell you that. Not if they don't prove they're human and natural. You see, I've always figured it was that next to the last night that really made the difference. What happened wasn't too much, nor too little, and maybe that proved the balance. I haven't talked to any of the other boys here in the section about it—I mentioned it to you, John, because we've been such good friends and because I'm proud to have you here in Tall Oaks. But I really think that's what did it."

I nodded, puffing on the cigar and watching the smoke drift toward the ceiling. "By the way, Brad," I said finally, "what did she look like?"

"Who, John?"

"That girl."

"Oh. Well, she was a looker, I'll tell you that. Not like Elaine or Cathy—I mean not their type. She was rather common, as a matter of fact. But she had a hell of a figure. And I'll never forget how she looked in that dress."

"That dress?"

"That black satin dress." Brad

shook his head. "You know, this might sound silly, John, but somehow I've always had a theory about her."

"A theory?"

Brad nodded. "I've always had the theory that Edith was an Inspector."

"Well," I said. "Well, well."

Brad's eyes were preoccupied, then he straightened suddenly. "Listen, the girls are calling. Let's go back and really celebrate this, shall we?"

"Right!" I slapped the tail of the Hydro-Ten, and then Brad and I walked back to the living room.

"Look," Cathy said, "I've made new drinks, and now we're going to have a toast."

We stood in a circle in the center of the room with the drinks in our hands, and Brad said, "All right. A toast to what?"

"A toast to N7!" Cathy said.

I hadn't thought about that until that very moment; and I paused a second, letting it really come to me. Then, suddenly, I raised my glass and looked at Elaine. "To N7!" I said.

Elaine smiled back at me brilliantly, and then all four of us said together, "To N7!"

It was a very wonderful moment.

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WORTH CITING

SCIENTIFIC BRAINS and money from Government, the public and industry are being pooled in a new "crash" program to find a drug or drugs to cure cancer. This voluntary, cooperative effort will be like that of wartime researches which gave us radar and the atom bomb. For the first time, public, private and industrial research in the field of cancer chemotherapy will be brought under the guidance of one organization: The Cancer Chemotherapy National Committee—C.C.N.C. Synthetic chemicals and those from plants, hormones and viruses will be investigated as potential remedies. The program will make it possible for scientists working on a particular aspect of the problem to exchange ideas and suggest new lines of approach. It will obtain particular chemicals for study and will keep an "intelligence file" for references to progress with compounds.

Our citation this month goes to the government and private agencies and industries who are spending some twelve to fifteen million dollars on the search for chemicals to stop cancer; and to the C.C.N.C. which will give the direction needed to make this investment more profitable in terms of lives saved from cancer.

the earthman

BY IRVING COX, JR.

The four survivors were sitting ducks surrounded by barbaric savages. And they were doubly handicapped, because they knew that one of them was a traitor!

THE ROBOT supply ship came every Thursday at seven minutes after noon. It was an unfortunate hour for the personnel of the Nevada station, who happened to be in the commissary at lunch. Out of fourteen hundred assigned to the post, only four escaped—two guards on noon duty in the watch tower; the Commander's wife, who had skipped lunch and stayed in her cottage; and Captain Tchassen.

The Captain was on a hill south of the station making a Tri-D shot of the range of mountains west of the camp. He took his amateur photography seriously and, like any tourist, he was fascinated by the rugged scenery; there was nothing comparable to this on any world in the civilized galaxy. To get the back lighting that he wanted, Tchassen would cheerfully have given up any number of meals. As a matter of fact, he wasn't aware that it was noon until he heard the jet blast of the supply ship as it came in on the transit beam.

Tchassen saw the ship spin out of control as the beam went haywire. The robot plunged into the heart of the station and the earth shook in the catastrophic explosion of the nuclear reactor. The commissary, the communication center, the supply sheds and the row of patrol ships vanished in the rising, mushroom cloud. Concussion threw Tchassen violently to the ground. His camera was smashed against a boulder.

The Captain picked himself up unsteadily. He took a capsule from his belt pouch and swallowed it—a specific against shock and radiation sickness. In a remarkably short time, Tchassen's mind cleared. He saw the prisoners pouring through the gap torn in the compound fence and running for the hills. But that did not alarm him particularly. They were unarmed and for the moment they represented no real danger.

Tchassen began to run toward the ruined administrative center. He had to find out if there were any other survivors and he had to make emergency contact with the occupation base on the coast. He ran with considerable difficulty. After less than a hundred yards, he was gasping for breath. He slowed to a walk. He could feel the hammering of his heart; his throat was dry and ice cold.

To the escaped prisoners, watching from beyond the camp, the Captain's weakness was unbelievable—for Tchassen, in his twenties, had a magnificent build. Typical of

Illustrated by Ed Emsh

the occupation army, he wore the regulation military uniform, knee-high boots and tight-fitting, silver colored trousers. Above the waist he was naked, except for the neck-chain which carried the emblem of his rank. His body was deeply tanned. His hair was a bristling, yellow crown. Yet, despite his appearance, his sudden exhaustion was very real; Captain Tchassen had been on Earth only five days and he was still not adjusted to the atmospheric differences.

As he passed the row of officers' cottages, he fell against a wall, panting for breath. The flat-roofed buildings were nearly a mile from the crater of the explosion, yet even here windows had been broken by concussion. A cold, arid wind whipped past the dwellings; somewhere a door, torn loose from its frame, was banging back and forth.

Then Tchassen heard a muffled cry. In one of the officer's cottages he found Tynia. She had been thrown from her bed and the bed was overturned above her. It was a fortunate accident; the mattress had protected her from the flying glass.

Tchassen helped her to her feet. She clung to him, trembling. He was very conscious of her sensuous beauty, as he had been since he first came to the Nevada station. Tynia was the wife of the commanding officer: Tchassen kept reminding himself of that, as if it could somehow build a barrier against her attractiveness. She was strikingly beautiful—and thirty years younger than her husband. It was common gossip that she had been flirting with most of the junior officers assigned to the station. Tchassen was, in fact, a security investigator sent to probe the potential scandal and recommend a means for heading it off.

He gave Tynia a shock pill from his pouch. Her hysteria subsided. She became suddenly modest about the semi-transparent bedgown she was wearing, and she zipped into a tight coverall, made from the same silver-hued material as the Captain's trousers. They went outside. She stood a foot shorter than Tchassen. Her dark hair framed her face in graceful waves; make-up emphasized the size of her eyes and the lush, scarlet bow of her lips.

Tynia glanced toward the crater, shielding her face from the noon sun. "What happened, Captain?"

"The flight beam failed; the supply ship exploded."

"And killed them all." She said it flatly, without feeling—but Tchassen doubted that she would have mourned the loss of her husband in any case.

"I'll have to get word through to the coast. We'll need a rescue helio and—"

"I know how to use the emergency transmitter," Tynia volunteered. "There may be other survivors, Captain Tchassen; they'll need your help."

"I don't want to leave you alone, Tynia." It was the first time he spoke her given name, though the informality was commonplace among the junior officers on the post. "The prisoners are out of the compound. We may have trouble."

"Not yet, Captain; they're still

unarmed. I'll be all right." She nodded toward the crater. "We have to make sure there's no one else alive down there."

He left her reluctantly. She went toward the emergency communications room, buried in a metal-walled pillbox which had been intentionally located far from the center of the station. Tchassen walked across the scarred earth in the direction of the crater. None of the important buildings had survived. Concussion had torn up the fence around the prison compound, but the cell block, half a mile from the explosion and built of concrete and steel, was still standing. The watch tower, beyond the prison building, stood askew on bent metal pillars, but it was otherwise undamaged.

The Captain knew that at least two guards were on watch duty at all hours; they might still be alive. He crossed the crater and pulled himself up the battered stairs to the top of the tower. The door was jammed. Using a broken piece of railing as a lever, he pried it open. He found the two guards unconscious, slumped across their observation console.

He gave them shock capsules, but the men regained consciousness slowly. While he waited, Tchassen read their identity disks. The Corporal, Gorin Drein, was a three-year draftee, serving a six month tour of duty on Earth. He was a fair-haired, blue-eyed boy, probably no more than twenty years old. Sergeant Briggan was an army career man, in his fifties and only a few years away from retirement. Yet the only physical indication of his age was the touch of gray in his bristling mane of dark hair.

When their erratic breathing steadied and they opened their eyes, the Captain explained what had happened. Both men were still groggy; the shock pills inhibited their normal emotional reactions. Neither Briggan nor Drein had much to say until Tchassen helped them down from the tower and they stood looking at the hole blasted in the earth.

"The supply rocket," Sergeant Briggan said slowly, "couldn't have done this; the beam landings are foolproof. The prisoners must have pulled it off, though I don't see—"

"How?" Tchassen broke in. "The compound fence didn't go down until after the blast; there was no way any of them could get out."

"Robot ships just don't get off the beam," Corporal Drein declared stubbornly.

Briggan nodded toward the empty cell block. "It worked out nicely—for the prisoners. A single explosion wipes out most of us; but the prisoners are far enough away from the blast center to escape."

"Surely there isn't any danger of revolution," Tchassen asked, unconsciously mocking the optimism of the security bulletins. "Not any longer."

Briggan grinned. "You've only been here five days, sir; you don't know how thoroughly our indoctrination has failed. The Earth people hate us more than ever."

"Even so, how could one of the prisoners have brought the robot down?"

"By tampering with the beam."

"But that means they had a subversive—that means one of us must be—"

"An Earthman, yes. We encourage them to apply for citizenship. If we had an Earthman on the post masquerading as an officer, how would we know it—unless he told us? They're no different from our own people, Captain."

On the other side of the crater Tynia staggered out of the communications pillbox. Tchassen saw her waving frantically and he knew something was wrong—very wrong. He began to run toward her. Briggan and Drein followed close behind him. Almost immediately the Captain staggered and gasped for breath; he motioned for the Sergeant and the Corporal to go on without him.

Briggan waited long enough to say, "So far we've located four survivors, sir—only four. And one of the four is very probably an Earthman. The transit beams don't fail of their own accord. It's not a very nice thing to think about, is it, sir?"

The two men left him and Tchassen walked slowly, alone across the barren land. The wind whispered against his naked chest; it felt suddenly cold and forbidding. The ragged peaks piled on the western horizon were no longer simply photogenic curiosities of an alien world, but symbols of undefined terror.

Why had the supply robot crashed? Why had the prisoners been able to get away without a casualty? Had it been planned by an officer of the station? If so, where was he now—with the prisoners, dead in the commissary, or among the four survivors? The tide of questions hammered at Tchassen's mind, but he came up with no workable answers. His real trouble stemmed from the fact that he knew so little about the Earth people. Their reasoning was beyond rational analysis. They were physically identical to normal human beings, and it was almost impossible not to assume that their thinking would be normally human, too.

When Tchassen reached the communications pillbox, the Sergeant, the Corporal, and Tynia were inside. In the gloomy half-light he saw the others silently trying to patch together the broken wires of the transmitter. It was hopeless; Tchassen saw that at once. Only a master technician could have made sense out of that jumbled maze. The other three knew that, too. They stopped when they saw Tchassen and looked at him expectantly, waiting for him to tell them what to do. With something of a shock, he realized that he now ranked as station commander.

"I don't believe the explosion wrecked the transmitter," Tchassen decided uncertainly.

"It was torn up like this when I first came in," Tynia told him.

"So we couldn't get in touch with the occupation base. Obviously one of the prisoners did it. They must have had—" The Captain licked his lips. "They must have had outside help."

"What do we do now?" Tynia's voice was shrill with rising hysteria. "We can't radio for a rescue ship.

How do we get away?"

"It's up to us to find something else."

She moved close to Sergeant Briggan, reaching for his hand. "The Earth people are outside somewhere, waiting to kill us. We can't escape, Captain! And you start talking nonsense—"

Very deliberately Tchassen slapped the back of his hand against her cheek. The pillbox was abruptly very still. She stared at him, her eyes wide. Slowly she raised her hand and touched the reddening mark on her face. She shrank against Briggan and the Sergeant put his arm around her shoulders.

"You didn't have to do that, Captain," he bristled.

"Don't quarrel," Tynia whispered. "Not on my account."

Tchassen's muscles tensed. This was the way Tynia had created tension on the post; he had seen it happen to her husband. Yet could he honestly blame her? It wasn't her fault; just the irony of circumstance. And Tchassen knew that his anger now was primarily envy, because she had turned to the Sergeant for protection and not to him.

He made himself relax. "Hysteria," he said, "is a luxury none of us can afford."

"You're right," Tynia answered. "Absolutely right. I was very foolish."

She moved away and Briggan muttered, "Sorry, sir. I didn't think—"

"We must get back to the coast," Tchassen said briskly, "through territory occupied by the enemy. We can scrape together all the weapons we'll need and the roads are supposed to be passable. Our only problem, then, is transportation."

"Maybe we'd better stay here," Tynia suggested.

"Sitting ducks for the Earthmen to attack?"

"You said we have weapons."

"Not enough to hold out indefinitely."

"Sir," Corporal Drein intervened, "there's an old, enemy vehicle in the prison building. We used it sometimes for field inspections."

"Let's look it over."

Captain Tchassen had seen the instructional films which were made immediately after the occupation. He could identify the sedan—an inefficient, petroleum-burning machine, typical of a primitive people who had just reached the threshhold of the Power Age. The original beauty of design had long since disappeared. Only one window and the windshield were unbroken; the body paint was peeling away in spreading patches of rust; the pneumatic tires were in shreds and the vehicle moved noisily on bent, metal rims.

They fueled the car with gasoline confiscated long ago and stored in drums in the prison warehouse; Corporal Drein volunteered to do the driving. In the officers' cottages they found weapons—a portable heat beam, half a dozen dispersal rays, and a box of recharge cartridges. In terms of Tchassen's technology such weapons were minor sidearms, but they were superior to anything yet produced by the Earth people. Tchassen was sure he had the power to beat off any attack.

The survivors were handicapped in only one respect: all the food on the post had been destroyed with the commissary. However, Tchassen did not consider that a serious problem. He was sure they could reach the coast by the following morning.

Shortly before three o'clock—nearly two hours after the supply robot crashed—the survivors left the station. They headed west on a highway unused since the conquest. Tchassen and Tynia sat together in back. The Captain kept all the weapons. Briggan's warning couldn't be ignored; one of the other three might be an Earthman. Unless they faced an actual emergency, Tchassen did not intend to let any of the others carry arms.

THE SEDAN lumbered over cracked and crumbling asphalt. The tireless rims made a nerve-wracking din that prevented all conversation. Tchassen was unused to any sort of surface transportation. The civilized galaxy had outgrown it centuries ago; the flight beam, safe and inexpensive, was universally used. With equal ease the beam could move a one-man runabout or a cargo freighter over any distance—a few feet or the light years gapping between planets. Twice Tchassen revised his estimate of the sedan's speed. At this rate, it would be twenty-four hours or more before they reached the coast. That made their shortage of food far more significant.

Through the shattered side window Tchassen scanned the arid soil. It was remotely possible that they might stumble across a native food cache, but he couldn't count on that. He wasn't even sure the caches existed, although the theory was a basic factor in the occupation policy.

The galactic council of scientists estimated that one-tenth of the Earth people had never been rounded up and resettled in the prison compounds; bandit raids increased that number steadily. How the rebels survived no one knew, for any large scale food production would have been spotted by the patrols and wiped out. One or two crackpot theorists said the bandits fed themselves by hunting wild game, but that was absurd. It was common fact throughout the civilized galaxy that any culture which evolved as far as the Power Age would, in the normal process of growth, eliminate all planetary animal life. The accepted explanation was the food cache theory. According to it, the Earthmen—sometime after the conquest and before the prison compounds were set up—had raided their own cities and hidden the packaged food in remote mountain areas. The supply was decidedly limited. When it was gone, the rebels faced starvation unless they returned voluntarily to the compounds.

The Sierra range between the Nevada station and the coast had become a haven for so many escaped Earthmen that the region was marked "enemy territory" on the occupation maps. Although Tchassen was aware of that, he knew he could not assume that,

because the four survivors had to pass through a rebel area, they would discover a cache of food. Far too many organized expeditions, sent out expressly for that purpose, had returned empty handed.

As the afternoon shadows lengthened and the sedan seemed to be moving no closer to the snow-capped peaks, the air became colder. Tchassen's naked chest was studded with gooseflesh. Drein and Briggan were rubbing their arms to keep warm. Tchassen was accustomed to the controlled temperatures on the civilized worlds and the comforts of the beam ships. It hadn't occurred to him that the regular military uniform might be inadequate.

He felt the subtle pulsing of fear, the crushing loneliness of a stranger on an alien world. He fingered the barrel of a dispersal ray, but the weapon gave him no sense of security. He had a terrible sensation of psychological nakedness. The weapons could drive off bandits, but what protection did Tchassen have against the unknown elements of a savage world? We've failed; we have no right to be here: the words lashed at his mind like an insinuating poison. He could feel sweat on his face and chest, sweat turning cold in the icy wind.

Now the sedan entered a decaying village nestled close to the mountains. It was in an amazingly good state of repair—undoubtedly because it was located so far from the coastal cities that it had escaped destruction during the invasion. Then, too, the village was too close to the Nevada compound for the Earth people to have looted it. Tchassen tapped on Drein's shoulder and ordered him to stop the sedan.

"We need warmer clothing," the Captain explained, "before we start up the grade."

"I suppose we might pick up something here," Sergeant Briggan conceded. "This place is called Reno. It was one of the few communities still intact after the invasion."

"I'm scared," Tynia said. "The prisoners may be hiding here, waiting for us."

"They have better sense than to face a dispersal ray without any protection." Tchassen's tone was crisp with an assurance he didn't feel, but it satisfied her. Drein opened the door and stood on the sidewalk, waiting for Tchassen to hand out one of the weapons. But Tchassen couldn't be sure Drein was not an Earthman; nor, on the other hand, could he ask the Corporal to explore an enemy town unarmed. As a sort of compromise, Tchassen said,

"We'll stick together; I'll carry all the weapons, Corporal."

It wasn't satisfactory, but both Drein and Briggan were too well-disciplined to protest. Tchassen felt foolish with six dispersal rays and a heat beam slung over his shoulders, but he couldn't risk leaving anything in the sedan, either.

The survivors spent a good part of an hour searching the downtown stores, but Reno had been stripped of native artifacts; the buildings

were empty shells filled with dust. The only chance they had of finding clothing was to look in the private homes closer to the outskirts. They went back to the sedan and drove to a residential street. By that time the sun was setting. Tchassen did not relish the prospect of being caught in an enemy town after dark, but the search could be speeded up only if they separated.

For a second time the Captain compromised. He issued dispersal rays to the others, but insisted that they work in pairs. If one of them was an enemy, that arrangement would more or less tie his hands. Tynia volunteered to go with Drein; Tchassen felt a pang of envy and jealousy, but he had better sense than to use his authority to force her to come with him.

Tchassen and the Sergeant searched through half a dozen houses before they found one that had not been looted. Their luck was unbelievable, for they found shelves of canned food as well as clothing sealed in plastic bags. From an open window the Captain fired a dispersal ray toward the sky, a signal prearranged with the others. As the needle of light arched above the village, Tchassen heard a distant blast of explosions and Tynia's shrill scream of terror.

"It's a bandit raid!" Briggan cried. He turned to run toward the street. Tchassen's hand shot out and caught the Sergeant's shoulder.

"Not so fast. I said we'd stay in pairs."

"But Tynia's in trouble! The Earth people are barbarians, sir. They give no quarter. They—"

"I'm still in command, Sergeant."

Briggan stiffened. "Yes, sir."

The two men walked toward the source of the sound. Tchassen couldn't allow himself to run, even to help Tynia; the extertion would have been too much for him. There was another clatter of shots and Tchassen recognized the gunfire of the primitive Earth weapons. In the darkness it was vaguely disturbing, but not frightening. Both Tynia and Drein were armed with dispersal rays; they would have no trouble defending themselves.

Sudden footsteps pelted toward them. Tynia ran from a dark side street and threw herself into the Captain's arms. She clung to him, trembling and panting for breath.

"Where's Drein?" he demanded.

"The Corporal—he took my gun. He tried to kill me!"

"Tynia, do you understand what you're saying? The accusation—"

"You told us to stay together. I did my best. I was going through a house when I realized suddenly that I was alone. I saw Drein outside; I thought he was talking to someone. I ran out and—" She bit her lip and hid her eyes against his shoulder.

In a flat, emotionless voice, Tchassen asked, "Drein was with Earthmen?"

"I don't know! Someone sprang at me and knocked the ray out of my hands. I saw people—I thought I saw people—in the shadows behind Corporal Drein. I began to run. I don't want to accuse him of —of anything, Captain. I can't be sure. If he's an Earthman, we have

to—we have to dispose of him, and I wouldn't want—"

Her voice trailed off in a gasp of terror as they heard a new burst of gunfire, very close. Tchassen dodged aside, pulling Tynia behind a tree. Sergeant Briggan fired blindly into the night. His dispersal beam danced across the face of a frame building and the house exploded into flame. In the red glare of the fire, Tchassen saw a band of savages, dressed in animal hides—no that was impossible! —fleeing into the darkness beyond the village.

Corporal Drein staggered toward them. Blood spilled from a gash torn in his chest. He saw Tchassen, Tynia and the Sergeant standing together. Like a man in a daze, he began to raise his dispersal ray.

In Tchassen's mind there was no longer any room for doubt; the truth was clear. Drein was an Earthman; Drein had betrayed the station; Drein now intended to kill off the only survivors. The Captain acted with military decision. He pressed the firing stud of his weapon. Drein screamed in agony as he died.

Tynia buried her face in her hands. Briggan put his arm around her. In the flickering light, Tchassen saw the Sergeant grin.

"You didn't have to kill him, Captain," Tynia whispered.

"After what you told me—"

"Don't blame me; I didn't do anything!"

"He was going to fire at us, wasn't he?"

"You don't know that for sure. Maybe he was asking for help!"

Tchassen shrugged; there was no accounting for the emotional inconsistencies of a woman.

"What did you expect to prove by murdering Drein?" Briggan asked.

"I saved us from—"

"If he was an Earthman, why were the bandits firing at him? Why had they wounded him?"

"To make it look good," Tchassen replied, no longer really believing it himself. "They wanted our weapons; they have to use trickery to get them away from us."

