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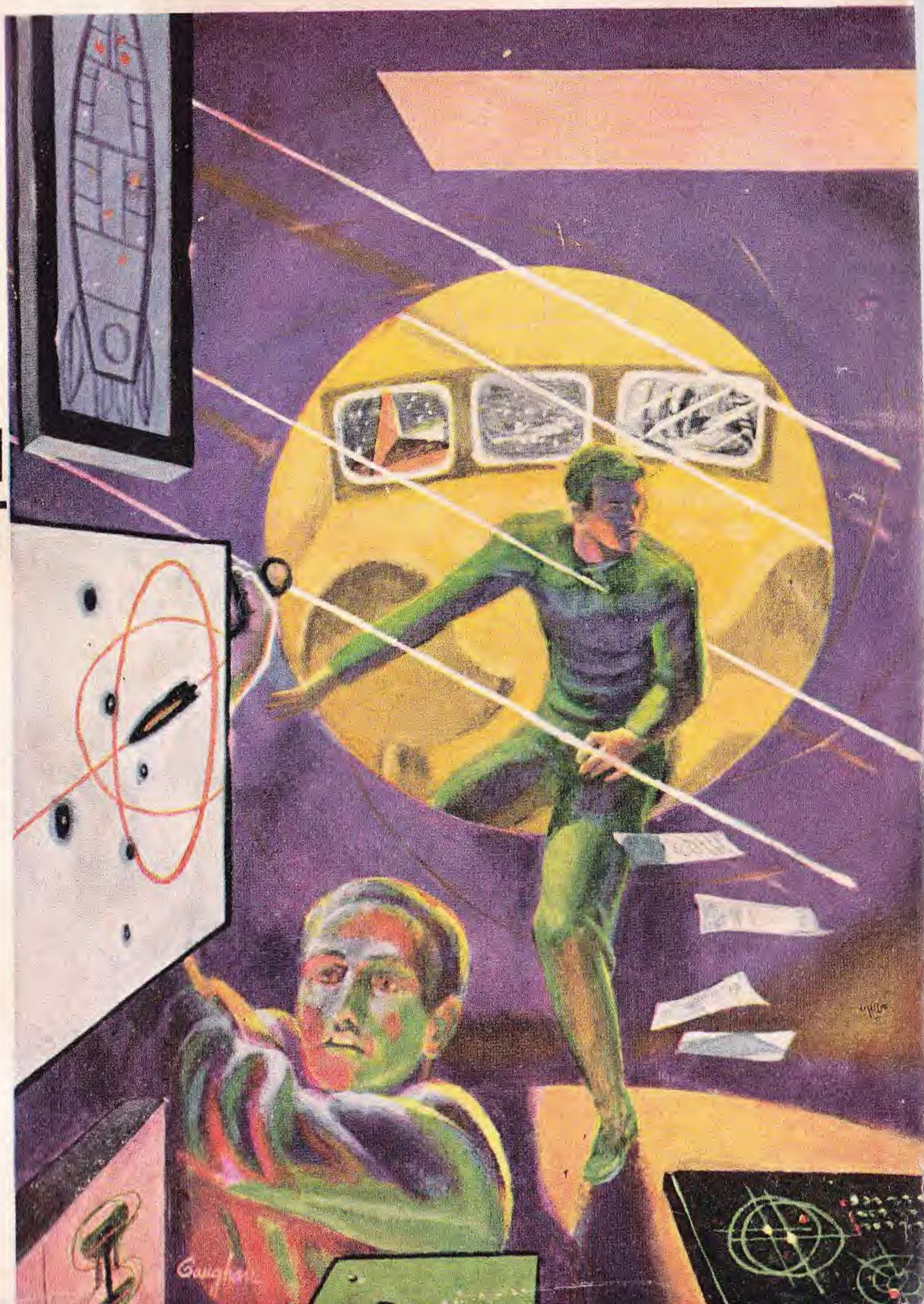

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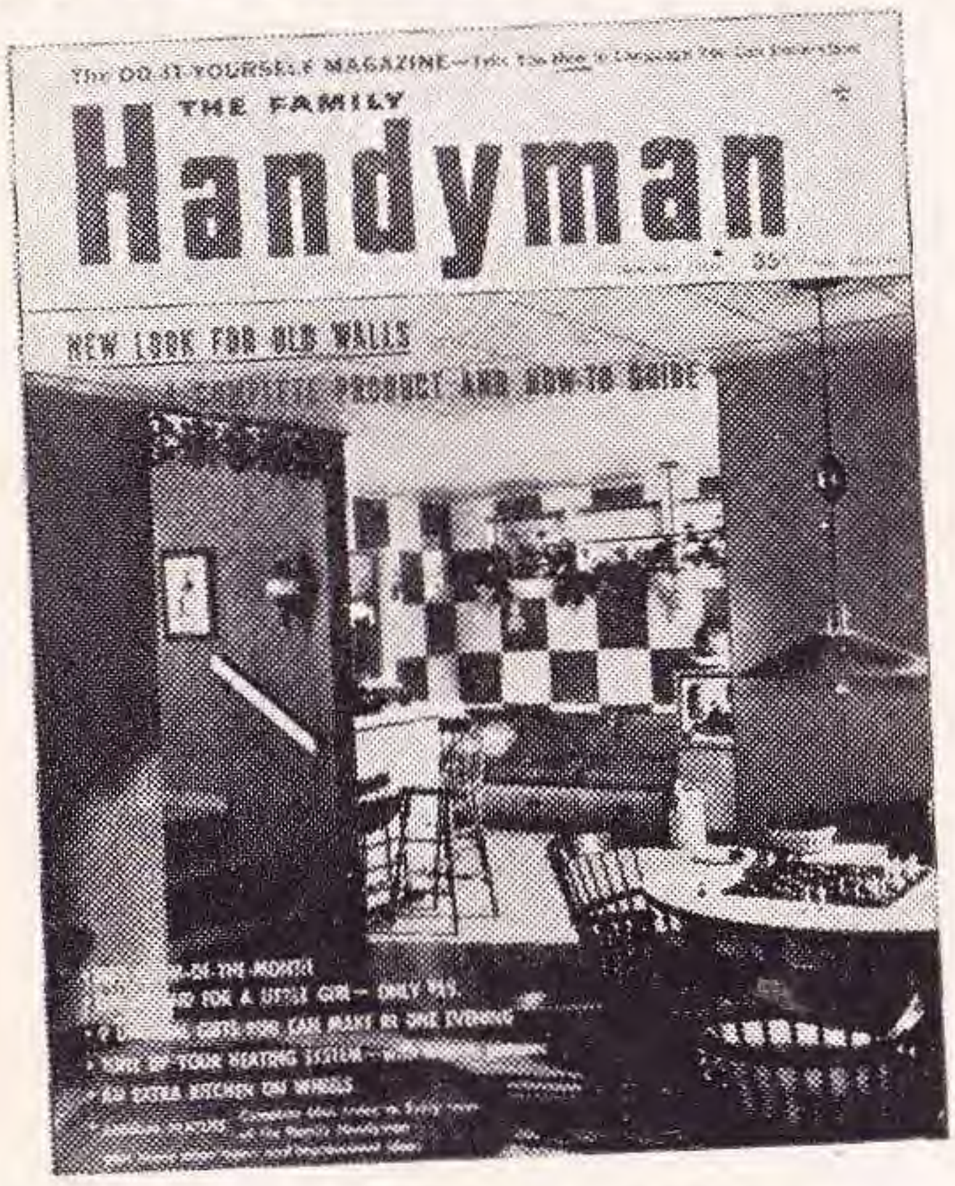

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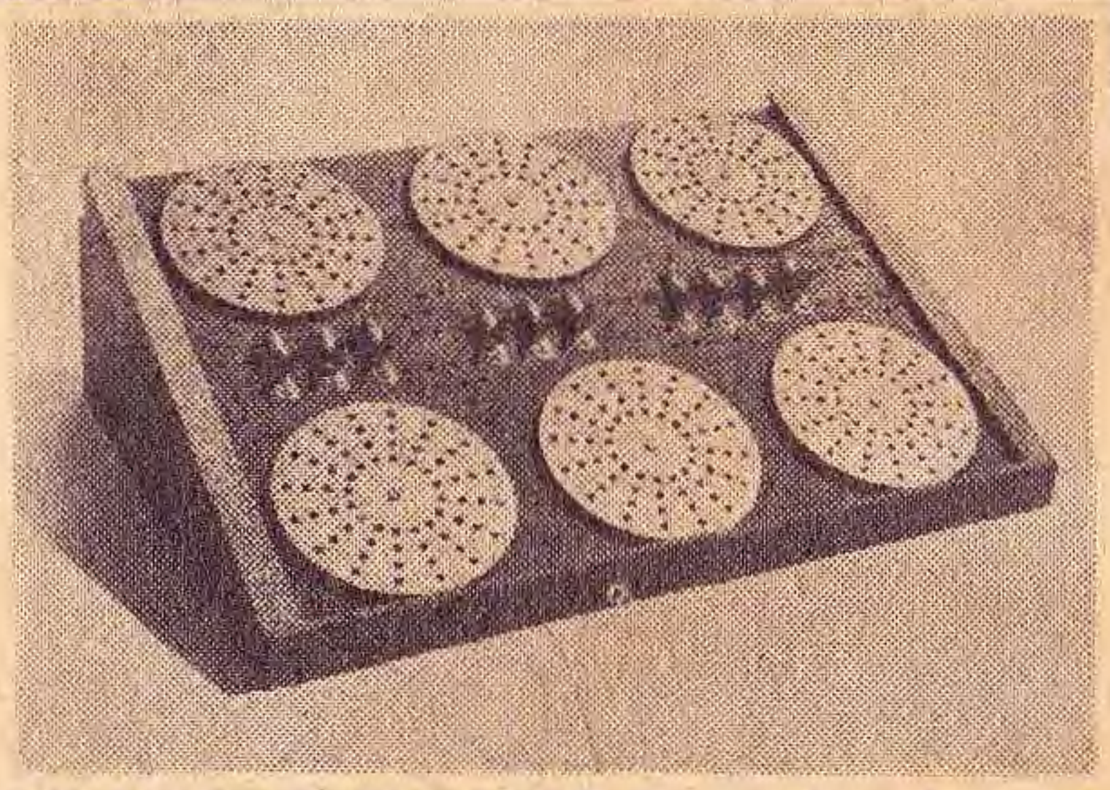

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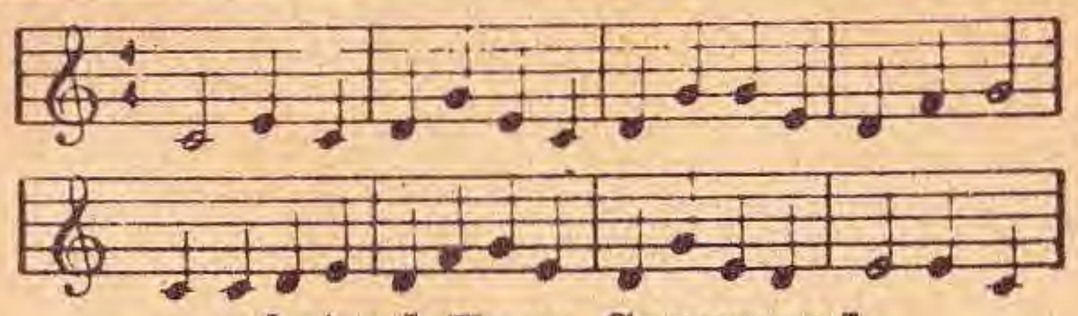

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JULY, 1957 VOL. 14, NO. 3

Galaxy

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WILLY LEY, Science Editor
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YOU WERE SAYING?

ALONG with complimentary and critical mail, editors receive letters that roil their troubled sleep, as if their sleep needed roiling. Like this one, for instance:

"I enjoyed your editorial on possible life-forms. You pointed out that vegetation lives off soil and air, herbivores live off vegetation, and carnivores live off herbivores. Well, here is a little food for thought: what lives off carnivores? Judith L. Burgess, Carnivore."

The obvious answer is soil and air, so that the whole thing comes full circle. But that's dodging; soil and air do not live off anything. The omnivore does, Miss Burgess, and you must be an uncomfortable date if you devour meat and won't touch vegetables and desserts. As an omnivore, I declare with justifiable pride that this is the highest category in the gastronomical scale of evolution. The fact that we share the distinction with bears, pigs and the raccoon family in no way mitigates my pride. I can't imagine what, if anything, can possibly surpass our all-purpose gullet.

Miss Burgess and others may dispute the statement with Oscar Wilde's description of English fox hunting as "The unspeakable in pursuit of the uneatable," but she and they and Mr. Wilde must then be prepared to deprive Eskimos and Orientals from membership in the human race. Not sharing our silly prejudices, these admirable peoples carry omnivoraciousness to its utterly logical extreme. They may not *like* fox, may consider it greatly inferior to raw wolverine or Pooch Cantonese Style, but any fox they harpoon or snare is going to be eaten, doggedly or otherwise.

If the need ever be, Miss Burgess, you and the rest of us can — and will — eat every carnivore clean off the planet.

Then there's the letter from the worried chap whose obviously alien wife says such things as: "The washee pot needs coughing." In a recent communique, he added nervously: "My wife just told me, 'If you don't know how to be nice, *don't be at all.*' So, if you fail to hear from me, you'll know what happened." What makes him believe I will? I *think* I'd like to know, but I'm not really sure.

Another deponent to the case proving that There Are Aliens Among Us writes:

"The indications are that these aliens come from planets with extreme temperatures. In the sum-

(*Continued on page* 6)

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(*Continued from page 4*)

mer, people slap me on the back and ask if it is hot enough for me, it invariably being so. The conclusion I've arrived at is that these aliens possess a gadget imbedded in their back for raising temperature and it sometimes goes out of whack and has to be jarred, like kicking a gum machine.

"These same people slap me on the back in the winter, asking if it's cold enough for me. Can a metamorphosis be this complete?

"Several days ago, a stranger slipped on the splashed edge of the YMCA swimming pool and crashed into the water. When I helped haul him out, he said that he 'must have slipped on something wet.' Does he come from a world where water is NOT wet?

"I'm alarmed about some of 'our' idioms, such as: 'What time is it?' *What time is what?*"

Another reader sent in a clipping from the N.Y. *Herald Tribune* about a "time capsule" dug up at Madison Square Park. A lead box 20 inches long and 7 inches wide, it was located while dismantling an ornate water trough for horses.

"The lead case contained a bronze table inscribed with the words 'The Gift of Olivia Eggleston Phelps Stokes to the City of New York, August 1880.' Inclosed were a booklet entitled 'Colton's Map of New York City'; an 1880 YMCA periodical, 'Faith and Works'; a copy of the New-York Herald, dated Dec. 2, 1880; a business card of James Muir, plumber and gas fitter at 29 E. 18th St., and a copy of the Bible.

"Miss Stokes, a philanthropist and daughter of a New York banking family, died at the age of 81 on Dec. 14, 1927."

Presumably thinking that the itemized trivia was worth the cost of the lead box. If any further argument is needed against time capsules, there it is — pocketbook lint that Miss Phelps and her advisers, if any, *thought* would have enduring value — and *we're* doing the same with cornerstones and capsules.

I dislike advocating unsanitary measures, but letting junk accumulate (as in Bat Cave, New Mexico, where 6 feet of garbage flung down in 3,000 years gave an important clue to the origin of corn) would be a *real* boon to future archeologists. We owe that much to our distant begats, don't we?

Finally, someone sent in a squib about a 35 mm. camera found on the back seat of a taxi. Developed, the film had 20 shots of Lincoln delivering his Gettysburg address. Big deal! Brady covered the event. But what about the cab fare there and back?

And now — *you* were saying?

— H. L. GOLD

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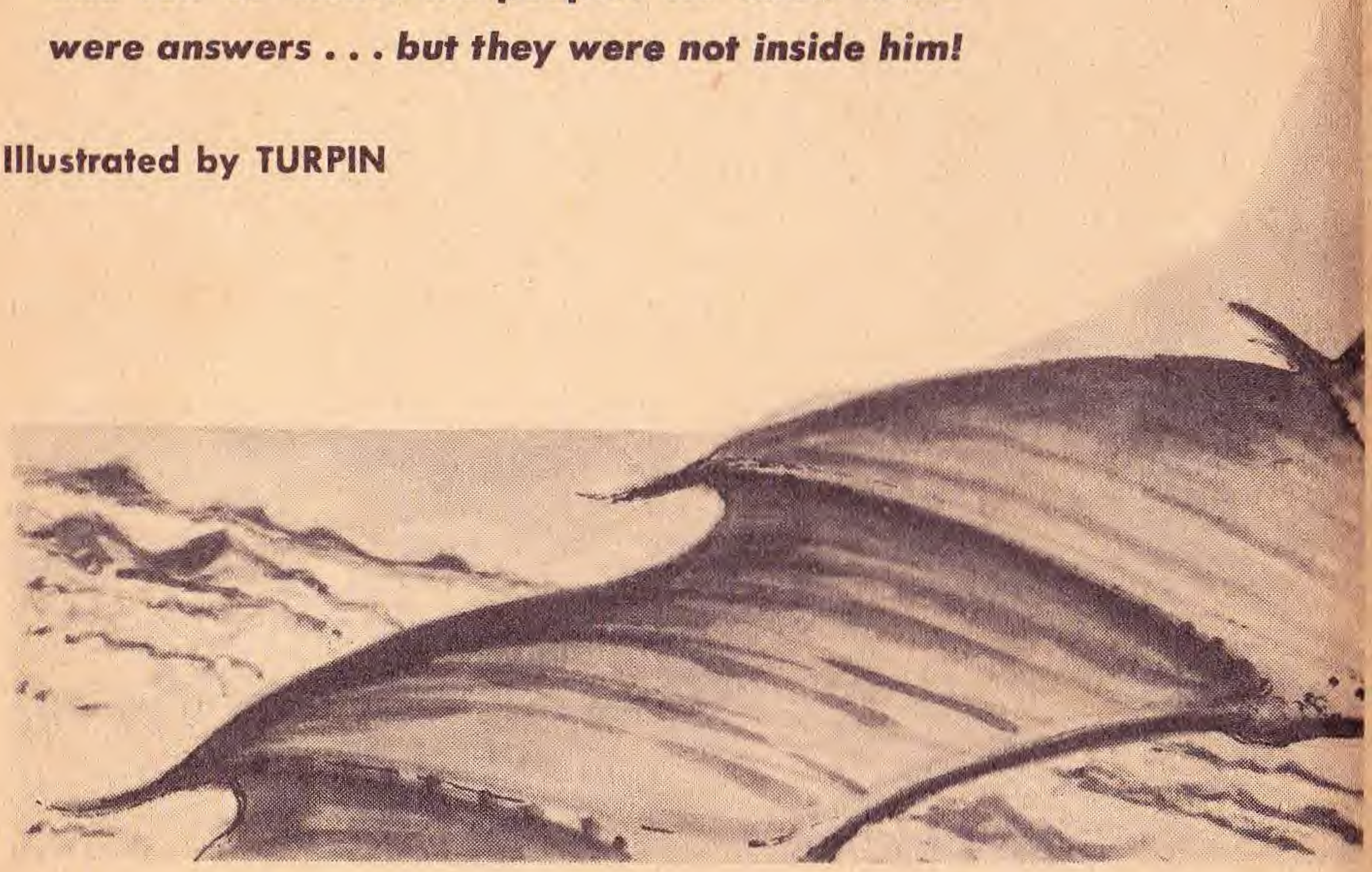
A WORLD CALLED MAANEREK

By POUL ANDERSON

What were the forgotten memories that ate at the rim of his mind? Were they why he looked and felt so unlike his people? He knew there were answers . . . but they were not inside him!

Illustrated by TURPIN



Torrek

THE GLIDER followed the slope of Kettleback Fell, caught an updraft rising from Brann's Dale and swung toward a blued-silver sky of twilit clouds. Above the cold white brawl of Skara River there lay a chill hazy air mass which sucked it down again.

Vilyan's hands were briefly frantic on the controls. Then he had crossed the river and was

once more upborne, until presently he went above the timberline.

"We are close now, oath-brother," he said. "Best you make ready."

Torrek nodded, left his seat and crawled down the narrow length of the fuselage. He felt the light fabric, oiled cloth drawn tight on a frame of hollow canes, shiver to his touch. It was very silent; somehow, the great booming winds did not penetrate.

Reaching the little trapdoor, he peered through its glass inset, down at a savage barrenness streaked with snowfields. He tested his arrangements — the coiled rope knotted to a crossbar, the three knives sheathed at his waist, the net which bound his long yellow hair to keep it from his eyes. Otherwise he wore only a loincloth, for he dared weigh no more than he must on this lethal errand.

HE WAS a big and supple young man, with a harsh bony cast to his face that made him an alien among the handsome people of Dumethdin. And the name they had given him, Torrek, meant more than simply "stranger" — it hinted at a degree of monstrousness, for he alone of all folk under the Rings could not even guess at his parentage. Nevertheless, Clan and Lodge emblems were tattooed on his face.

"There's the nest!" Sweat leaped out on Vilyan's forehead, pearling the blue symbol etched there, the sign of Sea Bear Lodge in which he found sworn brotherhood with Torrek. His hands jerked, a bare trifle, on the sticks, and the glider shuddered.

They had climbed high, until now they were slipping along that gaunt dark mountaintop called the Skara Man's Hat. On a windy crag overlooking three thousand feet of cold sky, there was raised an enormous, disorderly heap of branches, welded with the decay of centuries into one fortress mass. As far back as tradition remembered, krakas had nested here.

Certain Elders, far down in Diupa, thought it an unholy work to slay the kraka, for she had been there so long, and her mothers and grandmothers before her, reaving the valleys below. If the kraka sat no longer on the Skara Man's Hat, menace brooding over Fenga Fjord, there would be an emptiness in the sky.

Folk whose livestock and small children had been carried up to these unclimbable heights thought otherwise.

Vilyan's dark reckless face split in a sudden grinning tautness. "There she comes herself, oath-brother!"

"Good," grunted Torrek.

"May Ellevil and the Moon Lady ward you —"

"Hold her steady now," Torrek interrupted harshly.

One who did not know him might have been offended at such surliness, even when death beat upwind to meet him, but in Diupa they thought they understood their changeling. You could not look for ease, or mirth, or even much courtesy, from one whose life had been so hideously uprooted. His brain, they thought,

must still be plowed with the scars of memory torn loose, five years ago.

Therefore Vilyan only nodded. But when Torrek had left the glider and Vilyan was bringing it back toward the fisher town — for he could not hover in this home of the warring winds — he sang the Long Faring Song for those who have gone away to battle and are not likely to return.

TORREK opened the little door, threw out the rope and slid down its length. One of his daggers was gripped between his teeth.

For long, ghastly minutes, he swung like a bell clapper, more than a mile above the fjord. Now he could hear the wind, a huge hollow roaring through the blue dusk. Its force streamed him ahead at the rope's end.

The challenge of the kraka cut through to him. She came threshing upward from her nest, blind with murder, for at this time of year she had young in the nest and that thing of stiff wings dared fly *over* them! Almost, she hurled herself straight at the glider — her mother had thus crashed one, a man's lifetime ago. But then, as Torrek had planned, she saw him dangling like bait on a fish hook, and she veered and plunged toward him.

The man felt a final tightening of nerve and muscle. His eyes seemed to gain an ultimate clarity, his ears to be whetted until they heard the crashing of Smoky Falls where Skara plunged down the Steeps, time to slow until the onrushing kraka poised in midair and he could count the stripes on her tawny hide after each giant wingbeat. But he was not afraid. In a bare five years of remembered life, there is small time to learn the habits called fear.

Then the kraka struck.

She was a little smaller than he, discounting the thirty-foot span of leathery wings and the long rudder-shaped tail. But her four feet ended in talons which had been known to split men at one blow and her muzzle held saber teeth. Few people, hanging one-handed from a cord, could have kept from pitching downward to escape.

Torrek drew himself up, at the last instant, into a ball. As the winged thunderbolt shot below him, he let go. His legs closed around the lean belly, his left arm around the neck, and his right hand thrust a dagger into her throat.

She screamed.

For a few wild seconds, she threshed and bucked and writhed in the air, seeking to hurl him off. His knife was torn from his grasp and sparkled meteoric downward. He needed both arms and every

draining drop of strength to keep his place.

Then his weight became too much for her and they slid down the wind toward the sterile slopes. Her wings, flailing the sky, slowed that fall somewhat, turned it into a long glide . . . and meanwhile Torrek had drawn another knife and was slashing methodically at her vitals.

He felt no pity for this most splendid of animals — there were too many small bones up on Skara Man's Hat. But he had a moment in which to think that she was brave.

And a moment, incredibly high in the air, to look over the misty woods and the green depths of Brann's Dale, across Smoky Falls and the narrow fields that men had plowed between the cliffs and the fjord, to Diupa town.

More: he could see across Fenga Fjord to Holstok and the White River Delta, a low rich land fair for the harvest. He could see the narrow end of the bay and follow its windings northward between sheer rock to the mouth. There, where the Roost foamed with an incoming tide, lay those guardian islands called the Merry Men; and Torrek thought he could even see the grim walls of Ness, the fort on Big Ulli which watched lest the beast-helmeted pirates of Illeneth descend again on Dumethdin.

BUT now the kraka was weakening, her blood spattering the blue twilight air, and as her wings beat less frantically, her fall became the faster. Clench-jawed, Torrek thought she would have her revenge by painting his flesh on the Steeps of Skara next to her own.

Then, with a wobbling convulsion, she staggered eastward again, and the updraft from the warmer plowed fields gave her a final helping hand, and it was the fjord into which she plunged.

Torrek dived from her just before she struck. He split the water with a force that drove him down and down into greenish depths until his eardrums popped their protest and a coraloid spear raked his flank. When he had finally struggled back to the surface, his lungs seemed ready to explode. It was a long time before his gasping ceased.

The kraka floated not far away, upborne by her enormous wings—dead. And the early lamps of Diupa glimmered within easy distance.

"Well, old girl," panted Torrek, "that was friendly of you. Now wait here and be so good as not to let the ollenbors find you and clean your bones — I want that striped hide!"

He strode out for the town, wearily at first, but his strength came back with the swiftness he

knew to be abnormal. Sometimes, alone with his own truncated soul at night, Torrek wondered if he were human . . . or what?

There were canoes putting out from the pier. His landing had been dimly espied by the townsfolk. Lean outriggered shapes clove murmurous waves, a hundred paddles struck the water in unison, and the colored paper lanterns hung at the stem posts were like seeking eyes.

"Ohoyohoa!" A conch lowed after the cry, and the brass throb of gongs took up an underlying rhythm. *"Ohoyohoa!* May the sea give you up, O my beloved! May the sea surrender you living, *ohoyohoa!"*

"Here I am!" called Torrek unceremoniously.

The nearest boat veered. Muscular hands drew him up and soon the conches and gongs and voices roared victory.

By the time the fleet had come back, dragging the slain kraka and bearing Torrek on a captain's dais, the Diupa people had all swarmed to the dock.

Masked and feather-cloaked, shaking their rattles and their weapons — crossbows, axes, warmattocks, halberds, blowpipes — the young men of Sea Bear Lodge danced out the pride he had given them. Grave in their embroidered robes of scarlet and blue, his adoptive Clan Elders waited under glowing lanterns. Between the long, low, airy houses, of painted oilcloth and carved wood panels and peaked shingle roofs, the children and the maidens strewed flowers for him.

Even the humblest farmers, artisans, fishermen, with no more finery than a bast loincloth and a feather headdress, lifted their tridents and shouted his honor when he stepped among them.

HIGH over the mountains, the thin evening clouds broke apart. The sun was down, though it would not be dark for hours yet, here in the warm latitudes of the World Called Maanerek. But the sky showed an infinite clear blue, with two of the moons riding high, nearly full. And enormous to the south lifted the rainbow arch of the Rings, most holy bridge.

It was the usual thing that the clouds of the long warm day — forty hours while the sun strode over the Islands — should disperse as evening cooled toward night. Yet Torrek, with the fjord's chill kiss still tingling on his skin, imagined that all kindly Rymfar must be with him, to draw the curtain from the sky just as he stepped ashore to his people.

His people. Now, for the first time, he felt a thawing in himself. These lithe, dark, high-cheeked folk had made him their own,

when they found him speechless and helpless in the fields, had taught him with the same patient kindliness they showed their children, had forgiven him the blunders and breaches inevitable to one not raised from birth in their ways.

In return, he had sailed in their canoes — yes, fished and hunted and plowed the fields, had fought in ther lines when the robbers of Illeneth forced the Roost and entered Dumethdin.

And the folk had given him rank according to his growing abilities, so that now he rated Pilot.

But he had still been the waif. He had not truly bought back his life from them . . . until today.

"Drink," said Elder Yensa, handing him the ancient silver Cup of Council.

Torrek went to one knee and drained the thin spiced wine.

"Let your name be written on the scroll of Harpooners," said Scribe Glamm, "and when next the Fleet goes forth after the sea snakes, may you wield a goodly spear and be rewarded with the share due to your work."

Torrek bowed. "I am unworthy, Reverend Uncle," he said.

In fact, he knew very well he deserved the elevated rank. He had expected to gain it, if he lived. Now —

He straightened and his eyes went to the young women, respectfully waiting on the edge of lantern light.

Sonna saw him and looked down. A slow flush crept up her cheeks. She lowered her head until the long dark garlanded hair hid the small face from him.

"Reverend Uncle," said Torrek, bowing to the gray man of Korath Clan who watched him from shrewd eyes, "a Harpooner is of rank sufficient to speak as friends with the child of a Captain. Is it not so?"

"It is so," agreed Baelg.

"Then have I your consent to go into the mountains with your daughter Sonna?"

"If she is willing, that is my will," said Baelg. A grin twitched his short beard. "And I believe she is. But you must rest yourself first."

"I will rest in the mountains, Reverend Uncle."

"A mighty man indeed!" said Baelg, while the young men flashed teeth in admiration. "Go, then, and if the will of you two be later for marriage, I shall not look askance."

SILENTLY Torrek bowed to the Elders, to the Scribe, to the Councilors of Diupa and the Viceroy of the King of Dumethdin. Sonna fell behind him, matching his long strides. In a few minutes, they were beyond

the town, on a road which wound through fields up into the mountains.

"I could have stayed for the feasting, Sonna, if you wished," he said awkwardly. "Perhaps I was too hasty."

"You were not too hasty for me," she answered with an enormous gentleness. "I have been waiting a long time for this night."

The road became a narrow trail winding upward between great cool fronds, under soughing leaves. There was a damp green smell in the air and a rushing noise of waterfalls. Here many caves were found, and a young man and woman could lie in their shelter on beds of gathered blossoms, eating wild fruits and splitting the hard-shelled skalli nuts, through all the long light night of the World Called Maanerek.

As their trail, a ledge which tumbled down through a deepening purple twilight, led them briefly out of the forest, Torrek and Sonna saw the Inner Moon rise and go hurtling across the sky. There were four outer moons visible now among the few soft stars, as well as the shuddering bands of the Rings, and they built sharded bridges of light on Fenga Fjord and across the ocean beyond.

Distantly, inaudibly from here, a lacy curtain of white spray broke around the Merry Men, as one of the tidal bores which guarded Dumethdin and challenged her sailors came roaring in through the Roost.

Sonna sighed and took his arm. "Wait a little," she said quietly. "I have never seen it so beautiful before."

A curious, angry emotion stirred in Torrek. He stood stiff and savored the bitterness of it until he knew what it was: a resentful jealousy of others who had trod this path with her.

But that was a crazy, ugly thing to feel, he told himself in bewilderment — considering a woman, an unwed girl who had pledged herself to no man as yet, to be property: to rage when she acted like a free human creature, as he might rightly rage at someone who used his personal flensing tools!

He bit off the insane feeling and spat it out, but the after-taste remained, a gray doubt of himself.

Who am I?

"There is grief in you, Torrek," murmured Sonna.

"It is nothing," he answered.

Why am I?

"No . . . I can feel it in you. Your arm became suddenly like wood." Her fingers stroked down its muscled length, tickling the gold hairs which also set him off from the brown smooth men of

Dumethdin. "It is not right that you should know grief."