Tchassen slid the weapon out of Drein's lifeless fingers and half-heartedly searched the street for Tynia's dispersal ray. He didn't expect to find it. The Earth people had it now. The loss of the weapon was, in one sense, more serious than the destruction of the Nevada station. A prison compound could be rebuilt and restaffed. But if the Earth ever faced the conqueror with equal firepower, Earthmen would recapture their world—and more.

We've failed; we have no right to be here—the Captain fought a burning nausea as the fear washed over his mind. What had they accomplished by the occupation? The Earth was neither enslaved nor destroyed. Hatred made the natives savages. They would never be content until they had revenge. They never conceded defeat; they never would. Corporal Drein seemed to be typical of their fanaticism, and that was why Tchassen had killed him—that, and the hysterical story Tynia had told. On calmer reflection, Tchassen knew he had no proof of Drein's disloyalty—which meant that either Briggan or Tynia

could be Earth natives. That problem was unsolved; the danger was undiminished.

TCHASSEN WASTED very little time looking for the weapon Tynia had lost. After twenty minutes, the three survivors returned to the house where Tchassen and Briggan had found food and clothing. They packed the canned goods into the sedan and put on warm coats and jackets. Although the woolens and the cottons fell to pieces when they touched the cloth, the synthetic fabrics were still relatively sound, particularly when they had been sealed in mothproof plastic.

Tchassen took over the driving when they left Reno. For greater warmth, Tynia and the Sergeant crowded into the front seat beside him. As they ascended the grade toward the pass, the air turned much colder. Tchassen's hands felt numb on the wheel and the altitude made his mind swim in a haze of vague nausea.

There was no moon and the headlights of the sedan had been smashed long ago. The Captain drove very slowly, concentrating on the curves of the highway. Three times the machine narrowly missed going over the edge; the guard rail saved them. Tchassen knew he was risking their lives to drive at night, but he had no alternative. They would not be really safe again until they reached the base on the coast, and the Earth people would try to prevent that. They would try to make sure that no survivors lived to report what had happened at the Nevada station.

Briggan fished three cans of food out of the back of the car and blasted them open with his dispersal ray. The can he handed Tchassen contained a fruit in a heavy, sickly sweet syrup. Tchassen made himself empty the tin. Tynia had a pinkish meat which she was totally unable to choke down. The civilized galaxy had been vegetarian for two thousand years; a clear indication of the savagery of the Earth culture was the fact that the natives still ate animal flesh. Briggan opened another can for Tynia. After a brief hesitation, he began to eat the meat himself.

Tynia gagged and looked away. "I don't see how you can do it, Sergeant."

"We may be on the road longer than we think," he answered. "We can't afford to waste anything; we aren't likely to find another food cache."

Tchassen glanced at Briggan suspiciously. It was possible that he could force himself to stomach the meat, if he were starving, but how was he able to eat it now? An Earthman could do it; yet if Briggan were at native, wasn't he too clever to give himself away with anything so trivial?

"Tell me, Captain," Briggan asked, "what chance do we have of getting through this alive?"

"We're armed; we have transportation; we—"

"And the natives will risk everything to stop us. They have to. This attack on the Nevada station was the beginning of the revolution. If they plan the rest of it as carefully,

they stand a good chance of throwing us off the Earth."

"No!" Tynia cried. "Now that they know the civilized galaxy exists, they'll build space ships and come after us. With our weapons—"

"Plus their fanaticism," Tchassen put in, "the galaxy doesn't stand a chance."

"But we invaded the Earth to prevent that; we came here to teach them to live civilized lives."

"How much teaching have we actually done in the compounds?" the Sergeant demanded. "How many Earth people have listened to us?"

"They're human beings; they have brains like ours. Surely when we have explained our ways to them logically and sanely—"

"The trouble is," Tchassen said thoughtfully, "it's our logic, not theirs. If you look at this from the point of view of an Earthman, you see us as savage invaders of their world."

"Our purpose makes it different."

"We say that, but the Earth people wouldn't understand us."

"It's very strange," Sergeant Briggan said quietly, "that you understand the Earthman's point of view so well, Captain Tchassen. Let's see. You've been here—how many days?"

"Five."

"But you set yourself up as an authority on these people."

"Come now, Sergeant. I didn't say that. I'm simply trying to understand them reasonably."

"To think like an Earthman: that's rather difficult for us to do, Captain." Briggan paused briefly before he snapped out a rapid question, "Where were you stationed before you came here, Captain?"

"At security headquarters."

"Assigned to what staff?"

"Well, I was—" Tchassen glanced at Tynia. It would do no good, now, to explain why he had been assigned to the Nevada post. All that was finished because the station staff died in the explosion. "I wasn't on any staff," he said. "I was working on my own."

"That's a pity, sir. You wouldn't remember the name of your commanding officer, then; I could have checked up on that."

Tynia gasped; only then did Tchassen realize what Briggan's questions implied. He said coldly, "You're way off the track, Briggan. I'm the only one of you who couldn't be an Earthman; I haven't become acclimated yet—that's obvious, isn't it?"

"Of course you're right, sir. It wouldn't be the sort of thing you could put over by playing a part, would it? Besides, Drein was the Earthman and you killed him. We've no reason to be suspicious of each other now, have we?"

There was no way Tchassen could reply. He gritted his teeth and said nothing. From the expression on Tynia's face, he realized that Briggan's insinuation had been rather effective. And suppose Briggan actually believed it himself. Didn't that rule out the Sergeant as an Earthman?

And it left only Tynia. Tchassen eyed the dark-haired woman on the seat beside him. What did he really

know about her?—only that she had been married to a station commander; and had flirted outrageously with other post officers. She may have done it simply because she was bored; on the other hand, it could have been a deliberate attempt to create friction—exactly the sort of thing an Earth woman might try to do. Perhaps she was a native. When Tchassen was given the security assignment, he hadn't checked into her background; it didn't seem necessary. He realized suddenly that Tynia was the only witness against Drein. Because of what she had said, Tchassen had killed the Corporal. Tynia's hysteria had set the stage for murder.

As the sedan climbed higher into the pass, it moved more slowly. The motor coughed and wheezed; once or twice it seemed ready to stop altogether. When they reached the summit, the tenuous crescent of a new moon emerged above the pines. In the pale glow of light, Tchassen saw that the highway was covered with a treacherous sheet of ice.

The metal rims found no traction. When the machine began to skid, the Captain found he could neither control it nor stop it. In spite of the cold, his body was covered with sweat.

At a point four or five miles beyond the summit, they came to a place where thick trees on both sides of the highway shaded the road so the sun never reached it. The ice was continuous for a hundred feet or more, and it was covered with three inches of unmelted snow. The sedan skidded out of control. Tynia screamed and hid her face in her hands. Tchassen fought the wheel futilely. The car spun toward the shoulder, banged against a tree, and slid across the road into a clearing in front of an abandoned building.

In the sudden silence Tchassen heard nothing but the whisper of icy wind in the trees. He opened the door and looked at the deserted building. The roofs of the smaller structures nearby had collapsed under the pressure of winter snows, but the main building, sheltered by tall pines, was in good repair.

"We'd be warmer inside," Tchassen suggested. "In the morning after the sun comes out—"

"Captain!" Briggan broke in. "We must reach the coast!"

"—after the sun comes out, the ice on the road should begin to melt; the driving will be much easier."

"Don't you realize, sir—these mountains are enemy territory?"

"We're still well-armed, Sergeant."

"We had the rays in Reno, too, but Drein's dead."

"I tell you we'll be safe here. I remember a trick I saw demonstrated at the school of tactics."

"You security men have the advantage. I'm just an enlisted noncom. I never went to the military schools and learned any fancy tricks, but I know I have a duty to reach the coast and report what's happened."

Tynia took Briggan's arm. "The sedan won't run, Sergeant. Surely you aren't saying we have to walk—"

"It's interesting, isn't it, that the car stopped right here—in front of a place where it would be so convenient for us to spend the night?"

"What do you mean, Briggan?"

"I wasn't doing the driving, Tynia."

A hard knot of anger exploded in Tchassen's mind, but he held his temper. It was easier to ignore Briggan than to answer his suspicion. In a tone that concealed his feelings, the Captain said, "Let me show you what I saw them do in the demonstration, Sergeant." He slid out of the sedan. With numb fingers, he opened the firing box of the portable heat ray and took out one of the two thermal coils. Breaking the seal, he began to unwind the thin thread of wire.

"We have our own alarm system right here," he explained, trying to convey more enthusiasm than he really felt. "Nearly a quarter mile of wire. We'll string it in a circle around this clearing, six inches above the ground. The natives will never notice it. If they attack us, they'll snap the wire and set off the thermal reaction. We'll be surrounded for a second or two in a blazing ring of fire."

"Maybe it'll work, Captain."

The two men strung the wire while Tynia lugged the weapons and the canned goods into the abandoned building. When the Sergeant and Tchassen went inside, they found that she had started a fire in a pot-bellied stove. The Captain stood holding his hands over the flames and gradually he began to feel warm again. He knew that the pillar of smoke rising from the chimney might invite an attack by the natives, but there was also a good chance that the smoke would disperse before it could be spotted.

The warmth of the fire acted like an opiate, but Tchassen realized he didn't dare risk falling asleep. Tynia or Briggan might be Earth people, waiting for the chance to finish the job they had begun when the Nevada station was destroyed. After a brief hesitation, the Captain took another shock capsule from his belt pouch and choked it down. The drug would keep him awake, although it was dangerous to take a second capsule so soon after the first; there were sometimes emotional side-affects which were unpleasant.

"One of us should stay on guard," Briggan said. "We could take turns at it, Captain—two hour stints until dawn."

"Good idea, Briggan. I'll stand the first watch."

"I was going to volunteer—"

"No; you're tired; you and Tynia need your sleep."

"You're too considerate of us, Captain." The overtone in Briggan's voice suggested far more than he actually said. He lay back on his blankets, but he did not shut his eyes, and he put his dispersal ray across his belly with his hand on the firing stud. Tchassen stood up, sliding a weapon over each shoulder.

He went through a connecting hall into a narrow room. A few scattered dishes, overlooked by the looters, and built-in cooking machines indicated that this had been

a restaurant. The room gave him an excellent vantage point, for the windows, still unbroken, provided a broad view of the highway and the clearing in front of the building.

The restaurant was bitterly cold. Tchassen pulled the rough, fibrous clothing tight around his shoulders, but it felt irritating rather than warm. He looked out on the ice and the snow and the pines, and he was acutely conscious of the savage alienness of Earth.

Snow he knew as a scientific curiosity; he had seen it created in laboratory experiments. Nowhere in the civilized galaxy did it exist as a natural phenomenon. The teeming billions of people crowding every world could not survive unless every square inch of soil was occupied and exploited. Science regimented the temperatures in the same way that it controlled rainfall. For more than twenty centuries neither deserts nor Arctic wastes had existed. All animal species had disappeared. Trees survived only as ornamental growths in city parks. The Earth was a relic of the past, a barbaric museum piece. The strong, individualistic genius of its people had evolved in no other society; and that genius had created a technology which mushroomed far beyond the capacity to control it. It gave this savage world atomic power before it had planetary unity.

For that reason, the civilized galaxy had invaded the Earth. They could do nothing else. The decision had been made long before Tchassen was born. The galactic council of scientists studied the Earth and argued the meaning of their observations for a quarter of a century before they ordered the invasion. War, to the civilized galaxy, was unthinkable; yet the government had no alternative. For, with even their primitive form of atomic power, the Earth people could blow their world to dust. The planet had to be occupied to save the natives from the consequences of their own folly.

But what does it matter, Tchassen thought bitterly, if our intentions were noble and unselfish? It's what Earth thinks we meant to do that counts. And by that standard we've failed. We have no right to be here.

Alone in the cold darkness of the abandoned restaurant, Tchassen faced the fear gnawing at his soul. The drug he had taken warped his depression into a crushing weight of melancholy. The occupation of the Earth had gone wrong—or so it seemed to him—because the council of scientists misjudged the native mentality. True, these people had created a brilliant technology, but it didn't follow that they would comprehend the social forces at work in the civilized galaxy. Their emotional reactions were at best on an adolescent level; intelligence alone would not lift them up to maturity. The prisoners in the compounds learned nothing but hatred; they lived for nothing but revenge. Vividly Tchassen saw the nightmare of the future: the time when the savages on the Earth had weapons to match the dispersal ray; the time when they would be able to build ships that could invade the civilized galaxy.

THE CAPTAIN paced the dusty floor in front of the serving counter. Briggan did not come in two hours to take over the watch; and he made no attempt to call the Sergeant. It was long after midnight, perhaps less than an hour before dawn, when something outside triggered the thermal-wire alarm. Simultaneously, as the blaze of white glared against the restaurant windows, Tynia screamed. Tchassen heard the explosive blast of a dispersal ray slashing into wood. A split-second later Tynia burst through the connecting hall and flung herself into Tchassen's arms.

"They're attacking!" she screamed.

"You saw them? Where?"

"Briggan. At the window. I—I shot him."

His fingers bit into the soft flesh of her arm. "Take it easy, Tynia. Tell me how it happened."

"I saw him when the alarm went off. He was lifting his dispersal ray, as if he meant to shoot you. I remembered how he had eaten meat last night, and I—I thought—" She shuddered. "I knew he was an Earthman. He was the one who blew up the supply robot; now he wants to kill us."

"You were sure Drein was an Earthman, too."

"What do you mean by that?"

"It's obvious, isn't it?"

"Obvious?" She shrank back against the counter.

He ignored her but kept her within the range of his peripheral vision while he glanced through the window, trying to locate what had set off the alarm. The circle of heat had melted all the snow and ice in the clearing; the trunks of the pines were smoldering and a corner of the building was beginning to burn.

Tchassen saw a chunk of flesh lying on the road—an animal of some sort which had blundered into the alarm wire. Then they had not been attacked by natives. The dead animal made it very clear that wild beasts still survived on the Earth. No wonder the natives were meat eaters! And, since they were, that meant they could live indefinitely in the remote mountain areas. They did not depend upon hidden caches of food; starvation would never drive them back to the prison compounds. The occupation policy was based upon a false assumption; more than ever it was vitally imperative for Tchassen to reach the coast and report the truth to his superiors.

Tchassen shifted his weapon so that his fingers lay on the firing stud. Tynia stared at him, her eyes wide with terror. In a tight whisper, she said,

"Then you—you're the Earthman, Captain!"

He grinned, admiring her skillful use of emotion. If he hadn't known better, he would have taken her fear for the real thing. Maybe it was; he couldn't be sure, but the facts seemed to add up to only one answer. Tynia laid the groundwork for the killing of Corporal Drein; she herself shot Briggan. And who had been in a better position to tamper with the landing beam for the supply rocket? Who else had

a better opportunity to destroy the transmitter in the emergency pill-box? Yet, even in the face of so much evidence, Tchassen gave her the benefit of the doubt! his reasoning might have been colored by the drug he had taken.

With the mouth of his weapon, he nudged her toward the hall. "Go back and pick up the food, Tynia. We're leaving here now."

She clenched her fist over her mouth. "Don't turn me over to them, Captain. Let me go. I've never done you Earth people any harm."

Magnificent acting! No wonder they had sent her to the Nevada station. "We're heading for the coast," he explained.

"The sedan wouldn't go last night; it won't now, either."

"We'll push the car back to the highway. The downgrade is steep enough to make the machine run without power. If that doesn't work, we can always walk."

"It'll be warmer if we wait until daylight."

"And the natives would be here by that time, too, wouldn't they? The glare of the thermal explosion was visible for miles."

"I didn't sleep at all last night, Captain. I don't have the energy to—"

With the dispersal ray, he pushed her along the hall toward the room where she and Briggan had slept in front of the pot-bellied stove. Naturally she would try to keep him there, he thought; he didn't need much more proof of her disloyalty.

Flames from the burning wall lit the room. As they entered, Tynia screamed and fell back against Tchassen.

"The Sergeant's gone!" she gasped.

"Along with the weapons you left in here."

"Then he—he's the Earthman, Captain; you aren't!"

"You said you'd shot him."

"I fired at him. I saw him fall. I thought he was dead."

Tchassen wanted to believe her, but the husky, deep-throated appeal in her voice couldn't quite destroy the hard core of his doubt. This could be an alibi which she could have contrived for herself. She might have hidden the weapons as well as Briggan's body. If Tchassen believed her, if he let himself trust her, it would be easier later on for her to dispose of him.

"Pack up the food, Tynia; I'm going to see if I can start the car."

When he went outside, the dawn was brightening the eastern sky. The snow and ice, melted by the thermal fire, made a slushy sheet of water in the clearing; it ate at the drifts, sluggishly washing the snow into the highway.

Tchassen waded through the water toward the sedan. His boots kept him dry, but the cold penetrated and made his feet numb. Hidden by the water were tiny, unmelted puddles of ice which made very treacherous footing. Twice the Captain slipped and nearly went down.

He was twenty feet from the car when he heard the door of the building bang open behind him. He glanced back, calling Tynia a warn-

ing to be careful of the hidden ice. At the same time she screamed. Tchassen swung aside instinctively. He slipped and fell. From the back of the sedan a thread of energy snaked toward him. Tchassen felt the momentary pain stab at his shoulder; then nothing. He lay flat in the icy water, fighting the red haze that hung over his mind. If the dispersal ray had come half an inch closer to his heart, it would have cut the artery and killed him.

Sergeant Briggan opened the door of the sedan and stood leaning against it, holding a dispersal ray in his left hand. The Sergeant was badly wounded. His right arm was an unrecognizable, bleeding pulp; he was too weak to stand alone. So Tynia had told the truth, Tchassen thought; she actually had shot him. The Captain felt a surge of relief and hope. Perhaps he could rely on Tynia, after all. But now it was too late! The blast from the Sergeant's weapon had paralyzed Tchassen's motor control; he was helpless.

The Sergeant, obviously, assumed that Tchassen was dead. Ignoring him, he ordered Tynia to pile the canned food in the back of the sedan. She moved toward him slowly.

"You're the Earthman," she said dully. "And I thought Captain Tchassen—"

"The farce is over, Tynia. You and Tchassen made a fine game of it far a while, but I've been in the service long enough to spot a fake security officer."

"The Captain and I?" she repeated.

"Do I have to draw you a blueprint? You two are in this together. You're both natives."

For a moment she seemed to recover her self-assurance. "So that's how you're going to play it, Sergeant. Just who do you think you'll take in with such nonsense?"

"I'm through batting words around with you, Tynia. Put the food in the car. Help me push the machine out to the road."

"Why bother, Sergeant? If you stay right here, the natives will be along soon enough."

"I'm glad you admit that, Tynia." Briggan laughed sourly. "But it's my duty to get through to the base—just as it's your duty, I suppose, to try to stop me."

"Why do you still want to make me believe that, Sergeant? What difference does it make now?"

Tchassen, paralyzed and unable to speak, suddenly realized the truth. Each of them feared the other. All four surviviors had assumed that one of the others had to be an Earthman. We put our faith in machines, he thought; we were too certain that the robot ship couldn't crash simply because something had gone wrong with the beam. Our real trouble is we have no faith in ourselves. None of us was an Earthman; the Earth people had nothing to do with the destruction of the Nevada station.

He wanted desperately to shout that out. After a supreme effort, he was able to make his lips move a fraction of an inch; and that was all.

Tynia put the canned food in the sedan. Briggan waved her to the back of the car with his weapon.

He held the beam leveled at her while she pushed the sedan toward the road. The clearing was built on a slight slant and she had no trouble moving the heavy vehicle. As the wheels began to turn, Tynia pretended to slip and fall into the slushy water.

Briggan was distracted by the motion of the sedan. Tynia rolled toward Tchassen and snatched up his dispersal ray. The Sergeant realized what she intended to do and lifted his weapon awkwardly in his left hand.

No! Stop! Don't be fools! The words sang through Tchassen's mind, but he could not speak. Briggan and Tynia fired simultaneously. The beam caught the Sergeant squarely in the face. He died in a blaze of energy. The sedan rolled into the road and Tynia fell unconscious beside Tchassen.

He wanted to help her, but he was still not able to move. In another half hour the paralysis would be gone, but by that time it would be too late to do anything for Tynia. Furiously he drove his body to respond and he managed to turn on his side.

The exertion was too much for him. The haze swam in painful waves across his mind. Just before unconsciousness came, he saw a band of natives on the edge of the clearing.

The swaying motion of the stretcher shook him awake. The Earthmen were carrying him along a narrow mountain trail, past deep drifts of snow. His wound, where Briggan's beam had hit him, was neatly bandaged; he could smell the odor of a disinfectant. It surprised him that the Earth people knew so much about medicine; but it surprised him more that they had tried to save his life.

He listened to his captors when they talked. He was able to understand a few phrases of the native dialect which every man assigned to the occupation had to learn, but what he had been taught was sadly inadequate. When one of his stretcher bearers saw that the Captain was conscious, he spoke to him in the cultured language of the civilized galaxy. The syntax was awkwardly handled, yet Tchassen was amazed that the Earthman used it so well.

"Be no fear," the native said. "You get living again."

"Tynia. The girl with me—"

"Wound bad; she dead before we come. We follow from prison and try help all four you. You fight each other. You have evil weapons. We can save only you."

"What are you going to do with me?"

"Make you well; send you back."

The answer came as a shock to Tchassen; it was what a civilized people would have said. But the Earth natives were savages—brilliant, inventive individualists, but nonetheless social barbarians. It would have seemed much more logical if the native had said he was keeping Tchassen for a religious ceremonial sacrifice.

"As soon as my wounds are healed," Tchassen repeated, "you'll let me go?"

The native ran his hand over the

Captain's bandages. "This wound is a little thing, of no importance." He touched Tchassen's head. "Here is your real sickness, in the brain. We teach you how to think like a man; then you go home."

"You're going to teach me? Me? Do you realize, I come from the civilized galaxy?" Tchassen began to laugh; he wondered if he had been taken prisoner by a band of madmen.

"We show you how to be human," the native answered blandly. "Not fight and kill each other, the way you and the others did when the post blow up. We know meaning for civilization; you have none. It is easy secret. We learn after the invasion, when our world destroyed. Real civilized people get along; live in peace; give help to each other. Your people and ours: we can be brothers here on the Earth, and on your other worlds, too."