"Let us choose a cave," he said in a voice that grated like a hull on a rocky reef.

"No, wait, Torrek." She searched his moonlit face with dark oblique eyes. "I will not spend a night with rage and sorrow up here . . . not beside you."

HE FELT a dizziness. In spite of Baelg's words, it had been too much to hope that Sonna would ever —

"Ever wed a nameless man," he mumbled without thinking.

She smiled, a smile of victory, but stepped past the main issue to say: "Not nameless. You are fully adopted, Torrek. You know that. And after today's work —"

"It is not enough," he said in returning despair. "I will always be the one without roots, the torrek whom they found in the plowed fields five years ago, speechless, kinless, memoryless. I might be a child of hill trolls, for all I will ever know!"

"Or a child of the Rymfar," said Sonna, "or of the black Flitters they tell of among the mountain tribes. What of it? You are yourself and only yourself."

He was shocked. The idea of a human existing as a single creature, self-sufficient, part of no Clan or Lodge or Nation, and with no need to be a part, was unheard-of. Sonna was a woods-witch to voice it!

And then, as if a bolt had clicked home, he understood the rightness of the idea. It was not that he lost his wistfulness — he would always long for a blood kinship that had been denied him — but his lonely status was no longer a monstrosity. He was different, yes, even crippled in a way, but he was not unnatural.

For another slow moment, he stood wondering why Sonna's carelessly tossed-off words, whose implications she could not really have grasped, should so bite into him. It was almost as if she had touched and awakened a memory of —

"No more!" he exclaimed, laughing aloud. "The night is not so long that we can stand here wasting it."

"No," breathed Sonna demurely. Her hand stole into his.

There came a humming in the sky.

Briefly, Torrek was puzzled. Then as the noise grew, and he heard the whine of sundered air behind it, the hair stood up along his back.

He had only brought his remaining knife for weapon. It jumped into his hand. He shoved Sonna roughly against the cliff wall and stood in front of her, peering upward. Moonlight dazzled him.

The black shape crossed the Rings and slid down an invisible wire, and one end of the wire was pegged to him. It came too fast for thought, too fast for a dash back into the woods. Torrek had not yet grasped the size of the thing, twice the length of a long-boat, when it halted by the ledge.

It hung there and speared him.

NO OTHER word — he was *held*, pressed against the cliff by a rubbery force he could not see. When he roared and hurled all the weight and strength he owned against that net, it threw him back onto Sonna with a fury that knocked a gasp from her.

"Torrek," she whispered. Her hands groped at his waist, blindly in the pitiless unreal moonlight. "Torrek, do you know —"

He did not. He had no memory of this lean, dully black fish shape . . . and yet it did not quite seem a thing from nightmare, not quite the vengeful ghost of the kraka. Somehow, he could accept it, as he might accept a new and deadly kind of animal.

"It's not a glider," he said through clenched jaws. "No wings. But it's been forged or cast — metal."

"The Flitters." Her voice shook.

He gave it some thought, standing there pinned in the racking earthquake of his own heart. The Flitters were a tale, a rumor, a recent mumble among the inland barbarians. This had been seen, that had happened, strange flyings and curiously dressed men . .

A circular door opened in the flank of the — ship? Beyond it was a similar one which also opened. A metal gangway protruded, tongue-fashion, to the ledge.

Torrek could not see inside, but the light that spilled forth was hellishly brilliant. It so stunned his eyes that those who walked over the gangway became no more than shadows.

When they reached him and stood staring, he could see a little better. They were big men, with something of himself in their features and coloring. But they were wrapped from boots to neck in drab one-piece garments and they wore massive round helmets.

Behind him, Sonna whimpered.

The men talked to each other. It was a language Torrek had not heard, a choppy unmusical tongue, but there was no great excitement in the tones. These men were doing a routine job.

Through a haze of anger, Torrek saw them reach some kind of decision — it seemed to involve Sonna rather than him — and go to work. They cast supple cords into the unseen force-mesh, nooses that closed on him and were drawn taut until he was trussed up like a wooly for slaughter.

ONE of them waved an arm in signal. Torrek fell to the rock as the force died away. Sonna sprang past him, spitting her fury. A man grinned, side-stepped her rush and grabbed an arm, which he forced behind her back. She went to her knees with a cry and was quickly bound.

"What are they doing?" she cried in alarm. "Torrek, beloved, what do they want?"

"I don't know," he said.

He was slowly overcoming his own helpless wrath, forcing it to the ground as if it were his opponent in a wrestling match. A great chill watchfulness rose in its place.

"O my dearest—" wept Sonna.

It cracked across Torrek's heart. He mumbled some meaningless comfort or other. Inwardly, he thought of knives for these grinning, chattering bandits in hideous clothes. He thought of hanging their heads in Diupa's smokehouse.

Sonna writhed and tried to bite when they picked her up and took her inside the ship. It earned her nothing but a stunning cuff. Torrek conserved his strength, watching the metal bleakness through which he was borne.

Lashed in a chair, he had a view of the sky and the Steeps through a kind of—no, not window, nor telescope—image-maker? He focused on that, ignoring the alienness of furnishings around him. Even when the ship rose noiselessly into the sky, and the highest peaks fell out of sight, and Sonna's courage broke in a raw scream, Torrek remained watching the view.

But when the stars harshened and came forth in their hundreds, when the great bowl of the world turned into a ringed shield dazzling against darkness, and Sonna clenched her eyes and would not look . . . he had an eerie sense of homecoming.

Almost, he *knew* the monster mother ship would be waiting there and would draw this little boat into herself.

Was it only the speculations of Diupa's philosophers, or did he remember as a fact that the World Called Maanerek was merely a single one of uncountably many?

He shivered at a ghostly thought, a thin frightened wisp of —recollection?—of how cruel and alien those worlds could be.

TORREK whirled, in the narrowness of the cell where they had caged him. One hand snatched for his knife. When he remembered it was gone, his teeth clicked together, as if closing in a throat.

Sonna caught his arm. "No," she said.

He came back to humanness

like one awakening from a dream. The carnivore light faded as he looked down at her.

"What?" he asked vaguely.

"It is no use to fight them," she said. "Not till we know more."

He nodded stiffly, as if his neck-bones creaked. Then he held her in his arms and glared at the men who were opening the door.

The younger one raised a weapon. At least Torrek supposed it was a weapon, shaped like a very small blowgun, but grasped in a single fist. This person, or troll, or whatever he was, seemed healthier than his fellows: his skin had a normal weatherbeaten look, not the dead paleness of the others, and he moved with a muscular assurance. He was almost as big as Torrek, with the same yellow hair cropped short, but with a beak of a nose and a rigid set to his lips.

He spoke. It was a heavily accented version of the Naesevis tongue, the common mercantile language of the Islands. Torrek was not expert in it himself, though so wealthy a nation as Dumethdin naturally attracted many traders, but it was near enough kin to that spoken along Fenga Fjord for him to use.

"Best you do not attack me. This *gun* – this weapon shoots a – it can put you to sleep instantly. Awaking from such a sleep is painful."

Torrek spat on the floor.

"You do understand me, do you not?"

"Yes," said Torrek, "I understand you." The pronoun he chose was insulting, but the stranger did not seem to know the difference.

"Good. I am Coan Smit. This man beside me is the learned Frain Horlam."

The other was little and old, with thin gray hair and blinking watery eyes. Like Coan Smit, he wore a plain greenish coverall, but lacked the young man's insignia.

"What do you call yourself?" Smit asked.

"I am Torrek, a Harpooner of Diupa, adopted to the Bua Clan and an oath-brother in full standing of Sea Bear Lodge, pledged to the King of Dumethdin."

It was another insult: anyone who knew Naesevis should have been familiar enough with the symbology of the Islands to read Torrek's allegiances off his tattoos. Once more, it made no impression.

NOT at all offended, Smit grinned briefly and said something to Frain Horlam, who nodded with a curious eagerness. Then, turning back to his prisoners, Smit went on in a careful tone: "Thank you. I want you to understand, Torrek, that we are

your friends. We are, in fact, your *people*, and you are about to be given back your rightful heritage."

As from an immense distance, Torrek heard Sonna's indrawn gasp. He himself felt no great shock. The knowledge had been growing within him since that sky-boat came through darkness to grip him fast. In part, it was that he looked like these folk. But in a deeper part, lying beyond all words, this was something he simply knew.

It was a cold and poisoned knowledge.

"Well, what have you to say further?" he demanded curtly.

"If you will come with us, we will take you to a place where it can better be explained."

"I will do so, provided this woman come with me."

"No, it is best she stay. There would be too much trouble; even without her, it will be hard enough to make things clear to you."

"Let it be so, my dear one," mumbled Sonna. There was a beaten weariness about her. She had seen and suffered too much in too short a time.

Torrek saw how the unhumanly stiff manner of Coan Smit, a manner of metal, broke open as his eyes drifted down the girl where she stood. Almost, then, Torrek seized Smit in the grip of a wrestler, to crack his spine across a knee.

He choked back his rage and the icy wariness that replaced it was so unlike Dumethdin's warm folk — it branded him so sharply as one of this witch-race — that he slumped and grew saddened.

"Let us go," he said.

As he followed Horlam down a glaring bare corridor, with Smit and Smit's weapon at his back, he turned over his last glimpse of Sonna: a small figure at the barred door, all alone in a cage.

IT WAS not to a room where he could look out on the arrogant stars and the cool ringed shield which was his home that they took him. Their walking ended down in the guts of the ship, in a great chamber which was a flashing, blinking, quivering, humming wilderness of philosophic apparatus.

"Sit down, Torrek," invited Smit.

The Diupa man crouched back from the chair, for it was an ugly thing of wires, instruments and shackles.

"On the floor, perhaps — not in that," he answered.

"You will sit in that chair," Smit told him, hefting his weapon, "and permit yourself to be bound into it. Whether you do so freely or let me knock you out with this gun is your affair."

Torrek snarled at him. Smit was standing too far, too ready, for a leap. Therefore Torrek yielded. As Horlam closed the steel bands which locked him by wrists, waist and ankles to the chair, his lips moved, invoking the nine evils on Coan Smit.

Horlam lowered a grid of wires and less comprehensible things onto Torrek's head and began adjusting it in various ways. Smit pulled up a chair for himself, sheathed his gun and crossed his legs.

"Well," he said, "this will take a little time – to adjust the *circuits*, I mean – so I may as well tell you what you wish to know." He grinned wryly. "It is hard to figure where to begin. Some nations of men understand that the world is a round ball spinning about the sun and that the stars are other suns. I do not know if in your country –"

"I have heard such tales," grunted Torrek.

Till now, the imaginings of Diupa's learned men had not seemed very plausible to him. But now he knew – beyond all reason, without needing as proof the fact of this ship – that Smit spoke the truth. But why did he know it so surely?

"Very well, then," said Smit. "It is a great distance from sun to sun, greater than men can truly understand. And there are more suns than have ever been fully counted. Nevertheless, men learned how to cross such distances in ships like this, overcoming the barriers of space, time, heat, cold, weightlessness, airlessness. Spreading from one world, very long ago, they strewed their seed on thousands of other worlds.

"Then the Empire went down in wreck and men forgot," Smit continued. "On *planets* like yours, far removed from the old centers of civilization, thinly populated at the time of the disaster – on such worlds, hardly a memory remains of the Empire and its fall."

TORREK shivered. It was not alone the weirdness of the tale, but this sense of having been told it once before, in some forgotten dream.

He said slowly: "There are legends concerning those who existed Before the Rymfar."

Smit nodded. "Of course. Not all knowledge was lost. On some worlds, a kind of civilization survived. But only slowly, through numberless agonies, has it struggled back. The Empire has not yet been rebuilt; there are many separate nations of planets. Most of the *Galaxy* is still an unexplored wilderness – But I am talking beside the point.

"All right. This is a scout ship of a certain nation, your nation,

which lies an enormous distance away. We have been cruising through this region of space for a number of years, mapping, studying . . . preparing the ground, in a way. Five years ago, we discovered your planet and tested a new procedure.

"You are Korul Wanen, an officer of this ship. Your memories — all your memories of your entire life — were stripped from you. You were left to be picked up by the Island folk. Now we are taking you back."

Smit turned and waved an imperious arm at one of the gray-robed men who stole meekly about, serving the switches and dials of the great machine. He let Torrek sit there with sweat spurting out on the skin, while he gave an order. Then he faced back, grinning.

"You don't like it, do you, Korul Wanen?" he said.

"It's a lie!" croaked Torrek. "How could you have found me if —"

"A good question. But I fear it will not disprove my assertions. You see, a small *radiating* — signaling unit, drawing its power from your own body, was implanted in a bone of yours, before you were put down. We could locate you from many miles away."

"But no one would be so stupid!" roared Torrek. "I might have died! The folk you say you left me with might have been cannibals and eaten me! What then could you possibly have gained?"

"Nothing," said Smit. "But neither would we have lost anything

— except one expendable unit of the crew."

THERE was a certain avidness in Smit's pale eyes. He was not telling this because there was any special need to, Torrek saw. He was telling it because he wanted to watch his prisoner squirm.

Torrek stiffened. It was hard to remain calm, when his heart beat so heavily and his mouth was so dry.

Why, he thought, in a remote, astonished part of his brain, *I am afraid! This is what it feels like!*

The gray-robed person came back with a black cylinder the size of a man's forearm and gave it to Smit, who handled it as one handles heavy objects.

He smiled at Torrek. "In here," he said, "is the ghost of Korul Wanen."

Torrek clamped lips together. He would not ask!

"He will live again in his own body," said Smit. "But first, of course, Torrek must be rubbed out."

That drew a howl. "No!"

"Yes," said Smit eagerly.

He passed the cylinder to Horlam, who fitted it into the machine next to another one.

"You might turn over your memories one last time, Torrek. They will soon be nothing but a scribing in a tube."

Torrek struggled, uselessly, until he thought his muscles would burst. If they but would, he prayed in anguish, if he could only know clean death!

As the dizziness and the darkness closed in on him, the machine screaming inside his head until he felt it must rack his brain apart, he saw Smit lean closer to peer at him. The last thing of which Torrek the Harpooner had awareness was Smit's look of enjoyment.

Korul Wanen

HE HEFTED the cylinder. "Five years!" he murmured.

"Oh, it could hold several centuries' worth of experience, my boy," said Dr. Frain Horlam. "When you use individual molecules to store information —"

Wanen looked up from the cylinder, across the desk to the aging psychologist. He was not certain how to act. On the one hand, the old fellow was a non-Cadre civilian; as such, he rated scant respect from a lieutenant in the Astro service. On the other hand, Horlam was in charge of the major scientific undertaking of this expedition, and on an exploratory trip, such work was subordinate only to the gathering of militechnic data.

Therefore Wanen said with a carefully noncommittal courtesy: "The theory of this never was explained to me. As long as you only wish me to make conversation, with no subject assigned, perhaps you would be kind enough to instruct me."

Horlam's gray head lifted. "In a rough way, if you like," he said. He leaned back and took out a cigar. "Smoke?"

"No!" Wanen collected himself. "You know I am an Academy man and therefore conditioned against vice."

"Why?" Horlam tossed the

question off so casually, between puffs on his own cigar, that Wanen answered without thinking:

"In order to serve the Hegemony and the Cadre which guides it more efficiently —" He jarred to a halt. "You're deliberately baiting me!"

"If you say so."

"These are not joking matters. Don't make me report you."

"This ship is a starvish long way from home," said Horlam, with no obvious relevance. "Seven years now since we left. Nobody back there knows where we are — we didn't know ourselves just where we were going. The stars have changed position so much that the old Imperial astro data are no use at all, and space is so big, and there are so many stars — if we don't come back, it will be hundreds of years, probably, before another Hegemony ship chances to come exploring around this way again."

Wanen's uneasy puzzlement grew. It might only be the lingering strangeness of his experience. He had wanted to report for duty as soon as he awoke in the sickbay cot, but they had made him rest for a while and then sent him to Horlam's office. An informal talk was to probe his restored self and make certain he was once again fit to serve. But this was *too* informal!

"WHY do you say these things?" Wanen asked in a very low, controlled voice. "They're platitudes, but your tone . . . somehow, it all borders on deviationism."

"For which I could be given anything on the scale of corrections, from a reprimand, up through death, to lobotomy or memory erasure — eh?" Horlam smiled around his cigar. "Never mind, boy. You must also know that there aren't any secret police aboard to whom I could be reported. The reason I'm saying all this is that there are certain things I must tell you. I want to cushion the shock. This is your first deep-space voyage, isn't it?"

"Yes."

"And you only had two years of it. Then you were mind-blanked and deposited on that planet. The rest of us have been batting around this part of the Galaxy for five years more. Things change under such conditions. There has to be a certain adjustment — a loosening of discipline, a letdown of idealism. You'll see it for yourself. Don't be unduly shocked. The Cadre knows the phenomenon well, allows for it."

Wanen realized suddenly that this was why deep-space men never returned to the home worlds of the Hegemony. When you had made your first really

long voyage, you were never allowed closer to the Inner Stars than a year's journey; your home became the great naval bases. You knew this in advance, and were told it was a matter of quarantine, and accepted the sacrifice as a small offering to make for the Cadre.

Now he saw that the disease he might conceivably be carrying, against which the people of the Inner Stars must forever be protected, was not a physical one.

"Very well," he said, smiling his relief. "I understand."

"Glad to hear it," said Horlam. "Makes things that much easier."

Wanen laid the cylinder on the desk. "But we were discussing this, were we not?"

"Uh, yes. I was explaining the fundamental idea." Horlam drew a breath and set forth on a lecture. "Memory patterns, including the unconscious habit patterns, are taken to be synaptic pathways 'grooved' into the nervous system — if I may speak very loosely. The personality at any instant is a function of basic heredity, physical constitution — health, diet and so on — and the accumulated total of these synaptic paths. Now the paths, being physical, can be scanned, and, of course, whatever is scanned can be recorded.

"Inside this cylinder is a complex protein whose molecules are selectively distorted to record the scanned data. But that's detail. Whatever can be scanned can also be selectively heterodyned, canceled, rubbed out — call it what you like — leaving the adult body a memoryless, mindless hulk. But such a body relearns with astonishing speed; it becomes a new, wholly functioning personality in less than a year.

"If these new memories, such as those you acquired in the past five years, are scanned and canceled, the recording of the old ones can be 'played back,' so to speak — reimposed on your nervous system. And thus Lieutenant Korul Wanen returns to life."

THE young man scowled. "I know all that," he protested. "You explained it to me yourself when I got this assignment . . . but perhaps you've forgotten. After all, to you it happened five years ago. What I was interested in now were the more technical details: the type of signal used, for instance."

"I can't tell you much," said Horlam regretfully.

"Classified? I'm sorry I asked."

"It's not that classified. No, first is the fact that you would have to learn three new sciences for me to make sense to you. Second, it's an ancient Imperial technique, totally lost during the Dark Ages.

An exploratory ship found a wrecked machine and a set of handbooks in the ruins of a city on Balgut IV, about thirty years ago. Slowly and painfully, the research unit to which I belong has rebuilt the psychalyzer, as we call it, and learned a few things about it. But we're still mostly groping in the dark."

"This record here —" Wanen nodded at the cylinder, which stood on the desk like some crude idol —"you intend to study it, I imagine?"

"Yes, but as an electronic phenomenon, not as a set of memories *per se*, which it could only become by being reimposed on a living brain, which I suspect could only be your brain. But with our apparatus, we can make a point-by-point comparison of this record with the record we have of yourself as Wanen — run statistical analyses and so on. I'm especially interested in trying to find out precisely what patterns in the recording correspond to the learned elements of personality.

"This was a totally new kind of experiment, you understand. Never before has the same body experienced two totally different cultures. Now we can really separate out the significant factors. Give my computers — and me — a few years to chew all the data and I may actually begin to know something about the human brain. Yes, you've performed a real service to science."

"I hope it is also a service to the Hegemony," said Wanen.

"Oh, it is. Consider what might be done about deviationism. At present, the psychalyzer can only wipe out the total memory of a non-loyal unit. The process of re-education from the ground up is slow and costly; lobotomy and reduction to low civilian rank is a waste of good human potential. If we knew how, deviant tendencies could be corrected much more neatly, without sacrificing the deviant's skills and experience. In fact, perhaps conditioning could be made so thorough that no one would be physically able to have non-loyal thoughts."

It was such a splendid vision that Wanen jumped to his feet and blurted: "Thank you! Thank you for letting me serve!"

Horlam knocked the ash off his cigar and nodded in a slow, somehow old fashion. "You're all right," he said in a dry voice. "You may report for duty."

COAN SMIT had changed in five years. He was no longer quite the steel-hard, steel-proud Academy youngster who had forever left the Inner Stars in order to serve them more fully.

Wanen grew only slowly aware of it, in the course of hours when they stood watch by the Number

Five boat launcher, as they had done so many times before. Smit was still deft, crisp, neat. If his face had darkened, that was an honorable badge, given him by the sun and wind of the ringed planet. Wanen himself, after all, was even more deeply tanned, and added thereto was a barbarian tattoo.

But Smit was not *absolutely* Academy; the creases in his uniform were merely knife-edged, his boots did not blind the eye. He stood properly straight, but without actually straining his muscles. He walked with the regulation pace, but was there the faintest hint of a swagger?

When they were finally relieved, Smit yawned in a most un-Astro fashion. "Good to see you again, Lieutenant," he said.

"Thank you, Lieutenant," said Wanen formally.

"Let's get a cup of coffee. I want to talk to you."

Their hard heels clacked on metal as they went down the passage toward the junior officers' wardroom. Wanen found himself noticing the enlisted men he passed. They had grown sloppier than the officers, not outrageously so, but it was there; and when they saluted his insignia, he sensed an air of cringing.

Many punishments must have been ordered aboard the *Seeker* in the last five years: sweatbox, nerve-pulsing and worse. But that should not have been necessary . . . or should it?

Wanen sighed in confusion. They raised you from birth to serve — his mind recited the comforting Hierarchy: *The unit which is called I serves the unit called the Ship, which serves the Fleet, which is an arm of the almighty Hegemony and of the Cadre that guides us all toward the New Empire; there are no other loyalties.*

You were bred and raised for one purpose only, like all units below Cadre level. Your particular purpose was to serve in the Outer Fleet. And that, of course, was right and good; but it was a narrow education that did not prepare you for the sudden impact of strangeness.

For two years, while the *Seeker* hurtled through unmapped hundreds of parsecs, he had seen a little of the otherness which is deep space — just a little. Then five years dropped from his life and here he was again, in a ship which for half a decade had had the cold wild otherness seeping through her armor and —

THEY entered the small wardroom. No one else was present. Smit dialed for coffee and, when it came, sat cradling the hot cup in his hands for a while, as if he were chilled.

"I saw you, of course, a good

many hours ago," he said finally. "But you wouldn't remember that. You were still Torrek then."

"Torrek?" Wanen raised his brows inquiringly.

"That was your name, you said. Oh, you were a proper savage, I can tell you!" Smit chuckled. "Beautifully easy to bait, too. I hope you don't —*Hey!*"

Wanen yanked himself back barely in time. His hands were still crooked claws. He looked at them numbly and it came to him that they had curved to fit a man's throat.

"What are you *doing?*" gasped Smit.

"I don't know." Wanen sat down again heavily and stared before him. "All of a sudden, a derangement. I wanted to kill you."

"Hm." Smit recovered with the rapidity of disciplined nerves. He sat a little farther away, but his face grew calm again. After a moment, he said in a thoughtful tone: "Some underlying disturbance — yes, I suppose that's it. A residual effect of the transformation you've undergone." He shrugged. "Well, why not? This is a new kind of experiment. You'd best see Horlam again, but I don't imagine it's anything too serious."

"Yes." Wanen stood up.

"Not now, you idiot! Relax. Drink your coffee. I want to discuss matters with you. It's important to our whole mission."

That brought Wanen back into his chair. "Proceed," he said. If his heart still shivered, he kept it under control.

"I hope the doctors can get that ugly tattoo off your face," complained Smit. "It bothers everybody."

"It's no worse than combat scars," said Wanen huffily.

"Oh, yes, it is. It stands for something different — something none of us want to be reminded of." Smit glowered into his coffee for a little while longer before resuming: "You recall that we found only two inhabited planets, both of them the usual wretched, uninteresting places, before coming on Ring here. That's the nickname the crew have given it: Ring. It's important and exciting enough to rate a pet name.

"You must also remember that our preliminary scoutings showed it to be an unusually fertile planet with a human population which had lost all traces of Empire civilization — but had, on the other hand, built up a rich variety of cultures for themselves. The highest society, technologically speaking, is in the Islands, the big subtropical archipelago. They're just on the verge of printing and chemical explosives, and could easily come up with a scientific-industrial revolution. That's the people we dropped you among."

"Yes," said Wanen. "I remember seeing it from the air. They told me that was the place —" His voice ran on, almost as if another mind were musing aloud. "There was a deep fjord, and towns along it, and mountains with long valleys like green fingers reaching down to the water and — No, I'm not sure," He rubbed his eyes. "Did I see clouds floating under a high peak? There was something about a peak, like victory. No, I can't recall."

HE GREW aware that Smit was regarding him oddly, but the sense of exaltation remained within him.

"Continue," Wanen said. "You were bringing me up to date."

"Yes. I was. Well, then, we left Ring and for nearly five years more we've been prowling this part of the spiral arm."

"What did you find?"

"Planets. Some with people on them. Nothing to compare with Ring. About six months ago, therefore, we came back. I and some others went down on ethnic survey in the Island region. I suppose you've heard something about the techniques. Kidnap a native, use accelerine and hypnosis to get the language and basic cultural information from him in a hurry, then dispose of him and go out yourself. Claim to be a foreigner from some other country. It works pretty well with societies that know there are other nations 'beyond the horizon,' but don't know exactly what they're like."

"What's a Boats man doing in ethnic survey?"

"You're Boats, too, Lieutenant."

"That's different. There were certain physical qualifications needed for the experiment, to give the blanked man a chance of survival, and training was, of course, irrelevant. But you —"

A bleakness crossed Smit's face. "We're short of ethnic specialists," he said, "and war boats aren't needed hereabouts. I had to fill in. So did a number of others."

"High casualties elsewhere?"

"Yes."

"But — from primitives?" Wanen was startled. "I thought they weren't even supposed to know there were observers among them — let alone get unnecessarily antagonized — let alone kill our men with — with spears!"

"All those things happened," said Smit grimly. "The loss of quality — competence, adjustedness, efficiency, even loyalty — the decay of the entire crew was incredible. In the case of the ethnic men, it was disastrous. See here, Lieutenant — half the casualties among survey terms were due to our having to shoot the men ourselves for radical deviationism."

Wanen sat as if struck on the head. "No," he whispered.

SMIT bared his teeth. It was not a smile, nor quite a snarl. "Yes. I've felt the tendencies in myself. What did you expect? Seven years of metal walls and celibacy!"

"But we have Antisex. We have loyalty rallies —"

"Mere suppression of overt symptoms. Frustration continues to build up underneath, until it breaks loose in sheer destruction and negativism. Even a lifetime's conditioning can't survive that kind of pressure."

"But this can't be the first time —"

"Of course not. It always happens on a really long voyage. When the first troubles arose, the captain explained the phenomenon to all us officers."

"Well, then!" Wanen leaned back, sighing his relief. "So there must be a procedure in the Classified Manuals."

"There is," agreed Smit. "After casualties due to such causes exceed a certain percentage, the ship is to find a backward planet. A certain small area is to be occupied. Built-up aggressions may then be freely vented on its men and children. Antisex is discontinued and the local women made generally available."

Wanen felt a curious, sick reluctance within himself. He couldn't understand it. Even from an altruistic viewpoint, such measures were for the good of the barbarians, too, since the procedure was obviously essential to the expansion of the Hegemony and the Hegemony would come at last to include all mankind everywhere in the Galaxy.

Nevertheless, he could hardly get the words out: "So Ring has been picked?"

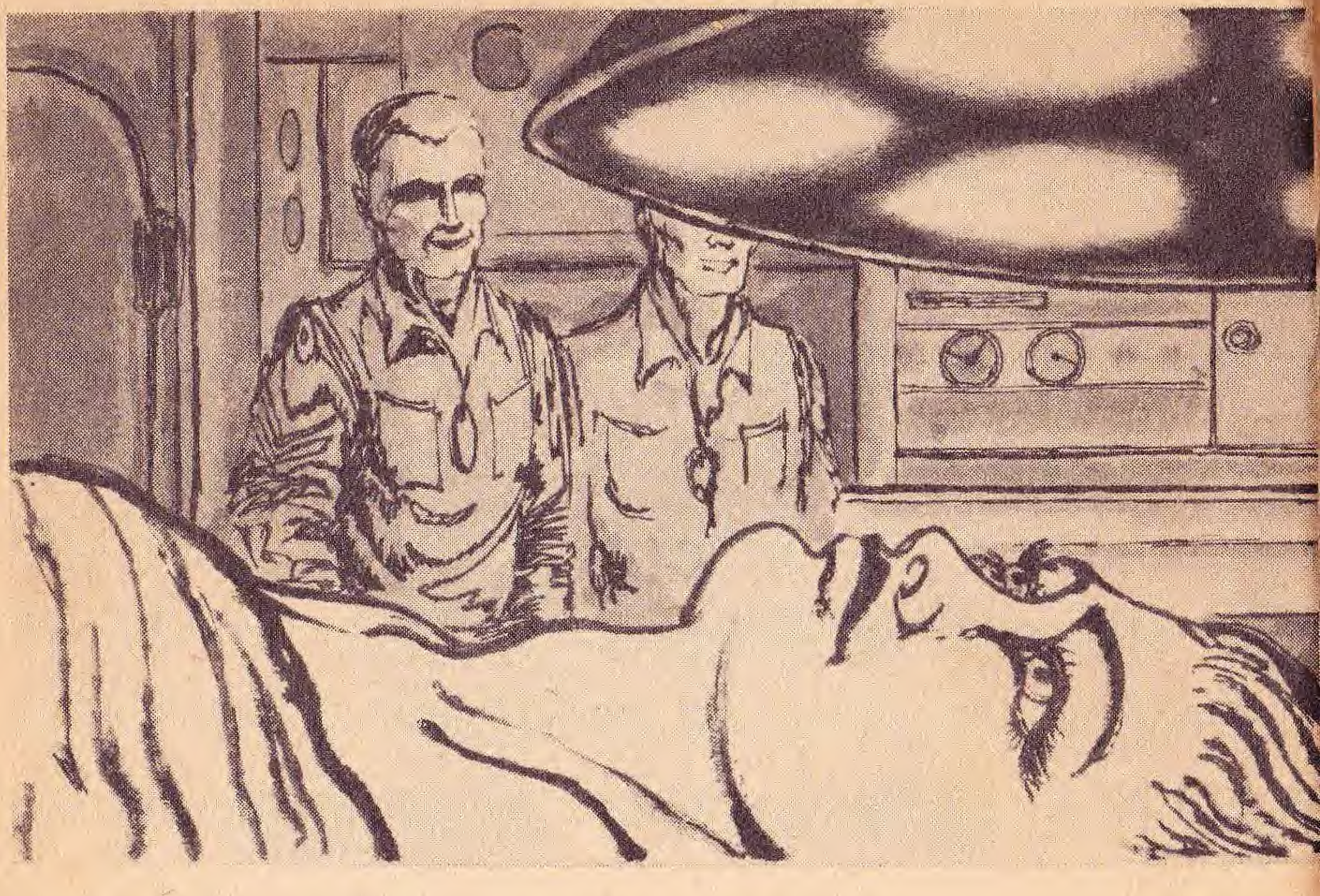
"No," said Smit. "The tension release I spoke of took place months ago, on the last planet we stopped at."

A second's inexplicable relief was followed by a new tightness of soul. "Then why are we still here?"

"Problems! A dilemma!"

Smit shoved his empty cup away, got up and started pacing the floor. It was not the act of an Academy man, taught never to show uncertainty to the world.

"You see, the Classified Manuals further recommend that a ship return to base immediately after such release has been effected. Otherwise — well, just consider the ordinary insignificant little enlisted man, the faceless unit among hundreds of other interchangeable units. For a few weeks, he has been a conqueror, killing, whipping, flaying, burning, raping, drinking himself stupid every night. Resuming ship discipline and Antisex isn't easy. In fact, if he isn't pointed back toward normal surroundings at



once, the Cadre alone knows what deviationism can arise."