Tchassen's laughter was touched with hysteria. Have we failed? He knew the answer now: for the captives, the dispossessed men of the Earth, would become the teachers of the conquerors—and teach them what the conquerors had come to build on the Earth. No, we have not failed; we have simply misunderstood the strange genius of the quixotic Earth. The defeated would one day rise up and conquer the galaxy. Tchassen saw that clearly, but no longer in fear. He wanted to make their stamina, their grit, their ability to survive a part of himself. He wanted to make himself over—as an Earthman. • • •

WHAT'S YOUR OPINION OF "THE CHAMPION"?

THE COVER on this issue contains some revealing and rather ironic implications about the future of Mankind. Artist Kelly Frease has depicted a world in which the female of the species completely dominates the human race in business, politics, the arts and, particularly, in sheer physical size and prowess. The hands of our amazonian "cover girl" are fitted with brass knuckles rather than boxing gloves, which in itself suggests several characteristics of this woman of tomorrow. We've developed quite a few lines of thought about the lady ourselves; but we thought it might be more interesting to see what conclusions our readers would draw.

What do *you* think of our "World's Champion"? No matter what your interpretation, let's have it. Study the picture a while for the psychological and moral as well as the physical implications involved. Then put your ideas down on paper. For the five best letters received by us before midnight December 10, (1955), we'll pay $5 each. Address: Editor, IF Magazine, Kingston, New York.

Trying to keep a supercolossal laboratory invisible when two curious aliens are poking around can be a trying affair for even the most brilliant of minds . . .

LABORATORY

BY JEROME BIXBY

GOP'S THOUGHTS had the bluish-purple tint of abject apology: "They're landing, Master."

Pud looked up from the tiny *thig*-field he had been shaping in his tentacles. "Of course they are," he thought-snapped. "You practically invited them down, didn't you? If you'd only kept a few eyes on the Detector, instead of day-dreaming—"

"I'm sorry," Gop said unhappily. "I wasn't day-dreaming, I was observing the magnificent skill and finesse with which you shaped the *thig*. After all, this system is so isolated. No one ever came along before . . . I just supposed no one ever *would*—"

"A Scientist isn't supposed to suppose! Until he's proven wrong, he's supposed to *know!*" Thirty of Pud's eyes glowered upward at the tiny alien spaceship, only ninety or so miles above the surface of the laboratory-planet and lower-

ing rapidly. The rest of Pud's eyes —more than a hundred of them, set haphazardously in his various-sized heads like *gurf*-seeds on rolls —scoured every inch of the planet's visible surface, to make certain that no sign of the Vegans' presence on the planet, from the tiniest experiment to the gigantic servo-mechanical eating pits, was left operating or visible.

Irritatedly he squelched out of existence a *yim*-field that had taken three weeks of laborious psycho-induction to develop. His psycho-kineticut stripped it of cohesion, and its faint whine-and-crackle vanished.

"I told you to deactivate *all* our experiments," he snapped at Gop. "Don't you understand Vegan?"

Abashed, the Junior Scientist lowered his many eyes.

"I—I'm sorry," Gop said humbly. "I thought the *yim* might wait until the creatures landed, Master . . . perhaps their auditory apparatus would not have been sufficient to reveal its presence to them, in which case the field would not have had to be—"

"All right, all right," Pud grunted. "I appreciate your point . . . but, dripping mouthfuls, you know that *any* risk of detection is too great. You know the regulations on Contact!"

"Yes, Master."

"Speaking of which, part of your seventh head is showing."

The Junior Scientist included the head in the personal invisibility field which he himself was broadcasting.

"Of all the suns in this sector,"

Illustrated by Ed Emsh

Pud thought, eying the little spaceship, "and of all the planets around this particular sun, they have to choose this one to land on. Chew!"

Gop flushed. A member of the Transverse Colon Revivalists, he found Pud's constant atheistic swearing very disturbing. He sighed inwardly. Usually at least one of Pud's heads could manage to keep its sense of humor, but right now all of them were like proton-storms. The Senior Scientist was on the verge of one of his totalitantrums.

"They must have sighted flashes from our experiments," Pud went on, "before you decided you could spare just *one* set of eyes for the Detector!"

Though both Vegans were invisible to other eyes, they remained visible to each other because their eyes were adjusted to the wavelength of their invisibility fields. By the same token, they could see all their invisible experiments—a vast litter of gadgets, gismos, gargantuan gimmicks, shining tools, huge and infinitesimal instruments, stacks of supplies, and various types of energy fields, the latter all frozen in mid-activity like smudges on a pane of glass. The sandy ground was the floor of the Vegans' laboratory; small hills and outcroppings of rock were their chairs and workbenches. Like a spaceship junkyard, or an enormous open-air machinery warehouse, the laboratory stretched away from the two Scientists in every direction to the planetoid's near horizon.

Pud intensified the general invisibility field to the last notch, and the invisible experiments became even more invisible.

The *thig*-field was a nameless-colored whorl of energy in the Senior Scientist's tentacles. In his concern for the other experiments, he had forgotten to deactivate it. It grew eagerly to the size of a back yard, then of a baseball diamond, then of a traffic oval, and one shimmering edge of it touched his body, which he had not insulated. Energy crackled. Pud jumped forty feet into the air, swearing, and slapped the field into non-existence between two tentacles.

His body, big as an apartment house, floated slowly downward in the laboratory-planet's light gravity.

The tiny alien spaceship touched the ground just as he did. The rocket flare flickered and died.

The ship sat on its fins, about thirty feet—Vegan feet—away. In its shining side, a few Vegan inches above the still smoking rocket tubes, was a small black hole.

"Master, look!" Gop thought. "Their ship is damaged . . . perhaps that's why they landed!" And he started to extend a tentative extra-sensory probe through the hole.

Pud lashed out with a probe of his own, knocking Gop's aside before it could enter the hole. "Nincompoop! . . . don't go esprobing until we know if they're sensitive to it or not! Can't you remember the regulations on Contact for just one *minute?*"

The tiny spaceship sat silently, while its occupants evidently studied the lay of the land. Small turrets halfway up its sides twitched

this way and that, pointing popgun armament.

Pud inspected the weapons extrasensorily, and thought an amused snort: the things tossed a simple hydrogen-helium pellet for a short distance.

Gop, nursing a walloping headache as a result of Pud's rough counterprobe, thought sourly to himself: "I try to save the *yim* . . . that's wrong. He forgets to deactivate the *thig* . . . that's all right. I esprobe . . . that's wrong. He esprobes . . . that's all right."

At last: "They're getting out," Gop observed.

A tiny airlock had opened in the side of the ship. A metal ladder poked out, swung down, settled against the ground.

The aliens—two of them—appeared; looked down, looked up, looked to the right and to the left. Then they came warily down the ladder.

For a few minutes the giant Vegans watched the creatures wander about. One of them approached one of Pud's tails. Irritatedly Pud lifted it out of the way. The little creature snooped on, unaware that twenty tons of invisible silicoid flesh hung over its head. Pud curled the tail close to him, and did likewise with all his other tails.

"You'd better do the same," he advised Gop, his thought-tone peevish.

Silently, Gop drew in his tails. One unwise move, he knew, and the Senior Scientist would start thinking in roars.

One of Gop's tails scraped slightly against a huge boulder. The scales made a tractor-on-gravel sound.

Pud thought in roars.

The tiny creature had stopped and was turning its helmeted head this way and that, as if trying to see where the sound had come from. It had drawn a weapon of some sort from a holster at its belt—another thermonuclear popgun.

The creature turned and came back toward the Vegans, heading for his ship. Pud lifted his tail again. The creature passed under it, reached the ship, joined its partner.

"I HEARD it too, Johnny," Helen Gorman said nervously. "A loud scraping noise—"

"It seemed to come from right behind me," Johnny Gorman said. "Damn near scared me off the planet . . . I thought it was a rockslide. Or the biggest critter in creation, sneaking up on me. I couldn't see anything, though . . . could you?"

"No."

Johnny stood there, blaster in hand, looking around, eyes sharp behind his faceplate. He saw nothing but flat, grayish-red ground, a scattering of stone outcroppings large and small; nothing but the star-clouded black of space above the near horizon, and the small sun of the system riding a low hillock like a beacon.

"Blue light," he said thoughtfully. "Green light. Red and purple lights. And a mess of crazy colors we never saw before. Whatever those flashes were, honey, they

looked artificial to me . . ."

Helen frowned. "We were pretty far off-world when we saw them, Johnny. Maybe they were aurorae —or reflections from mineral pockets. Or magnetic phenomena of some kind . . . that could be why the ship didn't handle right during landing—"

Johnny studied the upside-down dials on the protruding chest-board of his spacesuit.

"No neon in the atmosphere," he said. "Darned little argon, or any other inert gas. The only large mineral deposits within fifty miles are straight down. And this clod's about as magnetic as an onion." He gave the surrounding bleak terrain another narrow-eyed scrutiny. "I suppose it *could* have been some kind of aurora, though . . . it's gone now, and there isn't a sign of anything that could have produced such a rumpus." He looked around again, then sighed and finally holstered his blaster. "Guess I'm the worrying type, hon. Nothing alive around here."

"I wonder what that sound was."

"Probably a rock falling. This area's been undisturbed for God knows how many million years . . . the jolt of our landing just shook things up a little." He grinned, a little sheepishly. "As for the landing . . . I was so scared after that meteor hit us, it's a wonder I didn't nail the ship halfway into the planet, instead of just jolting us up."

Helen looked up at the three-foot hole in the side of the ship.

Johnny followed her gaze, and grunted. "We'd better get to work." He turned to the ladder that led up to the airlock. "I'll rig the compressor to charge the spare oxy-tanks . . . we'll have to delouse this air of ammonia, but otherwise it's fine. Look, honey, I won't need any help; why don't you get busy on a PC?"

Helen nodded, still staring up at the meteor-hole. "You know," she said slowly, "it wouldn't happen again this way in a million years, Johnny. Thank God, this clod was here . . . we ought to name it Life-saver."

"Yeah, sure," Johnny said ironically. "It'll save our lives. Only thing is, it got us into this mess in the first place!"

He started up the ladder, using only his arms, legs trailing.

Helen got down on hands and knees and began poking around for the two dozen or so samples needed for Standard Planetary Classification. Bits of rock, air, vegetable growth, dust—the dust was very important. All went into vac-containers at her belt.

Then suddenly she said, "O-o-o-*oof!*" and reared back on her knees and clapped both hands to her helmet. Her eyes squeezed shut behind her faceplate, then opened wide and frightened.

By the time her hands reached her helmet, Johnny had his blaster out and was floating toward the ground, looking around for something to shoot at. His boots touched, and two long light-gravity steps brought him to her side.

Pud had been leaning over the

tiny spaceship, one of his faces only feet above the little creatures.

Gop's thought came: "What are they?"

"Fanged if I know. Bipeds . . . never saw such little ones." Pud adjusted several eyes to a certain wavelength and studied the creatures through their spacesuits. He gave Gop a thought-nod: "Mammals. Bi-sexual. They're probably mates."

"It's a miracle they didn't land right in the middle of one of our experiments."

That brought back Pud's ill-temper. "Miracle! Didn't you see me give this cosmic kiddycar of theirs a couple of psychokineticlouts so they'd land where they did?" The Senior Scientist glared around at their thousand-and-one experiments, and then down at the little spaceship, smaller than the smallest of them, squatting on toy fins. He curled a tentacle, as if wishing he could swat it.

Gop knew, however, that despite Pud's irritation at having his work interrupted, he was just a little intrigued by the aliens. No matter how insignificant they were they were animate life of some intelligence, and Pud must be wondering about them.

Gop thought it might be a good idea to dwell on that, in order to keep Pud from getting his heads in an uproar again.

"Can you get into their thoughts?" he inquired.

"I haven't tried. I don't think I could keep my potential down to their level."

"Wonder where they're from."

"Who cares?" Pud snorted. "I just wish they'd go away."

Gop noted, though, that Pud's heads were lowering closer over the creatures.

"They're nowhere near acceptable Contact level, are they?" Gop said, after a moment.

"From their appearance, I'd say they're even beneath classification. Reaction motor in their ship. Primitive weapons. Protective garments . . . they can't even adjust physically to hostile environments!"

A minute passed.

Pud said, "Mm. Well. I think I *will* see what I can read . . . just to have something to talk about at the Scientists' Club."

He sent out a tentative probe . . . a little one . . . just enough to register in one of his brains the total conscious content of one of the little creature's minds. He was afraid to go deeper, after the subconscious, though actually that was far more important. But deep probing would probably be felt for what it was, while conscious probing was just a little painful.

The creature popped erect in its squatting position, and clapped its upper extremities to its head.

The other one, which had been scrambling up the ladder to the ship's airlock, drew its popgun and joined the first.

"They're from someplace called Earth," Pud said. "In the V-LM-12Xva Sector of this Galaxy, as nearly as I can make out. They're an Exploration Team, sent out by their planet to gather data on the nature of the physical universe." He paused to consult the third

memory bank of his fifth brain, where he had impressed the content of the creature's mind. "They've had space travel for about two hundred of their years. I translate that as about eleven of ours." He consulted again. "Highly materialistic. Externally focused. Very limited sensorium. An infant race, chasing everything that moves, round and round through their little three-dimensional universe. They've a long way to go."

"What are they doing here?"

"Hm." Pud consulted again. "A routine exploration flight brought them to this system . . . and an almost unbelievable coincidence has served to delay them here. They dropped their meteor-screens for just a moment—at just the wrong moment. A large meteor came along, entered the ship, and destroyed both their atmosphere-manufacturing equipment and the large pressure tank of atmosphere which they kept as reserve in case the equipment should fail." He paused. "Mixture of hydrogen and oxygen . . . they can't live without it. At any rate, the ship was evacuated, and they barely had time to get into the . . . mm, spacesuits, they call them . . . which they now wear. The accident left them with no atmosphere whatever, except the small amount in the tanks of those suits. That will be exhausted in a short time . . . I gather that if this planet hadn't been here, they'd have been goners. As it stands, they plan to charge their spare suit-tanks, which weren't harmed, with the air of this planet, and then return to their Earth, subsisting on the tanked air, by hyperspatial drive. . . ." Again Pud paused. "Hm. Well, now! I'd overlooked that. So they have hyperspatial drive, at least . . . and after only two hundred years of space travel! Hm. Perhaps they *are* worth a closer look . . ."

Pud lowered his heads over the two little aliens, who were moving warily, popguns drawn, away from the ship.

"Pud," Gop said nervously.

"What?"

"One of them is crawling toward the time-warp."

"Well, don't tell *me* about it . . . lift the warp out of the way!"

Gop extended a tentacle, first reconstituting it on the seventh atomic sublevel so he wouldn't get it blown off, and gently picked up the time-warp. It looked like a blue-violet frozen haze in his grasp. He set it down on the other side of the spaceship, anchoring it again to *now* so it wouldn't go flapping off along the time-continuum.

"So they *didn't* land because they saw flashes from our experiments," he said a little triumphantly.

One of Pud's heads turned and gave the Junior Scientist an acid look, while the others continued to observe the aliens.

"They lowered their meteor-screens," he said nastily, "thus bringing about this entire bother, because they wanted to get a better look at the flashes."

Gap was silent, but he thought acidly: "That's what you say—you won't let *me* esprobe, and when you do, you manage to prove it's all my fault."

JOHNNY GORMAN had just said to Helen, "I want to chip a few samples off that outcropping over there . . . come on, hon."

He started toward the ridge of gray-black rock. Helen followed on his heels.

"As-pir-in," she said, deliberately falsetto, and her helmet-valet fed her another pill with a sip of water.

"Then we'll go back and stick inside the ship until the tanks are charged," Johnny went on, a little grimly. "I think we're just edgy. Planets don't give people headaches . . . and there's nothing alive within a million miles of this dustball." He hefted his blaster, which he had adjusted to Wide-Field. "But just in case . . ."

"Pud," Gop said, still more nervously.

"Yes, I see, you idiot! Lift the *tharn*-field out of their way . . . I'll take care of the space-warp generator!"

The giant Vegans, for all their bulk, moved soundlessly and at great speed until they were between the aliens and the stone outcropping toward which they appeared to be heading. Gop extended a tentacle, curled it at an odd angle, and picked up the shimmering *tharn*-field,which was the Vegans' reservoir of Basic Universal Energy. Set in any energy matrix, *tharn* became that energy; added to any existing energy, *tharn* augmented it to any desired potential. Thus it was extremely valuable to their experiments . . . and very risky stuff to handle, as well.

Gingerly, Gop set the *tharn* down beyond the outcropping. At the same time he picked up several instruments that lay nearby—an electron-wrench, a *snurling*-iron, a *plotz*-meter, several pencil-rays. He placed them on the ground beside the *tharn*.

Pud had curled twelve tentacles around the space-warp generator—it was as big as a city block, and heavy, even in light gravity. He puffed a thought at Gop: "Give me a tentacle."

Gop helped his Master place the generator safely on the other side of the ridge.

Johnny Gorman banged off a handful of rock, and shoved it into the vac-container at his belt.

"Okay, hon," he said. "Let's go."

They stood one more moment atop the ridge, looking out over the barren, rusty-gray plain that the ridge had until now concealed from their gaze.

"Looks just as dead as the rest," Johnny observed. "I guess we were just jumpy over nothing." He turned to start down the slope. "Come on."

In three long light-gravity steps he had reached the bottom, and turned to steady Helen.

She wasn't there.

She had tripped and tumbled off the other side of the ridge. He could hear her screaming.

"Putrefied proteins!" Pud roared. "Help me get it out of the *tharn!*"

The two Vegans leaned over the ridge. While Gop forced the writhing folds of the *tharn*-field apart with two reconstituted tentacles,

Pud reached in, plucked the little alien out and set it upright.

It immediately scrabbled up the side of the ridge as fast as it could and joined its mate, which had bounded up the other side.

"Now look at what you've done!" Pud raged. "What about the rules on Contact! The Examiners will get this out of us when we report on our Projects . . . mountains of bites, we've *revealed* ourselves!"

"Not really, Master," Gop said, rushing his thoughts. "All the creature will know is that it tumbled into the field, and then was somehow ejected by it . . . a trick of gravity, perhaps . . . a magnetic vortex . . . it won't know what really happened—"

"That—field—was—supposed—to—be—turned—*off,*" Pud said, every one of his faces green with rage.

"I—"

"You are a stupid, clumsy, fewheaded piece of provender!"

Gop flushed clear down to his tails. "I'm sorry," he said. "I can't think of everything at once! I must have accidentally activated the *tharn* when I moved it. I'm *sorry!*"

Pud clapped a tentacle to his prime forehead. "What next!" he moaned.

"Oh, Johnny, Johnny," Helen sobbed. "I tripped when I started to turn around, and fell down the other side, and all of a sudden . . . it was horrible . . . I thought I was going *crazy—*"

Johnny Gorman had his arms tight around her. Behind her back, his blaster was pointed straight down the far slope of the ridge, ready to atomize anything that moved.

"What, honey?" he said. "What happened? I didn't see anything near you . . . what happened?"

"It was like I was in a hurricane . . . I couldn't see anything, but something seemed to be whirling around me, something as big as the universe . . . and it seemed to be whirling *inside* me too! I felt—it felt like . . . Johnny, I was *crossed!*"

"Crossed?" He shook her gently. "What do you mean, you were crossed?"

"It felt like my right side was my left side, and my heart was beating backwards, and my eyes were looking at each other, and I was just twisted all downside up outside and inside out upside, and . . . Johnny," she wailed, "I *am* going crazy!"

"Oh, no, you're not," he said grimly. "You're going back to the ship! I don't know what gives with this creepy clod, but I know we're not moving an inch outside the ship until we blast off! *Come on!*"

"They're crawling back toward their ship, Pud . . . *look out,* they're heading for the dimensional-warp!"

Pud extended a tentacle ninety feet and slapped the dimensional-warp out of the path of the scurrying creatures.

The warp bounced silently on the rocky ground, caromed like a fireball from boulder to boulder, encountered stray radiation from the *tharn*-field that still glowed invisibly on the other side of the ridge, and became activated; it emitted concentric spheres of nameless-colored

energy, and a vast snapping and crackling.

"There," Gop thought triumphantly at Pud. "That's just what *I* did with the *tharn*-field . . . I guess nobody is above accidents, eh?"

Pud thought pure vitamins at his Junior Scientist. "You idiot, I didn't accidentally turn on the warp! You left the *tharn* on, and *it* triggered the warp! *Why didn't you deactivate the* tharn?"

"Why didn't *you?"* Gop shot back. "You were there too!"

Pud lashed a tentacle over the outcropping, and the *tharn*-field became inactive. Then he looked around, and every eye in his prime head popped. "Look out, the dimensional-warp is spreading . . . it's lost its cohesion . . . oh, digestion, they're in *that* now!"

Johnny and Helen Gorman were in a universe of blazing stars and nebulae that whirled like cosmic carousels; of gas clouds that seethed in giant turbulence . . . it was the universe of creation, or a universe in its death-throes . . .

"Johnny . . ."

"Helen . . ."

The boiling universe exploded away from them in soundless radiation, in all directions . . . in *five* directions, their subconscious minds told them . . . it vanished into nothingness, a nothingness that surrounded them like white blindness, and then suddenly it was restored again, roiling, churning, flashing with the bright eyes of novae, shot with the sinuous streamers of rushing gas clouds, pulsing with the heartbeats of winking variables . . .

And suddenly they were tumbling head over heels along the rocky ground of the little planetoid again.

"Johnny . . ."

"Helen . . ."

"At least we got them out of *that,"* Pud puffed. "The sub-temporal field, Gop . . . help me lift it . . . hurry!"

"Master, *all* our experiments are activated! The *tharn* radiated enough to activate *everything!"*

"Help me lift the sub-temporal field!"

"Master, it's too late . . . they're *in* it!"

A million miles above their heads was the vast sweep of All Time, like a rushing, glassy, upside-down river . . . they tumbled through a chaos where Time, twice in each beat of their hearts, bounced back and forth between creation and entropy, and took them with it . . . Time was a torrent beneath whose surface they were yanked back and forth from Beyond the End to Before the Beginning like guppies on a deepsea line; a torrent whose banks were dark eternity, and whose waters were the slippery substance of years. . . .

"Johnny . . ."

"Helen . . ."