WANEN said, "Having recovered me, why don't we go home?"

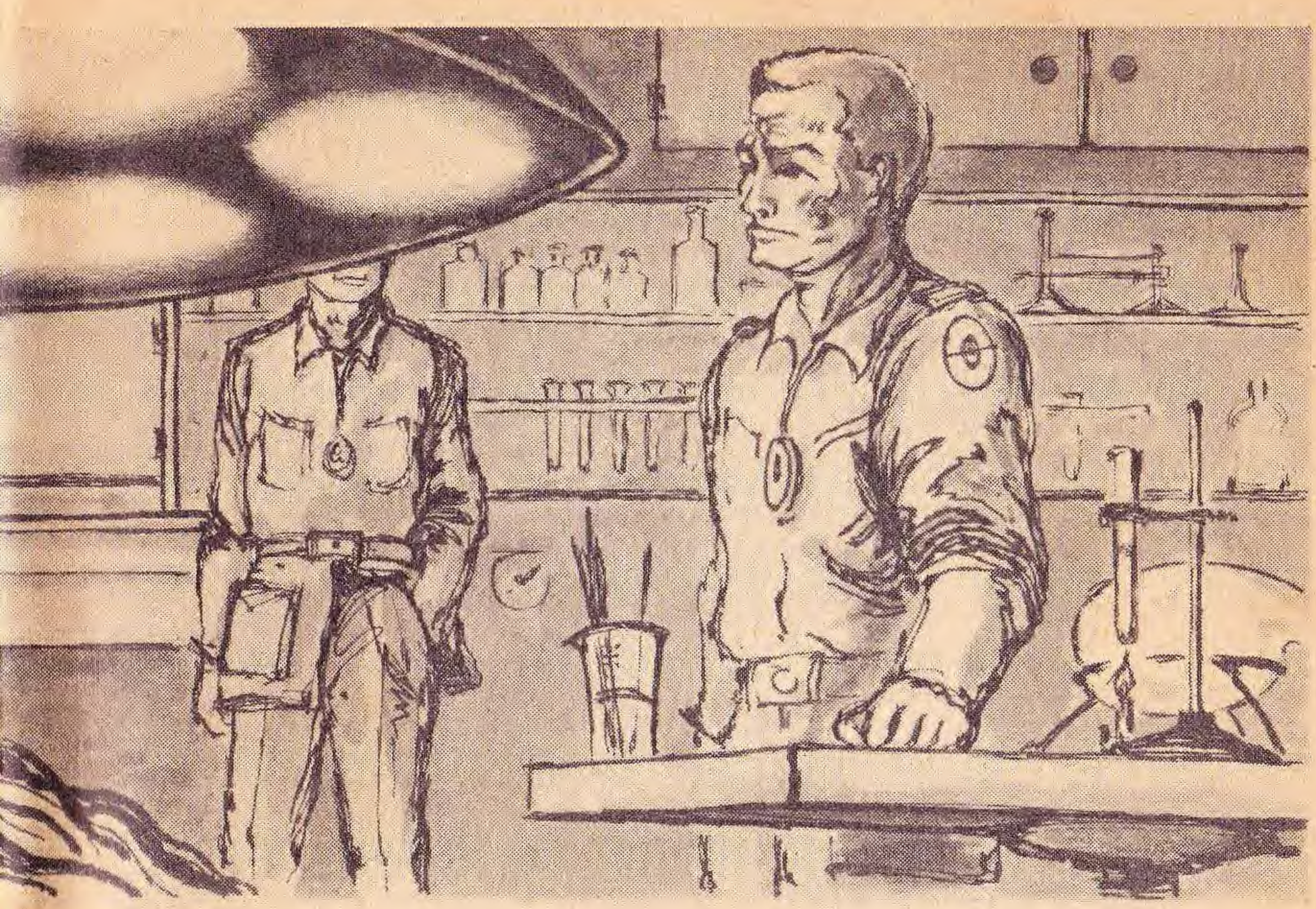
"We've got to occupy Ring," said Smit shakily. "Not for the — the previous purpose. For militechnic reasons."

"What? But I thought this was only a survey."

"Oh, it is. Or was. But look. The average backslid planet is a pretty miserable affair. It's just naturally so hostile to human life that when the Empire broke up and all the artificial gadgets and props were destroyed, or rusted away, civilization went to maximum entropy in an obscene hurry. On most planets, Man simply became extinct. In the cases where adaptation was possible, the normal outcome was savagery.

"Ring, though, is a world where men can really feel at home. They've flourished! There are millions of them and they include some extremely able, sophisticated races. It's almost as good a conquest as a unified planet with full industrial culture.

"And remember, Lieutenant, we have mortal enemies. The Republic, the Libertarian League,



the Royal Brotherhood, the High Earls of Morlan — there are a dozen other civilizations spreading into space, each with its own idea of what the New Empire should be like. We don't dare let one of their scouts stumble on Ring. Whoever garrisons it first has got possession of it, at this distance from all naval bases."

"Easy now!" said Wanen. "What are the odds of their finding Ring? A hundred billion stars in the Galaxy and this one to find among them all."

"And the GO stars are always investigated first," Smit said, "and they're not too common in this spiral arm, and we *know* there are League ships mapping it, too. It's a finite chance, certainly — I know that — but one we dare not take. We *must* plant a garrison down there; it's in the Manuals. Then we head back to base, report our find and have a task force sent which can take over the entire planet, fortify it properly, civilize the inhabitants, and so on.

"But it'll take us nearly two years to get home — a year to organize the task force, probably — two more years to come back —

"Five years! Can we trust a garrison for five years?"

HORLAM began unclipping the electrodes from Wanen's head and body. His lips were pursed and he frowned, thinking.

"Well?" exclaimed Wanen. Only after half a minute of silence did he realize how un-Astro it had been for him to reveal emotion before a non-Cadre civilian. *What was wrong with him?*

"Well," said Horlam presently, "according to every known encephalographic and neurographic technique, you have no surviving memories of your stay on Ring."

"Are you certain?" insisted Wanen. "There must be something to account for – for – Look here." He forced the words out, one by one. "On my way to your office, I looked out at the planet. I have never seen anything so beautiful in my life. I loved it as I ought to love only the Cadre. I had to run from there before the tears came." He felt pain in his hands and unclenched them; the nails had bitten into the palms. "Something about the experience must have changed me. I'm *deviant*."

"See here," said Horlam patiently, "it's my specialty, not yours, to know what memory is. It's a permanent alteration of protoplasm as the result of a stimulus. The memory patterns are all in the brain, except for a few habits which are synaptic patterns in the nerves proper. Well, I've just run a comparison of the Wanen record we have, your cylinder, with the Wanen record in your own nervous system. This is an absolutely objective process, a tracing out of electronic patterns of flow, resistance – it makes an electronic map of your entire nervous system."

He finished releasing the younger man, sat down on a corner of his workbench and took out a cigar. "The difference between the two patterns, my friend, is insignificant – a few additional traces caused by your experiences since your normal personality was reimposed. You've been telling yourself an old-time ghost story, with lingering traces of your Torrek memories in place of the ghost. Now forget it. I assure you that there are *no* such traces."

"But then what's making me have these fits?" Wanen felt himself almost cringing back.

"I'm not certain," shrugged Horlam. "I told you psychalysis is still a half-science fumbling in the dark. But at least I've proved your trouble is nothing very basic to yourself.

"Tentatively, my diagnosis is minor glandular upset. You've spent five years on an alien planet, eating its home-grown food. Perfectly good, nourishing food for a man, but there are doubtless subtle biochemical differences –

hormone traces, vitaminlike compounds, and so on. Your body adapted. Now it's having a little difficulty readapting to ship rations. The slight chemical imbalance is expressing itself as irrational surges of emotion."

WANEN nodded. His tension began to ease. Chemical neuroses were not unheard of in this service, and easily correctible. "If I'm not actually deviating toward non-loyalty —"

"Not enough to matter," drawled Horlam. "These glandular-digestive hooraws do sometimes express themselves queerly. For instance, this desire to kill Lieutenant Smit that you mentioned, or your feeling toward Ring the attitudes appropriate only to the Cadre. And — let's see, have you had dreams the last night or two?"

Wanen shuddered. "Nightmares. I saw my own crewmates being killed — atrociously."

"An obvious expression of resentment toward them — toward the entire Hegemony culture," said Horlam casually. When Wanen jerked, half leaping to his feet, the psychologist laughed. "Take it easy there, son. You're not non-loyal and nobody is going to shoot you. It happens all the time and doesn't mean a thing."

He got his cigar going. "After all, Man evolved as a creature of forests and open air and — intimacy, shall we say? A family animal. Our civilization forbids all this, locks us indoors with machines, selects our mates for us, whom we seldom see, and takes our children away to raise in crèches. Naturally our instincts revolt. The good unit will not deny that he has bestial instincts — rather, he will accept the fact and use his strength to overcome them."

Wanen found the slow voice relaxing. He even began to feel warm. "I see," he answered. "Thank you. What treatment do you plan?"

"None, unless your symptoms get worse. And I expect they'll improve by themselves. Now you're dismissed. The exec wants you to report to him for special assignment."

IT WAS curious, the thick pounding of his heart as he walked toward the door. The austerity of the ship, blank hallways and neat little cubicles, eternal white glare of fluorescents, gave the mind nothing to seize. It was thrown back on its own sick fantasies.

Wanen rehearsed his orders — any escape from the chaos and the sullen feeling of rebellion that lay coiled in his skull. The trouble was, his orders were so indefinite. In Astro, you were neces-

sarily encouraged to think for yourself to some extent. Even an enlisted man was no use on a spaceship if the critical faculties were electrically burned out of his brain, as was done for the lower ranks of civilians in childhood. But this was too much latitude for a plain lieutenant of Boats. What was he supposed to *do?*

"This young woman who was picked up with you. She was the first of a series of prisoners we intend to take, to furnish more detailed information about the country. But she's proven too savage, even dangerous, to be of help. All that's been accomplished is to teach her the Cadric language by psychalysis, under accelerine. What information we have about her people suggests that none we might capture is likely to be of much greater value to us. However, since she was accompanying you, Lieutenant, she may be more cooperative if she is left alone with you. Persuade her to assist us.

"Our ground-fighting forces are not so large nor so well equipped that we could easily hold an island against the determined opposition of the archipelago nations — especially since deviationism is anticipated among the garrison, which may culminate in open mutiny if there is a strong enemy to whom the mutineers could desert afterward. Therefore it will be necessary, if we are to occupy even one island, that we exterminate all natives throughout the archipelago. The information she can furnish would be of value in conducting such an operation efficiently."

"The Intelligence men — did they try coercion, sir?"

"On the woman? Of course. She stood nerve-pulsing till she fainted, so that's no help. The so-called truth drugs disorganize the mind too much; we need systematic information. We could try mutilation, or the threat of it, but I doubt if it would work either; her culture seems to set a high value on intransigence. Either you persuade her, Lieutenant, or we discard her completely and fish for other prisoners."

"Yes, sir. But if it is permitted me to ask, why should we attack the Islands at all? There must be more backward areas, even desert regions, which could more easily be occupied."

"No doubt. But it so happens that the Islands are the only part of Ring which have been studied in any detail. That is because the ethnic officers were naturally most interested in the planet's most advanced culture. Now we do not have enough ethnic or cartographic specialists left to map any other region soon enough."

"I see. Thank you, sir."

"Service to the Cadre! Dismissed."

"Service to the Cadre!"

WANEN halted at the door. He was, he realized with a cold shock, afraid of what lay beyond.

Then, mumbling a curse, he palmed the lock. It opened for his prints and he went through. The door clashed shut behind him.

She sprang from her bunk and stood for a moment without stirring, as if frozen. And yet, he thought dizzily, the lines of her were fleetness itself. He had never in all his memory seen so wild and lovely a creature as the one which poised in the steel bareness of this little cell.

(Yes, he had — as Torrek. But Torrek had been peeled from him, like a skin taken off living flesh.)

She wept and ran to his arms.

As he held her, he felt again the sensation which had risen in him when Ring swam across the stars. Only it was a deeper thing this time, a knife twisting inside him and a summer's breeze in his hair, trumpeted victory and a long blue twilight where they two walked alone. Almost, he carried her to the bunk —

But only almost.

He remembered in barest time that there was a spyscope mounted somewhere. It brought him back to a sense of his duty, but with the heaviness of a world oppressing him.

She babbled endearments in a language he did not know, until at last he put a hand under her chin and tilted her face up toward his (where had he learned the gesture?) and said with an overwhelming tenderness: "Speak Cadric. I have forgotten."

"Oh —" She drew a little away from him. His arms would not release her, not entirely, but he saw terror in her eyes.

"It's all right," he said. "It's only that I have forgotten what happened on — in the Islands. You see, I have been returned to my people."

"*Your* people!" She said it slowly. The unfamiliar language was stiff on her lips.

"Yes." He let her go and stared at the floor, feeling obscurely ashamed. She did not run from him, but there was no place to run to. He plowed ahead: "I regret any inconveniences you may have suffered, but it was necessary. We've come for the good of all mankind."

"It — may be." She eased a trifle and whispered: "But you have forgotten everything indeed, Torrek. They have shorn your mind like your hair?"

"I don't even know your name any more," he said wryly.

"Even — I am Sonna, Baelg's daughter." A slow flush crossed her cheeks. "We were going into the mountains together."

HE REMEMBERED acutely that he had not yet been issued his Antisex tablets. But it was hard to define his feelings toward the girl. She was more than a means of relieving tension; more, even, than a co-procreator of loyal units.

Surely his trouble went deeper than Horlam admitted!

"Don't you remember how you killed the kraka?" she asked him wonderingly. Her fists drew together. "It was unfair to take that from you!"

"It's all right," he said. "After all, I have regained so much more. I remember my — well, my first indoctrination, instead of — oh, say, my first fishing trip — Never mind! You simply wouldn't understand."

'What is your name now?" she asked.

"Korul Wanen."

"I shall always think of you as Torrek." She sat down on the bunk, smiling unhappily. "Come, join me, at least, and tell me about your people."

He did. It was mostly an astronomy lesson, with a sketch of history since the Empire died and a lecture on the New Empire of the future. He spoke in a most dry, uninspired tone and looked straight before him.

"Yes," she said finally, "it is a glorious vision, to make all men brothers again. I think Dumethdin will be pleased to make an alliance with you."

"An alliance?" he stumbled. "That's not just what — what we had in mind."

"No? What then?"

Being trained only to guide spaceships, and in combat to operate one of the small boats which guarded a major formation, Wanen proceeded to tell her.

She grew altogether still.

"It is, of course, for the best," he said.

She stood up. "Get out.

"What? But I was explaining —"

"I know I cannot kill you. But get out before I dirty my hands by trying!"

"See here — your own self-interest — loyalty to the Cadre is expected of *all* humans —"

She did something then which told him how alien her homeland was and he himself had been. She sat down, cross-legged, and ignored him. She erased him from her private universe of perceptions. He realized only slowly what she was doing; afterward, he wondered why he understood at all. He had never heard of such a thing before, except in his canceled Torrek incarnation.

But when it penetrated his mind, he turned and ran from her, shaking with fear.

"YOU have been an idiot," said Coan Smit. They sat alone in the wardroom, after coming off Boats watch once again.

"How was I to know?" asked Wanen miserably. He stared at his cup without really seeing it. "Diplomacy isn't my field. I'm not an ethnic man, for Cadre's sake! The exec himself said he could not reprimand me."

"I can. An Academy man isn't some stupid civilian — we're not only allowed versatility, it's expected of us. You've let down the Academy, Wanen."

"Shut up!" The emotion within Wanen exploded in a roar. "Shut up or I'll wring your neck!"

"Lieutenant!" Smit sprang erect. "Your behavior is deviant."

"For your information," said Wanen between his teeth, "my rank is equal to yours. I'm going to file a criticism of your language."

"And *I* am going to file a suspicion of deviationism," Smit retorted. "Horlam is another idiot. He should have turned you inside out. Just because your trouble isn't due to lingering memory traces doesn't prove that you have no trouble."

"I am also physiologically and biochemically checked out," snapped Wanen. "Any imbalance is a question of micro quantities. When were you last investigated? And what business is it of yours, anyway?"

"'Anyone's business is everyone's business.'"

Wanen had heard the slogan often enough. He had cited it himself now and then, in a past which seemed impossibly remote. But all at once it tasted like brass in his mouth. He hunched over his coffee cup, smoldering.

"We're too far from home," said Smit, more gently. "If we don't return, it may be centuries before a Hegemony ship comes this way again. An enemy scout may find Ring meanwhile. *Anything* might happen. Better to dispose of you on suspicion than risk our entire operation."

"Yes," said Wanen automatically. "That's the obvious solution."

"Not that I really think that'll be necessary." Smit was fairly bedewed with good-fellowship now. He came around the table and laid a brotherly hand on the other man's shoulder. "Actually, I myself believe your trouble is just some trivial thing. A few shots of hormone, perhaps some conditioning, and you should be as good as new. Or — wait. Now that I come to think of it, you've gone a full seven years without tension release!"

"I was on Ring," mumbled Wanen. "I was a man of — what did she call it? — a man of Dumethdin. We didn't need to do such things."

"No doubt. But now you've forgotten. Hm." Smit paused.

Looking up, Wanen saw him thoughtfully rubbing his chin and realized with an illogical resentment that the fellow was trying to be helpful.

"I have an idea," Smit went on. "It'll have to be approved, of course, but I don't see why it shouldn't be. And if all you need is release, this will certainly provide it."

"What will?"

"This girl, the one we captured. Since she just won't cooperate and a total reconditioning isn't worthwhile, I understand that she'll be lobotomized and turned over to the enlisted men for a few days. Now if you were allowed to watch the operation and then have her first and throw her out of the airlock yourself when she's no use any more — why, it should be as good as a six months' furlough!"

Wanen sat very still. After Smit had gone out, he remained in his position, crouched over the wardroom table. His heartbeat had slowed so much that he could no longer feel or hear it. Once, vaguely and indifferently, he wondered if he were dead.

Then he realized that he was insane.

THE Boats watch was changed every four hours, with the same men taking it every fourth time around. Between such duties, one ate, slept, studied, participated in loyalty demonstrations — but there was also a certain amount of time to oneself, at least on the officer level. The young men played ball in the gym, or gambled in the wardroom, or perhaps they sat and talked.

At any rate, there would be nothing suspicious about an off-duty lieutenant walking through almost any part of the ship.

Wanen was counting on that. There was a curious peace within him. He knew he was mad. In view of Horlam's exhaustive tests and their uniformly negative results, it was the only possible explanation. The strain of changing personalities clearly had cracked his mind open. He was crazy, and he expected to be killed somewhere along the way, and it didn't matter greatly. Nevertheless, he took no unnecessary chances.

He forged his squadron commander's name to a Special Orders slip and presented Lieutenant Rosnin with it when that conscientious young man went on Boats watch.

"Full combat lading for Seven-

teen, including fusion missiles?" Rosnin's brows went up. "What's going on?"

"Classified," said Wanen briskly. "Don't you see this is a Special form?"

Rosnin might have wondered why any junior officer should be entrusted with Classified orders and, simultaneously, present the directive in so casual a fashion. But he was not a man of great curiosity, nor given to annoying his superiors with questions. Wanen had remembered that from the outbound voyage and counted on it.

"It shall be done. Service to the Cadre!"

"Service to the Cadre."

Wanen wheeled and marched to the issue room, where he checked out a Mark IV sidearm with an extra clip of explosive bullets. Normal ship routine would force him to account for his action in about six hours, when a higher-up looked over the day's requisitions. But Wanen didn't expect to be around that much longer.

He had to walk fast now, being already late for his appointment. He was depending on the fact that never before in all history had a properly conditioned unit gone deviant to the point of treason without first showing overt symptoms. He himself was at present considered merely to be under tension. But too fast a gait might attract attention.

No matter. To entropy with it. Korul Wanen was already a dead man on leave.

He came to sickbay and was passed by the armed guard. The damned ship swarmed with guards, he thought irritably — guards, paper work, anything that might keep a man too busy to think.

Well —

Frain Horlam waited, surgically gowned, in the operating room. There were two husky meditechs to assist.

The old man looked coldly at Wanen. "I never knew anybody to be late for tension release," he said.

"I was busy," snapped Wanen. "Get on with it."

HORLAM switched on the sterilizers. One of the techs went out. He brought in Sonna, strapped to a wheeled cot. Her eyes were blank with a terror she could not choke off, but when she saw Wanen, she spat.

"Is the spyscope turned on?" he asked.

"Not to my knowledge," said Horlam in an acid tone. "Everyone else is too busy right now. It's you who needs a thrill."

"I only wondered."

"While we sterilize the surroundings — it wouldn't do to

have her get sick, would it? — you will probably enjoy explaining what is about to be done to her," said Horlam. He did not look at Wanen; he washed his hands over and over again, with exaggerated care. "Also, of course, we must take the hair off her head before we open the skull. That should provoke an interesting reaction all by itself. Most primitive women are quite proud of their hair."

"Stop that," said Wanen.

"I'm only outlining the pleasures you have in store," Horlam explained, his voice rusty. "We can do the operation under local anesthesia, so that she'll be conscious through most of it. Naturally, once she's been made docile, you'll have to wait a few days for her to heal up enough —" He broke off.

"Go on, Lieutenant." One of the meditechs said it urgently. His eyes were very bright, fixed on the girl. "Go on, tell it to her like the doctor says."

"Well," suggested Wanen, "both of you fellows come stand here beside her. There, that's right."

Sonna stared up at him. He could imagine her thoughts, he told himself emptily. She would be wishing she could faint, wishing she could die, but there was too much life in her. Torrek must have had such wishes, right at the end, before they peeled him off Wanen and locked him in a black cylinder.

Wanen walked up behind the techs, laying a hand on the shoulder of each. "I suppose you boys are getting some release, too.

"Yes, *sir!*"

"Good." Wanen's hands slid upward, palming their heads. Then the muscles which had wrestled the kraka smashed their skulls together.

They went down like stones, but he kicked them deftly behind the ears, to make sure. Mostly his attention was on Horlam. He yanked the gun from beneath his coverall and turned its staring eye on the old man.

"Don't move," he said. "Take it easy or I'll kill you."

Horlam's face drained of blood. "What are you doing?" he gasped.

"I am going to break out of here. Yes, I am deviant. I am also non-loyal, obstructionist and homicidal. My greatest wish is to shoot my own dear shipmates one at a time. Please don't make me start on you. Gently now — very gently — keep your hands and feet in plain sight. Come up here and let the girl go."

FOR a minute, he thought that Sonna had indeed fainted. But when Horlam had unstrapped her, she wavered to her feet.

"Torrek," she whispered. "Torrek, *elskling.*"

"I am going to take you home, Sonna," he told her.

There was a curious expression on Horlam's thin face. The shock had passed; mostly, now, he looked interested.

"Do you really hope to get away with this?" he asked.

"No," said Wanen.

"Hitherto, this sort of thing has been a clinical impossibility. By all objective tests, you were functioning within the limits of normality —"

"Shut up. Get a surgical gown and mask for the girl. Help her put them on . . . Very well. Now, Horlam, you go first out the door."

The clumsy disguise did not get them past the sentry outside. It did slow his comprehension a little bit—long enough for Wanen to shoot him down as he grabbed for his rifle.

Thereafter, they ran.

Twice it was necessary to kill men who got in the way. By the time Wanen and Sonna had reached Boat Seventeen, the whole ship was one great clamor of sirens and shouts and hurrying feet.

His explosive bullets mopped up the guard by the launching robot. But as he was setting it to eject the boat, he saw Coan Smit burst from a side passage. Wanen fired once and missed. Then Smit made a dive, tackled him by the ankles, and his gun went flying.

"Go through that door, Sonna!" Wanen ordered.

Smit's hands groped after his vulnerable spots, in the standard Academy in-fighting technique. Wanen blocked him with the same automatic procedure. But then, somehow, Wanen's arms and legs were going through motions unknown to any civilized folk. He broke Smit's back across his knee.

A spatter of bullets rang down the hall. Wanen got up, threw the launcher lock switch open and followed Sonna.

The boat's combat-ready motors roared as he shoved up the main bar. He vaulted into the pilot chair and grabbed for the controls. Sonna crouched behind him, cramped, bruised, and screaming a call that was somehow familiar to him.

BOAT Seventeen leaped from the mother ship and hurled starlight back from her flanks.

"They'll hunt us down —" It was an unexpected groan in Wanen's ears.

"No, they won't!" he said roughly. "I thought of that, too."

He slammed a lever. The fusion missiles leaped from their tubes.

"Cover your eyes!" he shouted, and accelerated brutally to escape.

When the soundless explosion

was over, only an incandescent gas cloud remained. It glowed for a moment, unbearably bright, before it expanded and cooled. Darkness gulped it down.

Wanen pointed his boat toward the beautiful ringed planet.

He began to weep.

Sonna reached across the narrow cockpit. There was alarm in the gesture. Horlam stopped her.

"No," he said gently. "Let him get it out. He's just denied his entire lifetime."

She sank back. Through the transparent canopy, the swelling lambent planet tangled its many-colored luminance in her hair.

"Why are you here, old man?" she breathed. "You could have dropped behind easily enough as we fled. You did not know he meant to destroy the ship."

"I might have guessed," said Horlam dryly. "Or – let us say that I have been a trifle deviationist myself for a good many years, and when the opportunity came – It was my task to detect emerging humanness in men and uproot it. But there is a very ancient saying which asks, Who shall watch the watchmen?"

Ever so faintly, Sonna's fingers brushed the blond head which lay shuddering before her. "Has Torrek come back?"

"Not in the way you hope," said Horlam. "The open, overt memories of Torrek – the deeds done, words spoken, things seen – I'm afraid they went forever with the ship. But there is another kind of memory. Our theories don't allow for it – but then Hegemony science is almost as narrow and mechanical as Hegemony life. You can't, after all, separate the brain and nerves from the rest of the body: from muscles, veins, viscera, skin, blood and lungs and bones. The living organism is a wholeness.

"Apparently your way of life, down there in the Islands, is a biologically sound one. It suits Man's deepest instincts, as ours does not. Therefore, five years of it made a deeper impression on our boy here than the twenty-odd years of slogans and exercises before that. When we brought him back, the psychalyzer wiped out the memories, yes. I even thought it had removed the habits.

"But it didn't touch the *true* habits—those deep reactions, perhaps on an actual cellular level, which we call emotional patterns. Wanen could forget that he had been an Islander. He could not forget what it meant to be an Islander – pride, freedom, decency – whatever it *does* mean. His body remembered that for him!"

HORLAM smiled. "I was not without slight suspicions of this," he finished, "but I was al-

ready deviationist enough not to report it. I was curious to see what would develop. Now I know and I'm not sorry."

The girl leaned over the seat and rubbed her cheek against Wanen's. He lifted his head and wiped his eyes, pathetically like a child.

"What are we going to do now?" she asked.

"Return to your country — our country," Wanen said with a gathering strength. "Warn them. We have a long time yet to make ourselves ready, invent our own science and build our own ships and find our own allies among the stars — my knowledge and Horlam's will help with the first beginnings, but it will take many lifetimes to finish. It's a good work for a man."

"Oh, Torrek, my poor hurt Torrek — everything you have forgotten!"

"I remembered what was important, didn't I?" He twisted around to face her. "The rest I can learn over again. Will you teach me?"

— POUL ANDERSON

★ ★ ★ ★ ★

FORECAST

If you want to learn why editors grow jumpy — some editors, that is; the ones who have to make deadlines and want the very best material that can be extracted from authors — consider this:

Next month's novella, TIME WAITS FOR WINTHROP by William Tenn, was supposed to have been turned in nearly a year ago! But Tenn, unlike infinitely less capable writers, won't let a story out of his hands until he has added, changed, rewritten, deleted, tensely played down and equally tensely played up scenes — and rammed in enough richness of ideas, characters and suspense to carry a trilogy! However nervous the wait is, it's worth every agonized moment.

In TIME WAITS FOR WINTHROP, just to give you a bare-bone notion of the immense amount of tight-packed story awaiting you, Tenn reveals the most obstinate man in five full centuries . . . and then wins your full sympathy for the stubborn human mule. But regardless of its making all the sense in the world, Winthrop's obstinacy means tragedy for four sufferers in a society they never made and want no part of! How can it possibly be resolved? Leave it to Tenn to solve the unsolvable.

Because of its length — complete in one issue — there's no telling how many novelets can also be run. There will be at least one, maybe two, plus, of course, short stories and . . .

In FOR YOUR INFORMATION, Willy Ley shows us exactly where we stand in the race for space. That was another editorial nerve-racker: Ley had to wait for the very latest photographs and data on OUR MISSILE ARSENAL. And the latest is exactly what they are!

A Wind is Rising

By FINN O'DONNEVAN

They knew how to survive—but what were the odds on a world where every good hurricane in the Galaxy went when it died?

OUTSIDE, a wind was rising. But within the station, the two men had other things on their minds. Clayton turned the handle of the water faucet again and waited. Nothing happened.

"Try hitting it," said Nerishev.

Clayton pounded the faucet with his fist. Two drops of water came out. A third drop trembled on the spigot's lip, swayed, and fell. That was all.

"That does it," Clayton said bitterly. "That damned water pipe is blocked again. How much water we got in storage?"

"Four gallons — assuming the tank hasn't sprung another leak," said Nerishev. He stared at the faucet, tapping it with long, nervous fingers. He was a big, pale man with a sparse beard, fragile-looking in spite of his size. He didn't look like the type to operate an observation station on a remote and alien planet. But the Advance Exploration Corps had

Illustrated by TURPIN

discovered, to its regret, that there was no type to operate a station.

Nerishev was a competent biologist and botanist. Although chronically nervous, he had surprising reserves of calm. He was the sort of man who needs an occasion to rise to. This, if anything, made him suitable to pioneer a planet like Carella I.

"I suppose somebody should go out and unblock the water pipe," said Nerishev, not looking at Clayton.

"I suppose so," Clayton said, pounding the faucet again. "But it's going to be murder out there. Listen to it!"

Clayton was a short man, bull-necked, red-faced, powerfully constructed. This was his third tour of duty as a planetary observer.

He had tried other jobs in the Advance Exploration Corps, but none suited him. PEP – Primary Extraterrestrial Penetration – faced him with too many unpleasant surprises. It was work for daredevils and madmen. But Base Operations was much too tame and restricting.

He liked the work of a planetary observer, though. His job was to sit tight on a planet newly opened by the PEP boys and checked out by a drone camera crew. All he had to do on this planet was stoically endure discomfort and skillfully keep himself alive. After a year of this, the relief ship would remove him and note his report. On the basis of the report, further action would or would not be taken.

BEFORE each tour of duty, Clayton dutifully promised his wife that this would be the last. After *this* tour, he was going to stay on Earth and work on the little farm he owned. He promised . . .

But at the end of each rest leave, Clayton journeyed out again, to do the thing for which he was best suited: staying alive through skill and endurance.

But this time, he had had it. He and Nerishev had been eight months on Carella. The relief ship was due in another four months. If he came through alive, he was going to quit for good.

"Just listen to that wind," Nerishev said.

Muffled, distant, it sighed and murmured around the steel hull of the station like a zephyr, a summer breeze.

That was how it sounded to them inside the station, separated from the wind by three inches of steel plus a soundproofing layer.

"It's rising," Clayton said. He walked over to the windspeed indicator. According to the dial, the gentle-sounding wind was blowing at a steady 82 miles an hour –

A light breeze on Carella.

"Man, oh, man!" Clayton said.

"I don't want to go out there. Nothing's worth going out there."

"It's your turn," Nerishev pointed out.

"I know. Let me complain a little first, will you? Come on, let's get a forecast from Smanik."

They walked the length of the station, their heels echoing on the steel floor, past compartments filled with food, air supplies, instruments, extra equipment. At the far end of the station was the heavy metal door of the receiving shed. The men slipped on air masks and adjusted the flow.

"Ready?" Clayton asked.

"Ready."

They braced themselves, gripping handholds beside the door. Clayton touched the stud. The door slid away and a gust of wind shrieked in. The men lowered their heads and butted into the wind, entering the receiving shed.