Pud deactivated the sub-temporal field with a lash of a tentacle, and the two little aliens rolled from it like dice from a cup, gasping and wailing. Immediately they started running again toward their ship, dodging between the faint flickers of red, blue, green, scarlet and nameless-colored light that marked the location of those experiments

which, now activated and releasing their fantastic energies, defied even the invisibility fields that still surrounded them.

The aliens brushed against another experimental field, and it twisted itself in one millionth of a second into a fifth-dimensional topological monstrosity that would take weeks to untangle—if it didn't explode first, for it bulged dangerously at the seams.

Pud hastily back-tentacled the field into an interdimensional-vortex, where, if it did explode, it would disrupt an uninhabited universe so far down on the scale of subspaces that nobody would get hurt.

Then the Senior Scientist gathered ten tons of machinery in a tentacle and hoisted it while the creatures ran beneath. Gop was psychokineticarrying five energy-fields toward the sidelines, with another dozen or so wrapped in his tentacles. Pud silently dumped his load of machinery and reached for something else in the creatures' path.

But the creatures scurried erratically, stopping, dashing off in this direction, skidding to a halt as they saw something else to terrify them, and then dashing off in *that* direction just as the Vegans had dealt with an obstacle to their progress in *this* direction.

"Pud! . . . one of them fell through the intraspatial-doorway to the other side of the planet!"

"Well, for the love of swallowing, reach through and *get* it! If those beasts see it, they'll tear it to pieces!"

HELEN GORMAN faced something that was a cross between a tomcat and an eggplant on stilts. It looked hungry. It bounded toward her in forty foot lopes.

"Johnny . . . *Johnny, where are you . . .*"

Helen fainted.

Several other garage-sized beasts converged on her, all looking as hungry as the first. In reality, they weren't hungry—their food consisted of stone, primarily, while they also drew sustenance from cosmic radiation. But they liked to tear things to pieces. They were native to the planetoid; the Vegan Scientists had gathered them up and shoved them through the intraspatial-doorway to this side of the planet, where they wouldn't be underfoot all the time. It was a one-way doorway, through which Pud or Gop would occasionally reach to pluck one of the beasts back for use in experimentation.

Now, just as the beasts reached Helen Gorman, one of Gop's tentacles came through the doorway, followed by one of his smaller heads. The Junior Scientist picked up Helen, and hastily extruded another tentacle from the first to bat aside one of the beasts that leaped after her.

The part of the tentacle bearing Helen Gorman swished back through the doorway. The head and the rest of the tentacle followed.

The beasts commenced fighting among themselves, which was what they did most of the time anyway.

Gop, however, in his haste, had forgotten to repolarize the mole-

cules of his body while retreating through the doorway . . . and the moment he cleared the doorway on the other side of the planet, the doorway reversed—still one-way, but now the *other* way.

And eventually one of the beasts, attracted by all the flickering and flashing and frantic scrabbling visible through the doorway, abandoned the fun of the fight and leaped, like a ten-ton gopher, through the opening.

The others followed, naturally. They always chased and tore apart the first one to cut and run.

Gop had just set Helen Gorman on the ground, and Johnny Gorman, seeing her apparently materialize from thin air and float downward, had just started to stagger toward her, when the ten-ton gopher began to vivisect one of Pud's tails. The animal hadn't seen the tail, of course—it was invisible. But it had stumbled over it, and been intrigued.

Pud leaped ninety feet into the air, roaring. Roaring out loud, not thought-roaring. And roaring with a dozen gigantic throats. The sound thundered and rolled and crashed and echoed from the low hills around.

The beast fell off Pud's tail, bounced, looked around, and made for Johnny Gorman as the only visible moving object.

Johnny's eyes were still bugging from the gargantuan roar he had just heard. He saw the beast and dodged frantically, just as Gop's invisible tentacle shot out to bowl the beast over.

In dodging, Johnny tumbled into another energy-field.

. . . He stood on his own face, saw before his eyes the hairy mole on the back of his neck, and threw a gray-and-red insideout hand before his eyes in complete terror. Then Pud nudged him gently out of the field, and before Johnny's eyes, in an instantaneous and unfathomable convolution, the hand became normal again.

About that time the rest of the beasts emerged from the intra-spatial-doorway. While some of them continued the fight that had begun on the other side of the planet, others started for Johnny Gorman and for Helen, who was now sitting up weakly and shaking her head.

A beast resembling a steam-shovel on spider's legs rammed full-tilt into a force-field. The field bounced fifty feet and merged with another field in silent but cataclysmic embrace, producing a sub-field which converted one tenth of one percent of all water within a hundred foot radius to alcohol.

The effect on Johnny and Helen was instantaneous . . . they became drunk as hoot-owls. Their eyes bleared and refused to focus. Their jaws sagged. Johnny stumbled, and sat down hard. He and Helen stared dolefully at each other through their faceplates.

Pud gave up every last hope of avoiding Contact.

He picked up Johnny with one tentacle and Helen with another and set them down on top of their spaceship, where there was just

enough reasonably flat surface on the ship's snub nose to hold them.

The beasts were chasing one another around and around through the wreckage of the laboratory. They romped and trampled over delicate machines, sent heavier equipment spinning to smash against boulders; they ran head-on into sizzling energy-fields and, head-off, kept running.

Pud grabbed up an armful of beasts, raced to the doorway, reversed it and poured them through. He grabbed up more beasts, threw them after. Gop was busily engaged in the same task. Some of the beasts began fighting among themselves even as the Vegans held them—Gop jumped as one tore six cubic yards of flesh from a tentacle. He healed the tentacle immediately, then hardened it and all his other tentacles to the consistency of pig iron. He held back that particular beast from the lot. When the others had been tossed through, he hauled back his tentacle, wound up, and pegged the offending beast with all his might. It streaked through the doorway like a projectile, legs and eyestalks rigid.

Pud plucked a machine from the two-foot claws of the very last beast, and tossed the beast through. Then he examined the machine—it was beyond repair. He slammed that through the doorway too.

In ten seconds, the two Vegan Scientists had slapped and mauled all their rioting experiments into inaction.

Silence descended over the battleground. Silence, more nerve-shattering than the noise had been.

PUD LOOKED around at the remains of the laboratory, every face forest-green with rage.

Machines lay broken, tilted, flickering, whining, wheezing, like the bodies of the wounded. Delicate instruments were smashed to bits. The involuted field that Pud had flung through the vortex had evidently burst, as he had feared—for the vortex had vanished. So, probably, had the universe the field had burst in. The two fields that had interlocked were ruined, each having contaminated the other beyond use. Other energy-fields, having absorbed an excess of energy from the *tharn,* were bloated monstrosities or burned-out husks.

It would take weeks to get the place straightened up . . . even longer to replace the smashed equipment and restore the ruined fields.

Many experiments in which time had been a factor would take months—and in some cases years—to duplicate.

All that was bad enough.

But worst of all . . . the little aliens had been Contacted.

Like it or not, the aliens knew that something was very much up on this planetoid.

Like it or not, they'd report that, and more of their kind would come scurrying back to investigate.

Pud groaned, and studied the little creatures, who sat huddled together on the nose of the ship.

"Well," he thought sourly to Gop, "here we are."

"I—yes, Master."

"Do you think that from now on you'll watch the Detector?"

"Oh, yes, Master—I will."

"And do you think it matters a Chew now if you do or not? Now that we've *revealed* ourselves?"

"I—I—"

"We have a choice," Pud said acidly. "We can destroy these little aliens, so they can't report what they've seen. That's out, of course. Or we can move our laboratory to another system . . . a formidable job, and Food knows whether we'd ever find another planet so suited to our needs. And even if we *did* do that, and they found nothing when they returned here, they'd still know we were around somewhere."

"They wouldn't know that *we're* around, Master."

"They'd know *something* is around . . . don't mince words with me, you idiot. You know that they've seen enough to draw the very conclusions we don't want them to draw. You know how vital it is that no race under Contact-level status know of the existence of other intelligent races . . . particularly races far in advance of it. Such knowledge can alter the entire course of their development."

"Yes, Master."

"So what are we to do, eh? Here we are. And there—" Pud motioned with a tentacle at the little aliens—"they are. As you can see, we must reveal ourselves to still a greater extent . . . they can't even get into their ship to leave the planet without our help!"

Gop was silent.

"Also—" Pud sent a brief extra-sensory probe at the aliens, and both of them clutched at their helmeted heads—"their problem of air supply is critical. There is very little left in their suit-tanks, and the time required for their machines to refine air from this planet's atmosphere has been wasted in—in—the *entertainment* so recently concluded. At this moment they are resigned to death. Naturally, we must help them." He paused. "Well, my brilliant, capable, young Junior Nincompoop? Any ideas on how we can help them, and still keep our Scientists' status when the Examiners get the story of this mess out of us?"

"Yes, Master."

"I thought not." Pud continued his frowning scrutiny of the aliens for a moment. Then he looked up, his faces blank. "Eh? You do?"

"Yes, Master."

"Well, great gobs of gulosity, *what?*"

"Master, do you recall the time experiment that you wanted to try a few years ago? Do you recall that the idea appealed to you very much, but that you wanted an intelligent subject for it, so we could determine results by observing rational reactions?"

"I recall it, all right. My brave young Junior Scientist declined to be the subject . . . though Food knows you're hardly intelligent enough to qualify anyway. Yes, I remember . . . but what's that got to do with—"

Pud paused. The jaws of his secondary heads, which were more given to emotion, dropped. Then slowly his faces brightened, and his many eyes began to glow.

"Ah," he thought softly.

"You see, Master?"

"I do indeed."

"If it works, we'll have no more problem. The Examiners will be pleased at our ingenuity. The aliens will no longer—"

"I see, I *see* . . . all right, let's try it!"

Pud reached down and picked one of the aliens off the nose of the ship. It slumped in his grasp immediately. The other alien began firing its popgun frantically at the seemingly empty air through which its mate mysteriously rose.

The thermonuclear bolts tickled Pud's hide. He sighed and relaxed his personal invisibility field and became visible. That didn't matter now.

The alien stared upward. Its face whitened. It dropped its popgun and fell over backward, slid gently off the ship's nose and started a slow light-gravity fall toward the ground.

Pud caught it, and said, "I thought that might happen. Evidently they lose consciousness rather easily at unaccustomed sights. A provincial trait."

He slid the aliens gently into the airlock of their ship.

The Vegans waited for the aliens to regain consciousness.

Eventually one did. Immediately, it dragged the other back from the lock, into the body of the ship. A moment later the lock closed.

"Now hold the ship," Pud told Gop, "while I form the field."

Flame flickered from the ship's lower end. It rose a few inches off the ground. Gop placed a tentacle on its nose and forced it down again. He waited, while the ship throbbed and wobbled beneath the tentacle.

Now, for the first time, Gop himself esprobed the aliens. He sent a gentle probe into one of their minds —and blinked at the turmoil of terror and helplessness he found there.

Faced with death at the hands of "giant monsters," the aliens preferred to take off and "die cleanly" in space from asphyxiation, or even by a mutual self-destruction pact that would provide less discomfort.

Gop withdrew his probe, wondering that any intelligent creature could become sufficiently panicky to overlook the fact that if the "monsters" had wanted to kill them, they would be a dozen times dead already.

Pud had shaped a time-field of the type necessary to do the job. It was a pale-green haze in his tentacles.

He released the field and, under his direction, it leaped to surround the spaceship, clinging to it like a soft cloak. As the Vegans watched, it seemed to melt into the metal and become a part of it—the whole ship glowed a soft, luminescent green.

"Let it go," Pud said.

Gop removed his tentacle.

The ship rose on its flicker of flame—rose past the Vegans' enormous legs and tails, past their gigantic be-tentacled bodies, past their many necks and faces, rose over their heads.

Gop sneezed as the flame brushed a face.

And Pud began shaping a psychokinetic bolt in his prime brain. For this purpose he marshaled the resources of all his other brains as

well, and every head except his prime one assumed an idiot stare.

He said, "Now!" and loosed the bolt as a tight-beam, aimed at the ship and invested with ninety-two separate and carefully calculated phase-motions.

The ship froze, fifty miles over their heads. The flicker from its rocket tubes became a steady, motionless glow.

Pud said, "Now," again, and altered a number of the phase-motions once, twice, three times, in an intricate pattern.

The ship vanished.

As one, the many heads of the Vegan Scientists turned to stare at the point in the sky where they had first sighted the ship.

There it was, coasting past the laboratory-planet, tubes lifeless; coasting on the velocity that had brought it from the last star it had visited.

There it was, just as it had been before the tiny aliens had sighted the flickerings that had caused them to relax their meteor-screens.

There it was, sent back in time to before all the day's frantic happenings had happened.

Pud and Gop esprobed the distant aliens . . . and then looked at each other in complete satisfaction.

"Fine!" Pud said. "They don't remember a thing . . . not a single alimentary thing!" He looked around them, at the shambles of the laboratory. "It's a pity the experiment couldn't repair all this as well . . . is everything turned off?"

"Everything, Master."

"No experiments operating, you nincompoop? No flashes?"

"None, Master."

"Then they should have no reason to land, you idiot.

"You know," Pud said, "in a way it was rather a fortunate thing that they landed. It enabled me to perform a very interesting experiment. We have demonstrated that a creature returned through time along the third *flud*-subcontinuum will not retain memory of the process, or of what transpired between a particular point in time and one's circular return to it. I'm glad you stimulated me to think of it. Best idea I ever had."

Pud turned his attention to the ruins of the laboratory. He moved off, half his heads agonizing over the destruction caused by today's encounter, the other half glowing at its satisfactory conclusion.

Gop sighed, and esprobed the little aliens for the last time . . . a final check, to make certain that they remembered nothing.

"Johnny, how about that little planet down there . . . to the left?"

"Let's drop the meteor-screens for a better look."

Hastily, Gop reached out and tapped the meteor aside.

"Heck, that planet looks like a dud, all right . . . but it's two days to the next one . . . and I've got a terrific headache!"

"Funny . . . I've got one too."

"Well, what say we land and stretch our—"

By that time Gop had hastily withdrawn his headache-causing probe. He stared anxiously upward.

After a moment, he said, "They're landing, Master." • • •

The execution violated the basic laws of Tharnar. But the danger was too great—The Terrans couldn't be permitted to live under any circumstances . . .

THE BARBARIANS

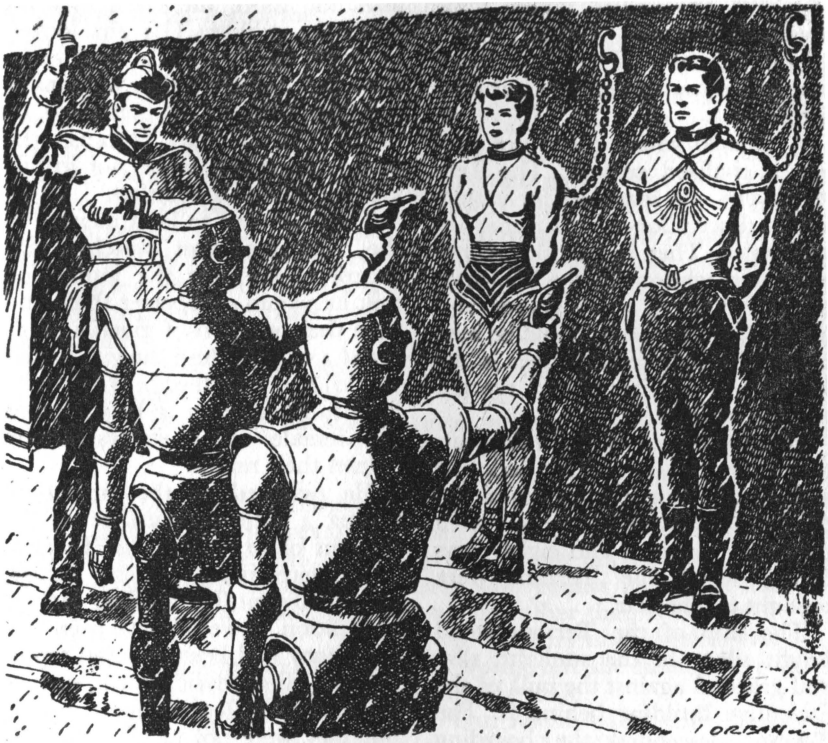
BY TOM GODWIN

TAL-KARANTH, Supreme Executive of Tharnar, signed the paper and dropped it in to the outgoing slot of the message dispatch tube. It was an act that would terminate one hundred and eighty days of studying the tapes and records on the Terran ship and would set the final hearing of the Terran man and woman for that day.

And, since the Terrans were guilty, their execution would take place before the sun rose again on Tharnar.

He went to the wide windows which had automatically opened with the coming of the day's warmth and looked out across the City. The City had a name, to be found in the books and tapes of history, but for fifty thousand years it had been known as the City. It was the city of all cities, the center and soul of Tharnarian civilization. It was a city of architectural beauty, of flowered gardens and landscaped parks, a city of five hundred centuries of learning, a city of eternal peace.

The gentle summer breeze brought the sweet scent of the flowering *lana* trees through the window



Illustrated by Paul Orban

and the familiar sound of the City as it went about its day's routine; a sound soft and unhurried, like a slow whisper. Peace for fifty thousand years; peace and the unhurried quiet. It would always be so for the City. The Supreme Executives of the past had been chosen for their ability to insure the safety of the City and so had he.

He turned away from the window and back to his desk, to brush his hand across the gleaming metal top of it. No faintest scratch marred the eternalloy surface, although the desk had been there for more than thirty thousand years. It was permanent and never-changing, like the robot-operated fleet that guarded Tharnar, like the white and massive Executive Building, like the way of life on Tharnar.

The Terrans would have to die, lest the peace and the way of life on Tharnar be destroyed. They were of a young race; a race so young that his desk had already been in place for fifteen thousand years when they began emerging from their caves. They were a dangerously immature race; it had been only three hundred years since their last

war with themselves. Three hundred years—three normal Tharanian lifetimes. And the Tharanians had not know war for six hundred lifetimes.

A race so young could not possess a civilized culture. The Terrans were—he searched for a suitable description—barbarians in spaceships. They lacked the refinement and wisdom of the Tharnarians; they were a dangerous and unpredictable race. It could be seen in their history; could be seen in the way the two Terrans had reacted to their capture.

He pressed one of the many buttons along the edge of his desk and a three-dimensional projection appeared; the scene that had taken place one hundred and eighty days before when the Terrans were brought to Tharnar.

The ship of the Terrans stood bright silver in the sunlight, slim and graceful against the bulk of the Executive Building behind it. The Terrans descended the boarding ramp, the left wrist of the man chained to the right wrist of the girl. Two armed robots walked behind them, their faces metallically impassive, and four armed Tharnarian guards waited at the bottom of the ramp to help take the Terrans to their place of imprisonment.

The Terrans approached the guards with a watchfulness that reminded him of the old films of the coast wolves that had once lived on Vendal. They did not walk with the studied, practiced, leisure of the Tharnarians but as though they held some unknown vitality barely in check. The face of the man was lean and hard, the black eyes inscrutable as flint. The girl looked at the guards with a bold nonchalance, as though they were really not formidable at all. Somehow, by contrast with the Terrans, the guards appeared to be not grimly vigilant but only colorless.

There seemed to be a menace in the way the man watched the guards; there was the impression that he would overpower them and sieze their weapons if given a shadow of a chance. And the girl—what would she do, then? Would she flash in beside him to help him, as the female coast wolves always helped their mates?

He switched off the projection, feeling a little repugnance at the thought of executing the Terrans. They were living, sentient beings, and intelligent, for all their lack of civilization. It would have been better if they had been of some repulsive and alien physical form, such as bloated, many-legged giant insects. But they were not at all repulsive; they were exactly like the Thanarians.

Exactly?

He shook his head. Not exactly. The similarity was only to the eye—and not even to the eye when one looked closely, as he had looked at the images. There was a potential violence about them, lurking close beneath their deceptively Tharnarian physical appearance. The Terrans were not like the Tharnarians. There was a difference of fifty thousand years between them; the difference between savage barbarianism and a great and peaceful civilization.

He looked again across the City, listening to its softly murmuring voice. In hundreds of centuries the City had known no strife or violence. But what if the barbarians should come, not two of them, but thousands? What would they do?

He was sure he knew what they would do to the gentle, peaceful City and the faint twinge of remorse at the thought of executing the Terran man and girl paled into insignificance.

Under no circumstance could they be permitted to live and tell the others of Tharnar and the City.

BOB RANDALL shifted his position a little in the wide seat and the chain that linked his wrist with Virginia's rattled metallically; sounding unduly loud in the quiet of the room.

Virginia's black hair brushed his cheek as she turned her face up to him, to ask in a whisper so low it could not be heard by the four guards who stood beside and behind them:

"It's almost over, isn't it?"

He nodded and she turned her attention back to the five judges seated at the row of five desks before them. The gray-haired one at the center desk, Bob knew, was the one in charge of the proceedings and his name was Vor-Dergal. He had gained the knowledge by watching and listening and it was the only information he had acquired. He did not know the names of the other four judges, nor even for sure that they were judges and that it was a trial. There had been no introductions by the Tharnarians, no volunteering of information.

Vor-Dergal spoke to them:

"In brief, the facts are these: You claim that your mission was of a scientific nature, that the two of you were sent from Earth to try to reach the center of the galaxy where you hoped to find data concerning the creation of the galaxy. Your ship carried only the two of you and is one of several such ships sent out on such missions. Since the voyages of these small exploration ships were expected to require an indefinite number of years and since the occupants would have to endure each other's company for those years, your government thought it more feasable to let the crew of each ship consist of a man and a woman, rather than two men."

He saw Virginia's cheek quiver at the words, but she managed to restrain the smile.

"Our system was reached in your journey," Vor-Dergal continued, "and you swung aside to investigate our sister planet, Vendal. You were met by a guard ship before reaching Vendal and it fired upon you. Instead of turning back, you destroyed it with a tight-beam adaptation of your meteor disintegrator."

Vor-Dergal waited questioningly and Bob said:

"Our instruments showed us that the guard ship was robot-operated. They could discern nothing organic in the ship, nothing alive. The same instruments showed us that this planet, Vendal, possessed operating mines and factories and no organic life other than small animals. We

knew that machines neither voluntarily build factories nor reproduce other machines, yet the mines and factories were operating. We thought it might be a world where the inhabitants had all died for some reason and the robots were still following the production orders given them when the race lived."

"And so you wilfully destroyed the guard ship that would have turned you back?"

"We did. It was a machine, operated by machines. And so far as we knew, it was protecting a race that had died a thousand years before. It was all a mystery and we wanted to find the answer to it."

Vor-Dergal and the others accepted the explanation without change of expression. Vor-Dergal resumed:

"Three more guard ships appeared when you were near Vendal. In the battle that followed, you severely damaged one of them. And when your ship was finally caught in the guard cruiser's tractor beams, you resisted the robots. When they boarded your ship, you destroyed several of them and were subdued only when the compartments of your ship were flooded with a disabling gas."

"That's true," Bob said.

"In summary: You deliberately invaded Tharnarian territory, deliberately damaged and destroyed Tharnarian ships, and would have landed on Vendal had the guard ships not prevented it.

"Your guilt is both evident and admitted. Are there any extenuating circumstances that have not been presented at this hearing?"

"No," Bob said.

None had been presented all day for the good reason that there was not a single factor of the circumstances that the Tharnarians would consider extenuating.

"Your guilt was evident from the beginning," Vor-Dergal said. "We have spent the past one hundred and eighty days in studying the books and tapes in your ship. What we learned of your history and your form of civilization leaves us no alternative in the sentence we must pass upon you."

The chain clinked faintly as Virginia lifted her hand to lay it on his arm and she gave him a quick glance that said, *"Here it comes!"*

Vor-Dergal pronounced sentence upon them:

"Tomorrow morning, at thirty-three twelve time, you will both be put to death by a robot firing squad."

Virginia's breath stopped for a moment and her hand gripped his arm with sudden pressure but she gave no other indication of emotion and her eyes did not waver from Vor-Dergal's face.

Vor-Dergal looked past her to the guards. "Return them to their cell."

The guards produced another chain, to link their free arms together behind their backs, and they were marched across the room and out the door.

Outside, the sun was setting, already invisible behind a low-lying cloud. Bob calculated the designated time of their execution in relation to the Terran time as given by his watch and found that thirty-

three twelve would be about halfway between daylight and sunrise.

Tal-Karanth stood by the open windows and watched the guards return the Terrans to their cell. Extra guards, both robot and Tharnarian, had been posted inside and outside the prison building for the night to prevent any possibility of an escape. Other robots stood guard around the Terran ship, although it was inconceivable that the Terrans could ever overpower the prison guards and reach their ship.

But it had been inconceivable that a ship as small as the Terran ship could ever destroy a Tharnarian guard cruiser. The tight-beam adaptation circuit of the meteor disintegrators was very ingenious.

Why had the Tharnarian cruisers not had the same weapon? They possessed the same general type of meteor disintegrators; the same adaptation circuit would transform a Tharnarian cruiser's meteor disintegrators into terrible weapons. Why had no one ever thought of doing such a thing? Why had it been taken for granted for fifty thousand years that the cruiser's blasters were the ultimate in weapons?

What other weapons did the Terrans on Earth possess? How invincible would their cruisers be if a small exploration ship could destroy a Tharnarian cruiser?

The captive Terrans could not be permitted to return to Earth and tell the others of Tharnar. Neither could they be permitted to live out their lives in prison on Tharnar. Someday, somehow, they might escape and return to Earth, or send a message to Earth. The robot fleet of Tharnar could never withstand an attack by a Terran fleet; the fate of Tharnar and the quiet and gentle City would be written in blood and dust and ashes.

There was the sound of rubber-padded metal feet in the distance and he saw six more robots marching out to add their numbers to the robots already guarding the Terran ship. The ship, itself, was not far from the Executive Building; close enough that his eyes, still sharp despite his seventy years, could make out the name on it: *The Cat.*

The Cat. And a cat was—he recalled the definition to be found among the Terran books—*any of various species of carnivorous and predatory animals, noted for their stealth and quickness, and their ferocity when angered.*

THE ROBOT shoved the plastic food tray under the cell door and went back down the corridor. Virginia turned away from the single window, where *The Cat* could be seen as a silhouette merging into the darkness.

"Last supper, Bob," she said. "Let's eat, drink, and be merry."

He went to the door to get the tray and noticed the three robots and two Tharnarian guards down the left hand stretch of corridor and the same number down the right. Virginia came up beside and said, "They're not taking any chances we won't be here in the morning, are they?"

"No," he said, picking up the

tray. "None to speak of."

He carried the tray to the little table in the center of the room and Virginia seated herself across from him as she had done each meal for the past six months. But she toyed with the plastic spoon and did not begin to eat at once.

"I wonder why they made it a firing squad?" she asked. "You'd think they would have used something ultra-civilized and refined, such as some painless and flower-scented gas."

"Spies were executed with firing squads during the last Terran war, three hundred years ago," he said. He smiled thinly. "I suppose they consider us spies and want us to feel at home in the morning."

"I'm glad they do. I don't want it to be shut up in a room—I would rather be out under the open sky." She poked at the rim of her tray again. "They never did tell us why, Bob. They didn't tell us anything, only that they had no alternative. We didn't hurt any Tharnarians; we only destroyed one of their ships and some of their robots."

"We upset their sense of security and showed them they're not secure at all. I suppose they're afraid of an attack from Earth."

"They didn't tell us anything," she said again. "They act as though we were animals."

"No," he said, "they don't seem to have a very high opinion of our low position on the social evolution scale."

He began to eat in the manner of one who knows the body needs nourishment to take advantage of any opportunity for escape, even though the mind may be darkly certain that no such opportunity shall arise.

"You ought to eat a little, Ginny," he said.

She tried, and gave up after a few bites.

"I guess I'm just not hungry—not now," she said. She glanced at the darkened window where *The Cat* had become invisible. "How long until daylight again, Bob?"

He looked at his watch. "Seven hours."

"Seven hours?" A touch of wistfulness came into her voice. "I never noticed, before, how short the nights are."

The robot laid the material Tal-Karanth had requested on his desk, the records and tapes from the Terran ship, and withdrew. Tal-Karanth sighed wearily as he inserted the first tape in the projector, wondering again why he felt the vague dissatisfaction and wondering why he hoped to find an answer among the material from the Terran ship. It would be an all night task—and he could hardly expect to find more than he already knew. Tharnar was not safe and secure from discovery by Terrans in the years to come and faith in the robot fleet had been an illusion.

Before setting the projector in operation he put through a call to his daughter.

Thralna's image appeared before him, reclining on a couch while two robots worked at caring for her finger nails. She raised up a little as his image appeared before her and the robots stepped back.

"Yes, Father?" she asked.

She waited for him to speak, her wide gray eyes on his image and her jet-black curls framing her young and delicately beautiful face. For a moment she reminded him of someone; someone more mature and stronger—

With something of a shock he realized it was the Terran girl his daughter reminded him of; that the Terran girl seemed the more mature of the two although Tharlna was twenty-eight and the Terran girl was twenty-one. They had the same gray eyes and black curls, the same curve to the jaw, the same chin and full lips . . .

But the similarity was only incidental. There was a grace and a gentleness to Thralna's beauty; a grace and gentleness that was the result of fifty thousand years of civilization. Beneath the superficial beauty of the barbarian girl lay only an animal-like vitality and potential violence . . .

"Yes, Father?" Tharlna asked again in her carefully modulated voice.

"Are you going to the theatre tonight, Thralna?"

"Yes. Tonight's play was written by D'ret-Thon and it's supposed to be almost as good as one of the classics. Why do you ask, Father?"

"I called to tell you that I have to work late tonight. I may not be home until morning."

"Couldn't you let a robot do it?"

"No. I have to do it, myself."

"Does it have to do with those two aliens?"

"Yes."

A little frown of worry appeared and as quickly disappeared. Her slim fingers touched her forehead for a moment, to smooth away any vestige of a wrinkle, then she said, "It will be such a relief when they're finally disposed of. Whenever I think of how they might escape and get into the City, it frightens me. Are you sure they can't escape, Father?"

"There is no possibility of their escaping," he said. "You go ahead with your plans for the evening. Will you come home when the show is over?"

"Not for a while. Kin is taking me dancing, afterward."

"Where you went last time—the place where they were reviving the old dances?"

"No. Nobody goes there anymore. Those old dances were rather fun but they were so—so tiring. Our modern dances are much slower and more graceful, you know."

"All right, Thralna," he said in dismissal. "Enjoy yourself."

"Yes, Father."

She was reclining on the couch again, her eyes closed, when he switched off the image. He sat for a little while before turning on the tape projector, recalling his conversation with her and a feeling growing within him that he was almost on the verge of discovering still another menace to Tharnar.

Virginia held her hands to her face to shade her eyes as she looked out the window. "What you can see of the city from here is all bright with lights," she said, "but there's no one on the streets. Only some robots. Everyone in the city must

be in bed."

"That's the way it's been every night," he said. "Early to bed and late to rise—they're an odd race. I've wondered what they do to pass away the time. But what they're doing now is something you should be doing—resting."

She turned away from the window. "I'm not sleepy. I keep thinking of *The Cat* out there waiting for us and how we might get to it if we could only get hold of a blaster."

"Which we can't try to do until they come for us in the morning. Some rest now might mean a lot then."

"All right, Bob." She went to him and sat beside him on his cot. "What is it now—how much more time?"

"About three hours."

She leaned her head against him and he put his arm around her. "I guess I am a little tired," she said. "But don't let me go to sleep."

"All right, Ginny."

"It's only three hours and never any more, if we aren't lucky in the morning. And if we aren't lucky, I don't want to have wasted our last three hours."

TAL-KARANTH stood before the window again and watched the City as it slept in the pre-dawn darkness. How many slept in the City? Once there had been three million in the City but each census found the population to be less. Five years before there had been less than a million—two-thirds of the City was a beautiful shell that housed only the robots that cared for it.

What was wrong? And why had it never occurred to him before that there was something wrong?

He went back to his desk, where the material from the Terran ship littered the eternalloy top of it, and sat down again. He was tired, and frustrated. A menace faced Tharnar, and no one seemed to realize it. The coming of the barbarians had awakened him to the fallacy of trusting the robot fleet, but there was still another danger. And the robot fleet would be more helpless before the newly discovered danger than it would be before the Terran ships.

He pressed a button and music filled the room; music that had always before been soothing and restful to hear. But it sounded flat and meaningless compared with the throbbing barbarian music he had heard that night and he switched it off again.

What was wrong? It was one of the latest compositions; one that had been acclaimed as almost as good as one of the classics.

Almost as good. . . . Like the play Thralna had attended, like the art exhibits, the athletic records, the scientific discoveries, like everything in the City and on Tharnar. Almost as good—but never quite as good as they had been fifty thousand years before.

Was that part of the answer?

No—not part of the answer. Part of the problem, part of the danger greater than a barbarian invasion. There was no answer that he could see. Something had been lost by the

Tharnarians fifty thousand years before and he was neither sure what it was nor how to give it back to them.

He pressed the button that would connect him with Security Officer Ten-Quoth. Of the two problems, it was only within his power to handle the immediate phase of the first problem; to make the final authorization of the execution of the Terrans.

Bob looked again at the window which had lightened to a pale gray square. It was already daylight outside; it would not be long until the guards came for them. Virginia had fallen asleep at last, more tired than she had thought, and she still slept with her head against his shoulder and with his arm around her to support her. He straightened his legs slowly, not wanting them to be numb from lack of circulation when the guards came and not wanting to awaken Virginia to grim reality any sooner than he had to.

But the slight movement was enough. She opened her eyes drowsily, then the sleepiness gave way to the hard jolt of remembrance and realization. She looked at the gray window and asked, "How much longer?"

"Within a few minutes."

"I wish you hadn't let me sleep."

"You were tired."

"I didn't want to sleep—I didn't think I would." Then she changed the subject, as though to keep it from going into the sentimental. "I see the robot never did come back for the tray. We'll be leaving a messy room, won't we? I wonder if they'll disinfect it to make sure it's clean when we're gone? You know" —she smiled a little—"fleas and things."

She lifted her face to kiss him on the cheek, then she rose and moved to the window.

"It's cloudy," she said. "There's a mist of rain falling and it's cloudy outside. I guess it's already later than we thought."

He went over to stand beside her and saw that the morning was alight with near-sunrise behind the gray clouds.

"It's out there waiting for us—*The Cat,*" she said.

He saw it, standing silver-white in the gray morning, gleaming in the rain and with its slim, dynamic lines making it look as though it might at any moment hurl itself roaring into the sky.

"It's a beautiful ship," she said. "I wonder what they will do with it when they—"

A sound came from the far end of the corridor; a snapped command in Tharnarian. The command was followed at once by the sound of footsteps approaching their cell; the heavy tread of robots and the lighter, softer steps of the guards.

Virginia turned away from the window and they faced the cell door as they waited.

"This is it," she said.

"Are you afraid, Ginny?"

"Afraid?" She laughed up at him, a laugh that came only a little too quickly. "It's like a play, set a long time ago on Earth. Coffee and pistols at dawn. Only I don't think they're bringing us any coffee and

if we get a pistol, it will have to be one of theirs."

"It isn't over with till the end—and maybe we can change the ending of this play for them."

"I'll be watching you, Bob, so I can help you the moment you make the try."

The Tharnarian guards stopped outside the door, their blasters in their hands. One of them unlocked the door and two robots entered, guards locking the big door behind the robots the moment they were inside. The robots carried no blasters, nothing but three lengths of chain.

The Tharnarian leader outside the door rasped a command:

"You will both turn to face the window, with your hands behind you."

Bob did not obey at once, but appraised the situation. The robots were massive things—more than six hundred pounds in weight, their metal bodies invulnerable to any attack he could make with his bare hands. But there was one chance in ten thousand: if he could catch the first robot by surprise and send it toppling into the cell door, its weight might be enough to break the lock of the door.

He struck it with his shoulder, all his weight and strength behind the attack, and Virginia's small body struck it a moment later.

But it was like shoving against a stone wall. The robot rocked for the briefest instant, then it threw out a foot to regain its balance. The other robot snapped a chain around his wrists while Virginia fought it.

"Don't, Ginny," he said, ceasing his own struggles. "It's no use, honey."

She stopped, then, and the robot jerked her arms around behind her back, to lock the second chain around her wrists.

She smiled up into his dark and sombre face. "We tried, Bob. They were just too big for us."

A third chain, longer than the first two, was produced. He felt the cool metal of it encircle his neck and heard the lock snap shut. The other end of it was locked around Virginia's neck.

The cell door was opened and the guard leader commanded, "Step forward. The robots will guide you."

They stepped forward, the robots beside them, gripping their arms with steel fingers. The chain around their necks rattled from the movement of walking, linking them together like a pair of captive wild animals. Bob wondered if the chain had been solely as another precaution to prevent their escape or if it had been a deliberate act of contempt. The Tharnarians feared them and, because they feared them, they hated them. Did it bolster the morale of the Tharnarians to deliberately treat them as though they were animals?

They stepped out into the cool dawn, into a small courtyard with a black stone wall at its farther side. The sky was bleakly gray and the rain was falling as a cold mist, dampening Virginia's face as she looked up at him.

"The last mile, Bob."

"Walk it straight and steady, Ginny. They're watching."

"How else would we walk it?" she asked calmly.

They came to the wall, where a metal ring had been set in the stone. There was a chain fastened to the ring and when the robots had swung them around with their backs to the wall, the free end of the chain was locked to the center of the chain around their necks.

Again, it could be an added precaution. Or it could be the final attempt to let their execution be like the killing of a pair of dangerous animals. It did not really matter, of course . . .

Two of the armed robots who had walked with the guards took up a position twenty feet in front of them, blasters in their metal hands. The robots who had chained them stepped to one side, away from the line of fire. The leader of the guards lifted his arm to look at his watch and said something to the robots. The robots lifted their blasters at the words and leveled them, one aimed at Virginia's heart and one at Bob's.

But the expected blast did not come. The guard leader continued to observe his watch. Apparently the first command had meant only: "Aim." The "Fire" command would come when the hands of the watch reached the thirty-three twelve mark.

Virginia's shoulder was warm against his arm. But her hand, when it found his behind their backs, was cold.

"They cheated us," she said. "We were supposed to have a whole firing squad."

The guard leader gave another command and there was a double click as the robots pressed the buttons that would ready their blasters for firing. Virginia swayed a little for the first time, a movement too small for the Tharnarians to see and one from which she recovered almost at once.

"It's—I'm all right," she said. "I'm not afraid, Bob."

"Of course you're not, Ginny—of course you're not."

The guard leader had returned his attention to his watch and the seconds went by; long seconds in which the only sound was the almost inaudible whisper of the rain against the stone wall behind them. Virginia looked up at him for the last time, the cold mist wet on her face.

"We've had a lot of fun together, Bob. We never expected it to end so soon, but we knew all the time that it might. We'll go together and that's the way we always wanted it to be, wherever and whenever it might happen."

Then she faced forward again and they waited, the rain whispering on the wall behind them and forming in crystal drops on the chain around their necks. She did not waver again as she stood beside him and he knew she would not when the end came.

The guard leader dropped his arm, as though he no longer needed to refer to his watch. He glanced at them very briefly then turned to the robots, his face revealing the command he was going to give.

Virginia's hand tightened on his own in farewell and he could feel the pulse of her wrist racing hard

and fast. But she stood very straight as she looked into the blaster and they heard the final command to their robot-executioners:

"Dorend thendar!"

Thirty-three one.

Tal-Karanth looked again at the timepiece on the wall. Thirty-three one. At the end of eleven more small fractions of time, the Terrans would no longer exist.

What was life? What was the purpose behind it all? In fifty thousand years the Tharnarians were no nearer the answer than their ancestors had been. Why should there be life at all? Why not the suns and planets, created by chance, and devoid of life? And why even the suns and planets, the millions of galaxies racing outward across the illimitable expanse of space and time? Why the universe and why the life it contained? Why not just —nothing?

The barbarians had set out to find the answer within a hundred years after the building of their first interstellar ship. And Tharnar's interstellar ships had not been outside the system for fifty thousand years; no Tharnarian had been as far as Vendal for fifteen thousand years.

Why had the Tharnarians lost their curiosity; the curiosity and desire to learn that had created the past glory of Tharnar?

He thought again of what he had discovered that night; of one of the reasons why the Terrans had named their ship *The Cat*. It was not because a cat was a dangerous animal, as he and the others had thought. It was because the mission of *The Cat* would be to explore in unknown territory, because of an old Terran proverb: *Curiosity killed a cat*. He did not yet understand the second reason behind the name, but the first reason showed that the Terrans were not without a sense of humor. How long had it been since he had heard a Tharnarian laugh at himself, at his own failings or possibility of failure? Never.

Yet—wasn't that pride? What was wrong with the high-headed pride that admitted no inferiority, no failure? Wasn't fifty thousand years of civilization something of which to be extremely proud?

Thirty-three five.

He went to the window and pressed the button that would open it against the mechanical will of the automatic health-guard equipment. It slid open and he breathed the cool, moist air that smelled of wet earth and grass and the odor of the *lana* tree flowers; flowers that were closed against the rain and would not open until the sun came out.

The City was quiet in the gray of the morning. He could see one pedestrian and three moving vehicles in the entire visible portion of the City. The City, like the flowers of the *lana* trees, would not open into life until the storm was over and the sun was shining again.

Thirty-three nine.

The City, like the flowers of the *lana* trees. The beauty and perfection of them both was the result of fifty thousand years of breeding to bring about that perfection. The City, like the flowers of the *lana* trees . . .

But flowers were without purpose; were only—vegetation.

And what was the purpose of the City?

He did not know. He was the Supreme Executive of Tharnar, and he did not know.

Thirty-three ten.

He went back to his desk and switched on the three-dimensional projection of the scene that would be taking place in the courtyard behind the prison.

The man and girl stood chained to the wall and the robots were waiting for the third and last command from the guard leader, the blasters in their hands as steady as though held in vises and their metal faces impassive. He increased the magnification of the scene, drawing the images of the man and girl closer to him. There was no reading the man's face, other than the hardness and lack of fear. But on the face of the girl was a defiance that seemed to shine like a radiance about her. He was reminded of the physical similarity between the barbarian girl and his daughter. But now the similarity had faded to a shadow. There was something vital and alive about the barbarian girl, there was a beauty to her in the way she waited for death that was strange and wild by Tharnarian standards.

What had Thralna said the night before? ". . . *Whenever I think of how they might escape and get into the City, it frightens me.*"

—it frightens me—

What if it was Thralna who stood before the robots? Would she have her Tharnarian pride as she looked into the black muzzle of the blaster and knew she had only a few more heart beats of life left? Would she stand with the bold defiance of the barbarian girl? Or would she drop to the ground and plead for her life?

He knew the answer. But it was not Thralna's fault that she was as she was. She was only like all the others of Tharnar.

Thirty-three eleven.

How different they were, the two barbarians and the men and women of Tharnar. Yet the difference would cease to exist within a few moments. When the man and girl were dead, when all the life and restless drive were gone from them and they lay still on the cold, wet ground, they would look the same as Tharnarians.

How did it feel to die in the cold dawn, on an alien world a thousand lightyears from your own? But they had known such a thing might happen to them. They had named their ship *The Cat* because of that. Because of that, and something else . . .

Suddenly, clearly, he understood the second reason for the name of their ship.

Thirty-three twelve.

The guard leader dropped his arm, to give the last command to the robots. Tal-Karanth's mind raced and he saw two things with vivid clarity:

He saw the inexorable decline of Tharnar and the City continuing down the centuries until the little spark that was left smouldered its last and was gone. And he saw the

way death would obliterate the wild and savage beauty of the barbarian girl, knew that it would go when the life went from her, to leave her with a beauty that would be colorless by contrast, that would be like the beauty of a *lana* blossom—or a Tharnarian woman.

And he thought he could see the answer to the menace that faced Tharnar and the City.

"Dorend—"

The guard leader's first word of command came. Tal-Karanth's finger stabbed at one of the buttons along his desk. He shoved it down, to deactivate the robot-executioners, and they were frozen in immobility when the final word came:

"—thendar!"

He snapped the switch which connected him with the office of Security Officer Ten-Quoth and said:

"Have the chains taken from the Terrans and see that they are given comfortable and unguarded quarters. Tell them they have been pardoned by the Supreme Executive and that they are free to leave Tharnar whenever they wish."