The shed was an extension of the station, some thirty feet long by fifteen feet wide. It was not sealed, like the rest of the structure. The walls were built of open-work steel, with baffles set in. The wind could pass through this arrangement, but slowed down, controlled. A gauge told them it was blowing 34 miles an hour within the shed.

It was a damned nuisance, Clayton thought, having to confer with the natives of Carella in a 34-mile gale. But there was no other way. The Carellans, raised on a planet where the wind never blew less than 70 miles an hour, couldn't stand the "dead air" within the station. Even with the oxygen content cut down to the Carellan norm, the natives couldn't make the adjustment. Within the station, they grew dizzy and apprehensive. Soon they began strangling, like a man in a vacuum.

Thirty-four miles an hour of wind was a fair compromise-point for human and Carellan to meet.

CLAYTON and Nerishev walked down the shed. In one corner lay what looked like a tangle of dried-out octopi. The tangle stirred and waved two tentacles ceremoniously.

"Good day," said Smanik.

"Good day," Clayton said. "What do you think of the weather?"

"Excellent," said Smanik.

Nerishev tugged at Clayton's sleeve. "What did he say?" he asked, and nodded thoughtfully when Clayton translated it for him. Nerishev lacked Clayton's gift for language. Even after eight months, the Carellan tongue was still an undecipherable series of clicks and whistles to him.

Several more Carellans came up to join the conversation. They all looked like spiders or octopi, with their small centralized body

and long, flexible tentacles. This was the optimum survival shape on Carella, and Clayton frequently envied it. He was forced to rely absolutely on the shelter of the station; but the Carellans lived directly in their environment.

Often he had seen a native walking against a tornado-force wind, seven or eight limbs hooked into the ground and pulling, other tentacles reaching out for further grips. He had seen them rolling down the wind like tumbleweed, their tentacles curled around them, wickerwork-basket fashion. He thought of the gay and audacious way they handled their land ships, scudding merrily along on the wind . . .

Well, he thought, they'd look damned silly on Earth.

"What is the weather going to be like?" he asked Smanik.

The Carellan pondered the question for a while, sniffed the wind and rubbed two tentacles together.

"The wind may rise a shade more," he said finally. "But it will be nothing serious."

Clayton wondered. *Nothing serious* for a Carellan could mean disaster for an Earthman. Still, it sounded fairly promising.

He and Nerishev left the receiving shed and closed the door.

"Look," said Nerishev, "if you'd like to wait—"

"Might as well get it over with," Clayton said.

Here, lighted by a single dim overhead bulb, was the smooth, glittering bulk of the Brute. That was the nickname they had given to the vehicle specially constructed for transportation on Carella.

The Brute was armored like a tank and streamlined like a spheric section. It had vision slits of shatterproof glass, thick enough to match the strength of its steel plating. Its center of gravity was low; most of its twelve tons were centered near the ground. The Brute was sealed. Its heavy diesel engine, as well as all necessary openings, were fitted with special dustproof covers. The Brute rested on its six fat tires, looking, in its immovable bulk, like some prehistoric monster.

Clayton got in, put on crash helmet and goggles, and strapped himself into the padded seat. He revved up the engine, listened to it critically, then nodded.

"Okay," he said, "the Brute's ready. Get upstairs and open the garage door."

"Good luck," said Nerishev. He left.

CLAYTON went over the instrument panel, making sure that all the Brute's special gadgets were in working order. In a moment, he heard Nerishev's

voice coming in over the radio.

"I'm opening the door."

"Right."

The heavy door slid back and Clayton drove the Brute outside.

The station had been set up on a wide, empty plain. Mountains would have offered some protection from the wind; but the mountains on Carella were in a constant restless state of building up and breaking down. The plain presented dangers of its own, however. To avert the worst of those dangers, a field of stout steel posts had been planted around the station. The closely packed posts pointed outward, like ancient tank traps, and served the same purpose.

Clayton drove the Brute down one of the narrow, winding channels that led through the field of posts. He emerged, located the pipeline and started along it. On a small screen above his head, a white line flashed into view. The line would show any break or obstruction in the pipeline.

A wide, rocky, monotonous desert stretched before him. An occasional low bush came into sight. The wind was directly behind him, blanketed by the sound of the diesel.

He glanced at the windspeed indicator. The wind of Carella was blowing at 92 miles an hour.

He drove steadily along, humming to himself under his breath. From time to time, he heard a crash. Pebbles, propelled by the hurricane wind, were cannonading against the Brute. They shattered harmlessly against the thick armor.

"Everything all right?" Nerishev asked over the radio.

"Fine," Clayton said.

In the distance, he saw a Carellan land ship. It was about forty feet long, he judged, and narrow in the beam, skimming rapidly on crude wooden rollers. The ship's sails were made from one of the few leaf-bearing shrubs on the planet.

The Carellans waved their tentacles as they went past. They seemed to be heading toward the station.

Clayton turned his attention back to the pipeline. He was beginning to hear the wind now, above the roar of the diesel. The windspeed indicator showed that the wind had risen to 97 miles an hour.

Somberly he stared through the sand-pocked slit-window. In the far distance were jagged cliffs, seen dimly through the dust-blown air. More pebbles ricocheted off his hull and the sound rang hollowly through his vehicle. He glimpsed another Carellan land ship, then three more. They were tacking stubbornly into the wind.

It struck Clayton that a lot of

Carellans were moving toward the station. He signaled to Nerishev on the radio.

"How are you doing?" Nerishev asked.

"I'm close to the spring and no break yet," Clayton reported. "Looks like a lot of Carellans heading your way."

"I know. Six ships are moored in the lee of the shed and more are coming."

"We've never had any trouble with the natives before," Clayton said slowly. "What does this look like?"

"They've brought food with them. It might be a celebration."

"Maybe. Watch yourself."

"Don't worry. You take care and hurry —"

"I've found the break! Speak to you later."

THE break showed on the screen, glowing white. Peering out the port, Clayton saw where a boulder had rolled across the pipeline, crushing it, and rolled on.

He brought the truck to a stop on the windward side of the pipe. It was blowing 113 miles an hour. Clayton slid out of the truck, carrying several lengths of pipe, some patches, a blowtorch and a bag of tools. They were all tied to him and he was secured to the Brute by a strong nylon rope.

Outside, the wind was deafening. It thundered and roared like breaking surf. He adjusted his mask for more oxygen and went to work.

Two hours later, he had completed a fifteen-minute repair job. His clothing was shredded and and his air extractor was completely clogged with dust.

He climbed back into the Brute, sealed the port and lay on the floor, resting. The truck was starting to tremble in the wind gusts. Clayton ignored it.

"Hello? Hello?" Nerishev called over the radio.

Wearily, Clayton climbed back into the driver's seat and acknowledged.

"Hurry back now, Clayton! No time to rest! The wind's up to 138! I think a storm is coming!"

A storm on Carella was something Clayton didn't even want to think about. They had experienced only one in eight months. During it, the winds had gone over 160 miles an hour.

He nosed the truck around and started back, driving directly into the wind. At full throttle, he found he was making very little progress. Three miles an hour was all the heavy diesel would do against the pressure of a 138-mile wind.

He stared ahead through the slit-window. The wind, outlined by long streamers of dust and sand, seemed to be coming

straight at him, funneled out of an infinitely wide sky to the tiny point of his window. Windborne rocks sailed at him, grew large, immense, and shattered against his window. He couldn't stop himself from ducking each time one came.

The heavy engine was beginning to labor and miss.

"Oh, baby," Clayton breathed, "don't quit now. Not now. Get Papa home. *Then* quit. Please!"

He figured he was about ten miles from the station, which lay directly upwind.

He heard a sound like an avalanche plummeting down a mountainside. It was made by a boulder the size of a house.. Too big for the wind to lift, it was rolling at him from windward, digging a furrow in the rocky ground as it came.

Clayton twisted the steering wheel. The engine labored, and with infinite slowness the truck crept out of the boulder's path. Shaking, Clayton watched the boulder bearing down. With one hand, he pounded on the instrument panel.

"Move, baby, move!"

BOOMING hollowly, the boulder rolled past at a good thirty miles an hour.

"Too close," Clayton said to himself. He tried to turn the Brute back into the wind, toward the station. The Brute wouldn't do it.

The diesel labored and whined, trying to turn the big truck into the wind. And the wind,. like a solid gray wall, pushed the truck away.

The windspeed indicator stood at 159 miles an hour.

"How are you doing?" Nerishev asked over the radio.

"Just great! Leave me alone, I'm busy."

Clayton set his brakes, unstrapped and raced back to the engine. He adjusted timing and mixture, and hurried back to the controls.

"Hey, Nerishev! That engine's going to conk out!"

It was a full second before Nerishev answered. Then, very calmly, he asked, "What's wrong with it?"

"Sand!" Clayton said. "Particles driven at 159 miles an hour — sand's in the bearings, injectors, everything. I'm going to make all the distance I can."

"And then?"

"Then I'll try to sail her back," Clayton said. "I just hope the mast will take it."

He turned his attention to the controls. At windspeeds like this, the truck had to be handled like a ship at sea. Clayton picked up speed with the wind on his quarter, then came about and slammed into the wind.

The Brute made it this time and crossed over onto the other tack.

It was the best he could do, Clayton decided. His windward distance would have to be made by tacking. He edged toward the eye of the wind. But at full throttle, the diesel couldn't bring him much closer than forty degrees.

For an hour, the Brute forged ahead, tacking back and forth across the wind, covering three miles in order to make two. Miraculously, the engine kept on running. Clayton blessed the manufacturer and begged the diesel to hold out a little while longer.

Through a blinding screen of sand, he saw another Carellan land ship. It was reefed down and heeled precariously over. But it forged steadily to windward and soon outdistanced him.

Lucky natives, Clayton thought — 165 miles of wind was a sailing breeze to them!

The station, a gray half-sphere, came into sight ahead.

"I'm going to make it!" Clayton shouted. "Break out the rum, Nerishev, old man! Papa's getting drunk tonight!"

The diesel chose that moment to break down for good.

CLAYTON swore violently as he set the brakes. What lousy luck! If the wind were behind him, he could roll in. But, of course, it had to be in front.

"What are you going to do now?" Nerishev asked.

"I'm going to sit here," Clayton said. "When the wind calms down to a hurricane, I'm going to walk home."

The Brute's twelve-ton mass was shaking and rattling in the wind blasts.

"You know," Clayton said, "I'm going to retire after this tour."

"That so? You really mean it?"

"Absolutely. I own a farm in Maryland, with frontage on Chesapeake Bay. You know what I'm going to do?"

"What?"

"I'm going to raise oysters. You see, the oyster — Hold it."

The station seemed to be drifting slowly upwind, away from him. Clayton rubbed his eyes, wondering if he were going crazy. Then he realized that, in spite of its brakes, in spite of its streamlining, the truck was being pushed downwind, away from the station.

Angrily he shoved a button on his switchboard, releasing the port and starboard anchors. He heard the solid clunk of the anchors hitting the ground, heard the steel cables scrape and rattle. He let out a hundred and seventy feet of steel line, then set the winch brakes. The truck was holding again.

"I dropped the anchors," Clayton said.

"Are they holding?"

"So far." Clayton lighted a cigarette and leaned back in his padded chair. Every muscle in his body ached from tension. His eyelids were twitching from watching the wind-lines converging on him. He closed his eyes and tried to relax.

The sound of the wind cut through the truck's steel plating. The wind howled and moaned, tugging at the truck, trying to find a hold on the smooth surface. At 169 miles an hour, the ventilator baffles blew out. He would be blinded, Clayton thought, if he weren't wearing sealed goggles, choked if he weren't breathing canned air. Dust swirled, thick and electric, within the Brute's cabin.

Pebbles, flung with the velocity of rifle bullets, splattered against the hull. They were striking harder now. He wondered how much more force they'd need before they started piercing the armor plating.

AT TIMES like this, Clayton found it hard to maintain a common-sense attitude. He was painfully aware of the vulnerability of human flesh, appalled at the possibilities for violence in the Universe. What was he doing out here? Man's place was in the calm, still air of Earth. If he ever got back . . .

"Are you all right?" Nerishev asked.

"Making out just great," Clayton said wearily. "How are things at the station?"

"Not so good. The whole structure's starting sympathetic vibration. Enough wind for long enough and the foundations could shatter."

"And they want to put a fuel station here!" Clayton said.

"Well, you know the problem. This is the only solid planet between Angarsa III and the South Ridge Belt. All the rest are gas giants."

"They better build their station in space."

"The cost —"

"Hell, man, it'll cost less to build another planet than to try to maintain a fuel base on this one!" Clayton spat out a mouthful of dust. "I just want to get on that relief ship. How many natives at the station now?"

"About fifteen, in the shed."

"Any sign of violence?"

"No, but they're acting funny."

"How so?"

"I don't know," said Nerishev. "I just don't like it."

"Stay out of the shed, huh? You can't speak the language, anyhow, and I want you in one piece when I come back." He hesitated. "If I come back."

"You'll be fine," Nerishev said.

"Sure I will. I—oh, Lord!"

"What's it? What's wrong?"

"Boulder coming down! Talk to you later!"

Clayton turned his attention to the boulder, a rapidly growing black speck to windward. It was heading directly toward his anchored and immobilized truck. He glanced at the windspeed indicator. Impossible — 174 miles an hour! And yet, he reminded himself, winds in the stratospheric jet stream on Earth blow at 200 miles an hour.

The boulder, large as a house, still growing as it approached, was rolling directly his way.

"Swerve! Turn!" Clayton bellowed at the boulder, pounding the instrument panel with his fist.

The boulder was coming at him, straight as a ruler line, rolling right down the wind.

With a yell of agony, Clayton touched a button, releasing both anchors at the cable end. There was no time to winch them in, even assuming the winch could take the strain. Still the boulder grew.

Clayton released his brakes.

The Brute, shoved by a wind of 178 miles an hour, began to pick up speed. Within seconds, he was traveling at 38 miles an hour, staring through his rear-vision mirror at the boulder overtaking him.

AS THE boulder rolled up, Clayton twisted the steering wheel hard to the left. The truck tilted over precariously, swerved, fishtailed on the hard ground, and tried to turn itself over. He fought the wheel, trying to bring the Brute back to equilibrium. He thought: *I'm probably the first man who ever jibed a twelve-ton truck!*

The boulder, looking like a whole city block, roared past. The heavy truck teetered for a moment, then came to rest on its six wheels.

"Clayton! What happened? Are you all right?"

"Fine," Clayton gasped. "But I had to slip the cables. I'm running downwind."

"Can you turn?"

"Almost knocked her over, trying to."

"How far can you run?"

Clayton stared ahead. In the distance, he could make out the dramatic black cliffs that rimmed the plain.

"I got about fifteen miles to go before I pile into the cliffs. Not much time, at the speed I'm traveling." He locked his brakes. The tires began to scream and the brake linings smoked furiously. But the wind, at 183 miles an hour, didn't even notice the difference. His speed over the ground had picked up to 44 miles an hour.

"Try sailing her out!" Nerishev said.

"She won't take it."

"Try, man! What else can you do? The wind's hit 185 here. The whole station's shaking! Boulders are tearing up the whole post defense. I'm afraid some boulders are going to get through and flatten —"

"Stow it," Clayton said. "I got troubles of my own."

"I don't know if the station will stand! Clayton, listen to me. Try the —"

The radio suddenly and dismayingly went dead.

Clayton banged it a few times, then gave up. His speed over the ground had reached 49 miles an hour. The cliffs were already looming large before him.

"So all right," Clayton said. "Here we go." He released his last anchor, a small emergency job. At its full length of 250 feet of steel cable, it slowed him to 30 miles an hour. The anchor was breaking and ripping through the ground like a jet-propelled plow.

Clayton then turned on the sail mechanism. This had been installed by the Earth engineers upon much the same theory that has small ocean-going motor boats carry a small mast and auxiliary sail. The sails are insurance, in case the engine fails. On Carella, a man could never walk home from a stranded vehicle. He had to come in under power.

The mast, a short, powerful steel pillar, extruded itself through a gasketed hole in the roof. Magnetic shrouds and stays snapped into place, supporting it. From the mast fluttered a sail made of link-woven metal. For a mainsheet, Clayton had a three part flexible-steel cable, working through a winch.

The sail was only a few square feet in area. It could drive a twelve-ton monster with its brakes locked and an anchor out on 250 feet of line —

Easily — with the wind blowing 185 miles an hour.

CLAYTON winched in the mainsheet and turned, taking the wind on the quarter. But a quartering course wasn't good enough. He winched the sail in still more and turned further into the wind.

With the super-hurricane on his beam, the ponderous truck heeled over, lifting one entire side into the air. Quickly Clayton released a few feet of mainsheet. The metal-link sail screamed and chattered as the wind whipped it.

Driving now with just the sail's leading edge, Clayton was able to keep the truck on its feet and make good a course to windward.

Through the rear-vision mirror, he could see the black, jagged cliffs behind him. They were his

lee shore, his coast of wrecks. But he was sailing out of the trap. Foot by foot, he was pulling away.

"That's my baby!" Clayton shouted to the battling Brute.

His sense of victory snapped almost at once, for he heard an ear-splitting clang and something whizzed past his head. At 187 miles an hour, pebbles were piercing his armor plating. He was undergoing the Carellan equivalent of a machine-gun barrage. The wind shrieked through the holes, trying to batter him out of his seat.

Desperately he clung to the steering wheel. He could hear the sail wrenching. It was made out of the toughest flexible alloys available, but it wasn't going to hold up for long. The short, thick mast, supported by six heavy cables, was whipping like a fishing rod.

His brake linings were worn out, and his speed over the ground came up to 57 miles an hour.

He was too tired to think. He steered, his hands locked to the wheel, his slitted eyes glaring ahead into the storm.

The sail ripped with a scream. The tatters flogged for a moment, then brought the mast down. Wind gusts were approaching 190 miles an hour.

The wind now was driving him back toward the cliffs. At 192 miles an hour of wind, the Brute was lifted bodily, thrown for a dozen yards, slammed back on its wheels. A front tire blew under the pressure, then two rear ones. Clayton put his head on his arms and waited for the end.

Suddenly, the Brute stopped short. Clayton was flung forward. His safety belt checked him for a moment, then snapped. He banged against the instrument panel and fell back, dazed and bleeding.

HE LAY on the floor, half conscious, trying to figure out what had happened. Slowly he pulled himself back into the seat, foggily aware that he hadn't broken any limbs. His stomach was one great bruise. His mouth was bleeding.

At last, looking through the rear-vision mirror, he saw what had happened. The emergency anchor, trailing at 250 feet of steel cable, had caught in a deep outcropping of rock. A fouled anchor had brought him up short, less than half a mile from the cliffs. He was saved —

For the moment, at least.

But the wind hadn't given up yet. The 193-mile-an-hour wind bellowed, lifted the truck bodily, slammed it down, lifted it again, slammed it down. The steel cable hummed like a guitar string. Clayton wrapped his arms and legs

around the seat. He couldn't hold on much longer. And if he let go, the madly leaping Brute would smear him over the walls like toothpaste —

If the cable didn't part first and send him hurtling into the cliffs.

He held on. At the top of one swing, he caught a glimpse of the windspeed indicator. The sight of it sickened him. He was through, finished, done for. How could he be expected to hold on through the force of a 187-mile-an-hour wind? It was too much.

It was — 187 miles an hour? That meant that the wind was dropping!

He could hardly believe it at first. But slowly, steadily, the dial hand crept down. At 160 miles an hour, the truck stopped slamming and lay passively at the end of its anchor line. At 153, the wind veered — a sure sign that the blow was nearly over.

When it had dropped to 142 miles an hour, Clayton allowed himself the luxury of passing out.

CARELLAN natives came out for him later in the day. Skillfully they maneuvered two big land ships up to the Brute, fastened on their long vines — which tested out stronger than steel — and towed the derelict truck back to the station.

They brought him into the receiving shed and Nerishev carried him into the station's dead air.

"You didn't break anything except a couple of teeth," said Nerishev. "But there isn't an unbruised inch on you."

"We came through it," Clayton said.

"Just. Our boulder defense is completely flattened. The station took two direct hits from boulders and barely contained them. I've checked the foundations; they're badly strained. Another blow like that —"

"— and we'd make out somehow. Us Earth lads, we come through! That was the worst in eight months. Four months more and the relief ship comes! Buck up, Nerishev. Come with me."

"Where are we going?"

"I want to talk to that damned Smanik!"

They came into the shed. It was filled to overflowing with Carellans. Outside, in the lee of the station, several dozen land ships were moored.

"Smanik!" Clayton called. "What's going on here?"

"It is the Festival of Summer," Smanik said. "Our great yearly holiday."

"Hm. What about that blow? What did you think of it?"

"I would classify it as a moderate gale," said Smanik. "Nothing dangerous, but somewhat unpleasant for sailing."

"Unpleasant! I hope you get

your forecasts a little more accurate in the future."

"One cannot always outguess the weather," Smanik said. "It is regrettable that my last forecast should be wrong."

"Your *last?* How come? What's the matter?"

"These people," Smanik said, gesturing around him, "are my entire tribe, the Seremai. We have celebrated the Festival of Summer. Now summer is ended and we must go away."

"Where to?"

"To the caverns in the far west. They are two weeks' sail from here. We will go into the caverns and live there for three months. In that way, we will find safety."

Clayton had a sudden sinking feeling in his stomach. "Safety from what, Smanik?"

"I told you. Summer is over. We need safety now from the winds — the powerful storm winds of winter."

"What is it?" Nerishev said.

"In a moment." Clayton thought very quickly of the super-hurricane he had just passed through, which Smanik had classified as a moderate and harmless gale. He thought of their immobility, the ruined Brute, the strained foundations of the station, the wrecked boulder barrier, the relief ship four months away. "We could go with you in the land ships, Smanik, and take refuge in the caverns with you — be protected —"

"Of course," said Smanik hospitably.

"No, we couldn't," Clayton answered himself, his sinking feeling even lower than during the storm. "We'd need extra oxygen, our own food, a water supply —"

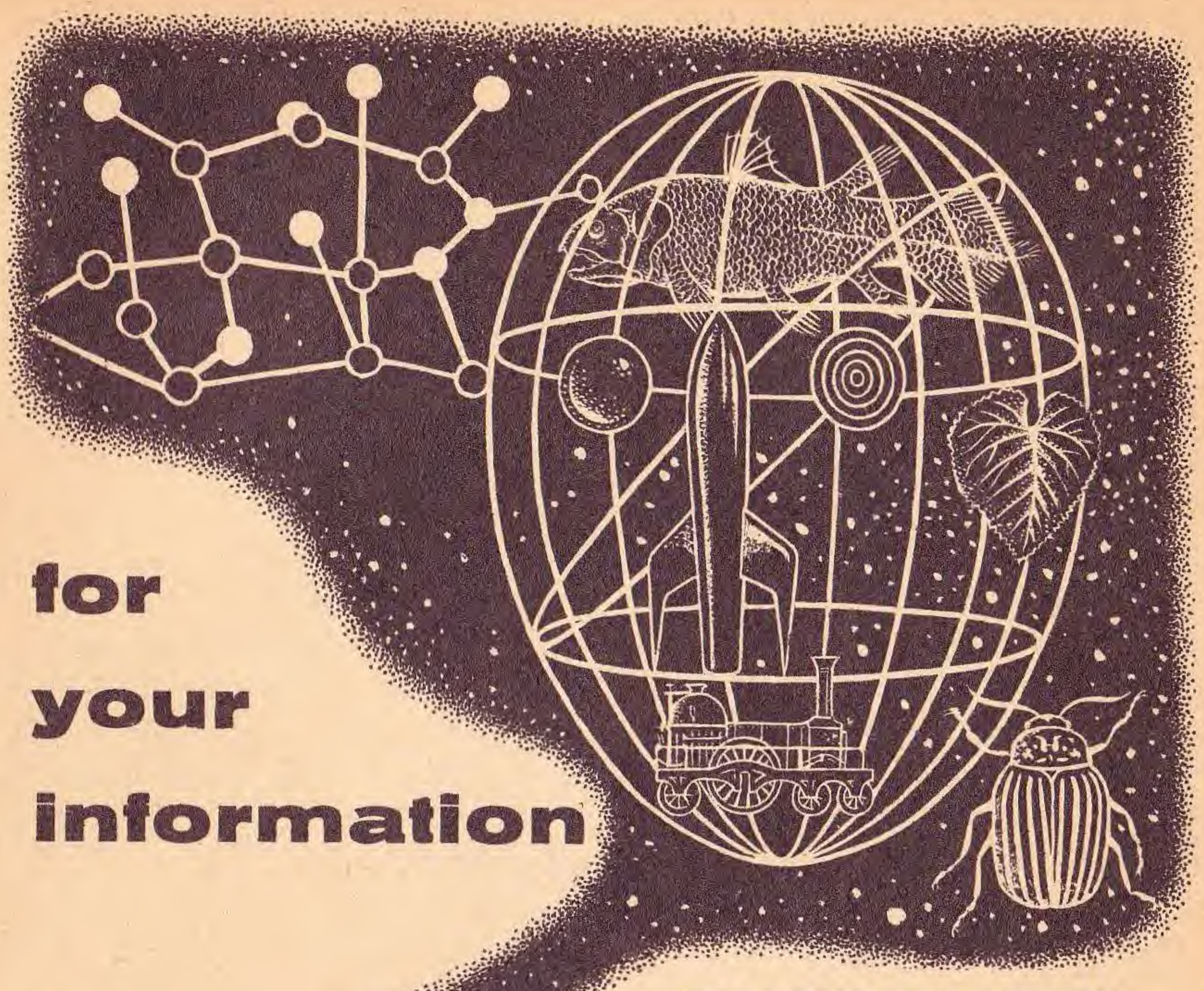
"What is it?" Nerishev repeated impatiently. "What the devil did he say to make you look like that?"

"He says the *really* big winds are just coming," Clayton replied.

The two men stared at each other.

Outside, a wind was rising.

— FINN O'DONNEVAN



BY WILLY LEY

THE MOON CONTRACT

I HAVE just had to check back to see when my book *The Conquest of Space* first appeared, because the date has some bearing on this story. Well, the copyright note says "First Published in September, 1949," so it must have been in the early summer of that year.

The book, as far as the mechanical processes of production are concerned, had advanced almost to the final stage. Color proofs of the paintings had been

made and approved by Chesley Bonestell. Galley proofs of the text had been read and corrected. The page proofs had gone from printer to publisher to author and back the same way. All that was left for me to do was to wait.

One morning during this waiting period, while reading the *New York Times* at breakfast, I found a little box, telling that Dr. Gerard P. Kuiper had found a hitherto unknown small satellite of Neptune. Most interesting, that. I dropped the *Times*, raced to the telephone, dialed my publisher and asked, "Is *Conquest of Space* on the presses?"

The answer was something like, "It might be by now. If you want to know, I can call the printer and ask."

"Do that," I said, "and if they haven't started yet, tell them to wait till afternoon. I'm coming in."

The reason for this telephone call was that I realized that a few passages in the book were suddenly wrong. There was one which read "the lonely moon of Neptune," another one which read "Neptune's single moon" and a third one that said "like Earth, Neptune has only one moon." Don't bother looking it up — the printer had planned to start the press run that same afternoon, and by 11:30, the three passages had been replaced by others which were factually correct and took the same amount of space.

My reason for remembering this now is that I told the editor, while typing the changes, that my statement might be proved wrong for Earth, too, one day. Well, as far as we can tell, it won't be. Earth does have only one moon, we are sure now — *reasonably* sure, that is.

ABOUT two weeks ago, I received a large brown envelope in the mail which said on the outside "Office of Ordnance Research, U. S. Army" and inside there was a 30-page report, on the cover of which it said in letters of diminishing size:

PHYSICAL SCIENCE LABORATORY
State College, New Mexico
Interim Report on
SEARCH FOR SMALL EARTH SATELLITES
for the period 1953-56
By
Clyde W. Tombaugh

Dr. Clyde W. Tombaugh, most GALAXY readers will probably recall, is the discoverer of the planet Pluto, and early in 1954, it became known that the Office of Ordnance Research gave him, via Lowell Observatory and New Mexico State College, a research contract to find out whether Earth might not have another

small moon, or possibly moons.

I devoted part of my column in the September, 1954, issue of GALAXY to the news that such a search was on and I explained then why these additional moons, if they existed, had to be quite small.

The story of the second moon of Earth has had a rather tenacious life ever since 1870, which was the year when Jules Verne's *Autour de la Lune* appeared, the second part of his story about the shot to the Moon. In it, Verne provided the three inhabitants of his Moon projectile with a glimpse of the second moon of Earth and explained that a French astronomer by the name of Petit had postulated its existence. Although no figure for the size of this second moon is given in the story, the reader is left with the impression that it must be rather substantial, at least a mile in diameter.

Astronomers declared at a later date that a moon a mile in diameter at the distance given by Petit (4650 miles) would have been discovered by the ancient Babylonians, since it would be, at certain times, a rather easy naked-eye object. Before this fact was presented, several German astronomers had spent some time trying to find Petit's moon, which they punningly called *Kleinchen*. The point of the pun is that *Petit* is the French word for "little" or "small" while *Kleinchen* is German for "the little one." Of course they did not find his moon.

By the time Dr. Tombaugh started his search, it was quite clear that the additional satellite would be measured in feet and not in miles — how many feet depended, naturally, on the distance.

IN THE fall of 1954, the news came that Tombaugh had found two moons, one 400 miles out and another one at a distance of 600 miles. The story went with it that, when this report reached the Pentagon, a general asked suspiciously, "Are they natural?" That story may be true, but the report that two moons had been found was not. If anybody knows how it originated, he is keeping his lips tightly shut. At any event, Dr. Tombaugh wrote me at the time that the report was not true. Moreover, it referred to distances that had not even been investigated at the time.

The search was made by telescopic camera and the sensitivity of the instrumentation was revealed with a sentence that has been quoted quite a number of times since. The equipment, the statement said, could discover a tennis ball at a height of 1000 miles, provided only that it was white. It also could discover a V-2 rocket (which is just short of

47 feet) at the distance of the Moon.

This original statement has since been amended to read that the tennis ball could be found even if it showed itself only in half phase; the V-2 rocket near the Moon would have to be in full phase and also painted white.

Any satellite of Earth — natural or artificial — which is closer than a certain limit would have to move so fast to stay in its orbit that it would rise in the west and set in the east. The limit just mentioned is 22,300 miles from the surface. At that distance, the satellite would have an orbital period of 24 hours and would neither rise nor set but just hang in the sky over one hemisphere and never be visible from the other. Satellites beyond that limit would behave as one expects them to behave.

Let us assume now that we have a satellite 4000 miles from the surface. It would need just four hours to go around the Earth once. Knowing this, one can calculate how fast it would move across the sky. Then an astronomical camera can be geared to sweep across the sky at the same rate.

If the satellite is in the field of vision of the camera, it would show up as a dot on the plate, while the fixed stars in the field of vision would show up as streaks from edge to edge. If that satellite were at, say, 3700 miles, but the camera were set for a sweep for a 4000-mile satellite, it would still show up. It would have made a very short trail, very easily distinguishable from the edge-to-edge star streaks.

It should be clear from this explanation that a satellite search with such equipment is mostly a question of patience, a commodity which must be built-in in any astronomer. It is "merely" a question of adjusting the camera for a whole series of sweeps, corresponding to various satellite distances and orbital periods. If there is one, it must be caught sooner or later.

JUST *one* dot or very short trail on a photographic plate is not enough proof, however. There might be a tiny bubble in the emulsion, a flaw of some kind — I mentioned once in this column that the planet Pluto was missed on a photographic plate (years before Tombaugh found it on another one) because the image happened to have fallen on such a flaw and was taken to be a part of it. To avoid being fooled by such an accidental dot, something else had to be done.

It was this: when the trails of the fixed stars had moved to about the center of the plate, the camera was moved a little bit

without closing the shutter. The result of this action was that every star trail, at that point, made a very short vertical line and then continued on a different level. (For faint stars, this short vertical line did not register on the plate.) Now if there was a satellite at the distance for which the sweep was set, it would make *two* dots at the proper distance from each other. That there should be a plate flaw producing this effect was most unlikely.

The search was conducted from Lowell Observatory at Flagstaff, Arizona, which, in spite of its generally fine location, had one disadvantage which has to do with the position of the orbits of the unknown satellites relative to the Earth.

There is, as far as I know, no rule that says that a satellite could not circle its planet going from pole to pole. The simple facts are that no such case is known and that it is highly unlikely for various theoretical reasons.

A tiny satellite of Earth could have two possible origins.

One is that it is a piece of débris from the Asteroid Belt which has, for some reason, been drifting inward in the Solar System and has been captured by Earth. That would require such a peculiar sequence of astronomical events that it is not very likely. In most cases, such a piece of cosmic matter drifting in toward the Earth would either simply pass on with a minor change in orbit, or else it would touch atmosphere and crash as a meteorite. Capture by the Earth would be exceedingly rare.

But while capture would be literally a case of much more than "one in a million," it is not impossible. Such a satellite would circle the Earth in about the plane of the ecliptic — the plane of the Earth's orbit around the Sun.

The other possibility has to do with our real and rather large moon. More and more astronomers seem to incline to the belief that the Moon was formed in an orbit around the Earth of loose matter, ranging in size from a few molecules of something to large mountains.

IF THERE were pieces of this "Moon matter" left, they would orbit around the Earth in or very nearly in the plane of the Moon's orbit. Since the plane of the Moon's orbit and the ecliptic are inclined to each other by only five degrees, the search of these two planes is really the same thing, for some deviation from either one or the other must be taken for granted.

The third possibility is that a satellite circles the Earth in the

plane of its equator, inclined by 23½ degrees to the ecliptic. But a satellite over the equator would have been pulled into that orbit by the Earth's equatorial bulge, which implies that it would be fairly low. If it weren't, it wouldn't be in that plane. This is where the search from Flagstaff left a hole in the picture. A moonlet circling the Earth over the equator at a lesser distance than 1600 miles from the surface could not be seen—or, rather, photographed—from Flagstaff.

Strangely enough, the search for anything *inside* the orbit of the Moon was really virgin territory. Barring the occasional looking for *Kleinchen* a few Germans had indulged in around the turn of the century, it had never been done. Well, we now know that there is nothing in that region, with the possible exception of equatorial orbits below 1600 miles. For these, Dr. Tombaugh moved to Quito, Ecuador, where such moonlets would be vertically overhead. But the Interim Report was written before this move took place and covered only the work at Flagstaff. It concluded:

> Much of the space about the Earth has been searched. Most of this space has been found to be empty of material moving in the most-likely orbits and large enough to be seen by the present equipment. Some "suspects" have been found on the photographic films, but in all save a few instances it has been possible to determine that the record was not that of a satellite. These images, if not due to defects in the photographic plates, could have been tracks of very small asteroids moving past the earth in their journey around the sun. The several suspects not yet eliminated as satellites are ones which cannot be checked until photographic work has started on the equator. From a statistical point of view, it is more likely that they will turn out not to be satellites. The chance of a discovery of astronomical or geodetic value has, from the beginnnig, been regarded as very small. But a completely negative result, a determination that the space near the earth is free of débris up to a certain size, could have comforting significance to long-range ballisticians and to proponents of space travel.*

THE explanation of the difficulty of capturing moonlets going around the Sun—because they go around the Sun, they are, of course, tiny planetoids or asteroids—implied that any additional satellite that might have been

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* This conclusion was written by The Office of Ordnance Research, not by Tombaugh.

found would most probably have been matter left over when the Moon formed. But if such matter was left over, it could go around the Earth in some other ways.

One possibility was that it remained in the same orbit as the Moon, but circling the Earth either 60 degrees ahead of the Moon or 60 degrees behind the Moon. In the case of Jupiter and the so-called Trojan Asteroids, this has been found to be true—many years, incidentally, after it had been advanced as a theoretical possibility.

Having this nice equipment available, it was obvious that Dr. Tombaugh should use it to see whether there might be more moons in the orbit of the Moon. This particular phase of the search had been planned, but by the time the Interim Report was written, it had not been carried out, due largely to bad weather.

But "left-over" Moon matter could still do something else. It could form secondary moons, moonlets of our moon. If such a secondary moon had been found, it would have been the first of its kind in the Solar System. It is perfectly possible that the larger moons in our solar system have such secondary moons, but if they do, they are all too small to be detected from the Earth.

Secondary moons of our moon would have been fairly easy to identify, again if they were large enough to register on the photographic plate. The most likely orbit of such secondary moons would be again in the ecliptic, or else in the plane of the Moon's orbit. Because of this, they would pass between Moon and Earth and then disappear behind the Moon. Twice during every circuit of the Moon, they would be at "greatest elongation," which means farthest away from the Moon either to the east or to the west.

Actually we would see this portion of the orbit strongly foreshortened so that such a secondary moon would remain nearly stationary, to the eye, near greatest elongation for a while. But no matter at what distance it is from the Moon, it would share the orbital movement of the Moon. If you can catch a dot of light, on either side of the Moon, which travels across the sky at very nearly the rate of the Moon itself, you have caught a secondary moon.

YOU probably could, that is, if you did it visually. If you try to do it photographically, chances are that the Moon will cover up the image of the secondary satellite. The Moon is bright enough to ruin everything faint in its vicinity on a plate. Hence this particular search had to wait

for an eclipse of the Moon.

As Dr. Tombaugh reported: "The crater Aristarchus is the brightest spot on the moon, and it can be seen in a telescope with some difficulty when the moon is in total eclipse. With a visual guide telescope on the same mounting with the Schmidt camera, one can guide the camera on Aristarchus and prevent the dilution of possible satellite images."

All this had been worked out for the total eclipse of January 18, 1954. "Unfortunately, on the night of the moon's eclipse, the sky was covered by a thick haze."

At the time the report was written, there were hopes for the long-duration eclipse which took place at midnight, November 17-18, 1956. I know that all the amateur astronomers in New York, Long Island and New Jersey were bitterly disappointed, for there was more than just a thick haze. It poured. The weather must have been bad enough to be useless in Flagstaff, too, because no report about a secondary moon has come in yet.

But while Tombaugh's work is virtually definite for the space above 1600 miles (and lower down elsewhere than over the equator), a secondary moon of Earth, a moon of the Moon, and also "Trojan" moonlets in the Moon's orbit, are still possible. Their discovery would, for the time being, be of scientific interest only, but it *would* be interesting.

Naturally an intensive search program of this type had all kinds of "by-products," as Charles F. Capen of the New Mexico College called them in *Sky and Telescope*. A number of meteorites and one bright fireball were caught on the plates. A few others showed very strange zigzag designs — the Naval Observatory's Flagstaff section had released a bunch of meteorological balloons at night without telling anybody. One night, an orange light moved noiselessly from north to south in a straight line; glasses proved it to be the exhaust of a high-flying jet. Another night, they had "Lubbock Lights," but they were a squadron of helicopters.

Six months or so from now, another satellite watch will be on, but then it won't be a natural satellite. We'll have made it ourselves.

MOON ROCKET

COME to think of it, it is really quite a long time since anybody talked about Moon rockets. Twenty-five to thirty years ago, before the time where there was any rocket "hardware," things were different — the Moon rocket was a favorite topic of conversation among rocket enthusiasts.

As the actual engineering research began, the favorite idea of the Moon rocket began to be overshadowed by the nasty reality of an oxygen valve which leaked, and kept leaking no matter what you did about it. And a parachute release that worked was more fascinating by far than the most elegant set of equations. As time went on, all thoughts concentrated first on the high-altitude sounding rocket, then the long-range rocket, and finally on the artificial satellite.

But now the Moon rocket is with us again, in a form which bears little resemblance to the drawings made thirty years ago, but with the encouraging message that it could be built later this year if somebody can be found to sign some papers.

However, a little background is needed first. In Professor Hermann Oberth's writings — from 1923 to 1929 — you can find a discussion of something he called the "optimal velocity." The problem was this: a rising rocket has to fight air resistance, and air resistance goes up very sharply as the velocity increases.

As far as air resistance was concerned, a slowly accelerating rocket was far better than a quickly accelerating rocket. But while the rocket struggled up through a resisting atmosphere, slowly, it also lost 32 feet per second of velocity every second, because Earth tried to pull it back.

Hence, as far as gravitation was concerned, the quickly accelerating rocket beat the slowly accelerating rocket tailfins down.

There had to be a happy medium, a rocket which did not create too much air resistance for itself and did not lose too much speed to gravity, either. And that was the "optimal velocity."

The first large rockets, the V-2s, happened not to be troubled by that problem. They *could not* accelerate very fast because they were so heavy. By the time they got to be really fast, they were above 60,000 feet, with about 90 per cent of the atmosphere below them. Large rockets which were capable of very high accelerations were still to come. But they came, the big solid fuel rockets we now have, which are mostly used to boost heavy missiles into the air.

If one had tried to fire such heavy solid fuel rockets, or clusters of them, from the surface, there would have been trouble with air resistance. And this is not just theory, for such clusters, named HTVs or Hypersonic Test Vehicles, have been fired to measure air resistance at very high velocities.

IN THE meantime, Dr. James A. Van Allan of Iowa University had tried something else.

There is a medium-sized solid-fuel rocket called the Deacon. When fired vertically from sea level, it can reach a height of 60,000 feet, or not quite 12 miles. Van Allan had the Deacon lifted by a plastic Skyhook balloon to about 12 miles and fired it from there. It went to 55 and 60 miles because it did not have to fight much air resistance.

This rocket-balloon combination was dubbed the Rockoon and some important research work has been done with it recently. More of it will come during the International Geophysical Year.

Knowing all this, we are now ready to understand the new Moon rocket, presented for the first time in a paper read in September, 1956, at the International Astronautical Congress in Rome. The authors of the paper were Kurt R. Stehling and Richard Foster, both of them propulsion engineers for the Naval Research Laboratory and presumably quite busy with the Vanguard satellite-carrier rockets.

The "first stage" of the new Moon rocket is a Skyhook balloon which must be able to lift a rocket weighing 26,574 lbs. to a height of 70,000 feet. This, Stehling said, means a balloon of a capacity of four million cubic feet, adding that three-million-cubic-foot Skyhooks have been built and launched.

The Moon rocket would hang vertically below the balloon and tear through it when ignited. This will not hamper the rocket a bit and will not even cause an avoidable loss of the balloon, for the plastic skin of Skyhook balloons is so thin that they can be used only once; they can never be recovered intact for reuse.

The rocket itself is a three-step affair.

Step No. 1 is a so-called "cluster" of four large solid-fuel units, weighing together 25,000 lbs., but developing a thrust of 236,000 lbs. They would burn for about 20 seconds. At the end of the burning time, the rocket will be 70,000 + 110,000 feet up and will be going with a velocity very close to 13,000 feet per second. At an altitude of 180,000 feet, you don't have to worry about air resistance any more, so the next stage, also solid fuel, will be ignited at once.

The weight of Step No. 2 is 1510 lbs. It will also burn for 20 seconds, producing a thrust of 14,000 lbs. When its fuel is gone, it will be 280,000 feet high and the velocity will be slightly more than 26,400 feet per second.

Then Step No. 3 takes over. Compared to what carried it, it is tiny, a 60-pound solid-fuel rocket with four pounds of "payload" in the nose. It will burn for only 10 seconds, but when it is finished, it

will be 352,000 feet up and its velocity will be 39,504 feet per second.

LESS than one minute after the order "Fire!" Step No. 3 will be coasting to where the Moon will be four days later, for the time to traverse this distance will be about four days. The rocket will be too small to be seen in a telescope or to be tracked by radar. But radar ought to be able to track the larger stages, so that there should be enough tracking data for a trajectory computation.

The time of the impact will be fairly well known, but just where the rocket will strike the Moon will not be known in advance. It is possible that observers may miss the impact for this reason. But the four pounds of payload are such that they will make a permanent and telescopically conspicuous mark on the lunar surface.

—WILLY LEY

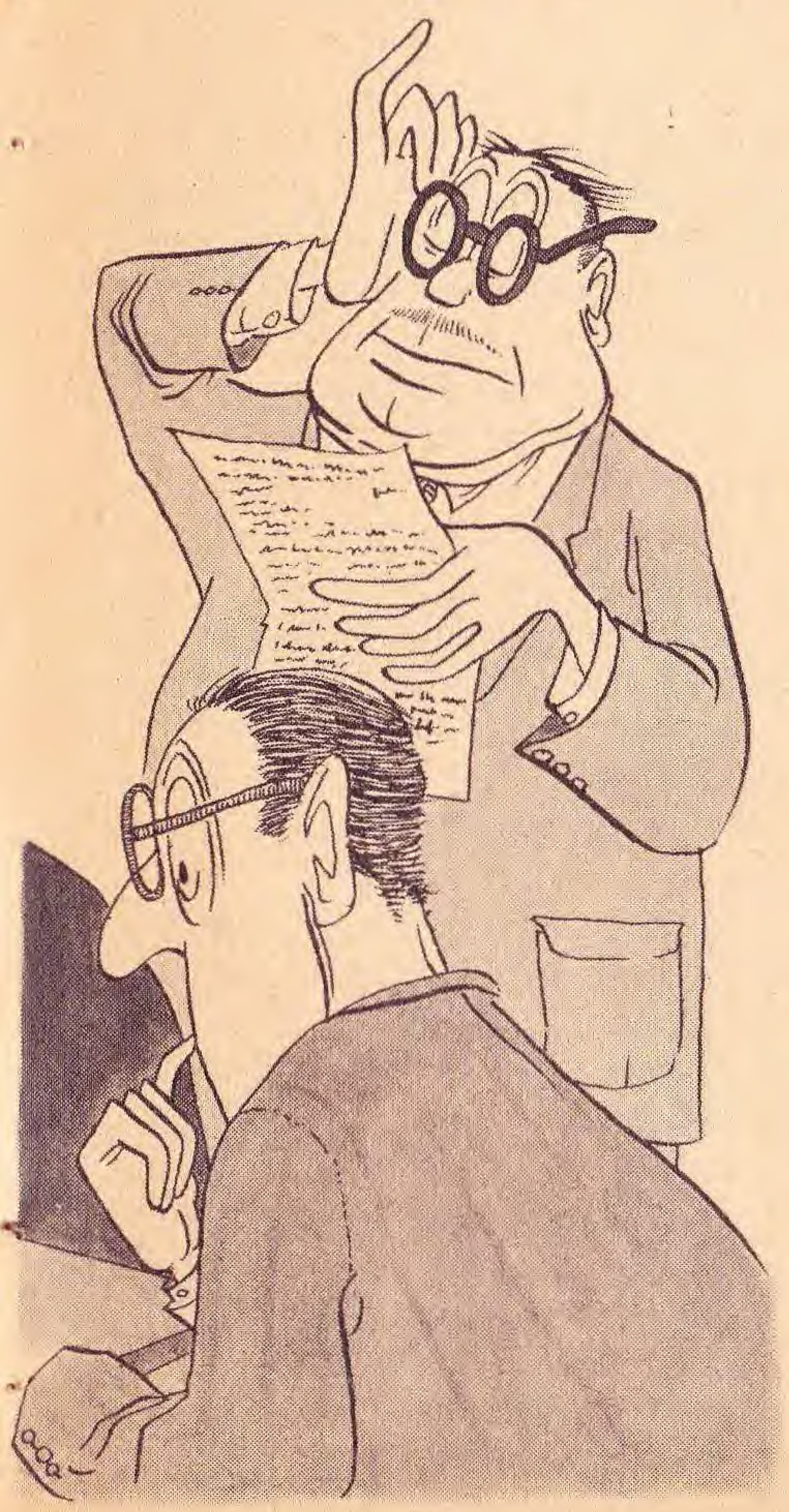
HELP! I am Dr. Morris Goldpepper

By AVRAM DAVIDSON

Physicists and engineers can't help—only my colleagues can bridge the interstellar cavity to pull me out of my aching plight!

Illustrated by MARTIN

I



FOUR of the men, Weinroth, McAllister, Danbourge and Smith, sat at the table under the cold blue lighting tubes. One of them, Rorke, was in a corner speaking quietly into a telephone, and one, Fadderman, stood staring out the window at the lights of the city. One, Hansen, had yet to arrive.

Fadderman spoke without turning his head. He was the oldest of those present – the Big Seven, as they were often called.

"Lights," he said. "So many lights. Down here." He waved his hand toward the city. "Up there." He gestured toward the sky. "Even with our much-vaunted knowledge, what," he asked, "do we know?" He turned his head. "Perhaps this is too big for us. In the light of the problem, can we really hope to accomplish anything?"

Heavy-set Danbourge frowned grimly. "We have received the suffrage of our fellow-scientists, Doctor. We can but try."

Lithe, handsome McAllister, the youngest officer of the Association, nodded. "The problem is certainly not greater than that which faced our late, great colleague, the immortal Morton." He pointed to a picture on the panneled wall. "And we all know what *he* accomplished."

Fadderman went over and took his hand. "Your words fill me with courage."

McAllister flushed with pleasure.

"I am an old man," Fadderman added falteringly. "Forgive my lack of spirit, Doctor." He sat down, sighed, shook his head slowly. Weinroth, burly and red-haired, patted him gently on the back. Natty, silvery-haired little Smith smiled at him consolingly.

A BUZZER sounded. Rorke hung up the telephone, flipped a switch on the wall intercom. "Headquarters here," he said crisply.

"Dr. Carl T. Hansen has arrived," a voice informed him.

"Bring him up at once," he directed. "And, Nickerson —"

"Yes, Dr. Rorke?"

"Let no one else into the building. *No* one."

They sat in silence. After a moment or two, they heard the approach of the elevator, heard the doors slide open, slide shut, heard the elevator descend. Heavy, steady footsteps approached; knuckles rapped on the opaque glass door.

Rorke went over to the door, said, "A conscientious and diligent scientist —"

"— must remain a continual student," a deep voice finished the quotation.

Rorke unlocked the door, peered out into the corridor, admitted Hansen, locked the door.

"I would have been here sooner, but another emergency interposed," Hansen said. "A certain political figure — ethics prevent my being more specific — suffered an oral hemorrhage following an altercation with a woman who shall be nameless, but, boy, did she pack a wallop! A so-called *Specialist*, gentlemen, with offices on Park Avenue, had been, as he called it, 'applying pressure' with a gauze pad. I merely used a little Gelfoam as a coagulant agent and the hemorrhage stopped almost at once. When will the public learn, eh, gentlemen?"

Faint smiles played upon the faces of the assembled scientists. Hansen took his seat. Rorke bent down and lifted two tape-recording devices to the table, set them both in motion. The faces of the men became serious, grim.

"This is an emergency session of the Steering Committee of the Executive Committee of the American Dental Association," Rorke said, "called to discuss measures of dealing with the case of Dr. Morris Goldpepper. One tape will be deposited in the vaults of the Chase Manhattan Bank in New York; the other will be similarly secured in the vaults of the Wells Fargo and Union Trust Company Bank in San

Francisco. Present at this session are Doctors Rorke, Weinroth and Smith – President, First and Second Vice-presidents, respectively –Fadderman, Past President, McAllister, Public Information, Danbourge, Legal, and Hansen, Policy."

He looked around at the set, tense faces.

"Doctors," he went on, "I think I may well say that humanity is, as of this moment, face to face with a great danger, and it is a bitter jest that it is not to the engineers or the astronomers, not to medicine nor yet to nuclear nor any other kind of physics, that humanity must now look for salvation – but to the members of the dental profession!"

His voice rose. "Yes – to the practitioners of what has become perhaps the least regarded of all the learned sciences! It is indeed ironical. We may at this juncture consider the comments of the now deceased Professor Earnest Hooton, the Harvard anthropologist, who observed with a sorrow which did him credit that his famed University, instead of assisting its Dental School as it ought, treated it – and I quote his exact words – 'Like a yellow dog.'" His voice trembled.

McALLISTER'S clean-cut face flushed an angry red. Weinroth growled. Danbourge's fist hit the table and stayed there, clenched. Fadderman gave a soft, broken sigh.

"But enough of this. We are not jealous, nor are we vindictive," President Rorke went on. "We are confident that History, 'with its long tomorrow,' will show how, at this danger-fraught point, the humble and little thought-of followers of dental science recognized and sized up the situation and stood shoulder to shoulder on the ramparts!"

He wiped his brow with a paper tissue. "And now I will call upon our beloved Past President, Dr. Samuel I. Fadderman, to begin our review of the incredible circumstances which have brought us here tonight. Dr. Fadderman? If you please . . ."

The well-known Elder Statesman of the A.D.A. nodded his head slowly. He made a little cage of his fingers and pursed and then unpursed his lips. At length he spoke in a soft and gentle voice.

"My first comment, brethren, is that I ask for compassion. *Morris Goldpepper is not to blame!*

"Let me tell you a few words about him. Goldpepper the Scientist needs no introduction. Who has not read, for instance, his 'The Bilateral Vertical Stroke and Its Influence on the Pattern of Occlusion' or his 'Treatment,

Planning, Assemblage and Cementation of a 14-Unit Fixed Bridge'—to name only two? But I shall speak about Goldpepper the Man. He is forty-six years of age and served with honor in the United States Navy Dental Corps during the Second World War. He has been a widower since shortly after the conclusion of that conflict. Rae—the late Mrs. Goldpepper, may she rest in peace—often used to say, 'Morry, if I go first, promise me you'll marry again,' but he passed it off with a joke; and, as you know, he never did.

"They had one child, a daughter, Suzanne, a very sweet girl, now married to a Dr. Sheldon Fingerhut, D.D.S. I need not tell you, brethren, how proud our colleague was when his only child married this very fine young member of our profession. The Fingerhuts are now located on Unbalupi, one of the Micronesian islands forming part of the United States Trust Territory, where Dr. Sheldon is teaching dental hygiene, sanitation and prosthesis to the natives thereof."

Dr. Hansen asked, "Are they aware of—"

"The son-in-law knows something of the matter," the older man said. "He has not seen fit to inform his wife, who is in a delicate condition and expects shortly to be confined. At his suggestion, I have been writing—or, rather, typing—letters purporting to come from her father, on his stationery, with the excuse that he badly singed his fingers on a Bunsen burner while annealing a new-type hinge for dentures and consequently cannot hold his pen." He sipped from a glass of water.

"Despite his great scientific accomplishments," Dr. Fadderman went on, "Morry had an impractical streak in him. Often I used to call on him at his bachelor apartment in the Hotel Davenport on West End Avenue, where he moved following his daughter's marriage, and I would find him immersed in reading matter of an escapist kind—tales of crocodile hunters on the Malayan Peninsula, or magazines dealing with interplanetary warfare, or collections of short stories about vampires and werewolves and similar superstitious creations.

"'Morry,' I said reproachfully, 'what a way to spend your off-hours. Is it worth it? Is it healthy? You would do much better, believe me, to frequent the pool or the handball court at the Y. Or,' I pointed out to him, 'if you want to read, why ignore the rich treasures of literature: Shakespeare, Ruskin, Elbert Hubbard, Edna Ferber, and so on? Why retreat to these immature-type fantasies?' At first he only smiled and quoted

the saying, 'Each to his or her own taste.'"

THE silence which followed was broken by young Dr. McAllister. "You say," he said, "'at first.'"

Old Dr. Fadderman snapped out of his revery. "Yes, yes. But eventually he confessed the truth to me. He withheld nothing."

The assembled dental scientists then learned that the same Dr. Morris Goldpepper, who had been awarded not once but three successive times the unique honor of the Dr. Alexander Peabody Medal for New Achievements in Dental Prosthesis, was obsessed with the idea that *there was sentient life on other worlds — that it would shortly be possible to reach these other worlds — and that he himself desired to be among those who went.*

"'Do you realize, Sam?' he asked me," reported Fadderman. "'Do you realize that, in a very short time, it will no longer be a question of fuel or even of metallurgy? That submarines capable of cruising for weeks and months without surfacing foretell the possibility of traveling through airless space? The chief problem has now come down to finding how to build a takeoff platform capable of withstanding a thrust of several million pounds.' And his eyes glowed."

Dr. Fadderman had inquired, with good-natured sarcasm, how the other man expected this would involve *him.* The answer was as follows: Any interplanetary expedition would find it just as necessary to take along a dentist as to take along a physician, and that he — Dr. Goldpepper — intended to be that dentist!

Dr. Weinroth's hand slapped the table with a bang. "By thunder, I say the man had courage!"

Dr. Rorke looked at him with icy reproof. "I should be obliged," he said stiffly, "if there would be no further emotional outbursts."

Dr. Weinroth's face fell. "I beg the Committee's pardon, Mr. President," he said.

Dr. Rorke nodded graciously, indicated by a gesture of his hand that Dr. Fadderman had permission to continue speaking. The old man took a letter from his pocket and placed it on the table.

"This came to me like a bolt from the blue beyond. It is dated November 8 of last year. Skipping the formal salutation, it reads: 'At last I stand silent upon the peak in Darien'— a literary reference, gentlemen, to Cortez's alleged discovery of the Pacific Ocean; actually it was Balboa — 'my great dream is about to be realized. Before long, I shall be back to tell you about it, but just exactly when, I am not able to say. History is being made! Long

live Science! Sincerely yours, Morris Goldpepper, D.D.S.'"

He passed the letter around the table.

Dr. Smith asked, "What did you do on receiving this communication, Doctor?"

Dr. Fadderman had at once taken a taxi to West End Avenue. The desk clerk at the hotel courteously informed him that the man he sought had left on a vacation of short but not exactly specified duration. No further information was known. Dr. Fadderman's first thought was that his younger friend had gotten some sort of position with a Government project which he was not free to discuss, and his own patriotism and sense of duty naturally prevented him from making inquiries.

"But I began, for the first time," the Elder Statesman of American Dentistry said, "to read up on the subject of space travel. I wondered how a man 46 years of age could possibly hope to be selected over younger men."

Dr. Danbourge spoke for the first time. "Size," he said. "Every ounce would count in a spaceship and Morris was a pretty little guy."

"But with the heart of a lion," Dr. Weinroth said softly. "Miles and miles and miles of heart."

The other men nodded their agreement to this tribute.

BUT as time went on and the year drew to its close and he heard no word from his friend, Dr. Fadderman began to worry. Finally, when he received a letter from the Fingerhuts, saying that *they* had not been hearing either, he took action.

He realized it was not likely that the Government would have made plans to include a dentist in this supposed project without communicating with the A.D.A. and he inquired of the current President, Dr. Rorke, if he had any knowledge of such a project, or of the whereabouts of the missing man. The answer to both questions was no. But on learning the reasons for Dr. Fadderman's concern, he communicated with Col. Lemuel Coggins, head of the USAF's Dental Corps.

Col. Coggins informed him that no one of Dr. Goldpepper's name or description was or had been affiliated with any such project, and that, in fact, any such project was still — as he put it — "still on the drawing-board."

Drs. Rorke and Fadderman, great as was their concern, hesitated to report Dr. Goldpepper missing. He had, after all, paid rent on apartment, office and laboratory, well in advance. He was a mature man, of very considerable intelligence, and one who presumably knew what he was doing.

"It is at this point," said Dr. Danbourge, "that I enter the picture. On the 11th of January, I had a call from a Dr. Milton Wilson, who has an office on East 19th Street, with a small laboratory adjoining, where he does prosthetic work. He told me, with a good deal of hesitation, that something exceedingly odd had come up, and he asked me if I knew where Dr. Morris Goldpepper was . . ."

The morning of the 11th of January, an elderly man with a curious foreign accent came into Dr. Wilson's office, gave the name of Smith and complained about an upper plate. It did not feel comfortable, Mr. Smith said, and it irritated the roof of his mouth. There was a certain reluctance on his part to allow Dr. Wilson to examine his mouth. This was understandable, because the interior of his mouth was blue. The gums were entirely edentulous, very hard, almost horny. The plate itself –

"Here is the plate," Dr. Danbourge said, placing it on the table. "Dr. Wilson supplied him with another. You will observe the perforations on the upper, or palatal, surface. They had been covered with a thin layer of gum arabic, which naturally soon wore almost entirely off, with the result that the roof of the mouth became irritated. Now this is so very unusual that Dr. Wilson – as soon as his patient, the so-called Mr. Smith, was gone – broke open the weirdly made plate to find why the perforations had been made. In my capacity as head of the Association's Legal Department," Dr. Danbourge stated, "I have come across some extraordinary occurrences, but nothing like *this*."

This was a small piece of a white, flexible substance, covered with tiny black lines. Danbourge picked up a large magnifying glass.

"You may examine these objects, Doctors," he said, "but it will save your eyesight if I read to you from an enlarged photostatic copy of this last one. The nature of the material, the method of writing, or of reducing the writing to such size all are unknown to us. It may be something on the order of microfilm. But that is not important. The important thing is the *content* of the writing – the *portent* of the writing.

"Not since Dr. Morton, the young Boston dentist, realized the uses of sulphuric ether as an anesthetic has any member of our noble profession discovered anything of even remotely similar importance; and perhaps not before, either."

He drew his spectacles from their case and began to read aloud.

II

DESPITE the fact that our great profession lacks the glamour and public adulation of the practice of medicine, and even the druggists – not having a Hippocratic Oath – can preen themselves on their so-called Oath of Maimonides (though, believe me, the great Maimonides had no more to do with it than Morris Goldpepper, D.D.S.), no one can charge us with not having as high a standard of ethics and professional conduct as physicians and surgeons, M.D. Nor do I hesitate for one single moment to include prostheticians not holding the degree of Doctor of Dental Surgery or Doctor of Dental Medicine, whose work is so vital and essential.

When the records of our civilization are balanced, then – but perhaps not before – the real importance of dental science will be appreciated. Now it is merely valued at the moment of toothache.

It is only with a heavy heart that I undertake deliberately to produce inferior work, and with the confidence that all those to whom the standards of oral surgery and dental prosthetics are dear will understand the very unusual circumstances which have prompted me so to do. And, understanding, will forgive. No one can hold the standards of our pro-

fession higher or more sacred than I.

It must be admitted that I was not very amused on a certain occasion when my cousin, Nathaniel Pomerance, introduced me to an engineering contractor with these words, "You two should have a lot in common – you both build bridges," and uttered a foolish laugh. But I venture to say that this was one of the truest words ever spoken in questionable jest.

Humility is one thing, false pride another. Those who know anything of modern dentistry at all know of the Goldpepper Bridge and the Goldpepper Crown. It is I, Dr. Morris Goldpepper, inventor of both, and perfector of the Semi-retractable Clasp which bears my name, who writes these words you see before you. Nothing further should be needful by way of identification. And now to my report.

On the first of November, a day of evil import forever in the personal calendar of the unhappy wretch who writes these lines, not even knowing for sure if they will ever be read – but what else can I do? – shortly after 5:00 P.M., my laboratory door was knocked on. I found there a curious-looking man of shriveled and weazened appearance. He asked if I was Dr. Morris Goldpepper, "the famous perfector of the Semi-re-

tractable Clasp," and I pleaded guilty to the flattering impeachment.

The man had a foreign-sounding accent, or — I thought — it may be that he had an impediment in his speech. Might he see me, was his next question. I hesitated.

IT HAS happened to me before, and to most other practitioners — a stranger comes and, before you know it, he is slandering some perfectly respectable D.D.S. or D.M.D. The dentist pulled a healthy tooth — the dentist took such and such a huge sum of money for new plates — they don't fit him, he suffers great anguish — he's a poor man, the dentist won't do anything — *et cetera, ad infinitum nauseamque*. In short, a nut, a crank, a crackpot.

But while I was hesitating, the man yawned, did not courteously cover his mouth with his hand, and I observed to my astonishment that the interior of his mouth was an odd shade of blue!

Bemused by this singular departure from normalcy, I allowed him to enter. Then I wondered what to say, since he himself was saying nothing, but he looked around the lab with interest. "State your business" would be too brusque, and "Why is your mouth blue?" would be too gauche. An impasse.

Whilst holding up a large-scale model of the Goldpepper Cap (not yet perfected — will it ever be? Alas, who knows?) this curious individual said, "I know all about you, Dentist Goldpepper. A great scientist, you are. A man of powerful imagination, you are. One who rebels against narrow horizons and yearns to soar to wide and distant worlds, you are."

All I could think of to say was, "And what can I do for *you?*"

It was all so true; every single word he said was true. In my vanity was my downfall. I was tricked like the crow with the cheese in the ancient fable of Aesop.