IT WAS mid-morning of the next day, bright and warm with a few fleecy white clouds drifting across the blue sky. Tal-Karanth stood before the window again, Vor-Dergal beside him, and watched the City come to life; slowly and leisurely, as it had come to life each mid-morning for the past fifty thousand years.

Vor-Dergal looked toward *The Cat,* where the boarding ramps had already been withdrawn and the airlocks closed.

"They're ready to go," he said. "I hope you haven't made a mistake in what you did. The other Terrans will learn of us now, and when they come . . ." He let the sentence trail off, unfinished.

"We have a great deal to gain by the coming of the Terrans," Tal-Karanth said, "and little to lose."

"Little to lose?" Vor-Dergal asked. "We have Tharnar and the City to lose; we have our lives and our civilization to lose."

"Yes, our civilization," Tal-Karanth said. "Our god that we worshipped—our civilization. Look, Vor—listen to what I have to say:

"I did some thinking the night the Terrans were waiting to be executed. I'm afraid it was probably one of the few times for thousands of years that a Tharnarian ever tried to critically examine the Tharnarian way of life. I started from the beginning, more than fifty thousand years ago, when the interstellar ships of Tharnar were actually interstellar and were manned by men instead of robots.

"It was a good start we made in interstellar exploration, but it didn't last very long. We wanted to associate with our cultural peers, and there weren't any. We didn't attempt to make any contact with the primitive races we found. We felt that there would be no point in doing so. Tharnar possessed the highest—and the only—civilization in all the explored regions of the galaxy and younger races had nothing to offer us.

"The time came when no more

exploration ships were sent out. We retired to Tharnar and Vendal and surrounded them with a robot-operated fleet, to keep out the inferior races when they finally did learn how to build spaceships. We devoted ourselves to our social culture and became imbued with self-satisfaction, with the assurance that we of Tharnar possessed the full flowering of culture and progress. We withdrew into a shell of complacency and each generation lived out its life with comfortable, methodical, sameness. And our robot-operated fleet was on guard to prevent any other race from annoying us, from disturbing us in the wisdom and serenity of our way of life.

"Fifteen thousand years ago, the last of us on Vendal returned to the more ideal world of Tharnar. And there was plenty of room for them on Tharnar by then. The population had been decreasing for thousands of years—it's decreasing right now. Women don't want to have children anymore—it's an inconvenience for them. They want comfort; the full stomach, the soft couch, the attention of their robots. And men are the same.

"There is no longer any incentive for living on Tharnar other than to duplicate the lives of our ancestors. There is nothing new, nothing to be done that has not already been done better. So we lapse into an existence of placid satisfaction with the status quo—we vegetate. We're like plants that have been seeded in the same field for so many centuries that the fertility of the soil is exhausted. This barren field in which we grow is our own form of culture.

"Do you see what the ultimate end will have to be, Vor?"

He had thought old Vor-Dergal would reply with a heated defense of Tharnarian civilization, but he did not. Instead, he said, "If the present trend continues, there will come a time when there will be more robots in the guard ships than there will be Tharnarians for them to guard. But is the other better, the destruction at the hands of the barbarians?"

"Destruction? It's within their power to destroy us, but why should they? It will be unpleasant for many Tharnarians to contemplate, but an unbiased study of the Terrans shows that they would not want the things we have on Tharnar and in the City; that they would not consider Tharnar and the City worth the trouble of conquest."

"A conjecture," Vor-Dergal said. "And, even if you are right and the Terrans never come to destroy us—what have we to gain by taking this risk?"

"New life. We've been too long in the barren field of our own culture. We've lost our curiosity, our desire to learn, our sense of humor that would permit us to make honest self-evaluations, our pride and courage. And in losing these things, we lost our racial urge to survive.

"Look at the City this morning, Vor. See how slowly it moves; listen to how still it is for a city that contains almost a million people. Do you know what this day is for the City? It's one more act, to be added to all the thousands of acts in the

past, in the City's rehearsal for extinction.

"The Terrans have what we lost. They're a young race with a vitality that's like a fire where our own is like a dying spark. That's why I let those two go; why I want the others of their kind to know of Tharnar and come here. It's not too late for us; not yet too late for contact with these Terrans to give back to us all these things we lost."

In the pause following his words the quiet of the City was suddenly shattered by the thunder of *The Cat's* drives. It lifted, shining and slender and graceful, and hurled itself up into the blue sky. Tal-Karanth watched it until it was a bright star, far away and going out into the universe beyond, until the sound of its drives had faded and gone.

He looked away from the sky and back to the slowly moving, softly whispering City; the City that was dying and did not know it. He felt the stirring of an uneasiness within him; a strange non-physical desire for something. It was the first time in his life he had ever felt such a sensation; it was something so long gone from the Tharnarians that the Tharnarian word for it was obsolete and forgotten. But the Terran word for it was *wanderlust.*

"I almost wish I could have gone with them, Vor," he said. "They're going to try to reach the heart of the galaxy and see if they can find the answer to Creation. And we on Tharnar spend our lives sipping sweet drinks as we discuss trifles and wait for the sun to shine warm enough for us to emerge from our air-conditioned houses."

"If you're right in thinking that Terrans won't come to plunder Tharnar and the City," Vor-Dergal said, "then it would be interesting to know what those two find when they reach the center of the galaxy. If they don't get killed long before they reach it."

"I think any hostile forms of life they encounter will find them hard to kill," Tal-Karanth said. "We paid a high price for their capture, remember? There were two Terran proverbs behind the name of their ship. It took me quite a while to understand the second one but when I did, I realized the true extent of Terran determination and self-confidence.

"Their mission was to explore across the unknown regions of space. They knew it would be dangerous, very dangerous. So they named their ship *'The Cat'* partly because of an old Terran proverb: *'Curiosity killed a cat.'* But that was only half the reason behind the name. They intended to reach the center of the galaxy and they didn't intend to let anything stop them. So there was a second meaning behind the naming of their ship:

"'A cat has nine lives.'" • • •

A few drops of science will often disinfect a whole barrel full of ignorance and prejudice. —*Hendrik Willem Van Loon*

Funny, the way a simple people regarded spacemen—and Reston fully appreciated the irony . . .

PROMISED PLANET

BY ROBERT F. YOUNG

Illustrated by Mel Hunter

The European Project was a noble undertaking. It was the result of the efforts of a group of noble men who were acquainted with the tragic histories of countries like Czechoslovakia, Lithuania, Rumania, and Poland—countries whose juxtaposition to an aggressive totalitarian nation had robbed them of the right to evolve naturally. The European Project

returned that right to them by giving them the stars. A distant planet was set aside for each downtrodden nation, and spaceships blasted off for New Czechoslovakia, New Lithuania, New Rumania, and New Poland, bearing land-hungry, God-fearing peasants. And this time the immigrants found still waters and green pastures awaiting them instead of the methane-ridden coal mines which their countrymen had found centuries ago in another promised land.

There was only one mishap, in the entire operation: the spaceship carrying the colonists for New Poland never reached its designated destination . . .

—RETROSPECT; Vol. 16, *The Earth Years* (Galactic History Files)

THE SNOW WAS falling softly and through it Reston could see the yellow squares of light that were the windows of the community hall. He could hear the piano accordian picking up the strains of *"O Moja Dziewczyna Myje Nogi."* "My Girl is Washing Her Feet," he thought, unconsciously reverting to his half-forgotten native tongue; washing them here on *Nowa Polska* the way she washed them long ago on Earth.

There was warmth in the thought, and Reston turned contentedly away from his study window and walked across the little room to the simple pleasures of his chair and his pipe. Soon, he knew, one of the children would come running across the snow and knock on his door, bearing the choicest viands of the wedding feast—*kielbasa* perhaps, and *golabki* and *pierogi* and *kiszki.* And after that, much later in the evening, the groom himself would come round with the *wódka,* his bride at his side, and he and Reston would have a drink together in the warm room, the snow white and all-encompassing without, perhaps still falling, and if not still falling, the stars bright and pulsing in the *Nowa Polska* sky.

It was a good life, hard sometimes, but unfailing in its finer moments. In his old age Reston had everything he wanted, and above all he had the simple things which are all any man wants in the final analysis; and if he occasionally needed to apply a slightly different connotation to a familiar word or two in order to alleviate a recurrent sadness, he harmed no one, and he did himself much good. At sixty, he was a contented if not a happy man.

But contentment had not come to him overnight. It was a product of the years, an indirect result of his acceptance of a way of life which circumstance and society had forced upon him . . .

Abruptly he got up from his chair and walked over to the window again. There was a quality about the moment that he did not want to lose: the reassuring yellow squares of the community hall windows were part of it, the lilting cadence of the piano accordion; the softly falling snow—

It had been snowing on that night forty years ago too, when

Reston had landed the emigration ship; not snowing softly, but with cold fury, the flakes hard and sharp, and coming in on a strong north wind; biting and stinging the faces of the little group of immigrants huddled in the lee of the slowly disintegrating ship, biting and stinging Reston's face too, though he had hardly noticed. He had been too busy to notice—

Busy rounding up the rest of his passengers, then hurrying the women out of the danger area and setting the men to work unloading the supplies and equipment from the hold, using signs and gestures instead of words because he could not speak their language. As soon as the hold was empty, he directed the rearing of a temporary shelter behind the protective shoulder of a hill; then he climbed to the top of the hill and stood there in the bitter wind and the insanely swirling snow, watching his ship die, wondering what it was going to be like to spend the rest of his life in a foreign colony that consisted entirely of young, newly married couples.

For a moment his bitterness overwhelmed him. Why should *his* ship have been the one to develop reactor trouble in mid-run? Why should the appalling burden of finding a suitable planet for a group of people he had never seen before have fallen upon *his* shoulders? He felt like shaking his fist at God, but he didn't. It would have been a theatrical gesture, devoid of any true meaning. For it is impossible to execrate God without first having accepted Him, and in all his wild young life the only deity that Reston had ever worshiped was the Faster-Than-Light-Drive that made skipping stones of stars.

Presently he turned away and walked back down the hill. He found an empty corner in the makeshift shelter and he spread his blankets for the first lonely night . . .

In the morning there were improvised services for the single casualty of the forced landing. Then, on leaden feet, the immigrants began their new life.

Hard work kept Reston occupied that first winter. The original village had been transported from Earth, and it was assembled in a small mountain-encompassed valley. A river running through the valley solved the water problem for the time being, though chopping through its ice was a dreaded morning chore; and an adjacent forest afforded plenty of wood to burn till more suitable fuel could be obtained, though cutting it into cords and dragging the cords into the village on crude sleds was a task that none of the men looked forward to. There was a mild flu epidemic along towards spring, but thanks to the efficiency of the youthful doctor, who of course had been included as part of the basic structure of the new society, everybody pulled through nicely.

After the spring rains the first crops were planted. The soil of *Nowa Polska* turned out to be a rich dark loam, a gratifying circumstance to Reston, who had bled his ship of its last drop of energy

in order to find the planet. It was already inhabited, of course—traces of the nomadic pilgrimages of the indigenes were apparent in several parts of the valley. At first Reston had some hope in that direction—until several of the natives walked into the village one morning, smiling hugely with their multiple mouths and pirouetting grotesquely on their multiple legs.

But at least they were friendly, and, as it later developed, convenient to have around.

He helped with the planting that first spring. That was when he became aware that he was even less an integral part of the new culture than he had thought. Many times he found himself working alone while the immigrants worked in groups of twos and threes. He could not help thinking that he was being avoided. And several times he caught his fellow-workers looking at him with unmistakable disapproval in their eyes. On such occasions he shrugged his shoulders. They could disapprove of him all they wanted to, but like him or not, they were stuck with him.

He loafed the summer away, fishing and hunting in the idyllic foothills of the mountains, sleeping in the open sometimes, under the stars. Often he lay half the summer night through, thinking—thinking of many things: of the sweet taste of Earth air after a run, of scintillating Earth cities spread out like gigantic pinball machines just waiting to be played, of bright lights and lithe legs, and chilled wine being poured into tall iridescent glasses; but most of all thinking of his neighbors' wives . . .

In the fall he helped with the harvest. The indigenes' penchant for farm work was still an unknown factor and consequently had not yet been exploited. Again he saw disapproval in the immigrants' eyes. He could not understand it. If he knew the peasant mind at all, these people should have approved of his willingness to work, not disapprove of it. But again he shrugged his shoulders. They could go to hell as far as he was concerned, the whole self-righteous, God-fearing lot of them.

It was a bountiful harvest. To the immigrants, accustomed as they were to the scrawny yields of Old Country soil, it was unbelievable. Reston heard them talking enthusiastically about the fine *kapusti,* the enormous *ziemniaki,* the golden *pszenica.* He could understand most of what they said by then, and he could even make himself understood, though the thick *cz's* and *sz's* still bothered him.

But the language was the least of his troubles in the winter that followed.

After the way the immigrants had acted toward him in the fields, Reston had anticipated a winter of enforced isolation. But it was not so. There was scarcely an evening when he wasn't invited to the Andruliewicz's or the Pyzykiewicz's or the Sadowski's to share a flavorful meal and to join in the discussion of whatever subject happened to be of most concern to the community at the moment—the fodder for the newly domesticated livestock, the shortcomings of the vil-

lage's only generator, the proposed site for the church . . . Yet all the while he ate and talked with them he was conscious of an undercurrent of uneasiness, of an unnatural formality of speech. It was as though they could not relax in his presence, could not be themselves.

Gradually, as the winter progressed, he stayed home more and more often, brooding in his wifeless kitchen and retiring early to his wifeless bed, tossing restlessly in the lonely darkness while the wind gamboled round the house and sent the snow spraying against the eaves.

IN A WAY, the babies had been the hardest thing of all to take. They began arriving late that second winter. By spring there was a whole crop of them . . .

There was one shining hope in Reston's mind, and that hope alone kept his loneliness from turning into bitterness—the hope that his S O S had been intercepted and that a rescue ship was already beamed on the co-ordinates he had scattered to the stars during the taut moments that had preceded planetfall. In a way it was a desperate hope, for if his S O S had *not* been intercepted it would be at least ninety years before the co-ordinates reached the nearest inhabited planet, and ninety years, even when you were twenty-one and believed that with half a chance you could live forever, was an unpleasant reality to contend with.

As the long somber days dragged on, Reston began to read. There was utterly nothing else for him to do. He had finally reached a point where he could no longer stand to visit the burgeoning young families and listen to the lusty squalling of youthful lungs; or endure another pitiful baptism, with the father stumbling through the ritual, embarrassed, humble, a little frightened, splashing water with clumsy hands on the new infant's wizened face.

All of the available books were in Polish of course, and most of them, as is invariably the case with peasant literature, dealt with religious themes. A good eighty percent of them were identical copies of the Polish Bible itself, and finally annoyed by its omnipresence whenever he asked his neighbors for something to read, Reston borrowed a copy and browsed his way through it. He could read Polish easily by them, and he could speak it fluently, with far more clarity and with far more expression than the immigrants could themselves.

He found the Old Testament God naive. Genesis amused him, and once, to alleviate a dull evening—and to prove to himself that he was still contemptuous of religious credos regardless of his situation—he rewrote it the way he thought the ancient Hebrews might have conceived of it had they possessed a more mature comprehension of the universe. At first he was rather proud of his new version, but after rereading it several times he came to the conclusion that except for the postulates that God had *not* created Earth first

and had created a far greater multitude of stars than the ancient Hebrews had given Him credit for, it wasn't particularly original.

After reading the New Testament he felt more at peace than he had for a long time. But his peace was short-lived. Spring devastated it when it came. Meadow flowers were hauntingly beautiful that year and Reston had never seen bluer skies—not even on Earth. When the rains were over and gone he made daily treks into the foothills, taking the Bible with him sometimes, losing himself in intricate green cathedrals, coming sometimes into sudden sight of the high white breasts of the mountains and wondering why he didn't climb them, pass over them into another land and leave this lonely land behind, and all the while knowing, deep in his heart, the reason why he stayed.

It wasn't until early in summer, when he was returning from one of his treks, that he finally saw Helena alone.

There had been a flu epidemic during that second winter too, but it had not been quite as mild as the first one had been. There had been one death.

Helena Kuprewicz was the first *Nowa Polska* widow.

In spite of himself, Reston had thought about her constantly ever since the funeral, and he had wondered frequently about the *mores* of the new culture as they applied to the interval of time that had to elapse before a bereaved wife could look at another man without becoming a social outcast.

Helena was still wearing black when he came upon her in one of the meadows that flanked the village. But she was very fair, and black became the milk-whiteness of her oval face and matched the lustrous darkness of her hair. Helena was a beautiful woman, and Reston would have looked at her twice under *any* circumstances.

She was gathering greens. She stood up when she saw him approaching. "*Jak sie masz, Pan* Reston," she said shyly.

Her formality disconcerted him, though it shouldn't have. None of the immigrants had ever addressed him by his first name. He smiled at her. He tried to smile warmly, but he knew his smile was cold. It had been so long since he had smiled at a pretty girl . . . "*Jak sie macie, Pani* Kuprewicz—"

They discussed the weather first, and then the crops, and after that there didn't seem to be anything left to discuss, and Reston accompanied her back to the village. He lingered by her doorstep, reluctant to leave. "Helena," he said suddenly, "I would like to see you again."

"Why of course, *Pan* Reston. You are more than welcome to my house . . . All spring I waited for you to come, but when you did not I knew that it was because you were not yet prepared, that you were not quite certain of the call . . ."

He looked at her puzzledly. He had never asked a Polish girl for a date before, but he was reasonably sure that they didn't usually

respond in quite so formal a manner, or in quite so respectful a tone of voice. "I mean," he explained, "that I would like to see you again because—"he floundered for words—"because I like you, because you are beautiful, because—" His voice trailed away when he saw the expression that had come into her face.

Then he stared uncomprehendingly as she turned away and ran into the house. The door slammed and he stood there for a long time, looking dumbly at the mute panels and the little curtained windows.

The enormity of the social crime he had apparently committed bewildered him. Surely no society—not even a society as pious and as God-fearing as the one he was involved in—would expect its widows to remain widows forever. But even granting that such were the case, the expression that had come into Helena's face was still inexplicable. Reston could have understood surprise, or even shock—

But not horror.

He was something besides just an odd number in the peasants' eyes. He was a grotesque misfit, a monster. But why?

He walked home slowly, trying to think, trying, for the first time, to see himself as the immigrants saw him. He passed the church, heard the sporadic hammering of the carpenters as they applied the finishing touches to the interior. He wondered suddenly why they had built it next door to the only heathen in the village.

He brewed coffee in his kitchen and sat down by the window. He could see the foothills, green and lazily rising, with the mountains chaste and white beyond them.

He dropped his eyes from the mountains and stared down at his hands. They were long slender hands, sensitive from long association with the control consoles of half a hundred complex ships; the hands of a pilot, different, certainly, from the hands of a peasant, just as he was different, but basically, intrinsically the same.

How *did* they see him?

The answer was easy: they saw him as a pilot. But why should their seeing him as a pilot so affect their attitude towards him that they could never relax in his presence, could never evince towards him the warmth and camaraderie, or even the resentment, which they evinced towards each other? A pilot, after all, was nothing but a human being. It was no credit to Reston that he had delivered them from persecution, no credit to him that *Nowa Polska* had become a reality—

Suddenly he remembered *The Book of Exodus.* He got up, disbelievingly, and located the copy of the Bible he had borrowed during the winter. With mounting horror, he began to read—

HE HAD crouched wearily on the little ledge. Above him the insurmountable cornice had obfuscated the sky.

He had looked down into the valley and he had seen the remote winking of tiny lights that symbolized his destiny. But they symbol-

ized something more than just his destiny: they symbolized warmth and a security of sorts; they symbolized all there was of humanity on *Nowa Polska.* Crouching there on the ledge, in the mountain cold, he had come to the inevitable realization that no man can live alone, and that his own need for the immigrants was as great as their need for him.

He had begun the descent then, slowly, because of his weariness and because his hands were bloodied and bruised from the frenzy of the climb. It was morning when he reached the meadows and the sun was gleaming brightly on the cross above the church.

Abruptly Reston left the window and returned to his chair. There was pain even in remembered conflict.

But the room was warm and pleasant, and his chair deep and comfortable, and gradually the pain left him. Very soon now, he knew, one of the children would come running across the snow bearing viands from the feast, and a knock would sound at his door, and there would come another one of the moments for which he lived, which, added together through the years, had made his surrender to his destiny more bearable.

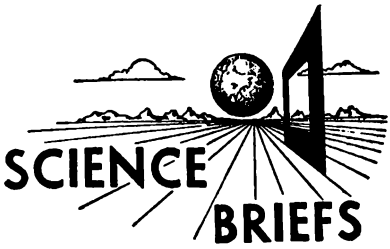
His surrender had not immediately followed his return to the village. It had come about subtly with the passage of the years. It had been the natural result of certain incidents and crises, of unanticipated moments. He tried to remember the moment when he had first stepped briefly into the niche which circumstance and society preordained for him. Surely it must have been during the fourth winter when the little Andruliewicz girl had died—

It had been a dull wintry day, the sky somber, the frozen earth unsoftened as yet with snow. Reston had followed the little procession up the hill that had been set aside for the cemetery and he had stood with the gray-faced immigrants at the edge of the little grave. The casket was a crude wooden one, and the father stood over it awkwardly with the Bible in his hands, stumbling through the service, trying to say the words clearly and instead uttering them brokenly in his clumsy peasant's voice. Finally Reston could stand it no longer and he walked over the frozen ground to where the stricken man was standing and took the Bible into his own hands. Then he stood up straight against the bleak cold sky, tall and strong, and his voice was as clear as a cold wind, yet as strangely soft as a midsummer's day, and filled with the promise of springs yet to come, and the sure calm knowledge that all winters must pass—

"I am the Resurrection and the Life, saith the Lord: he that believeth in me, though he were dead, yet shall he live: and whosoever liveth and believeth in me shall never die—"

The knock finally sounded and Reston got up from his chair and walked over to the door. Funny the

(Continued on page 120)



Kids of the future may be pedaling around in the sky and stopping off in the "wild blue yonder" to look at the earth below whenever they like. A new balloon-helicopter, recently granted a patent, will be the vehicle. Designed for rescue and observation work, the aircraft combines the slow movement and safety advantages of both the balloon and the helicopter. It might also prove useful to the commuter, sports fan and Sunday sight-seer. To operate the craft, the pilot sits on the seat and pedals with his feet, which in turn, causes the helicopter blades mounted below the pilot to rotate. Once airborne, the pilot can literally stop along the way by rotating the balloon mounted above in the opposite direction of the propeller blades. This causes the "flying machine" powered by human energy to stand still.