The man proceeded to tell me, frankly enough, that he was a denizen of another planet. He had *two hearts*, would you believe it? And, consequently, two circulatory systems. Two pulses — one in each arm, one slow, the other fast.

It reminded me of the situation in Philadelphia some years ago when there were two telephone systems — if you had only a Bell phone, you couldn't call anyone who had only a Keystone phone.

The interior of his mouth was blue and so was the inside of his eyelids. He said his world had three moons.

You may imagine my emotions at hearing that my long-felt dream to communicate with otherworldly forms of sentient life was at

last realized! And to think that they had singled out *not* the President of the United States, *not* the Director-General of the U.N., but *me*, Morris Goldpepper, D.D.S.! Could human happiness ask for more, was my unspoken question. I laughed softly to myself and I thought, What would my cousin Nathaniel Pomerance say *now?* I was like wax in this extraterrestrial person's hands (he had six distinct and articulate digits on each one), and I easily agreed to say nothing to anyone until the question of diplomatic recognition could be arranged on a higher echelon.

"Non-recognition *has* its advantages, Goldpepper Dental Surgeon," he said with a slight smile. "No passport for your visit, you will need."

Well! A personal invitation to visit Proxima Centauri Gamma, or whatever the planet's name is! But I felt constrained to look this gift-horse just a little closer in the mouth. How is it that they came inviting *me*, not, let us say, Oppenheimer? Well?

"Of his gifts not in need, we are, Surgical Goldpepper. We have passed as far beyond nuclear power as you have beyond wind power. We can span the Universe — *but in dentistry, like children still, we are.* Come and inspect our faculties of your science, Great Goldpepper. If you say, 'This: Yes,' then it will be yes. If you direct, 'This: No,' then it will be no. In respect to the science of dentistry, our Edison and our Columbus, you will be."

I asked when we would leave and he said in eight days. I asked how long the trip would take. For a moment, I was baffled when he said it would take no longer than to walk the equivalent of the length of the lab floor. Then he revealed his meaning to me: Matter transmission! Of course. No spaceship needed.

MY NEXT emotion was a brief disappointment at not being able to see the blazing stars in black outer space. But, after all, one ought not be greedy at such a time.

I cannot point out too strongly that at no time did I accept or agree to accept any payment or gratuity for this trip. I looked upon it in the same light as the work I have done for various clinics.

"Should I take along books? Equipment? What?" I asked my (so-to-speak) guide.

He shook his head. Only my presence was desired on the first trip. A visit of inspection. Very well.

On the morning of Nov. 8th, I wrote a brief note to my old and dear friend, Dr. Samuel Fadderman, the senior mentor of Ameri-

can Dentistry [on hearing these words, the Elder Statesman sobbed softly into his cupped hands], and in the afternoon, so excited and enthralled that I noticed no more of my destination than that it was north of the Washington Market, I accompanied my guide to a business building in the aforesaid area.

He led me into a darkened room. He clicked a switch. There was a humming noise, a feeling first of heaviness, then of weightlessness, and then an odd sort of light came on.

I was no longer on the familiar planet of my birth! I was on an unknown world!

Over my head, the three moons of this far-off globe sailed majestically through a sky wherein I could note unfamiliar constellations. The thought occurred to me that poets on this planet would have to find another rhyme, inasmuch as *moons* (plural form) does not go with *June* (singular form). One satellite was a pale yellow, one was brown, and the third was a creamy pink. Not knowing the names of these lunary orbs in the native tongue, I decided to call them Vanilla, Chocolate and Strawberry.

Whilst my mind was filled with these droll fancies, I felt a tug at my sleeve, where my guide was holding it. He gestured and I followed.

"Now," I thought to myself, "he will bring me before the President of their Galactic Council, or whatever he is called," and I stood obediently within a circle marked on the surface of the platform whereon we stood.

In a moment, we were matter-transported to an inside room somewhere, and there I gazed about me in stupefaction, not to say astonishment. My eyes discerned the forms of Bunsen burners, Baldor lathes, casting machines and ovens, denture trays, dental stone, plaster, shellac trays, wires of teeth, and all the necessary equipment of a fully equipped dental prosthetic laboratory.

My surprise at the progress made by these people in the science at which they were allegedly still children was soon mitigated by the realization that all the items had been made on Earth.

AS I was looking and examining, a door opened and several people entered. Their faces were a pale blue, and I realized suddenly that my guide must be wearing makeup to conceal his original complexion. They spoke together in their native dialect; then one of them, with a rod of some kind in his hand, turned to me. He opened his mouth. I perceived his gums were bare.

"Dentical person," he said, "make me teeth."


D. MARTIN

I turned in some perplexity to my guide. "I understood you to say my first visit would be one of inspection only."

Everyone laughed, and I observed that all were equally toothless.

The man in the chair poked me rudely with his rod or staff. "Talk not! Make teeth!"

Fuming with a well-justified degree of indignation, I protested at such a gross breach of the laws of common hospitality. Then, casting concealment to the winds, these people informed me as follows:

Their race is entirely toothless in the adult stage. They are an older race than ours and are born looking ancient and wrinkled. It is only comparatively recently that they have established contact with Earth, and in order that they should not appear conspicuous, and in order to be able to eat our food, they realized that they must be supplied with artificial teeth.

My so-called guide, false friend, my enticer and/or kidnaper, to give him his due, had gotten fitted at a dentist's in New York and cunningly enquired who was the leading man in the field. Alas for fame! The man answered without a second of hesitation, "That is no other one than Morris Goldpepper, D.D.S., perfector of the Semi-retractable Clasp."

First this unscrupulous extra-terrestrial procured the equipment, then he procured *me*.

"Do I understand that you purport that I assist you in a plan to thwart and otherwise circumvent the immigration laws of the United States?" was my enquiry.

The man in the chair poked me with his rod again. "You understand! So now make teeth!"

What a proposition to make to a law-abiding, patriotic American citizen by birth! What a demand to exact of a war veteran, a taxpayer and one who has been three times on jury duty since 1946 alone (People vs. Garrity, People vs. Vanderdam, and Lipschutz vs. Krazy-Kut Kool Kaps, Inc.)! My whole being revolted. I spoke coldly to them, informing them that the situation was contrary to my conception of dental ethics. But to no avail.

My treacherous dragoman drew a revolver from his pocket. "Our weapons understand, you do not. Primitive Earth weapons, yes. So proceed with manufacture, Imprisoned Goldpepper."

I went hot and cold. Not, I beg of you to understand, with fear, but with humiliation. *Imprisoned Goldpepper!* The phrase, with all the connotations it implied, rang in my ears.

I bowed my head and a phrase from the literary work "Sampson Agonistes" (studied as a student in the College of the City of New

York) rang through my mind: Eyeless in Gaza, grinding corn . . . Oh, blind, blind, blind, amidst the blaze of noon. . . .

But even in this hour of mental agony, an agony which has scarcely abated to speak of, I had the first glimmering of the idea which I hope will enable me to warn Earth.

WITHOUT a word, but only a scornful glance to show these blue-complected individuals how well I appreciated that their so-called advanced science was a mere veneer over the base metal of their boorishness, I set to work. I made the preliminary impressions and study casts, using an impression tray with oval floor form, the best suited for taking impressions of edentulous ridges.

And so began the days of my slavery.

Confined as I am here, there is neither day nor night, but an unremitting succession of frenum trims, post dams, boxing in, pouring up, festoon carving, fixing sprue channels, and all the innumerable details of dental prosthetic work. No one assists me. No one converses with me, save in brusque barks relevant to the work at hand. My food consists of liqueous and gelatinous substances such as might be expected would form the diet of a toothless race.

Oh, I am sick of the sight of their blue skins, bluer mouths and horny ridges! I am sick of my serfdom!

I have been given material to keep records and am writing this in expectation of later reducing it in size by the method here employed, and of thereinafter inserting copies between the palatal and occlusual surfaces of the plates. It will be necessary to make such plates imperfect, so that the wearers will be obliged to go to dentists on Earth for repairs, because it is not always practical for them to matterport — in fact, I believe they can only do it on the 8th day of every third month. Naturally, I cannot do this to every plate, for they might become suspicious.

You may well imagine how it goes against my grain to produce defective work, but I have no other choice. Twice they have brought me fresh dental supplies, which is how I calculate their matterporting cycle. I have my wristwatch with me and thus I am enabled to reckon the passing of time.

What their exact purpose is in going to Earth, I do not know. My growing suspicion is that their much-vaunted superior science is a fraud and that their only superiority lies in the ability to matterport. One curious item may give a clue: They have ques-

tioned me regarding the Old Age Assistance programs of the several States. As I have said, they all *look* old.

Can it be that elsewhere on this planet there is imprisoned some poor devil of a terrestrial printer or engraver, toiling under duress to produce forged birth certificates and other means of identification, to the fell purpose of allowing these aliens to live at ease at the financial expense of the already overburdened U.S. taxpayer?

To whom shall I address my plea for help? To the Federal Government? But it has no official or even unofficial knowledge that this otherworldly race exists. The F.B.I.? But does matterporting under false pretenses to another planet constitute kidnaping across State lines?

It seems the only thing I can do is to implore whichever dental practitioner reads these lines to communicate at once with the American Dental Association. I throw myself upon the mercy of my fellow professional men.

Dentists and Dental Prosthetic-cians! Beware of men with blue mouths and horny, edentulous ridges! Do not be deceived by flattery and false promises! Remember the fate of that most miserable of men, Morris Goldpepper, D.D.S., and, in his horrible predicament, help, oh, help him!

III.

A LONG silence followed the reading of this document. At length it was broken by Dr. Hansen.

"That brave man," he said in a husky voice. "That brave little man."

"Poor Morris," said Dr. Danbourge. "Think of him imprisoned on a far-off planet, slaving like a convict in a salt mine, so to speak, making false teeth for these inhuman aliens, sending these messages to us across the trackless void. It's pitiful, and yet, Doctors, it is also a tribute to the indomitable spirit of Man!"

Dr. Weinroth moved his huge hands. "I'd like to get ahold of just one of those blue bastards," he growled.

Dr. Rorke cleared his throat. All present looked at their President respectfully and eagerly.

"I need hardly tell you, Doctors," he said crisply, "that the A.D.A. is a highly conservative organization. We do not go about things lightly. One such message we might ignore, but there have been eleven reported, all identical with the first. Even eleven such messages we might perhaps not consider, but when they come from a prominent scientist of the stature of Dr. Morris Goldpepper —

"Handwriting experts have pro-

nounced this to be *his* handwriting beyond cavil of a doubt. Here"—he delved into a box—"are the eleven plates in question. Can any of you look at these clean lines and deny that they are the work of the incomparable Goldpepper?"

The six other men looked at the objects, shook their heads.

"Beautiful," murmured Dr. Smith, "even in their broken state. Poems in plastic! M. G. *couldn't* produce bad work if he tried!"

Dr. Rorke continued. "Each report confirmed that the person who brought in the plate had a blue mouth and edentulous ridges, just as the message states. Each blue-mouthed patient exhibited the outward appearance of old age. *And*, gentlemen, of those eleven, no less than *eight* were reported from the State of California. Do you realize what that means? California offers the highest amount of financial assistance to the elderly! Goldpepper's surmise was right!"

Dr. Hansen leaned forward. "In addition, our reports show that five of those eight are leaders in the fight against fluoridation of drinking water! It is my carefully considered belief that there is something in their physical make-up, evolved on another planet, which cannot tolerate fluorine even in minute quantities, because they certainly—being already toothless—wouldn't be concerned with the prevention of decay."

Young Dr. McAllister took the floor. "We have checked with dental supply houses and detail men in the New York Metropolitan area and we found that large quantities of prosthetic supplies have been delivered to an otherwise unknown outfit—called the Echs Export Company—located not far north of the Washington Market! There is every reason to believe that this is the place Dr. Goldpepper mentioned. One of our men went there, found present only one man, in appearance an *old* man. Our representative feigned deafness, thus obliging this person to open his mouth and talk loudly. Doctors, he reports that this person *has a blue mouth!*"

There was a deep intake of breath around the table.

DR. RORKE leaned forward and snapped off the tape recorders. "This next is off the record. It is obvious, Doctors, that no ordinary methods will suffice to settle this case, to ensure the return of our unfortunate colleague, or to secure the withdrawal of these extraterrestrial individuals from our nation and planet. I cannot, of course, officially endorse what might be termed 'strong-arm' methods. At the same time, I feel that our adversaries are not

entitled to polite treatment. And obviously the usual channels of law enforcement are completely closed to us.

"Therefore – and remember, no word of this must pass outside our circle – therefore I have communicated something of this matter to Mr. Albert Annapollo, the well-known waterfront figure, who not long ago inaugurated the splendid Longshoremen's Dental Health Plan. Mr. Annapollo is a somewhat rough person, but he is nonetheless a *loyal* American. . . .

"We know now the Achilles heel of these alien creatures. It is fluorine. We know also how to identify them. And I think we may shortly be able to announce results. Meanwhile –" he drew a slip of paper from his pocket –"it is already the first of the month in that quarter when the dental supplies are due to be transported – or matterported, as Dr. Goldpepper terms it – to their distant destination. A large shipment is waiting to be delivered from the warehouses of a certain wholesaler to the premises of the Echs Exporting Company. I have had copies of this made and wrapped around each three-ounce bottle of Ellenbogen's Denture Stik-Phast. I presume it meets with your approval."

He handed it to Dr. Hansen, who, as the others present nodded in grimly emphatic approval, read it aloud.

"From The American Dental Association, representing over 45,000 registered dentists in the United States and its Territories, to Dr. Morris Goldpepper, wherever you may be: DO NOT DESPAIR! We are intent upon your rescue! We will bend every effort to this end! We shall fight the good fight!

"Have courage, Dr. Morris Goldpepper! You shall return!"

— **AVRAM DAVIDSON**

Well, naturally Kaiser would transmit baby talk messages to his mother ship! He was—

GROWING UP ON BIG MUDDY

By CHARLES V. DE VET

Illustrated by TURPIN

KAISER stared at the tape in his hand for a long uncomprehending minute. How long had the stuff been coming through in this inane baby talk? And why hadn't he noticed it before? Why had he had to read this last communication a third time before he recognized anything unusual about it?

He went over the words again, as though maybe this time they'd read as they should.

OO IS SICK, SMOKY. DO TO BEDDY-BY. KEEP UM WARM. WHEN UM FEELS BETTER, LET USNS KNOW.
SS II

Kaiser let himself ease back in the pilot chair and rolled the tape thoughtfully between his fingers. Overhead and to each side, large drops of rain thudded softly against the transparent walls of the scout ship and dripped wearily from the bottom ledge to the ground.

"Damn this climate!" Kaiser muttered irrelevantly. "Doesn't it ever do anything here except rain?"

His attention returned to the matter at hand. Why the baby talk? And why was his memory so hazy? How long had he been here? What had he been doing during that time?

Listlessly he reached for the towel at his elbow and wiped the moisture from his face and bare shoulders. The air conditioning had gone out when the scout ship cracked up. He'd have to repair the scout or he was stuck here for good. He remembered now that he had gone over the job very carefully and thoroughly, and had found it too big to handle alone — or without better equipment, at least. Yet there was little or no chance of his being able to find either here.

Calmly, deliberately, Kaiser collected his thoughts, his memories, and brought them out where he could look at them:

The mother ship, *Soscites II*, had been on the last leg of its planet-mapping tour. It had dropped Kaiser in the one remaining scout ship — the other seven had all been lost one way or another during the exploring of new worlds — and set itself into a giant orbit about this planet that Kaiser had named Big Muddy.

The *Soscites II* had to maintain its constant speed; it had no means of slowing, except to stop, and no way to start again once it did stop. Its limited range of maneuverability made it necessary to set up an orbit that would take it approximately one month, Earth time, to circle a pinpointed planet. And now its fuel was low.

Kaiser had that one month to repair his scout or be stranded here forever.

That was all he could remember. Nothing of what he had been doing recently.

A small shiver passed through his body as he glanced once again at the tape in his hand. Baby talk. . . .

ONE thing he could find out: how long this had been going on. He turned to the communicator and unhooked the paper receptacle on its bottom. It held about a yard and a half of tape, probably his last several messages — both those sent and those received. He pulled it out impatiently and began reading. The first was from himself:

YOUR SUGGESTIONS NO HELP. HOW AM I GOING TO REPAIR DAMAGE TO SCOUT WITHOUT PROPER EQUIPMENT? AND WHERE DO I GET IT? DO YOU THINK I FOUND A TOOL SHOP DOWN HERE? FOR GOD'S SAKE, COME UP WITH SOMETHING BETTER.

VISITED SEAL-PEOPLE AGAIN TODAY. STILL HAVE THEIR STINK IN MY NOSE. FOUND HUTS ALONG RIVER BANK, SO I GUESS THEY DON'T LIVE

IN WATER. BUT THEY DO SPEND MOST OF THEIR TIME THERE. NO, I HAVE NO WAY OF ESTIMATING THEIR INTELLIGENCE. I WOULD JUDGE IT AVERAGES NO HIGHER THAN SEVEN-YEAR-OLD HUMAN. THEY DEFINITELY DO TALK TO ONE ANOTHER. WILL TRY TO FIND OUT MORE ABOUT THEM, BUT YOU GET TO WORK FAST ON HOW I REPAIR SCOUT.

SWELLING IN ARM WORSE AND AM DEVELOPING A FEVER. TEMPERATURE 102.7 AN HOUR AGO.

SMOKY

The ship must have answered immediately, for the return message time was six hours later than his own, the minimum interval necessary for two-way exchange.

DOING OUR BEST, SMOKY. YOUR IMMEDIATE PROBLEM, AS WE SEE IT, IS TO KEEP WELL. WE FED ALL THE INFORMATION YOU GAVE US INTO SAM, BUT YOU DIDN'T HAVE MUCH EXCEPT THE STING IN YOUR ARM. AS EXPECTED, ALL THAT CAME OUT WAS "DATA INSUFFICIENT." TRY TO GIVE US MORE. ALSO DETAIL ALL SYMPTOMS SINCE YOUR LAST REPORT. IN THE MEANTIME, WE'RE DOING EVERYTHING WE CAN AT THIS END. GOOD LUCK.

SS II

Sam, Kaiser knew, was the ship's mechanical diagnostician. His report followed:

ARM SWOLLEN. UNABLE TO KEEP DOWN FOOD LAST TWELVE HOURS. ABOUT TWO HOURS AGO, ENTIRE BODY TURNED LIVID RED. BRIEF PERIODS OF BLANKNESS. THINGS KEEP COMING AND GOING. SICK AS HELL. HURRY.

SMOKY

The ship's next message read:

INFECTION QUITE DEFINITE. BUT SOMETHING STRANGE THERE. GIVE US ANYTHING MORE YOU HAVE.

SS II

His own reply perplexed Kaiser:

LAST LETTER FUNNY. I NOT UNDERSTAND. WHY IS OO SENDING GARBLE TALK? DID USNS MAKE UP SECRET MESSAGES?

SMOKY

The expedition, apparently, was as puzzled as he:

WHAT'S THE MATTER, SMOKY? THAT LAST MESSAGE WAS IN PLAIN TERRAN. NO REASON WHY YOU COULDN'T READ IT. AND WHY THE BABY TALK? IF YOU'RE SPOOFING, STOP. GIVE US MORE SYMPTOMS. HOW ARE YOU FEELING NOW?

SS II

The baby talk was worse on Kaiser's next:

TWAZY. WHAT FOR OO TENDING TWAZY LETTERS? FINK UM CAN WEAD TWAZY LETTERS? SKIN ALL YELLOW NOW. COLD. COLD. CO

The ship's following communication was three hours late. It was the last on the tape — the one Kaiser had read earlier. Apparently they decided to humor him.

OO IS SICK, SMOKY. DO TO BEDDY-BY. KEEP UM WARM. WHEN UM FEELS BETTER, LET USNS KNOW.

SS II

That was not much help. All it told him was that he had been sick.

He felt better now, outside of a muscular weariness, as though convalescing from a long illness. He put the back of his hand to his forehead. Cool. No fever anyway.

He glanced at the clock-calendar on the instrument board and back at the date and time on the tape where he'd started his baby talk. Twenty hours. He hadn't been out of his head too long. He began punching the communicator keys while he nibbled at a biscuit.

SEEM TO BE FULLY RECOVERED. FEELING FINE. ANYTHING NEW FROM SAM? AND HOW ABOUT THE DAMAGE TO SCOUT? GIVE ME ANYTHING YOU HAVE ON EITHER OR BOTH.

SMOKY

Kaiser felt suddenly weary. He lay on the scout's bunk and tried to sleep. Soon he was in that phantasm land between sleep and wakefulness — he knew he was not sleeping, yet he did dream.

It was the same dream he had had many times before. In it, he was back home again, the home he had joined the space service to escape. He had realized soon after his marriage that his wife, Helene, did not love him. She had married him for the security his pay

check provided. And though it soon became evident that she, too, regretted her bargain, she would not divorce him. Instead, she had her revenge on him by persistent nagging, by letting herself grow fat and querulous, and by caring for their house only in a slovenly way.

Her crippled brother had moved in with them the day they were married. His mind was as crippled as his body and he took an unhealthy delight in helping his sister torment Kaiser.

KAISER came wide awake in a cold sweat. The clock showed that only an hour had passed since he had sent his last message to the ship. Still five more long hours to wait. He rose and wiped the sweat from his neck and shoulders and restlessly paced the small corridor of the scout.

After a few minutes, he stopped pacing and peered out into the gloom of Big Muddy. The rain seemed to have eased off some. Not much more than a heavy drizzle now.

Kaiser reached impulsively for the slicker he had thrown over a chest against one wall and put it on, then a pair of hip-high plastic boots and a plastic hat. He opened the door. The scout had come to rest with a slight tilt when it crashed, and Kaiser had to sit down and roll over onto his stomach to ease himself to the ground.

The weather outside was normal for Big Muddy: wet, humid, and warm.

Kaiser sank to his ankles in soft mud before his feet reached solid ground. He half walked and half slid to the rear of the scout. Beside the ship, the "octopus" was busily at work. Tentacles and antennae, extending from the yard-high box of its body, tested and recorded temperature, atmosphere, soil, and all other pertinent planetary conditions. The octopus was connected to the ship's communicator and all its findings were being transmitted to the mother ship for study.

Kaiser observed that it was working well and turned toward a wide, sluggish river, perhaps two hundred yards from the scout. Once there, he headed upstream. He could hear the pipings, and now and then a higher whistling, of the seal-people before he reached a bend and saw them. As usual, most were swimming in the river.

One old fellow, whose chocolate-brown fur showed a heavy intermixture of gray, was sitting on the bank of the river just at the bend. Perhaps a lookout. He pulled himself to his feet as he spied Kaiser and his toothless, hard-gummed mouth opened and

emitted a long whistle that might have been a greeting — or a warning to the others that a stranger approached.

The native stood perhaps five feet tall, with the heavy, blubbery body of a seal, and short, thick arms. Membranes connected the arms to his body from shoulder-pits to mid-biceps. The arms ended in three-fingered, thumbless hands. His legs also were short and thick, with footpads that splayed out at forty-five-degree angles. They gave his legs the appearance of a split tail. About him hung a rank-fish smell that made Kaiser's stomach squirm.

The old fellow sounded a cheerful chirp as Kaiser came near. Feeling slightly ineffectual, Kaiser raised both hands and held them palm forward. The other chirped again and Kaiser went on toward the main group.

THEY had stopped their play and eating as Kaiser approached and now most of them swam in to shore and stood in the water, staring and piping. They varied in size from small seal-pups to full-grown adults. Some chewed on bunches of water weed, which they manipulated with their lips and drew into their mouths.

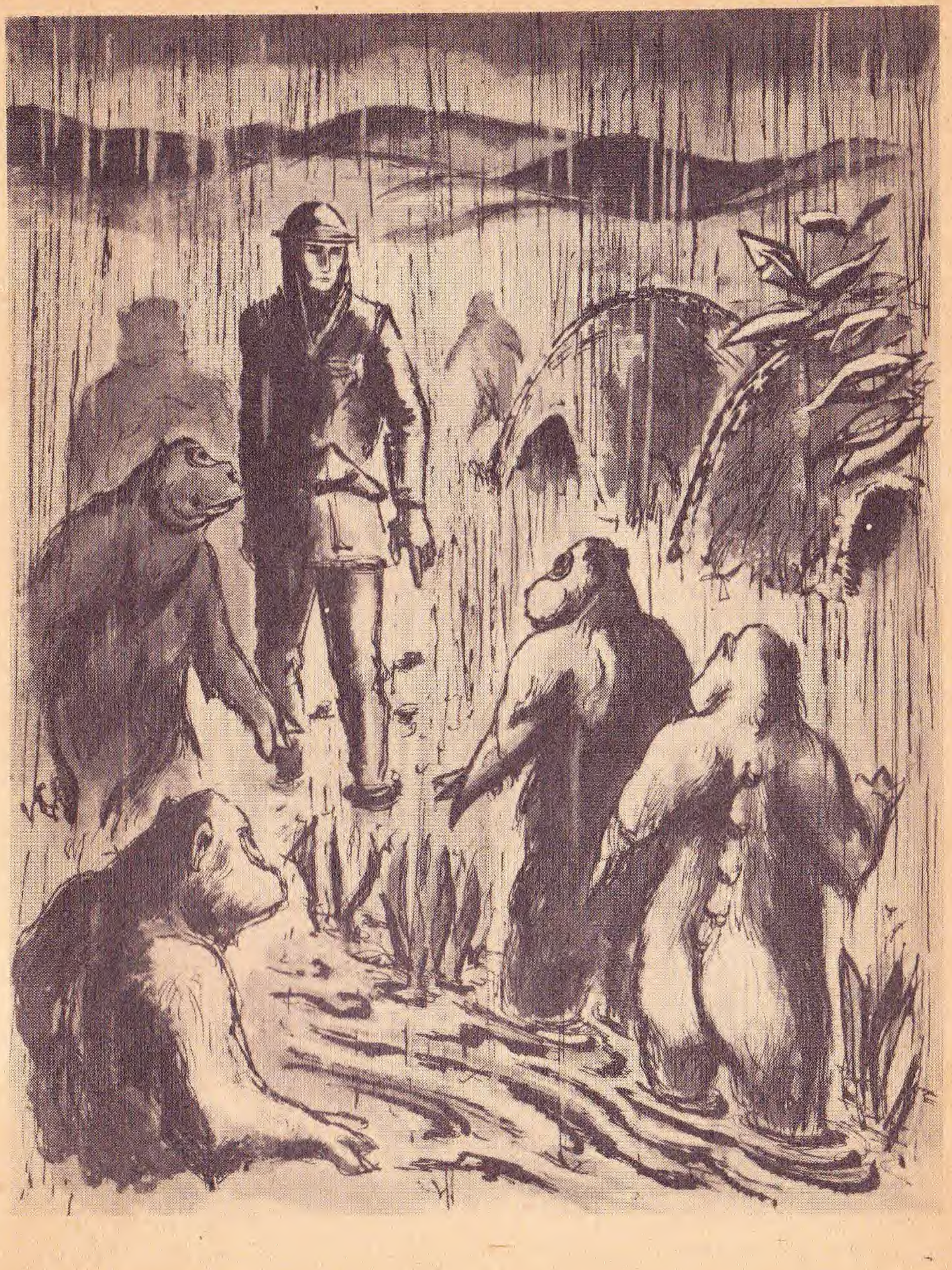
They had mammalian characteristics, Kaiser had noted before, so it was not difficult to distinguish the females from the males. The proportion was roughly fifty-fifty.

Several of the bolder males climbed up beside Kaiser and began pawing his plastic clothing. Kaiser stood still and tried to keep his breathing shallow, for their odor was almost more than he could bear. One native smeared Kaiser's face with an exploring paw and Kaiser gagged and pushed him roughly away. He was bound by regulations to display no hostility to newly discovered natives, but he couldn't take much more of this.

A young female splashed water on two young males who stood near and they turned with shrill pipings and chased her into the water. The entire group seemed to lose interest in Kaiser and joined in the chase, or went back to other diversions of their own. Kaiser's inspectors followed.

They were a mindless lot, Kaiser observed. The river supplied them with an easy existence, with food and living space, and apparently they had few natural enemies.

Kaiser walked away, following the long slow bend of the river, and came to a collection of perhaps two hundred dwellings built in three haphazard rows along the river bank. He took time to study their construction more closely this time.



They were all round domes, little more than the height of a man, built of blocks that appeared to be mud, packed with river weed and sand. How they were able to dry these to give them the necessary solidity, Kaiser did not know. He had found no signs that they knew how to use fire, and all apparent evidence was against their having it. They then had to have sunlight. Maybe it rained less during certain seasons.

The domes' construction was based on a series of four arches built in a circle. When the base covering the periphery had been laid, four others were built on and between them, and continued in successive tiers until the top was reached. Each tier thus furnished support for the next above. No other framework was needed. The final tier formed the roof. They made sound shelters, but Kaiser had peered into several and found them dark and dank — and as smelly as the natives themselves.

The few loungers in the village paid little attention to Kaiser and he wandered through the irregular streets until he became bored and returned to the scout.

The *Soscites II* sent little that helped during the next twelve hours and Kaiser occupied his time trying again to repair the damage to the scout.

The job appeared maddenly simply. As the scout had glided in for a soft landing, its metal bottom had ridden a concealed rock and bent inward. The bent metal had carried up with it the tube supplying the fuel pump and flattened it against the motor casing.

OPENING the tube again would not have been difficult, but first it had to be freed from under the ship. Kaiser had tried forcing the sheet metal back into place with a small crowbar — the best leverage he had on hand — but it resisted his best efforts. He still could think of no way to do the job, simple as it was, though he gave his concentration to it the rest of the day.

That evening, Kaiser received information from the *Soscites II* that was at least definite:

SET YOURSELF FOR A SHOCK, SMOKY. SAM FINALLY CAME THROUGH. YOU WON'T LIKE WHAT YOU HEAR. AT LEAST NOT AT FIRST. BUT IT COULD BE WORSE. YOU HAVE BEEN INVADED BY A SYMBIOTE — SIMILAR TO THE TYPE FOUND ON THE SAND WORLD, BARTELBLEETHERS. GIVE US A FEW MORE HOURS TO WORK WITH SAM AND WE'LL GET YOU ALL THE PARTICULARS HE CAN

GIVE US. HANG ON NOW!
SOSCITES II

Kaiser's reply was short and succinct:

WHAT THE HELL?
SMOKY

Soscites II's next communication followed within twenty minutes and was signed by the ship's doctor:

JUST A FEW WORDS, SMOKY, IN CASE YOU'RE WORRIED. I THOUGHT I'D GET THIS OFF WHILE WE'RE WAITING FOR MORE INFORMATION FROM SAM. REMEMBER THAT A SYMBIOTE IS NOT A PARASITE. IT WILL NOT HARM YOU, EXCEPT INADVERTENTLY. YOUR WELFARE IS AS ESSENTIAL TO IT AS TO YOU. ALMOST CERTAINLY, IF YOU DIE, IT WILL DIE WITH YOU. ANY TROUBLE YOU'VE HAD SO FAR WAS PROBABLY CAUSED BY THE SYMBIOTE'S DIFFICULTY IN ADJUSTING ITSELF TO ITS NEW ENVIRONMENT. IN A WAY, I ENVY YOU. MORE LATER, WHEN WE FINISH WITH SAM.

J. G. ZARWELL

Kaiser did not answer. The news was so startling, so unforeseen, that his mind refused to accept the actuality. He lay on the scout's bunk and stared at the ceiling without conscious attention, and with very little clear thought, for several hours — until the next communication came in:

WELL, THIS IS WHAT SAM HAS TO SAY, SMOKY. SYMBIOTE AMICABLE AND APPARENTLY SWIFTLY ADAPTABLE. YOUR CHANGING COLOR, DIFFICULTY IN EATING AND EVEN BABY TALK WERE THE RESULT OF ITS EFFORTS TO GIVE YOU WHAT IT BELIEVED YOU NEEDED OR WANTED.

CHANGING COLOR: PROTECTIVE CAMOUFLAGE. TROUBLE KEEPING FOOD DOWN: IT KEPT YOUR STOMACH EMPTY BECAUSE IT SENSED YOU WERE IN TROUBLE AND MIGHT HAVE NEED FOR SHARP REFLEXES, WITH NO EXCESS WEIGHT TO CARRY. THE BABY TALK WE AREN'T TOO CERTAIN ABOUT, BUT OUR BEST CONCLUSION IS THAT WHEN YOU WERE A CHILD, YOU WERE MOST HAPPY. IT WAS TRYING TO GIVE YOU BACK THAT

HAPPY STATE OF MIND. OBVIOUSLY IT QUICKLY RECOGNIZED THE MISTAKES IT MADE AND CORRECTED THEM.

SAM CAME UP WITH A FEW MORE IDEAS, BUT WE WANT TO WORK ON THEM A BIT BEFORE WE SEND THEM THROUGH. SLEEP ON THIS.

SS II

KAISER could imagine that most of the crew were not too concerned about the trouble he was in. He was not the gregarious type and had no close friends on board. He had hoped to find the solitude he liked best in space, but he had been disappointed. True, there were fewer people here, but he was brought into such intimate contact with them that he would have been more contented living in a crowded city.

His naturally unsociable nature was more irksome to the crew because he was more intelligent and efficient than they were. He did his work well and painstakingly and was seldom in error. They would have liked him better had he been more prone to mistakes. He was certain that they respected him, but they did not like him. And he returned the dislike.

The suggestion that he get some sleep might not be a bad idea. He hadn't slept in over eighteen hours, Kaiser realized — and fell instantly asleep.

The communicator had a message waiting for him when he awoke:

SAM COULDN'T HELP US MUCH ON THIS PART, BUT AFTER RESEARCH AND MUCH DISCUSSION, WE ARRIVED AT THE FOLLOWING TWO CONCLUSIONS.

FIRST, PHYSICAL PROPERTY OF SYMBIOTE IS EITHER THAT OF A VERY THIN LIQUID OR, MORE PROBABLY, A VIRUS FORM WITH SWIFT PROPAGATION CHARACTERISTIC. IT UNDOUBTEDLY LIVES IN YOUR BLOOD STREAM AND PERMEATES YOUR SYSTEM.

SECOND, IT SEEMED TO US, AS IT MUST HAVE TO YOU, THAT THE SYMBIOTE COULD ONLY KNOW WHAT YOU WANTED BY READING YOUR MIND. HOWEVER, WE BELIEVE DIFFERENTLY NOW. WE THINK THAT IT HAS SUCH CLOSE CONTACT WITH YOUR GLANDS AND THEIR SECRETIONS, WHICH STIMULATE EMOTION, THAT IT CAN GAUGE YOUR FEELINGS

EVEN MORE ACCURATELY THAN YOU YOURSELF CAN. THUS IT CAN JUDGE YOUR LIKES AND DISLIKES QUITE ACCURATELY.

WE WOULD LIKE TO HAVE YOU TEST OUR THEORY. THERE ARE DOZENS OF WAYS. IF YOU ARE STUMPED AND NEED SUGGESTIONS, JUST LET US KNOW. WE AWAIT WORD FROM YOU WITH GREAT INTEREST.

SS II

By now, Kaiser had accepted what had happened to him. His distress and anxiety were gone and he was impatient to do what he could to establish better contact with his uninvited tenant. With eager anticipation, he set to thinking how it could be done. After a few minutes, an idea occurred to him.

Taking a small scalpel from a medical kit, he made a shallow cut in his arm, just deep enough to bleed freely. He knew that the pain would supply the necessary glandular reaction. The cut bled a few slow drops — and as Kaiser watched, a shiny film formed and the bleeding stopped.

That checked pretty well with the ship's theory.

Perhaps the symbiote had made his senses more acute. He tried closing his eyes and fingering several objects in the room. It seemed to him that he could determine the texture of each better than before, but the test was inconclusive. Walking to the rear of the scout, he tried reading the printed words on the instrument panel. Each letter stood out sharp and clear!

Kaiser wondered if he might not make an immediate, practical use of the symbiote's apparent desire to help him. Concentrating on the discomfort of the high humidity and exaggerating his own displeasure with it, he waited. The result surprised and pleased him.

The temperature within the scout cabin seemed to lower, the moisture on his body vanished, and he was more comfortable than he had yet been here.

As a double check, he looked at the ship's thermometer. Temperature 102, humidity 113 — just about the same as it had been on earlier readings.

DURING the next twenty-four hours, Kaiser and the mother ship exchanged messages at regular six-hour intervals. In between, he worked at repairing the damaged scout. He had no more success than before.

He tired easily and lay on the cot often to rest. Each time he seemed to drop off to sleep im-

mediately — and awake at the exact times he had decided on beforehand. At first, despite the lack of success in straightening the bent metal of the scout bottom, there had been a subdued exhilaration in reporting each new discovery concerning the symbiote, but as time passed, his enthusiasm ebbed. His one really important problem was how to repair the scout and he was fast becoming discouraged.

At last Kaiser could bear the futility of his efforts no longer. He sent out a terse message to the *Soscites II*:

TAKING SHORT TRIP TO ANOTHER LOCATION ON RIVER. HOPE TO FIND MORE INTELLIGENT NATIVES. COULD BE THAT THE SETTLEMENT I FOUND HERE IS ANALOGOUS TO TRIBE OF MONKEYS ON EARTH. I KNOW THE CHANCE IS SMALL, BUT WHAT HAVE I TO LOSE? I CAN'T FIX SCOUT WITHOUT BETTER TOOLS, AND IF MY GUESS IS RIGHT, I MAY BE ABLE TO GET EQUIPMENT. EXPECT TO RETURN IN TEN OR TWELVE HOURS. PLEASE KEEP CONTACT WITH SCOUT.

SMOKY

Kaiser packed a mudsled with tent, portable generator and guard wires, a spare sidearm and ammunition, and food for two days. He had noticed that a range of high hills, which caused the bend in the river at the native settlement, seemed to continue its long curve, and he wondered if the hills might not turn the river in the shape of a giant horseshoe. He intended to find out.

Wrapping his equipment in a plastic tarp, Kaiser eased it out the doorway and tied it on the sled. He hooked a towline to a harness on his shoulders and began his journey — in the opposite direction from the first native settlement.

He walked for more than seven hours before he found that his surmise had been correct. And a second cluster of huts, and seal-people in the river, greeted his sight. He received a further pleasant surprise. This group was decidedly more advanced than the first!

They were little different in actual physical appearance; the change was mainly noticeable in their actions and demeanor. And their odor was more subdued, less repugnant.

By signs, Kaiser indicated that he came in peace, and they seemed to understand. A thick-bodied male went solemnly to the river bank and called to a second, who

dived and brought up a mouthful of weed. The first male took the weed and brought it to Kaiser. This was obviously a gesture of friendship.

The weed had a white starchy core and looked edible. Kaiser cleaned part of it with his handkerchief, bit and chewed it.

The weed had a slight iron taste, but was not unpalatable. He swallowed the mouthful and tried another. He ate most of what had been given him and waited with some trepidation for a reaction.

AS DUSK fell, Kaiser set up his tent a few hundred yards back from the native settlement. All apprehension about how his stomach would react to the river weed had left him. Apparently it could be assimilated by his digestive system. Lying on his air mattress, he felt thoroughly at peace with this world.

Once, just before dropping off to sleep, he heard the snuffling noise of some large animal outside his tent and picked up a pistol, just in case. However, the first jolt of the guard-wire charge discouraged the beast and Kaiser heard it shuffle away, making puzzled mewing sounds as it went.

The next morning, Kaiser left off all his clothes except a pair of shorts and went swimming in the river. The seal-people were already in the water when he arrived and were very friendly.

That friendliness nearly resulted in disaster. The natives crowded around as he swam—they maneuvered with an otter-like proficiency—and often nudged him with their bodies when they came too close. He had difficulty keeping afloat and soon turned and started back. As he neared the river edge, a playful female grabbed him by the ankle and pulled him under.

Kaiser tried to break her hold, but she evidently thought he was clowning and wrapped her warm furred arms around him and held him helpless. They sank deeper.

When his breath threatened to burst from his lungs in a stream of bubbles, and he still could not free himself, Kaiser brought his knee up into her stomach and her grip loosened abruptly. He reached the surface, choking and coughing, and swam blindly toward shore until his feet hit the river bottom.

As he stood on the bank, getting his breath, the natives were quiet and seemed to be looking at him reproachfully. He stood for a time, trying to think of a way to explain the necessity of what he had done, but there was none. He shrugged helplessly.

There was no longer anything to be gained by staying here—if they had the tools he needed, he had no way of finding out or ask-

ing for them — and he packed and started back to the scout.

Kaiser's good spirits returned on his return journey. He had enjoyed the relief from the tedium of spending day after day in the scout, and now he enjoyed the exercise of pulling the mudsled. Above the waist, he wore only the harness and the large, soft drops of rain against his bare skin were pleasant to feel.

When he reached the scout, Kaiser began to unload the sled. The tarpaulin caught on the edge of a runner and he gave it a tug to free it. To his amazement, the heavy sled turned completely over, spilling the equipment to the ground.

Perplexed, Kaiser stooped and began replacing the spilled articles in the tarp. They felt exceptionally light. He paused again, and suddenly his eyes widened.

MOVING quickly to the door of the scout, he shoved his equipment through and crawled in behind it. He did not consult the communicator, as he customarily did on entering, but went directly to the warped place on the floor and picked up the crowbar he had laid there.

Inserting the bar between the metal of the scout bottom and the engine casing, he lifted. Nothing happened. He rested a minute and tried again, this time concentrating on his desire to raise the bar. The metal beneath yielded slightly — but he felt the palms of his hands bruise against the lever.

Only after he dropped the bar did he realize the force he had exerted. His hands ached and tingled. His strength must have been increased tremendously. With his plastic coat wrapped around the lever, he tried again. The metal of the scout bottom gave slowly — until the fuel pump hung free!

Kaiser did not repair the tube immediately. He let the solution rest in his hands, like a package to be opened, the pleasure of its anticipation to be enjoyed as much as the final act.

He transmitted the news of what he had been able to do and sat down to read the two messages waiting for him.

The first was quite routine:

REPORTS FROM THE OCTOPUS INDICATE THAT BIG MUDDY UNDERGOES RADICAL WEATHER-CYCLE CHANGES DURING SPRING AND FALL SEASONS, FROM EXTREME MOISTURE TO EXTREME ARIDITY. AT HEIGHT OF DRY SEASON, PLANET MUST BE COMPLETELY DEVOID OF SURFACE LIQUID.

TO SURVIVE THESE UNUSUAL EXTREMES, SEAL-

PEOPLE WOULD NEED EXTREME ADAPTABILITY. THIS VERIFIES OUR EARLIER GUESS THAT NATIVES HAVE SYMBIOSIS WITH THE SAME VIRUS FORM THAT INVADED YOU. WITH SYMBIOTES' AID, SUCH RADICAL PHYSICAL CHANGE COULD BE POSSIBLE. WILL KEEP YOU INFORMED.

GIVE US ANY NEW INFORMATION YOU MIGHT HAVE ON NATIVES.

SS II

The second report was not so routine. Kaiser thought he detected a note of uneasiness in it.

SUGGEST YOU DEVOTE ALL TIME AND EFFORT TO REPAIR OF SCOUT. INFORMATION ON SEAL-PEOPLE ADEQUATE FOR OUR PURPOSES.

SS II

Kaiser did not answer either communication. His earlier report had covered all that he had learned lately. He lay on his cot and went to sleep.

In the morning, another message was waiting:

VERY PLEASED TO HEAR OF PROGRESS ON REPAIR OF SCOUT. COMPLETE AS QUICKLY AS POSSIBLE AND RETURN HERE IMMEDIATELY.

SS II

KAISER wondered about the abrupt recall. Could the *Soscites II* be experiencing some difficulty? He shrugged the thought aside. If they were, they would have told him. The last notes had had more than just a suggestion of urgency — there appeared to be a deliberate concealing of information.

Strangely, the messages' indicated need for haste did not prod Kaiser. He knew now that the job could be done, perhaps in a few hours' time. And the *Soscites II* would not complete its orbit of the planet for two weeks yet.

Without putting on more than the shirt and trousers he had grown used to wearing, Kaiser went outside and wandered listlessly about the vicinity of the ship for several hours. When he became hungry, he went back inside.

Another message came in as he finished eating. This one was from the captain himself:

WHY HAVE WE RECEIVED NO VERIFICATION OF LAST INSTRUCTIONS? REPAIR SCOUT IMMEDIATELY AND RE-

TURN WITHOUT FURTHER DELAY. THIS IS AN ORDER!

H. A. HESSE, CAPT.

Kaiser pushed the last of his meal — which he had been eating with his fingers — into his mouth, crumpled the tape, wiped the grease from his hands with it and dropped it to the floor.

He pondered mildly, as he packed his equipment, why he was disregarding the captain's message. For some reason, it seemed too trivial for serious consideration. He placated his slightly uneasy conscience only to the extent of packing the communicator in with his other equipment. It was a self-contained unit and he'd be able to receive messages from the ship on his trip.

THE tracks of his earlier journey had been erased by the soft rain, and when Kaiser reached the river, he found that he had not returned to the village he had visited the day before. However, there were other seal-people here.

And they were almost human!

The resemblance was still not so much in their physical makeup — that was little changed from the first he had found — as in their obviously greater intelligence.

This was mainly noticeable in their facile expressions as they talked. Kaiser was even certain that he read smiles on their faces when he slipped on a particularly slick mud patch as he hurried toward them. Where the members of the first tribes had all looked almost exactly alike, these had very marked individual characteristics. Also, these had no odor — only a mild, rather pleasing scent. When they came to meet him, Kaiser could detect distinct syllabism in their pipings.

Most of the natives returned to the river after the first ten minutes of curious inspection, but two stayed behind as Kaiser set up his tent.

One was a female.

They made small noises while he went about his work. After a time, he understood that they were trying to give names to his paraphernalia. He tried saying "tent" and "wire" and "tarp" as he handled each object, but their piping voices could not repeat the words. Kaiser amused himself by trying to imitate their sounds for the articles. He was fairly successful. He was certain that he could soon learn enough to carry on a limited conversation.

The male became bored after a time and left, but the girl stayed until Kaiser finished. She motioned to him then to follow. When they reached the river bank, he saw that she wanted him to go into the water.

BEFORE he had time to decide, Kaiser heard the small bell of the communicator from the tent behind him. He stood undecided for a moment, then returned and read the message on the tape:

STILL ANXIOUSLY AWAITING WORD FROM YOU.

IN MEANTIME, GIVE VERY CLOSE ATTENTION TO FOLLOWING.

WE KNOW THAT THE SYMBIOTES MUST BE ABLE TO MAKE RADICAL CHANGES IN THE PHYSIOLOGY OF THE SEAL-PEOPLE. THERE IS EVERY PROBABILITY THAT YOURS WILL ATTEMPT TO DO THE SAME TO YOU —TO BETTER FIT YOUR BODY TO ITS PRESENT ENVIRONMENT.

THE DANGER, WHICH WE HESITATED TO MENTION UNTIL NOW—WHEN YOU HAVE FORCED US BY YOUR OBSTINATE SILENCE — IS THAT IT CAN ALTER YOUR MIND ALSO.

YOUR REPORT ON SECOND TRIBE OF SEAL-PEOPLE STRONGLY INDICATES THAT THIS IS ALREADY HAPPENING. THEY WERE PROBABLY NOT MORE INTELLIGENT AND HUMANLIKE THAN THE OTHERS. ON THE CONTRARY, YOU ARE BECOMING MORE LIKE THEM.

DANGER ACUTE. RETURN IMMEDIATELY. REPEAT: IMMEDIATELY!

SS II

Kaiser picked up a large rock and slowly, methodically pounded the communicator into a flattened jumble of metal and loose parts.

When he finished, he returned to the waiting girl on the river bank. She pointed at his plastic trousers and made laughing sounds in her throat. Kaiser returned the laugh and stripped off the trousers. They ran, still laughing, into the water.

Already the long pink hair that had been growing on his body during the past week was beginning to turn brown at the roots.

—CHARLES V. DE VET

GALAXY'S

5 Star Shelf

THE DOOR INTO SUMMER
by Robert A. Heinlein. Doubleday & Co., Inc., N. Y., $2.95

LET'S be thankful that we are now enjoying one of the prolific Mr. Heinlein's most fruitful periods. Now we find Heinlein offering his version of *The Sleeper Wakes*. Leave it to him, however, to freshen up any old chestnut.

He pulls a switch on the time of departure of his sleeper, who starts from the year 1970 via cold sleep, waking in 2000. Heinlein paints a detailed picture of both civilizations, so evocative that 1970 emerges clearly in the reader's mind as the old days, and pretty primitive at that. The hero is, like the author himself, an engineer. He has been bilked out of his 1970 inventions and faces an acclimatizing period in 2000 to learn the advances of the intervening years.

The interim development of his stolen inventions, along with the appearance on the commercial market of old, nebulous ideas of his, both send him on a detective search of two eras.

Of course you'll like Heinlein's latest.

THE BEST FROM FANTASY AND SCIENCE FICTION, edited by Anthony Boucher. Doubleday & Co., Inc., N. Y., $3.50

BOUCHER'S latest from *F&SF* is somewhat better balanced than his previous collection of giggles and cutenesses, and contains some fine yarns. Among these are Pohl's shocker, "The Census Takers," Sturgeon's ditto, "And Now the News," and Kornbluth's jolly "The Cosmic Expense Account." Most of the other stories are good, except for a very, very minor Bradbury.

The two longest works, however, Charles L. Fontenay's "The Silk and the Song" and Ward Moore's "No Man Pursueth," are quite obviously used as bulk to make this a book rather than a pamphlet. If these were "the best" available, Boucher should have waited until he had better makeweights.

THE LOST PLANET by Paul Dallas. The John C. Winston Co., Philadelphia, Toronto, $2.00.

DALLAS has written a fairly standard juvenile space opera that would have fared far better if heavy reliance had not been placed on unbelievable coincidences.

Earth and Poseida, a planet whose location and environment are never satisfactorily explained, have reached the brink of war as the result of ultra-nationalistic activities of selfish individuals on each planet. The Poseidans are amphibious octopi and thoroughly repellent in appearance to sensitive humans.

Bill Hudson, recipient of a brand-new space-medical diploma, is treated to a post-graduate vacation on Poseida by his chum's old man, who happens to be General Watkins, big-wig of Planet Earth Forces. The very first day on Poseida, he saves the life of a young native who just happens, by the Lord Harry, to be the son of the planet's ruler, no less. They become fast friends and discover that there isn't much difference in mentality and outlook between the two races.

One of the points of friction between the worlds is the disappearance of more than a score of experimental Earth ships on their initial test runs to exceed the speed of light. The Earth extremists are convinced that the Poseidans have a tentacle in it. While engaged in research on Poseida, Hudson just happens, by all that's lucky, to discover the antidote for the suspended animation drug, something that thousands of scientists had been unable to do. This has something to do with those ships.

There's still another "happens

to" that stretches credence even further, but Dallas somewhat redeems himself by good characterizations and an intelligent argument for tolerance.

STOWAWAY TO THE MUSHROOM PLANET by Eleanor Cameron. Little, Brown & Co., Boston, Toronto, $2.75

IN THIS sequel to *The Wonderful Flight to the Mushroom Planet,* David Topman and his buddy, Chuck Masterson, are visited by a strange little person while spending the night in Tyco Bass' house. Tyco, the wonderful little person who advertised for a spaceship built by boys, made the flight with them to the Mushroom Planet, really an invisible satellite of Earth, and then disappeared. The stranger reveals himself as Tyco's cousin and also one of the Mushroom People. With his help, Tyco's notes are deciphered and another ship and flight become possible.

A Menace, however, in the person of an egocentric assistant to a famous scientist creates plot problems by stowing away and threatening to disclose the secret of the existence of this idyllic little world.

Remember Dr. Doolittle? His adventures never rang true, either, but we loved him and that made them possible. Same here.

THE LOST PYRAMID by M. Zakaria Goneim. Rinehart & Co., Inc., N. Y., $3.50

LAST month, *Lost: A Moon.* This month, *The Lost Planet.* Now a mislaid pyramid. A place for everything, and everything in its place, and this sort of thing wouldn't keep happening.

As an object lesson in deductive archeology, this book stands by itself. Most of the famous finds have been the result of the exhaustive study of sites, but Dr. Gonheim found his pyramid through dissatisfaction with the paucity of memorials dating from the Third Dynasty, 2800-2700 B.C., the era just pre-dating the epoch of the Great Pyramid Builders.

If you don't mind the usual archeological preoccupation with precise measurements, you'll find this a satisfactory substitute for time travel, back to that incredible age of monumental egomaniacs.

GREAT ADVENTURES IN SCIENCE, edited by Helen Wright and Samuel Rapport. Harper & Brothers, N. Y., $3.95

THE editors have compiled an informative volume of gleanings from the writings of an impressive group of authors.

Leading off is Raymond Dit-

mars, world-famed reptile authority, with an amusing account of his boyhood start in snake collection. Theodore Roosevelt, naturalist, pens a chapter on the piranha, Brazil's man-eating fish.

Arthur Clarke is represented by a portion of *The Coast of Coral* and "The Well of the Maidens" is excerpted from C. W. Ceram's phenomenal archeological best seller, *Gods, Graves and Scholars.*

There are chapters on the lives of Galileo, Einstein, Newton, Faraday, Edison and the unbelievably warped Henry Cavendish, along with general interest subjects that make the book appealing to young or old.

Fortunately, the editors balance their bright picture with a view of the tedium and detail of pure research, preventihg disenchantment.

CLOCK WITHOUT HANDS by Ronald Edwin. The Falcon's Wing Press, Indian Hills, Colo., $2.95

ALTHOUGH books on ESP are appearing with increasing frequency, Edwin's story has a ring of veracity that few others can equal. He offers more than usual documentation and presents his life history with such candor that his reader is swept along. He explains his gift as a natural compensation for his inadequacies, his introversion and melancholia during his abominably miserable childhood. One gathers that he has overcompensated his sensitivity in later years by developing a sharp tongue and manner.

He appeared on the British TV scene on *What's My Line,* stumped the experts and ran off with the honors in a blistering verbal exchange with the acidulous panelist, Gilbert Harding. But leading up to this belated triumph is a lifetime of anguish.

The Perceptive has virtually no control over his gift. Since the average life is composed of trivia, most clairvoyance is likewise trivial. As a result, there is no practical vocation as yet for the poor Esper, Alfred Bester notwithstanding. Either he struggles along on the variety stage or he resorts, as Edwin confesses, to phony spiritualism. Despite earning a reasonable livelihood, disillusionment caused him to return to pure ESP and poverty.

Unlike most authors of similar works, he remains unconvinced of life after death. Although ESP occasionally manifests itself to him in the guise of voices, he interprets it as a conversion to a normal referent by the brain censor, not as spirit voices.

If you have started a para-psychology section of your library, this is a necessary inclusion.

—FLOYD C. GALE

THE DEATHS OF BEN BAXTER

By ROBERT SHECKLEY

The breath of an entire world literally hung upon whether he lived or died—and he infuriatingly refused to stay alive!

Illustrated by DICK FRANCIS

EDWIN JAMES, the Chief Programmer of Earth, had seated himself upon a little three-legged stool in front of the Probabilities Calculator. He was a small, spare man, impressively ugly, dwarfed by the great control board which soared a hundred feet above him.

The steady hum of the machine, the slow drift of lights across the face of the panel, brought a sense of security which he recognized as false, but which soothed him all the same. He had just started to doze off when the pattern of lights changed.

He sat up with a start and rubbed his face. A paper tape inched from a slot in the panel. The Chief Programmer tore it off and scanned it. He nodded sourly to himself and walked quickly out of the room.


AMERICAN
PEERAGE

Fifteen minutes later, he entered the meeting room of the World Planning Council. Summoned there by his order, the five representatives of the Federated Districts of Earth were seated around the long table, waiting for him.

There was a new member this year, Roger Beatty, from the Americas. He was tall and angular and his bushy brown hair was just beginning to thin on top. He appeared eager, earnest and ill at ease. He was reading a procedural handbook and taking short, quick sniffs from his oxygen inhaler.

James knew the other members well. Lan Il from Pan-Asia, looking as small, wrinkled and indestructible as ever, was engaged in intense conversation with large, blond Dr. Sveg from Europe. Miss Chandragore, beautiful and sleek, was playing her inevitable game of chess with Aaui of Oceania.

James turned up the room's oxygen supply and the members gratefully put away their inhalers.

"Sorry to keep you waiting," James said, taking his seat at the head of the table. "The current prediction just came through."

He took a notebook from his pocket and opened it.

"At our last meeting, we selected Alternate Probability Line 3B3CC, which began in the year 1832. The factor we were selecting for was the life of Albert Levinsky. In the Main Historic Line, Levinsky died in 1935 of an automobile accident. By switching into Alternate Probability Line 3B3CC, Levinsky avoided this accident and lived to the age of sixty-two, completing his work. The result now, in our own time, in the opening up of Antartica."

"What about side-effects?" asked Janna Chandragore.

"Those are discussed in the paper you will be given later. Briefly, though, 3B3CC adhered closely to the Historic Main Line. All important events remained constant. There were, of course, some effects which the prediction did not cover. They include an oil-well explosion in Patagonia, a flu epidemic in Kansas and an increase in smog over Mexico City."

"Have all injured parties been compensated?" Lan Il wanted to know.

"They have. And the colonization of Antartica is already begun."

The Chief Programmer unfolded the paper tape he had taken from the Probabilities Calculator.

"But now we face a dilemma. As predicted, the Historic Main Line leads into unpleasant complications. But there are no good alternate lines to switch into!"

The Members murmured to each other.

James said, "Let me explain the situation." He walked to a wall and pulled down a large chart. "The crisis-point occurs on April 12, 1959, and our problem centers around an individual named Ben Baxter. The circumstances are as follows . . ."

EVENTS, by their very nature, evoke alternate possibilities, each of which produces its own continuum of history. In other spatial-temporal worlds, Spain lost at Lepanto, Normandy at Hastings, England at Waterloo.

Suppose Spain had lost at Lepanto . . .

Spain did, disastrously. And Turkish sea power, invincible, swept the Mediterranean of European shipping. Ten years later, a Turkish fleet conquered Naples and paved the way for the Moorish invasion of Austria . . .

In another time and space, that is.

This speculation became observable fact after the development of temporal selection and displacement. By 2103, Oswald Meyner and his associates were able to show the theoretical possibility of Switching from the Historic Main Line — so named for convenience — to alternate lines. Within definite limits, however.

It would be impossible, for example, to Switch into a past where William of Normandy lost the battle of Hastings. The world developing from that event would be too different, alien in every way. Switching was found possible only into closely adjacent lines.

The theoretical possibility became a practical necessity in 2213. In that year, the Sykes-Raborn Calculator at Harvard predicted the complete sterilization of Earth's atmosphere by the accretion of radioactive by-products. The process was irreversible and inevitable. It could be stopped only in the past, where the poisoning had begun.

The first Switch was made with the newly developed Adams-Holt-Maartens Selector. The World Planning Council chose a line which involved the early death of Vassily Ouchenko (and the obliteration of his erroneous radiation-damage theories). A large part of the subsequent poisoning was avoided, although at the cost of seventy-three lives — descendants of Ouchenko for whom no Switch-parents could be found.

After that, there was no turning back. Line Switching became as necessary to the world as disease prevention.

But the process had its limitations. A time had to come when no available line would be usable, when all futures looked unfavorable.

When that happened, the Plan-

ning Council was prepared to use more direct means.

"AND those are the consequences for us," Edwin James concluded. "That is the outcome if we allow the Main Historic Line to continue."

Lan Il said, "Meaning that you predict serious trouble for Earth, Mr. Programmer."

"With regret, I do."

The Programmer poured himself a glass of water and turned a page in his notebook.

"Our pivotal point is Ben Baxter, who dies on April 12, 1957. He must live at least another ten years for his work to have the desired effect upon world events. In that time, Ben Baxter will purchase Yellowstone National Park from the government. He will continue to maintain it as a park, but will farm the trees. This enterprise will be highly successful. He will buy other great tracts of land in North and South America. The Baxter heirs will be lumber kings for the next two hundred years and will own huge standings throughout the world. Due to their efforts, there will be great forests in the world, up to and including our own time. But if Baxter dies —"

James gestured wearily. "With Baxter dead, the forests will be cut before the governments of the world are fully aware of the consequences. Then comes the great blight of '03, which the few remaining woodlands cannot withstand. And at last the present, with the natural carbon-dioxide-oxygen cycle disrupted by the destruction of the trees, with all combustion devices banned, with oxygen inhalers a necessity merely to survive."

"We've started the forests again," Aaui said.

"It will be hundreds of years before they have grown to any significant size, even with forced growing methods. In the meantime, the balance may become further upset. *That* is the importance of Ben Baxter to us. He holds the key to the air we breathe!"

"Very well," said Dr. Sveg. "The Main Line, in which Baxter dies, is clearly unusable. But there are Alternates —"

"Many," James said. "As usual, most of them cannot be selected. Counting the Main Line, we have a total of three choices. But, unfortunately, each of them results in the death of Ben Baxter on April 12, 1959."

The Programmer wiped his forehead. "To be more specific, *Ben Baxter dies on the afternoon of April 12, 1959, as a result of a business meeting with a man named Ned Brynne.*"

The new member, Roger Beatty, cleared his throat nervously.

"This event takes place in all three probability worlds?"

"Yes. In every one of them, Brynne is the cause of Baxter's death."

Dr. Sveg came ponderously to his feet. "Formerly, this Council has avoided any direct interference with the existing lines of probability. But this situation seems to call for interference."

The council members nodded their agreement.

"Let's get down to cases," said Aaui. "For the good of Earth, can this Ned Brynne be Switched Out?"

"No," replied the Programmer. "Brynne himself plays a vital role in our future. He has an option on almost a hundred square miles of forest. He needs Baxter's backing to purchase it. If Brynne could be kept from that meeting with Baxter —"

"How?" asked Beatty.

"Take your pick," James suggested. "Threats, persuasion, bribery, kidnaping — any means short of murder. We have three worlds to work in. If we can restrain Brynne in just one of them, our problem is solved."

"What would be our best method?" asked Aaui.

"Try several, a different one in each probability world," said Miss Chandragore. "Our chances would be best that way. Shall we go ourselves?"

"We are best suited for the job," Edwin James said. "We know the factors involved. And politics gives one a certain skill in improvising — which will be sorely needed in this job. Each team will be absolutely on its own. There is no way for them to check on each other's progress across the time lines."

"Each team then," Dr. Sveg summed up, "will have to assume that the other teams fail."

"Probably with good reason," James said wryly. "Let's organize the teams and select our methods."

I

ON THE morning of April 12, 1959, Ned Brynne awakened and washed and dressed. At 1:30 that afternoon, he had an appointment with Ben Baxter, president of Baxter Industries. Brynne's entire future hinged upon the outcome of that meeting. If he could get the backing of the gigantic Baxter enterprises, and do so on favorable terms . . .

Brynne was a tall, darkly handsome man of thirty-six. There was a hint of fanatic pride in his carefully bland eyes, a suggestion of unreasoning stubbornness in his tightly held mouth. His movements had the controlled strength of a man who is constantly watching and judging himself.

He was almost ready to leave.

He tucked a swagger stick under his arm and slipped a copy of Somerset's *American Peerage* into his jacket pocket. He was never without that infallible guide.

Finally he fixed to his lapel the golden sunburst decoration of his station. Brynne was a Chamberlain, second class, and properly proud of the fact. Some people thought him too young for so exalted a position. But they had to agree that Brynne carried the prerogatives and requirements of his office with a dignity quite beyond his years.

He locked his apartment and walked to the elevator. There was a small crowd waiting, mostly commoners, but two Equerries as well. All made way for him when the elevator came.

"Pleasant day, Chamberlain Brynne," the operator said as the car started down.

Brynne inclined his head an inch in the usual response to a commoner. He was deep in thought about Ben Baxter. But at the corner of his eye, he noticed one of the occupants of the car, a tall, strongly built fellow with golden-brown Polynesian features and tilted dark eyes. Brynne wondered what a man like that was doing in his apartment building. He knew the other tenants by sight, although their lower status naturally made them unworthy of his recognition.