Employers of tomorrow may give those they hire a test to show which persons should use their brains and which should use their backs for manual labor. The tests will consist of careful examinations of the spine, including X-ray pictures, and in fact, doctors are advising them for teen-agers right now so that they can be apprised early of suitable occupations where they will not be putting too much strain on backs that can't take it. In recent pre-employment tests of 6,000 persons, only 39% had what could be called normal backs. The rest had congenital abnormalities, spinal arthritis, postural defects and other spinal conditions which made them easy prey to low back injury or disability. Results of such examinations and proper handling of personnel accordingly would save industry thousands of dollars in compensation claims and workers could be saved time lost, not to mention doctor bills for aid to aching backs.

You may never make a million, but by the year 2000 the average family income in the United States will be $6,600 according to the prediction made by a Purdue University professor of sociology. After showing that the standard of living today is twice as high as it it was in 1900, the professor has analyzed the probable effects of a continuation of this trend. First of all, the standard will continue to rise. This is based on the fact that it has risen so very steadily and such a trend line rarely changes it course radically. The rate of increase may lessen, but it will most probably continue. Poverty will be reduced. Health will improve. A larger market for mass-produced goods will be created. More money from each family budget will go for luxuries. The already declining appeal of socialism will dwindle away to

nearly nothing under such circumstances, predicated on the fact that the socialist vote in America has decreased as the living standard increased.

Geiger counters may soon be nudging the hammers, pliers and screw-drivers at the local hardware store. The Nuclear Measurements Corp. has just completed a full line of portable counters and scintillators for uranium prospectors that will put them within the reach of anyone itching to do a little prospecting in his own backyard on Sunday afternoon. They will range in price from $99.50 to $199.50, will have book-type hinged construction, separate battery shelves, rubber shock mounted tubes and will be serviced quickly without tools. Only 5 seconds will be necessary to remove or replace the operating assembly and only 90 seconds to replace all batteries.

Concentrated juices in the refrigerator may soon be things of the past. A "superconcentrated" grape juice and a "superconcentrated" apple juice have been developed that can be kept on the pantry shelf for at least a year without losing flavor or becoming spoiled. The fact that they can be stored without refrigeration is seen as a point in favor of a possible cutting of the cost of such juices for tomorrow's housewife. Product of the U.S. Department of Agriculture's research teams, the super juices are made by processing fresh juice to "strip" it of its flavor essence. It is then concentrated and the essence restored to it. The secret of the super juices' storage capacity is that they are packed at 180 degrees Fahrenheit and then cooled quickly. In this manner they can be stored in glass or tin equally well.

Motorists on the thruways and freeways of tomorrow may see some pretty strange looking trucks. Recent tests with 50-mile-an-hour winds and scale model trucks in a wind tunnel at the University of Maryland have demonstrated that some pretty radical streamlining is in order for truck-trailers. Engineers found that the gap between the cab and the truck alone accounted for one-quarter of the air resistance. First thing on the agenda for the truck of the future will probably be a sliding panel connection between the two units. Another 20% of the air resistance can be eliminated by "skirting" the vehicle, or covering the top half of the wheels with an outside sheet of metal. The ultimate in this streamlining would employ a "beaver tail" rear design which would reduce wind resistance another 12%; but since that would cut down actual storage space, the designers will have to make up for it some other way—which could produce some weird looking trucks indeed.

If the six-fingered mutants science fiction writers are always predicting ever become a reality, plastic surgeons have already come up with a technique to solve the problem. Recent experiments have proved that fingers and toes can be kept in "cold storage" under the skin of

the belly for possible use later to replace those lost by accident. The extra digit can be removed surgically, and buried under the skin of the abdomen; the fingers will stay jointed and the nail remain on the nail bed. In past experiments of this type, the bones were usually absorbed. If a child or a grown-up has a finger sliced off by accident, present day technique hasn't yet been able to find a way to successfully resew it to the stump because the burden of recreating blood circulation is too great. But if the finger has been stored in the abdomen it can be transferred gradually to the stump without ever cutting off circulation.

Geologists may someday be doing their digging in the ocean. Professor W. M. Ewing of Columbia's Lamont Observatory has suggested that drilling a core 2,000 feet into the ocean bottom would reveal one of the richest "finds" ever made. Such a core would be a cross section of all the sedimentary layers piled up since water covered most of the planet and scientists could deduce much about the past history of earth. The bottom-most layer, some 2,000 feet down might settle the controversy over how the earth originated. The "time tube" would have to be driven into the bottom of a deep ocean basin, probably some 3,000 fathoms below the surface of the water. The project would cost some $500,000, which isn't much considering the rich fund of earth-history which would be revealed. Through drilling a similar core on dry land might seem easier and less expensive, sediment layers on the ocean floor are much thinner and a greater span of geologic time is covered in the same distance.

Survivors of an atomic or a hydrogen bomb attack in the United States may have to spend a week underground. This new estimate was suggested in a recent publication *Facts About Fallout,* issued by the Federal Civil Defense Adminstration. One of the recommendations for survival calls for a seven-day supply of B-rations, emergency food and water for storage in home shelters. Previous recommendations had postulated only a three-day post-bomb survival pantry. Now, however, they feel that a larger bomb would contaminate a larger area, and it would take a longer time for decontamination crews to survey it for the safety factor. Seven days is almost a maximum estimate, and the time might be considerably less.

TV may someday replace railroad detectives and "yard men" in the freight yards of the nation's rolling stock. One such device already in operation is working night and day in the Potomac Yard in Alexandria, Virginia. There, two ever-vigilant cameras in a shed keep their lenses peeled for freight trains arriving from the south. As the train chugs through the shed at ten miles an hour, the number and initials of each passing car are picked up and relayed to a TV screen in the record office two miles away.

The Happy Clown

BY ALICE ELEANOR JONES

This was a century of peace, plethora and perfection, and little Steven was a misfit, a nonconformist, who hated perfection. He had to learn the hard way . . .

STEVEN RUSSELL was born a misfit, a nonconformist, and for the first five years of his life he made himself and his parents extremely unhappy. The twenty-first century was perfect, and this inexplicable child did not like perfection.

The first trouble arose over his food. His mother did not nurse him, since the doctors had proved that Baby-Lac, and the soft rainbow-colored plastic containers in which it was warmed and offered, were both a vast improvement on nature. Steven drank the Baby-Lac, but though it was hard to credit in so young a child, sometimes his face wore an expression of pure distaste.

A little later he rejected the Baby Oatsies and Fruitsies and Meatsies, and his large half-focused eyes wept at the jolly pictures on the jarsies. He disliked his plastic dish made like a curled-up Jolly Kitten, and his spoon with the Happy Clown's head on the handle. He turned his face away determinedly and began to pine, reducing his mother to tears and his father to frightened anger.

The doctor said cheerily, "There's nothing the matter with him. He'll eat when he gets hungry enough," and Steven did, to a degree, but not as if he enjoyed it.

One day when he was nearly a year old, his mother carried his Kiddie Korner with the Dancing Dogsies on the pad into her bedroom, put him in it, and began to take things out of the bottom bureau drawer. They were old things, and Harriet Russell was ashamed of them. She had said more than once to her husband Richard, only half joking, "I couldn't give them away, and I'd be ashamed for anybody to see them in our trash!" They were old silver, knives and forks and spoons that looked like what they were, unadorned, and a child's plain silver dish and cup, and one small spoon with a useful curly handle. They had belonged to Harriet's great-grandmother. Once a year Harriet took the things out and polished them and furtively put them back.

This year Steven cried, "Ma!" stretching out his hands toward the

Illustrated by Kelly Freas

silver and uttering a string of determined sounds which were perfectly clear to his mother. She smiled at him lovingly but shook her head. "No, Stevie. Mumsie's precious baby doesn't want those nasty old things, no he doesn't! Play with your Happy Clown, sweetheart."

Steven's face got red, and he squeezed his eyes shut, opened his mouth and howled until his mother passed him the dish and cup and curly spoon to play with. At mealtime he would not be parted from them, and Harriet had to put away the plastic dish and spoon. Thereafter, for the sake of the container, he tolerated the thing contained, and thrived and grew fat.

Steven did not like his Rockabye Crib, that joggled him gently and sang him songs about the Happy Clown all night long; and he howled until they turned it off. He was a clean boy, and to his mother's amazement trained himself to be dry day and night by the age of fourteen months, without the aid of the Singing Toidey or the Happy Clown Alarm; so she bought him a Little Folks Youth Bed, with a built-in joggler, and Happy Clowns on the corners, and a television set in the footboard. It was a smaller copy of his parents' bed, even to the Happy Clowns. Steven did not like that either, and if his parents persisted in turning the bed on after he had learned to turn it off, he climbed out and slept on the floor.

Harriet said worriedly to her husband, "I don't know what could be the matter with him. Dickie, he's peculiar!"

Richard tried to comfort her. "Never mind, Harry, he'll outgrow it."

Steven did not outgrow it. When he became too big for the curly spoon and dish and cup he demanded a knife and fork and spoon from the bureau drawer and ate his meals from the plainest dish he could find. He ate them with his back stubbornly turned to the television set, away from the morning cartoons and the noontime Kiddies' Lunch Club and the evening Happy Clown.

The Happy Clown had been an American institution for thirty years. He was on television for an hour every night at dinner time, with puppets and movies and live singers and dancers and his own inimitable brand of philosophy and humor. Everybody loved the Happy Clown. He had been several different actors in thirty years, but his makeup never changed: the beaming face drawn in vivid colors, the rotund body that shook when he laughed like a bowlful of Jellsies, and the chuckling infectious laugh. The Happy Clown was always so cheerful and folksy and sincere. He believed passionately in all the products he instructed his viewers to buy, and one was entirely certain that he used them all himself.

He gave one much more than advertising, though. Some of his nightly gems of wisdom (he called them nuggets) were really wonderful; they made one think. A favorite nugget, which people were always writing in and asking him to repeat, went like this: "We're all alike inside, folks, and we ought to be all

alike outside." The Happy Clown's viewers were not children and adults, they were kiddies and folks.

After the Happy Clown went off the air the happy kiddies went to bed, to lie for a while looking at the Jolly Kitten and the Dancing Dogsie, until, lulled by the joggler, they went gently to sleep. After that came the cowboys and spacemen, carryovers for any happy kiddies with insomnia. For really meaty programs one had to stay up past ten. Then the spectaculars began, and the quiz shows, and the boxing and wrestling.

Steven did not like the Happy Clown or the Jolly Kitten or the Dancing Dogsie. Sometimes he began to grow interested in the cowboys or spacemen, but when they stopped in the middle of an adventure to talk about how they could not possibly rope the steers or shoot the asteroids without a good breakfast of Cornsies and Choko-Milko, which everybody ate, just everybody, Steven climbed out of bed and slept on the floor.

Steven did not like the records or the talking books, and when he went to kiddie-garden he viewed the televised lessons with a cold eye. For some reason which he could not have explained, he wanted to learn to read, but they would not teach him till he was seven, and so he taught himself, from the letters on the jarsies. But then there was nothing to read except the newspapers and the magazines, which he puzzled over patiently, getting most of the words right after a while. The many advertisements were easiest; they used pictures and the simplest of language.

His parents thought it was very cunning of him to look at the printing like that, so wisely, as if he could read it! He said once to Harriet, "I can read it," but she said, "Oh, Stevie, you're teasing Mumsie!" and looked so frightened at this fresh peculiarity that the child said gravely, "Yes, teasing." He wished he had a silent book. He knew there were such things, but there were none at home. There were few silent books anywhere. There were none in kiddie-garden.

Steven was not happy in kiddie-garden. The enthusiasm the other kiddies showed for the lessons appalled him. The kiddies themselves appalled him. They joined so passionately in the group play, clutching each other with their hot moist hands, panting and grinning into each others' faces. They were always clutching and panting and grinning, in large noisy groups, with large community smiles. They confused him; he could not tell them apart. Steven retired to a corner and turned his back, and when they clutched and panted and grinned at him he hit them.

The kiddie-garden monitor had to report of him to his unhappy parents that he was uncooperative and anti-social. He would not merge with the group, he would not acquire the proper attitudes for successful community living, he would not adjust. Most shocking of all, when the lesson about the birdsies and beesies was telecast, he not only refused to participate in the ensuing period of group experimentation, but lost color and dis-

graced himself by being sick in his corner. It was a painful interview. At the end of it the monitor recommended the clinic. Richard appreciated her delicacy. The clinic would be less expensive than private psychiatry, and after all, the manager of a supermarket was no millionaire.

Harriet said to Richard when they were alone, "Dickie, he isn't outgrowing it, he's getting worse! What are we going to do?" It was a special tragedy, since Harriet was unable to have any more kiddies, and if this one turned out wrong . . .

Richard said firmly, "We'll take him to the clinic. They'll know what to do."

The first thing they did to Steven was to talk to him. The psychiatrist made him lie down on a foam rubber couch, kiddies' model, with the Happy Clown motif on the slipcover, and said with a beaming face, "Now, Stevie, what seems to be the trouble?"

The boy turned his head away from the psychiatrist's shining teeth and said, "My name's not Stevie. It's Steven." He was a thin little boy, rather undersized. The baby fat had melted away fast when he began to be exposed to kiddie-garden. He had dark hair and big eyes and an uncommonly precise way of speaking for a child of five.

The psychiatrist said, "Oh, but we're going to be friends, Stevie, and friends always use nicknames, don't they? My name's William, but everybody calls me Willie. You can call me Uncle Willie."

The boy said politely, "I'd rather not, please."

The doctor was undismayed. "I want to help you. You believe that, don't you, Stevie?"

The child said, "Steven. Do I have to lie down?"

The doctor said agreeably, "It's more usual to lie down, but you may sit up if you want to. Why don't you like kiddie-garden, Steven?"

The boy sat up and regarded him warily. The doctor had a kind face, a really kind face in spite of all those shining teeth, and Steven was only five years old, after all, and there was nobody to talk to, and he was desperately unhappy. Perhaps . . . He said, "You'll tell them."

The doctor shook his head. "Nothing goes farther than this room, Stevie—Steven."

The child leaned forward, pressing his knees together, hugging himself with his arms, bowing his head. His position was almost foetal. He said, "I'm never by myself. They never let me be by myself."

The psychiatrist said reasonably, "But nobody can live by himself, Stevie." He had apparently forgotten Steven, and the boy did not correct him again. "You have to learn to live with other people, to work and play with them, to know them, and the only way you can learn is by being with them. When you can't be with them personally, there's always television. That's how you learn, Stevie. You can't be by yourself."

The boy looked up and said starkly, "Never?"

The gleaming teeth showed. "But why should you want to?"

Steven said, "I don't know."

The doctor said, slowly and with emphasis, "Stevie, long before you were born the world was a very bad place. There were wars all the time. Do you know why?"

The boy shook his head.

"It was because people were different from each other, and didn't understand each other, and didn't know each other. They had to learn how to be alike, and understand, and know, so that they would be able to live together. They learned in many ways, Stevie. One way was by visiting each other—you've heard about the visitors who come from—"

Steven said, "You mean the Happy Tours."

"Yes. When you're twelve years old you can go on a Happy Tour. Won't that be fun?"

Steven said, "If I could go alone."

The doctor looked at him sharply. "But you can't. Try to understand, Stevie, you can't. Now tell me—why don't you like to be with other people?"

Steven said, "All the time—not all the *time*."

The doctor repeated patiently, "Why?"

Steven looked at the doctor and said a very strange thing. "They touch me." He seemed to shrink into himself. "Not just with their hands."

The doctor shook his head sadly. "Of course they do, that's just—well, maybe you're too young to understand."

The interview went on for quite a while, and at the end of it Steven was given a series of tests which took a week. The psychiatrist had not told the truth; what the boy said, during the first interview and all the tests, was fully recorded on concealed machines. The complete transcript made a fat dossier in the office of the Clinic Director.

At the end of the tests the Director said seriously to Steven's parents, "I'll be frank with you. You have a brilliant kiddie here—right now he has the intelligence of a twelve-year-old—but brilliance has to be channeled in the right direction. Just now—well, frankly, it's channeled in the wrong direction. We'll give it a year or so, and then if things don't clear up I'm afraid we'll have to correct him."

Richard said through dry lips, "You mean a Steyner?"

The Director nodded. "The only thing."

Harriet shuddered and began to cry. "But there's never been anything like that in our family! The disgrace—oh, Dickie, it would kill me!"

The Director said kindly, "There's no disgrace, Mrs. Russell. That's a mistaken idea many people have. These things happen occasionally—nobody knows why—and there's absolutely no disgrace in a Steyner. Nothing is altered but the personality, and afterward you have a happy normal kiddie who hardly remembers that anything was ever wrong with him. Naturally nobody ever mentions it . . . But there's no hurry; in the case of a kiddie we can wait a while. Bring Stevie in once a week; we'll try therapy first."

Being, as the Director had said, a brilliant kiddie, Steven soon understood much of what was kept from him. It did not take him long to learn what was making his Dadsie look stern and white and what was making his Mumsie cry. He loved his parents and did not want them to be unhappy, and he certainly did not want to have his head cut open, and so he began to act. Even at five, Steven discovered in himself a fine talent for acting. He began to conform, to adjust, to merge. He became social and cooperative and acquired the proper attitudes for successful community living. He gave up the old silver voluntarily, he accepted the Youth Bed, he looked at the Happy Clown, and he did much better in kiddie-garden. He even joined in the group experimentation and was not sick any more, though he could not keep himself from losing color.

They were pleased with him at the clinic and after a few months discharged him. By the time Steven was twelve and had made the Happy Tour and joined the Happy Scouts and had a happy affair, involving experimentation, with a neighbor's daughter, Harriet and Richard ceased to worry about him. If sometimes he felt so tightly strung-up that a storm of tears was his only relief, he kept the tears quiet.

HE WAS graduated from high school at sixteen and from college at twenty, having read all he could of the silent books in the scant high school library and the more ample university one, and having wisely elected to appear more stupid than he was. Even his I. Q. was now judged to be only slightly above normal. He left college with honors, popularity and a reputation as an actor. He took the lead in all the dramatic club plays, having particular success in the reproduction of a Happy Clown program. Steven, of course, was the Happy Clown. He enrolled at once in the New York School of Television Arts, and his mother cried when he left home to live in the School dormitory.

Steven did well at Television Arts, soon taking more leads than was customary in School productions, which were organized on a strictly repertory basis. He did not stay to graduate, being snatched away in his first year by a talent scout for a popular daytime serial, "The Happy Life."

"The Happy Life" recounted the trials of a young physician, too beautiful for his own good, who became involved in endless romantic complications. Steven was given the lead, the preceding actor having moved up to a job as understudy for the Jolly Kitten, and was an immediate success. For one thing he looked the part. He was singularly handsome in a lean dark-browed way and did not need flattering makeup or special camera angles. He had a deep vibrant voice and perfect timing. He could say, "Darling, this is tearing me to pieces!" with precisely the right intonation, and let tears come into his magnificent eyes, and make his jaw muscles jump appealingly, and

hold the pose easily for the five minutes between the ten-minute pitch for Marquis cigarettes which constituted one episode of "The Happy Life." His fan mail was prodigious.

If Steven had moments of bewilderment, of self-loathing, of despair, when the tears were real and the jaw muscles jumped to keep the mouth from screaming, no one in the Happy Young Men's dormitory where he slept ever knew it.

He managed his life well enough. He had a few affairs with girls, it was expected of one, and he did not have to work very hard at it since they always threw themselves at him; and he got along well with other young men, who forgave him for being so handsome because he did not work at it except on camera; but he was lonely. Surrounded by people, intruded and trespassed upon, continually touched in ways other than physical, he was yet lonely.

During his life he had met a few other nonconformists, shy, like him, wary of revealing themselves, but something always seemed to happen to them. Some were miserable being nonconformists and asked pitifully for the Steyner, some were detected, as Steven had been, and some were unfortunately surprised in hospitals. Under the anesthetic they sometimes talked, and then, if they were adults, they were immediately corrected by means of Steyner's lobotomy. It had been learned that adults did not respond to therapy.

There was never any organization, any underground, of misfits. An underground presupposes injustice to be fought, cruelty to be resisted, and there was no injustice and no cruelty. The mass of people were kind, and their leaders, duly and fairly elected, were kind. They all sincerely believed in the gospel of efficiency and conformity and kindness. It had made the world a wonderful place to live in, full of wonderful things to make and buy and consume (all wonderfully advertised), and if one were a misfit and the doctors found it out and gave one a Steyner, it was only to make one happy, so that one could appreciate what a wonderful world it was.

Steven met no nonconformists at the School of Television Arts, and none while he was acting in "The Happy Life" until Denise Cottrell joined the cast. Denise—called Denny, of course—was a pleasantly plain young woman with a whimsical face which photographed pretty, and remarkable dark blue eyes. It was her eyes which first made Steven wonder. They mirrored his own hope, and longing, and the desperate loneliness of the exile.

For two months they were together as often as they could be, talking intellectual treason in public under cover of conventional faces, and talking intellectual treason in private with excitement and laughter and sometimes tears—falling in love. They planned, after much discussion, to be married and to bring up a dozen clever rebel children. Denise said soberly, "They'd better be clever, because they'll have to learn to hide."

They made love in Denise's

apartment when her roommate Pauline—Polly—was out, as awkwardly as if there had never been any group experimentation or happy affairs. Denise said wonderingly, "When you really love someone it's all new. Isn't that strange?" and Steven said, kissing her, "No, not strange at all."

He took her to meet his family—Denise's family lived three thousand miles away—and she behaved with such perfect decorum and charm that Richard and Harriet were delighted and as eager as Steven for the wedding. Steven had agreed reluctantly to put it off until Denise had a chance to introduce him to her parents; they were coming East at Christmas. She laughed over it and said, "I'm being terribly conventional, darling, but that's one convention I like."

While they waited, Steven's agent secured a really unprecedented opportunity for so young and relatively untried an actor. The current Happy Clown was unhappily retiring, by reason of age and infirmity, and Steven's agent arranged a tryout for the part. He said, "Give it all you got, kid; it's the chance of the century."

Steven said, "Sure, Joey," and allowed his sensitive face to register all the proper emotions. Actually his emotions were, in the vernacular of a previous century, mixed. He loathed the whole concept of the Happy Clown—but there was money in it, and Steven was not rebel enough to despise money. With money he could retire early, go away somewhere with Denise, to some country place where they could be relatively free of pressure.

Over staggering competition he got the part. He called Denise up at once from a booth at the studio to tell her. Polly answered the phone, looking pale and frightened over the viewer, and said rapidly, "Oh, Stevie, I've been trying to get you for an hour. Denny's sick. They took her to the hospital!"

Steven sat back against the hard wall of the booth, feeling cold, the receiver slack in his hand. He said, "What's the matter with her? Which hospital?"

"Ap-pendicitis. Happy Hour." Polly began to cry. "Oh, Stevie, I feel so—"

"I'll go right over." He cut her off abruptly and went.

The doctors caught Denise's appendix in time to avoid the necessary but rarely fatal complications . . . but under the anesthetic she talked, revealing enough about her opinion of television, and the Happy Clown cult, and the state of society in general, to cause her doctors to raise their eyebrows pityingly and perform the Steyner at once. While Steven sat unknowing in the waiting room, smoking a full pack of Marquis cigarettes, the thing was done.

At last the doctor came out to him and said what was always said in such cases. "It was necessary to do something—you understand, no mention—" and for a moment Steven felt so ill that he was grateful for the little ampoule the doctor broke and held under his nose. They always carried those when they had to give news of a Steyner

to relatives or sweethearts or friends.

The doctor said, "All right now? Good . . . You'll be careful, of course. She may be conscious for a minute; there's no harm in it yet, she won't move or touch the—"

Steven said, "I'll be careful."

He was still feeling ill when they let him in to see Denise. He sat down beside her bed and spoke to her urgently. "Denise, talk to me. Please, Denise!"

She opened her eyes, looked at him drowsily and smiled. "Oh, Stevie, I'm so glad you came. I've been wanting you, darling."

Steven said, "Denise—"

She frowned. "Why do you call me that? Call me Denny. Did you get the part, darling?"

He drew back a little. "Yes, I got it."

She gave him a radiant smile. "That's wonderful! I'm so proud of you, Stevie." She slept again.

That night in the HYM dormitory Steven did not sleep. He lay quiet, tense, hoping for the relief of tears, but it did not come.

STEVEN WENT to see Denise every day though after the first time she was not awake to know him. The doctors were keeping her under sedation until the head bandage could be removed. So far as Denise was to know, she had gone to the hospital simply for a rather protracted appendectomy. Looking at her, Steven knew that he could never leave her. He had loved her completely; he would love her now with as much of himself as she would need or understand.

For a while he waited to be kindly questioned, to be thoroughly examined, to be tenderly given the shot in the arm and to awake like her, but nobody came. Denise had apparently said nothing about him. Some censor or other—perhaps it was the censor of love—had kept her from even saying his name.

For a while Steven considered confessing to somebody that he was a—what?—an unacceptable member of society. Then they would make him like Denise. He shuddered. Did he really want to be like Denise? Some stubborn pride in him refused it.

When Denise left the hospital for the hotel where she would stay until the wedding, Steven was more gentle with her than ever, kinder and more loving. He made her very happy. He made love to her again, and it was like loving a ghost —no, it was like loving a fine beautiful body without the ghost, without the spirit. He returned to the HYM to lie sleepless amid the breathings and mutterings of the other young men, turning restlessly in his bed, feeling oppressed, tormented, strung on wires.

He rehearsed feverishly for the part of the Happy Clown, and because he was a fine craftsman and a conscientious artist he continued to give it all he had. The sponsors were pleased. A week before Christmas the current Happy Clown retired and hobbled off to a nursing home. There was no fanfare—the public was not to realize that the Happy Clown was mortal—and Steven took over with no visible

change. For five days he played the part to perfection.

On the sixth day he performed as usual, perhaps a little better. His commercials had a special fervor, and the sponsors exchanged happy glances. Denise was sitting in the booth with them; she smiled at Steven lovingly through the glass.

Steven was running a little fast tonight. The engineer made stretching motions with his hands to slow him down, but he used up all his material, even the nugget, with three minutes to spare. Then he said, "All right, folks, now I have a special treat for you," and moved quickly to the center mike. Before the sponsors, or the engineers, or the studio audience, or anybody in the whole American nation knew what was happening, he began rapidly to talk.

He said, "Are you all happy? You are, aren't you?—everybody's happy, because you're all sheep! All sheep, in a nice safe pasture. All alike—you eat alike and dress alike and think alike. If any of you has an original thought you'd better suppress it, or they'll cut it out of you with a knife." He leaned forward and made a horrible face at the camera. Under the jolly makeup and the artful padding, his mouth was shockingly twisted, and tears were running out of his eyes. "A long sharp knife, folks!" He paused momentarily to recover his voice, which had begun to shake. "Go on being happy, go on being sheep. Wear the clothesies, and eat the foodsies, and don't dare think! Me—I'd rather be dead, and damned, and in hell!"

Fortunately nobody heard the last three sentences. The paralyzed engineer had recovered in time to cut him off during the pause, and had signalled the stagehand to draw the curtain and the sound man to play the Happy Clown sign-off record—loud. Steven finished himself thoroughly, however, by repeating the same sentiments, with some others he happened to think of, to Denise and the sponsors, when they all came pouring out of the booth. Then he collapsed.

Steven's Steyner was a complete success. He recovered from it a subdued, agreeable and thoroughly conventional young man, who had the impression that he had suffered a nervous breakdown. He was discharged from the Happy Hour at the end of January, innocently leaving behind him the broken hearts of three nurses and one female physician, and went home to his parents. During his convalescence they were patient with him and passionately kind. In spite of the disgrace they felt, a disgrace that would never be mentioned, they loved him even better than before, because now he was irrevocably like them.

Denise was lost to him. The outburst in the studio, and the Steyner, and the loss of the Happy Clown part were cumulatively too much for her. She broke the engagement and was heard to say that Stevie Russell had proved himself an absolute fool. He was miserable over it, though he had only a hazy idea of what he had done or why Denny should suddenly be so unkind to him.

The Happy Clown incident had passed off well—immediately after it occurred, a powerful battery of comedians, including the Jolly Kitten and the Dancing Dogsie, forgetting rivalries to rally 'round in a crisis, went on the air to insure that it passed off well. They made certain that every viewer should regard the whole thing as a tremendously funny if rather mystifying joke. The viewers fell in with this opinion easily and laughed about the sheep joke a good deal, admiring the Happy Clown's sense of humor—a little sharp, to be sure, not so folksy and down-to-earth as usual, but the Happy Clown could do no wrong. They said to each other, "He laughed till he cried, did you notice? So did I!" For a while teenagers addressed each other as, "Hi, sheep!" (girls were, "Hi, lamb!"), and a novelty company in Des Moines made a quick killing with scatter pins fashioned like sheep and/or lambs.

But, around the studios Steven was dead. Steyner or no Steyner—and of course that part of it was never openly discussed—sponsors had long memories, and the consensus seemed to be that it was best to let sleeping sheep lie. Steven did not care. He no longer had any particular desire to be an actor.

Steven went to work in his father's supermarket and was happy among the shelves of Oatsies and Cornsies and Jellsies. He got over Denise after a while and met a girl named Frances — Franny — whom he loved and who loved him. They were married in the summer and had a little house with as much furniture in it as they could afford. The first thing they bought was a television set. After all, as Stevie said, he would not want to miss the Happy Clown. • • •

THE ODD GENRE *(Continued from page 3)*

At the recent 8th Western Science Fiction Conference in Los Angeles: Ray Bradbury communicated an enormous amount of enthusiasm as he related how he got his ideas and developed them. "Over my typewriter," he said, "I have a sign that says *Don't Think.* And I really try not to when I sit down to write a story. I just let my subconscious take over. A character emerges, I delineate some of his characteristics and give him free rein, and as he runs on ahead of me, shouting back for me to follow, I try to capture the echoes of his activities on paper." He revealed the fascinating facets of the geneses of such stories as *The Foghorn, The Tapestry,* and *The Dwarf,* crediting the inspiration for the latter to an observation made by his long-time friend Edmond Hamilton in the distorted mirror section of an amusement pier Fun House . . . Lou Place offered a delightful s.f. comedy short, in color, about an interplanetary trip to Pluto by two canine scientists and the monster they met on our outermost planet . . . Ivan Tors, producer of the popular Science Fic-

tion Theater, was present to answer questions about his first series of 39 telefilms, and showed two, "Frozen Sound" and "The Lost Heartbeat" in advance of their channel releases . . . In an adjoining annex, many fans spent much time admiring the art exhibit of original paintings and photographic effects by Blaisdell, Bonestell, Schneeman, Fagg, Nuetzell, Dollens, Cobb, Hunter and others.

The entire affair was sponsored by the Chesley Donavan Science Fantasy Foundation, a group of live-wire, teenage enthusiasts living in towns adjacent to Los Angeles, with Lew Kovner, Tad Duke, Mark Pinney, Chris Robinson, Ron Cobb and Paul Shoemaker most actively participating in the management of the conference.

ARTHUR C. CLARKE is skin-diving "down under" in Australia and writing his next book, "The Stars and The City" . . . Continuing their overseas tour, the Heinleins have recently been heard of in Heidelburg, Egypt and London . . . Mack Reynolds and the missus are hibernating in Spain . . . Ray Bradbury wants to return to Sicily . . . Arthur Jean Cox has completed his first sci-fi novel . . . Chad Oliver busy on an anthropological monograph . . . Jerry Bixby and Jim Causey make it in the next annual *Best of S.F.* from Dikty and Fell . . . John Bloodstone is working on a novel project to unite two of the greatest s.f. characters of all time . . . Martha Foley will have a science fiction selection in *her* next BEST . . . Walter Wanger's production of Jack Finney's *Collier's* hit and pocketbook, *The Body Snatchers,* gets an E-for-Excellent from me, and I told Wagner so in the foyer of the Westwood Village after the preview. That rare treat, a film that is very faithful to the book—right up to the end.

BRAINS vs. SUPER-SCIENCE

WHAT HAPPENS when a lone commander has to pit his cunning against the magic of a super-science thousands of years ahead of anything he has ever seen? Captain Allen Hawkins was faced with the dilemma of delivering Earth and its civilization into slavery or witnessing its complete destruction. It was truly an "avoidance situation" —as the psychologists call it—and Captain Hawkin's answer had to be the most facile one Man had ever been called on to make . . . AVOIDANCE SITUATION, a long novelette by James McConnell, is one of the most exciting space stories you've read in a long time. Don't miss it in the February IF . . . Also in this issue: You'll find situation, suspense, thrills in CATALYSIS by Poul Anderson. And those peculiar organisms washing up on the beaches will leave you with long thoughts—when you read THE MARGENES by Miriam Allen de Ford . . . Plus other top notch stories and features—all in the February IF.

Dear Mr. Quinn:

I recently had occasion to show the story "The Cyber and Justice Holmes by Frank Riley, which appeared in the March 1955 issue of IF, to Joseph Harrison, editor of the New Jersey Law Journal. He was much impressed with the story and the philosophy it expressed, and he has asked me to write to you for permission to reprint the story in the Law Journal during the coming summer.

Mr. Harrison feels the story would be of particular interest to the profession especially since the State Bar Association here has for several years been investigating the feasibility of modest applications of modern processing machinery to legal research.

—Vincent Biunno
Newark, New Jersey

We're glad to extend permission to reprint the story in the New Jersey Law Journal . . . and delighted that s-f is pointing the way in fields other than space travel.

Dear Mr. Quinn:

The straightforward policy evident in your magazine of reducing extrapolation back to life and so giving science-fiction stories a genuine psychological, socialogical and scientific meaning is both surprising and welcome. I would like to suggest that extrapolation in s-f has really been a search for wider vision and understanding by taking all types of problems and situations to their extreme. Along the road thousands of problems have been met and dealt with as fiction. Could it be that s-f readers and writers are now possessed of a balance and width and depth of vision very isolated in this world of specializations and conflicting ideals? That the direct application of the psychological results of this vast voyage into fantasy is a possibility?

It seems to me that s-f represents a body of people whose width of vision could allow the full and free discussion of controversial subjects without resulting in unseemly and useless brawls.

In conclusion may I draw your attention to the sum and substance of Jungian psychology in that a higher consciousness sees the conflicts of life as though observing a storm in a valley from a mountain top; a result that is obtained by a similar voyage into fantasy.

—R. M. Carrier
Sydney, New South Wales.

Perhaps Mr. Carrier has put his finger on the answer to that ever recurring question "What is science-fiction?".

Dear Mr. Quinn:

As usual, I enjoyed every story in the last issue of IF even if there was fantasy in it. You see I go for deep space drama, the more technical the better. The two features "What's Your Science I.Q.?" and "Science Briefs" are my real loves and I'm making up files on them. One can really learn a lot from these two features. The color reproductions of the moon-shuttle ships were out of this world. I'm a model plane builder graduating in rockets and space ships and the picture was an excellent source of a plan for a model moon-shuttle.

Keep up the good work!

—W. C. Brandt
Oakland, Calif.

Cigar shape versus spherical—there's quite a bit of contention on that. However, proceed with the spherical—we'll back you up—theoretically, anyway.

Dear Mr. Quinn:

I've been a reader of IF for close to a year, but have never written to you until now. Why? Obviously, because I never had an opportunity. IF's no reader-departments-at-all editorial policy put the proverbial damper on my letter writing, so I said the heck with it. If Quinn doesn't care what his readers think, I'm certainly not going to break my back trying to get through to him.

But, lo, IF is turning over a new leaf. Not only will the next issue feature "Hue and Cry", but I've also discovered via "Fantasy Times" that another feature . . . ("Odd Genre") . . . will be included. Needless to say, I'm pleasantly surprised.

Like most prozine editors, I suppose you're interested in readers' suggestions. Well, I'm here to strongly suggest that you do completely away with three of your present features. "Science Briefs", "What's Your Science I.Q.?" and "Worth Citing" are a trio of the most boring features that I have yet run across.

As for the August issue, all the stories ranked from fair to very good. However, Isaac Asimov, Phillip Dick and April Smith take top honors. I didn't like your cover this time, but then I seldom do. The last good one that IF featured was Mel Hunter's moonscape on the April '55 ish. Now there's a boy that can draw!

—Kent Moomaw
Cincinnati, Ohio

We'll let the letter from W. C. Brandt and several others in our files give you an idea of an editor's dilemma when he starts getting suggestions from the readers. Incidentally, we've got a cover by Hunter in the works. He's been busy with some stuff for the museum of Natural History in N.Y. But we snagged him away from the fossils long enough to do one for us.

Dear Mr. Quinn:

This is to thank you for a magazine that's worth its price and the space it takes up. I'm always sorry that I missed an issue or two of IF back at the beginning, but that's my penalty for shying away from a newer book. I'm catching up though, and I have to admit (gladly) that I've several times pushed aside *Astounding's* more technical pages in order to get down to more enjoyable reading in more colorful IF. Others in my family, various relatives, scrounge through IF, and really enjoy reading it—while they never showed any interest in other s-f books I had lying around—which goes to show you've got a wide general appeal. Please keep IF smart and original, and don't bother too much about following the well worn grooves in the s-f field. There are too many mags doing just that.

—A. S. B. Hallam
Maywood, Calif.

Dear Editor:

I've been reading IF for quite some time and find it highly entertaining; but I, for one, believe you could improve on two points. First, there should be more stories. Fast readers can finish the ish in no time, then have to sit back impatiently for the next. Second, there are people like myself who do not fully understand certain phrases and terms and would like to know more about certain planets. I am certain it would be greatly appreciated if you would print a dictionary section in the back of each issue to enlighten such ignoramuses as myself.

—P. E. Hamler
Roseburg, Oregon

The first point can be covered by the old cry (and true as all old sayings are true) that good stories are scarce. The second, by our recommendation that you try the science quiz we feature in each issue. It's designed for both those who flatter themselves they know the answers and those who feel they'd like to know.

Dear Mr. Quinn:

Aren't you interested in the overseas market? There are eight million people in Australia, a good many of them who read s-f and who would certainly appreciate the opportunity to read IF. Please give the idea serious consideration.

—R. H. Harding
Maylands, West Australia

WHAT IS YOUR SCIENCE I.Q.?

ANSWERS: 1—The Andromeda Nebula. 2—Increase. 3—Two. 4—Clavius. 5—Twenty-six. 6—Callisto. 7—Antikhthon. 8—Ninety-eight. 9—Barycenter. 10—151. 11—Osmium. 12—Closer. 13—Vulcan. 14—Light. 15—Tesseract. 16—Two. 17—35,000,000 degrees. 18—Sixth. 19—Yes. 20—Four.

 (Continued from page 100)

way, a simple, God-fearing people would regard a spaceman, he thought. Especially the particular spaceman who had delivered them from persecution and brought them to the Promised Land; who had nonchalantly manipulated a ship three acres long by one acre wide with nothing but his fingers; who had, in the course of Exodus, performed exploits that made Moses' rivening of the waters of the Red Sea seem like a picayun miracle by comparison; and who had, after the Promised Land had been attained, made many wanderings into the Wilderness to commune with God, sometimes carrying the sacred Book itself.

But that attitude by itself would not have been enough to engender the social pressure that had shaped his way of life without the catalyst that the single casualty of planetfall had provided. Reston could still appreciate the irony in the fact that that single casualty should have involved the most essential pillar in the structure of the new society—the Polish priest himself . . .

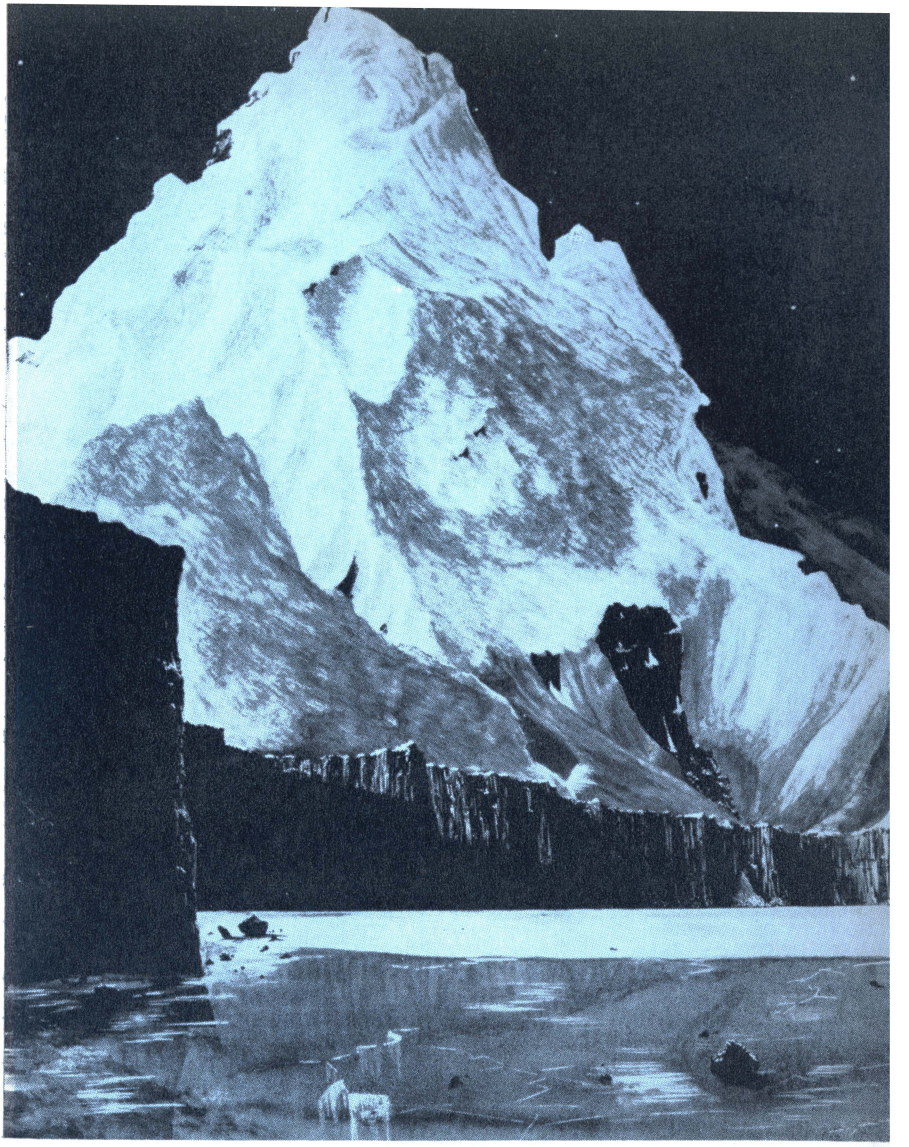
He opened the door and peered out into the snow. Little Piotr Pyzykiewicz was standing on the doorstep, a huge dish in his arms. "Good evening, Father. I've brought you some *kielbasa* and some *golabki* and some *pierogi* and some *kiszki* and—"

Father Reston opened the door wide. Being a priest had its drawbacks of course—maintaining peace in a monogamous society that refused to stay evenly balanced as to sex, for one, and making certain that his sometimes too greedy flock did not over-exploit the simple indigenes, for another. But it had its compensations, too. For, while Reston could never have children of his own, he had many many children in a different sense of the word, and what harm could there be in an old man's pretending to a virility which circumstance and society had denied him?

"Come in, my *son*," he said.

• • •

It is almost folly to talk of the limitations of the mind. I tell you that the limitations of your mind are much farther off than you suppose they are. —*Louis Sullivan*



SCENE ON EUROPA—This satellite, one of the eleven moons of Jupiter, appears in telescopes as a mirror-bright object with an extremely high albedo or reflective index. That is, it reflects back to the observer a large portion of the sunlight which strikes it. The inference drawn from this phenomenon is that Europa once had a heavy gaseous envelope which has precipitated out as a thick layer of frozen gases which now covers the entire surface with mountainous layers of ice. (Drawings by Mel Hunter)

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