The elevator reached the lobby and Brynne forgot about the Polynesian fellow. He had a lot on his mind today. There were some problems connected with Ben Baxter, problems he hoped to resolve before the meeting. He strode outside, into a dismal gray April morning, and decided to go to the Prince Charles Coffee Shop for a late breakfast.

It was 10:25 A.M.

"WHAT do you think?" Aaui asked.

"Looks like a tough customer," said Roger Beatty. He inhaled deeply, savoring the rich air. It was a delightful luxury, breathing all the oxygen he wanted. In his time even the very wealthy turned down the oxygen tanks at night.

They were following half a block behind Brynne. There was no losing Brynne's tall, swaggering figure, even in New York's morning rush.

"He looked at you in the elevator," Beatty said.

"I know." Aaui grinned. "Give him something to worry about."

"He doesn't look like a worrying type," Beatty said. "I wish we had more time."

Aaui shrugged. "This was the closest we could come to the event. Our next choice would have been eleven years ago. And we would still have to wait until

now before taking direct action."

"At least we'd know something about Brynne. He doesn't look as though he'll frighten easily."

"No, he doesn't," Aaui admitted. "But that's the course of action we selected."

They continued to follow, noticing how the crowds parted to make way for Brynne, who marched straight ahead, not looking to right or left. Then it happened.

Brynne, his attention turned inward, collided with a portly, florid-faced man, who wore in his lapel the dazzling purple and silver medallion of a First Order Crusader.

"Can't you watch where you're going, imbecile?" the Crusader barked.

BRYNNE noticed the man's rank, swallowed and muttered, "I beg your pardon, sir."

The Crusader wasn't so easily placated. "Do you make a habit of bumping into your betters, sirrah?"

"I do not," Brynne said, his face growing red, fighting hard to restrain his rage. A crowd of commoners had gathered to watch. They ringed the brilliantly dressed men, grinning and nudging each other.

"Then suppose you watch yourself!" the portly Crusader roared. "Stop cluttering the streets like a sleepwalker, before you are taught a lesson in manners!"

Brynne said, with deadly quiet, "Sir, if you feel the necessity of giving me such a lesson, I should be pleased to meet you at a place of your choosing, with such weapons as you elect —"

"*Me*? Meet *you*?" the Crusader asked incredulously.

"My rank permits it, sir."

"Your rank? You're a good five degrees beneath me, you simple idiot! Enough of this or I'll send my servants — who outrank you — to teach you a lesson in manners. I'll remember your face, young man. Now get out of my way!"

And with that, the Crusader pushed past him and stalked away.

"Coward!" said Brynne, his face a mottled red. But he said it softly, and the commoners noticed. Brynne turned to them, his hands tightening on his swagger stick. Grinning cheerfully, the crowd broke up.

Beatty said, "Dueling is permitted here?"

Aaui nodded. "The legal precedent came in 1804, when Alexander Hamilton killed Aaron Burr in a duel."

"I guess we'd better get to work," Beatty said. "But I wish we had more equipment."

"We took all we could carry. Let's get on with it."

INSIDE the Prince Charles Coffee Shop, Brynne sat at a table far in the rear. His hands were trembling; with an effort, he controlled them. Damn that First Order Crusader! Lousy, overbearing blowhard! But would he accept a duel? No, of course not. Had to hide behind the privileges of his station.

Rage was rising in Brynne, black and ominous. He should have killed the man and the blazes with the consequences! The blazes with everything! No man could step on him that way . . .

Stop it, he told himself. There was nothing he could do about it. He had to think about Ben Baxter and the all-important meeting. Looking at his watch, he saw it was nearly eleven o'clock. In two and a half hours, he would be in Baxter's office and—

"Your order, sir?" a waiter asked him.

"Hot chocolate, toast and a poached egg."

"French fries?"

"If I wanted French fries, I'd have told you!" Brynne shouted.

The waiter went pale, gulped, said, "Yes, sir, sorry, sir," and hurried off.

Now, Brynne thought, I'm reduced to yelling at commoners. Control—I must get myself under control.

"Ned Brynne!"

Brynne started and looked around. He had distinctly heard someone whisper his name. But there was no one within twenty feet of him.

"Brynne!"

"What is this?" Brynne muttered in unwilling reply. "Who's speaking?"

"You're nervous, Brynne, losing control of yourself. You need a rest, a vacation, a change."

Brynne went dead white under his tan and looked around the cafe. It was almost empty. There were three old ladies near the front. Beyond them he could see two men, talking together earnestly.

"Go home, Brynne, and get some rest. Take some time off while you can."

"I have an important business appointment," Brynne said, his voice shaky.

"Business before sanity," the voice pointed out mockingly.

"Who's talking to me?"

"What makes you think someone is talking to you?" the voice asked silkily.

"You mean I'm talking to myself?"

"You should know."

"Your egg, sir," the waiter said.

"What?" Brynne roared.

The waiter stepped hastily back, slopping hot chocolate into the saucer. "Sir?" he quavered.

"Don't creep around that way, idiot."

The waiter looked at Brynne incredulously, deposited the food and fled. Brynne stared after him suspiciously.

"You are in no condition to see anyone," the voice told him. *"Go home, get into bed, take a pill, sleep, heal!"*

"But what's the matter? Why?"

"Because your sanity is at stake! This external voice is your mind's last frantic attempt at stability. You can't afford to ignore this warning, Brynne!"

"It can't be true!" protested Brynne. "I'm sane. I'm —"

"Beg pardon, sir," said a voice at his elbow.

Brynne whirled, prepared to chastise this further intrusion on his privacy. He saw the blue uniform of a policeman looming over him. The man was wearing the white shoulder epaulets of a Noble Lieutenant.

BRYNNE swallowed hard and said, "Anything wrong, Officer?"

"Sir, the waiter and manager tell me you are talking to yourself and threatening violence."

"Preposterous," snapped Brynne.

"It's true! It's true! You're going crazy!" the voice screamed in his head.

Brynne stared at the great square bulk of the policeman. Surely he heard the voice! But apparently the Noble Lieutenant didn't, for he continued to look somberly down at him.

"It's not true," Brynne said, feeling secure in staking his word against a commoner's.

"I heard you myself," the Noble Lieutenant said.

"Well, sir, it's this way," Brynne began, choosing his words with care. "I was —"

The voice shrieked in his head, *"Tell him to go to hell, Brynne! Who's he to question you? Who's anyone to question you? Hit him! Blast him! Kill him! Destroy him!"*

Brynne said, through the barrage of noise in his head, "I was talking to myself, perfectly true, Officer. I frequently think out loud. It helps me to organize my thoughts."

The Noble Lieutenant gave a half nod. "But you offered violence, sir, at no provocation."

"No provocation! I ask you, sir, are cold eggs no provocation? Are limp toast and spilled chocolate no provocation?"

The waiter, called over, insisted, "Those eggs were hot —"

"They were not and that is all. I do not expect to sit here and argue a point of fact with a commoner."

"Quite right," the Noble Lieutenant said, nodding emphatically now. "But might I ask you, sir, to curb your anger somewhat, even though it may be perfectly justi-

fied? Not too much can be expected of commoners, after all."

"I know," Brynne agreed. "By the way, sir – the purple edging on your epaulets – are you related to O'Donnel of Moose Lodge, by any chance?"

"My third cousin on my mother's side," said the Noble Lieutenant, looking intently now at Brynne's sunburst medallion. "My son has entered the Chamberlain Halls as a probationary. A tall boy named Callahan."

"I will remember the name," Brynne promised.

"The eggs were hot!" said the waiter.

"Don't dispute the word of a gentleman," ordered the officer. "It could get you into serious trouble. Pleasant day to you, sir." The Noble Lieutenant saluted and left.

Brynne paid and left shortly after him. He deposited a sizable tip for the waiter, but determined never to come into the Prince Charles again.

"RESOURCEFUL fellow," Aaui said bitterly, putting the tiny microphone back in his pocket. "For a moment, I thought we had him."

"We would have, if he'd had any latent doubts about his sanity. Well, now for something more direct. Got the equipment?"

Aaui took two pairs of brass knuckles out of his pocket and handed one to Beatty.

"Try not to lose it," he said. "We're supposed to return it to the Primitive Museum."

"Right. It fits over the fist, doesn't it? Oh, yes, I see."

They paid and hurried out.

* * *

Brynne decided to take a stroll along the waterfront to quiet his nerves. The sight of the great ships lying calm and steadfast in their berths never failed to soothe him. He walked steadily along, trying to reason out what had happened to him.

Those voices in his head . . .

Was he really losing his grip? An uncle on his mother's side had spent his last years in an institution. Involutional melancholia. Was there some explosive hidden factor at work in him?

He stopped and looked at the bow of a great ship. The *Theseus* . .

Where was it going? Italy, perhaps. He thought of blue skies, brilliant sunshine, wine and relaxation. Those things would never be his. Work, frantic effort, that was the life he had set for himself. Even if it meant losing his mind, he would continue to labor under the iron-gray skies of New York.

But why, he asked himself. He was moderately well off. His business could take care of itself. What was to stop him from

boarding that ship, dropping everything, spending a year in the sun?

Excitement stirred in him as he realized that *nothing* was stopping him. He was his own man, a determined, strong man. If he had the guts to succeed in business, he also had the guts to leave it, to drop everything and go away.

"To hell with Baxter!" he said to himself.

His sanity was more important than anything. He *would* board that ship, right now, wire his associates from sea, tell them —

TWO men were walking toward him down the deserted street. He recognized one by his golden-brown Polynesian features.

"Mr. Brynne?" inquired the other, a rangy fellow with a shock of brown hair.

"Yes?" said Brynne.

Without warning, the Polynesian threw both arms around him, pinning him, and the shock-haired man swung at him with a fist that glinted golden!

Brynne's keyed-up nerves reacted with shattering speed. He had been a Knight Rampant during the Second World Crusade. Now, years later, all the reaction patterns were still there. He ducked the shock-haired man's blow and drove his elbow into the Polynesian's stomach. The man grunted and his grip relaxed for a second. Brynne broke free.

He chopped at the Polynesian with the back of his hand, hitting the nerve trunk in the throat. The man went down, gasping for breath. At the same time, the shock-haired man was on him, raining brass-knuckled blows.

Brynne lashed out, missed, caught a solid punch in the solar plexus. He fought for air. Blackness began edging into the periphery of his vision. He was hit again and went down, fighting for consciousness. Then his opponent made a mistake.

The shock-haired man tried to finish him with a kick, but he didn't know how to kick. Brynne caught his foot and jerked. Off balance, the man crashed to the pavement, striking his head.

Brynne staggered to his feet, breathing hard. The Polynesian was sprawled in the road, his face purple, making feeble swimming movements with his arms and legs. The other man lay motionless, blood seeping slowly through his hair.

He should report this incident to the police, Brynne thought. But suppose he had killed the shock-haired man? He would be held on a manslaughter charge, at least. And the Noble Lieutenant would report his earlier irrational behavior.

He looked around. No one had witnessed the incident. It was

best to simply walk away. Let his assailants report it, if they wanted to.

Things were falling into place now. These men must have been hired by one of his many business competitors, men who were also trying for an affiliation with Ben Baxter. Even the voice in his head might have been a clever trick.

Well, let them try to stop him! Still breathing heavily, he began walking toward Ben Baxter's office.

All thoughts of a cruise to Italy were gone now.

"ARE you all right?" a voice asked from somewhere up above.

Beatty returned slowly to consciousness. For a short, alarmed while, he thought he had a fractured skull. But, touching it gently, he decided it was still in one piece.

"What did he hit me with?" he asked.

"The pavement, I think," Aaui said. "Sorry I couldn't help. He put me out of action pretty early."

Beatty sat up, clutching his aching head. "What a fighter!"

"We underestimated him," said Aaui. "He must have had some kind of training. Do you think you can walk?"

"I think so," Beatty said, letting Aaui help him to his feet. "What time is it?"

"Nearly one o'clock. His appointment's at one-thirty. Maybe we can stop him at Baxter's office."

In five minutes, they caught a taxi and sped to Baxter's building.

The receptionist was young and pretty, and she stared at them open-mouthed. They had managed to clean up some of the damage in the taxi, but what remained looked pretty bad. Beatty had an improvised bandage over his head and Aaui's complexion bordered on green.

"What do you want?" the receptionist asked.

"I believe Mr. Baxter has a one-thirty appointment with Mr. Brynne," said Aaui in his most businesslike tone.

"Yes —"

The wall clock read one-seventeen. Aaui said, "We must see Mr. Brynne before he goes in. It's very urgent. So if you don't mind, we'll wait here for him."

"You can wait," the girl said. "But Mr. Brynne has already gone in."

"But it isn't one-thirty yet!"

"Mr. Brynne was early. Mr. Baxter decided to see him at once."

"I must speak to him," Aaui said.

"I have orders not to disturb them." The girl looked frightened and her finger hovered over a button on her desk.

Aaui knew that the button would probably summon help. A man like Baxter would have protection near at all times. The meeting was taking place now, and he didn't dare interfere. Perhaps his actions had changed the course of events. It seemed likely. The Brynne in that office was a different man, a man altered by his adventures of the morning.

"It's all right," Aaui said to the receptionist. "We'll just sit here and wait."

BEN BAXTER was short, solid, bull-chested. He was totally bald and his eyes, behind gold pince-nez, were expressionless. His business suit was severe, and affixed to the lapel was the small ruby-and-pearls emblem of the Wall Street House of Lords.

For half an hour, Brynne had talked, spread papers on Baxter's desk, quoted figures, mentioned trends, predicted movements. He was perspiring anxiously now, waiting for a word out of Baxter.

"Hmm," said Ben Baxter.

Brynne waited. His temples were pounding with a steady, dull ache and he was having trouble with the tight knots in his stomach. It was years since he had fought in anger; he wasn't used to it. He hoped he could control himself until the meeting was over.

"The terms you request," said Baxter, "are just short of preposterous."

"Sir?"

"Preposterous was the word, Mr. Brynne. You are, perhaps, hard of hearing?"

"No," said Brynne.

"Excellent. These terms you present might be suitable for negotiation between two companies of equal holdings. But such is not the case, Mr. Brynne. It amounts to presumption that a company of your size should offer such terms to Baxter Enterprises."

Brynne's eyes narrowed. He had heard about Baxter's reputation for in-fighting. This was not personal insult, he reminded himself. It was the kind of business maneuver that he himself had often used. It must be dealt with as such.

"Let me point out," Brynne said, "the key nature of this forest area I have an option on. With sufficient capitalization, we could extend the holding enormously, to say nothing —"

"Hopes, dreams, promises," Baxter sighed. "You *may* have something worth while. As yet, it is inadequately demonstrated."

This is business, Brynne reminded himself. He does want to back me — I can tell. I expected to come down in the bargaining. Naturally. All he's doing is beating down the terms. Nothing personal . . .

But too much had happened to Brynne in one day. The red-faced Crusader, the voice in the restaurant, his short-lived dream of freedom, the fight with the two men — he knew he couldn't take much more.

"Suppose, Mr. Brynne," said Baxter, "you make a more reasonable offer. One in keeping with the modest and subsidiary status of your holdings."

He's testing me, Brynne thought. But it was too much. He was as nobly born as Baxter; how dare the man treat him this way?

"Sir," he said through numb lips, "I take exception."

"Eh?" said Baxter, and Brynne thought he glimpsed amusement in the cold eyes. "What do you take exception to?"

"Your statements, sir, and the manner in which you say them. I suggest you apologize."

STANDING up stiffly, Brynne waited. His head was pounding inhumanly now and his stomach refused to unknot itself.

"I see nothing for which to apologize, sir," said Baxter. "And I see no reason to deal with a man who cannot keep personalities out of a business discussion."

He's right, Brynne thought. *I'm the one who should apologize.* But he could not stop. Desperately he said, "I warn you—apologize, sir!"

"We can do no business this way," said Baxter. "And frankly, Mr. Brynne, I had hoped to do business with you. I will try to speak in a reasonable manner, if you will try to react in an equally reasonable manner. I ask you to withdraw your request for an apology and let us get on."

"I can't!" Brynne said, wishing passionately he could. "Apologize, sir!"

Baxter stood up, short and powerfully built. He stepped out from behind the desk, his face dark with anger. "Get out of here then, you insolent young dog! Get out or I'll have you thrown out, you hot-headed fool! Get out!"

Brynne, wishing to apologize, thought of the red-faced Crusader, the waiter, his two assailants. Something snapped in him. He lashed out with all his strength, the weight of his body behind the blow.

It caught Baxter full in the neck and slammed him against the desk. Eyes glazed, Baxter slumped to the floor.

"I'm sorry!" Brynne cried. "I apologize! I apologize!"

He knelt beside Baxter. "Are you all right, sir? I'm truly sorry. I apologize . . ."

A part of his mind, coldly functioning, told him that he had been caught in an unresolvable ambivalence. His need for action had been as strong as his need to apologize. And so he had solved the

dilemma by trying to do both things, in the usual ambivalent muddle. He had struck — *then* apologized.

"Mr. Baxter?" he called in alarm.

Ben Baxter's features were congested and blood drooled from a corner of his mouth. Then Brynne noticed that Baxter's head lay at a queer angle from his body.

"Oh . . ." Brynne said.

He had served three years with the Knights Rampant. It was not the first broken neck he had seen.

II

ON THE morning of April 12, 1959, Ned Brynne awakened and washed and dressed. At 1:30 that afternoon, he had an appointment with Ben Baxter, the president of Baxter Industries. Brynne's entire future hinged upon the outcome of that meeting. If he could get the backing of the gigantic Baxter enterprises, and do so on favorable terms . . .

Brynne was a tall, darkly handsome man of thirty-six. There was a hint of deep gentleness in his carefuly bland eyes, a suggestion of uncompromising piety in his expressive mouth. His movements had the loose grace of an unself-conscious man.

He was almost ready to leave. He tucked a prayer stick under his arm and slipped a copy of Norsted's *Guide to the Gentle Way* into his pocket. He was never without that infallible guide.

Finally he fixed to his lapel the silver moon decoration of his station. Brynne was a Restrainer, second class, of the Western Buddhist Congregation, and he allowed himself a carefully restrained pride over the fact. Some people thought him too young for lay-priestly duties. But they had to agree that Brynne carried the prerogatives and requirements of his office with a dignity quite beyond his years.

He locked his apartment and walked to the elevator. There was a small crowd waiting, mostly Western Buddhists, but two Lamaists as well. All made way for him when the elevator came.

"Pleasant day, Brother Brynne," the operator said as the car started down.

Brynne inclined his head an inch in the usual modest response to a member of the flock. He was deep in thought about Ben Baxter. But at the corner of his eye, he noticed one of the occupants of the car, a slim, beautiful, black-haired woman with a piquant golden face. Indian, Brynne thought, wondering what a woman like that was doing in his apartment building. He knew the other tenants by sight, though, of course, he would not be sufficiently immodest to recognize them.

The elevator reached the lobby and Brynne forgot about the Indian woman. He had a lot on his mind today. There were some problems connected with Ben Baxter, problems he hoped to resolve before the meeting. He stepped outside, into a dismal gray April morning, and decided to go to the Golden Lotus Coffee Shop for a late breakfast.

It was 10:25 A.M.

"I COULD stay here and breathe this air forever!" said Janna Chandragore.

Lan Il smiled faintly. "Perhaps we can breathe it in our own age. How does he seem to you?"

"Smug and over-righteous," she said. They were following half a block behind Brynne. There was no losing Brynne's tall, stooped figure, even in New York's morning rush.

"He absolutely *stared* at you in the elevator," said Lan Il.

"I know." She smiled. "He's rather nice-looking, don't you think?"

Lan Il raised both eyebrows, but didn't comment. They continued to follow, noticing how the crowds parted out of respect for Brynne's rank. Then it happened.

Brynne, his attention turned inward, collided with a portly, florid-faced man who wore the yellow robe of a Western Buddhist priest.

"My apologies for violating your meditation, Young Brother," said the priest.

"My fault entirely, Father," Brynne said. "For it is written, 'Youth should know its footsteps.'"

The priest shook his head. "In youth," he said, "resides the dream of the future; and age must make way."

"Age is our guide and signposts along the Way," Brynne objected humbly but insistently. "The writings are clear on the point."

"If you accept age," said the priest, his lips tightening slightly, "then accept the dictum of age: youth must forge ahead! Kindly do not contradict me, Dear Brother."

Brynne, his eyes carefully bland, bowed deeply. The priest bowed in return and the men continued their separate ways.

Brynne walked more quickly, his hands tight on his prayer stick. Just like a priest – using his age as a support for arguments in favor of youth. There were some strange contradictions in Western Buddhism, but Brynne did not care to think about them at the moment.

He went into the Golden Lotus Coffee Shop and sat down at a table far in the rear. He fingered the intricate carvings on his prayer stick and felt anger wash away from him. Almost immediately,

he regained that serene and unruffled union of mind with emotions so vital to the Gentle Way.

Now was the time to think about Ben Baxter. After all, a man had to perform his temporal duties as well as his religious ones. Looking at his watch, he saw it was nearly eleven o'clock. In two and a half hours, he would be in Baxter's office and —

"Your order, sir?" a waiter asked him.

"A glass of water and some dried fish, if you please," said Brynne.

"French fries?"

"Today is Visya. It is not allowed," Brynne murmured softly.

The waiter went pale, gulped, said, "Yes, sir, sorry, sir," and hurried off.

I SHOULDN'T have made him feel ridiculous, thought Brynne. I should simply have refused the French fries. Should I apologize to the man?

He decided it would simply embarrass him. Resolutely Brynne put the thought out of his mind and concentrated on Ben Baxter. With Baxter's power behind the forest area Brynne had optioned, and its potential, there was no telling —

He became conscious of a disturbance at a nearby table. He turned and saw a golden-featured woman weeping bitterly into a tiny lace handkerchief. She was the woman he had seen earlier in his apartment building. With her was a small, wizened old man, who was trying in vain to console her.

As the woman wept, she cast a despairing glance at Brynne. There was only one thing a Restrainer could do under the circumstances.

He walked over to their table. "Excuse the intrusion," he said. "I couldn't help notice your distress. Perhaps you are strangers in the city. Can I help?"

"We are past help!" the woman wailed.

The old man shrugged his shoulders fatalistically.

Brynne hesitated, then sat down at their table. "Tell me," he begged. "No problem is unsolvable. It is written that there is a path through all jungles and a trail over the steepest mountains."

"Truly spoken," the old man assented. "But sometimes the feet of Man cannot reach the trail's end."

"At such times," Brynne replied, "each helps each and the deed is done. Tell me your trouble. I will serve you in any way I can."

In actual fact, this was more than a Restrainer was required to do. Total service was the obligation of higher-ranking priests. But Brynne was swept away by the

woman's need and beauty, and the words were out before he could consider them.

"'In the heart of a young man is strength,'" quoted the old man, "'and a staff for weary arms.' But tell me, sir, are you a believer in religious toleration?"

"Absolutely!" said Brynne. "It is one of the essential tenets of Western Buddhism."

"Very well. Then know, sir, that my daughter Janna and I are from Lhagrama in India, where we serve the Daritria Incarnation of the Cosmic Function. We came here to America hoping to found a small temple. Unfortunately, the schismatics of the Marii Incarnation have arrived before us. My daughter must return to her home. But our lives are threatened momentarily by these Marii fanatics, who are sworn to stamp out the Daritria faith."

"But your lives can't be in danger here!" Brynne exclaimed. "Not in the heart of New York."

"Here more than anywhere else," said Janna. "For crowds are cloak and mask to the assassin."

"I shall not live long in any event," the old man said with serene unconcern. "I must remain here and complete my work. It is so written. But I wish my daughter to return safely to her home."

"I won't go without you!" Janna cried.

"You will do as you are told!" the old man said.

JANNA looked meekly away from his steely black eyes. The old man turned to Brynne.

"Sir, this afternoon a ship sails for India. My daughter needs a man, a strong, true man, to guide and protect her, to bring her home. My fortune must go to the man who performs this sacred duty for me."

"I can hardly believe this," said Brynne, suddenly struck with doubt. "Are you sure —"

As if in answer, the old man pulled a small chamois bag from his pocket and spilled its contents on the tablecloth. Brynne was not an expert in gems, though he had had some dealings with them as a religious-instruction officer in the Second World Jehad. Still, he was sure he recognized the true fire of ruby, sapphire, diamond and emerald.

"They are yours," said the old man. "Take them to a jewelry store. When their authenticity is verified, perhaps you will believe the rest of my story. Or if these are not sufficient proof —"

From another pocket, he pulled a thick billfold and handed it to Brynne. Opening it, Brynne saw that it was stuffed with high-denomination bills.

"Any bank will verify *their* authenticity," said the old man. "No,

please, I insist. Keep it all. Believe me, it is only a portion of what I would like to bestow upon you for rendering me this sacred trust."

It was overwhelming. Brynne tried to remind himself that the gems could conceivably be clever fakes and the bills could be superb forgeries. But he knew they were not. They were real. And if this wealth, so casually given, was real, then didn't the rest of the story have to be true?

It would not be the first time a miraculous fairy-tale adventure happened in real life. Wasn't the *Book of Golden Replies* filled with similar incidents?

He looked at the beautiful, sorrowful, golden-featured woman. A great desire came over him to bring joy to those exquisite features, to make that tragic mouth smile. And in the way she looked at him, Brynne perceived more than simply the interest one gives to a protector.

"Sir!" cried the old man. "Is it possible that you might — that you might consider —"

"I'll do it!" said Brynne.

THE old man clasped Brynne's hand. Janna simply looked at him, but he had the sensation of being enfolded into a warm embrace.

"You must leave at once," the old man said briskly. "Come, there's no time to lose. Even now, the enemy lurks in the shadows."

"But my clothes —"

"Unimportant. I will provide you with a wardrobe."

"— and friends, business appointments. Wait! Hold on a minute!"

Brynne took a deep breath. Haroun-al-Rashid adventures were all very well, but they had to be undertaken in a reasonable fashion.

"I have a business appointment this afternoon," Brynne said. "I must keep it. After that, I'm completely at your service."

"The danger to Janna is too great!" cried the old man.

"You'll both be perfectly safe, I assure you. You can even accompany me there. Or better yet, I've got a cousin on the police force. I'm sure I can arrange for a bodyguard —"

Janna turned her beautiful sad face away from him. The old man said, "Sir, the ship sails at one P.M.— at one precisely."

"Those ships leave every day or so," Brynne pointed out. "Let's catch the next one. This appointment is very important. Crucial, you might say. I've worked for years to arrange it. And it's not just me. I have a business, employees, associates. For their sake, I have to keep that appointment."

"Business before life," the old man said bitterly.

"You'll be all right," Brynne assured him. "It is written, you know, that the beast of the jungle shies from the tread —"

"I know what is written. The word of death is painted large upon my forehead, and upon my daughter's, unless you aid us now. She will be on the *Theseus* in stateroom 2A. The next stateroom, 3A, will be yours. The ship sails at one this afternoon. If you value her life, sir, you will be there."

The old man and his daughter stood up, paid and left, ignoring Brynne's pleas for reason. As she went out the door, Janna turned for a moment and gazed at him.

"Your dried fish, sir," said the waiter. He had been hovering near, waiting for a chance to serve it.

"To hell with it!" Brynne shouted. "Oh, sorry, sorry," he said in dismay to the shocked waiter. "No fault of yours."

He paid, leaving a sizable tip for the waiter, and hurried out. He had a lot of thinking to do.

"ALL the energy expended on that one scene," Lan Il complained, "has probably cost me ten years of my life."

"You loved every minute of it," said Janna Chandragore.

"True, true," Lan Il admitted, nodding vigorously. He sipped a glass of wine that a steward had brought to the stateroom. "The question now is — will he give up his appointment with Baxter and come?"

"He does seem to like me," Janna said.

"Which shows his excellent taste."

She inclined her head mockingly. "But really, that story! Was it necessary to make it so — so outrageous?"

"Absolutely necessary. Brynne is a strong and dedicated man, but he has his romantic streak. Nothing less than a fairy tale to match his gaudiest dream could pull him from duty's path."

"Perhaps even a fairy tale won't," Janna said thoughtfully.

"We'll see," said Lan Il. "Personally, I believe he will come."

"I don't."

"You underestimate your attractiveness and acting ability, my dear. Wait and see."

"I have no choice," said Janna, settling back in an arm chair.

The desk clock read 12:42.

* * *

Brynne decided to take a stroll along the waterfront to quiet his nerves. The sight of the great ships lying calm and steadfast in their berths never failed to soothe him. He walked steadily along, trying to reason out what had happened to him.

That magnificent sorrowful girl . . .


GUIDE
TO THE

But what about his duty, the labor of faithful employees, to be culminated and completed this afternoon at the desk of Ben Baxter?

He stopped and looked at the bow of a great ship. The *Theseus.*

He thought of India, its blue skies, brilliant sunshine, wine, relaxation. Those things would never be his. Work, frantic effort, that was the life he had set for himself. Even if it meant losing the most beautiful woman in the world, he would continue to labor under the iron-gray skies of New York.

But why, he asked himself, touching the chamois bag in his pocket. He was moderately well off. His business could take care of itself. What was to stop him from boarding that ship, dropping everything, spending a year in the sun?

Excitement stirred in him as he realized that *nothing* was stopping him. He was his own man, a strong, determined man. If he had the faith and will to succeed in business, he also had the faith and will to leave it, drop everything, and follow his heart.

"To hell with Baxter!" he said to himself. The girl's safety was more important than anything. He *would* board that ship, and right now, wire his associates from sea, tell them —

The decision was made. He whirled and marched to the gangplank and resolutely climbed it.

An officer on the deck smiled and said, "Name, sir?"

"Ned Brynne."

"Brynne, Brynne." The officer checked his list. "I don't seem to — Oh, yes, right here. Yes, Mr. Brynne. You're on A deck, cabin 3. Let me wish you a most pleasant trip."

"Thank you," Brynne said, glancing at his watch. It read a quarter to one.

"By the way," he said to the officer, "what time does the ship sail?"

"At four-thirty sharp, sir."

"*Four-thirty?* Are you sure?"

"Quite sure, Mr. Brynne."

"But I was told you sailed at one o'clock."

"That was the original time, sir. But sailing time is often advanced a few hours. We'll easily make it up at sea."

Four-thirty! Yes, he had enough time! He could go back, see Ben Baxter and still return in time to catch the ship! Both problems were solved!

Murmuring a blessing to a mysterious but benevolent fate, Brynne turned and sprinted down the gangplank. He was fortunate enough to catch a taxi at once.

BEN BAXTER was short, solid, bull-chested. He was totally bald and his eyes, behind gold

pince-nez, were expressionless. His business suit was severe and affixed to the lapel was the small ruby-and-pearls emblem of the Humble Servitors of Wall Street.

For half an hour, Brynne had talked, mentioned trends, predicted movements. He was perspiring anxiously now, waiting for a word out of Baxter.

"Hmm," said Ben Baxter.

Brynne waited. His pulse was pounding heavily and his empty stomach was beginning to churn. Half his mind was on the *Theseus*, sailing soon. He wanted to end this meeting and get aboard.

"The merger terms you request," said Baxter, "are quite satisfactory."

"Sir?" breathed Brynne.

"Satisfactory, I said. Haven't got trouble with your hearing, have you, Brother Brynne?"

"Not for news like that," said Brynne, grinning.

"Our affiliation," Baxter said, smiling, "promises a great future for us both. I'm a direct man, Brynne, and I want to tell you this directly: I like the way you've handled the surveys and data and I like the way you've handled this meeting. Moreover, I like you personally. I am most happy about this and believe our association will prosper."

"I sincerely believe so, sir."

They shook hands and both men stood up.

"My lawyers will draw up the papers," Baxter said, "in accordance with this discussion. You should have them by the end of the week."

"Excellent." Brynne hesitated, wondering if he should tell Baxter he was going to India. He decided not to. It would be simple to arrange for receipt of the papers on the *Theseus* and he could carry out the final details by long-distance telephone. He wouldn't be gone too long, anyhow – just long enough to see the girl safely home; then he would fly back.

They exchanged a few more pleasantries, shook hands again and Brynne turned to leave.

"That's a fine-looking prayer stick," Baxter said.

"Eh? Oh, yes," said Brynne. "I got it from Sinkiang just this week. They make the finest prayer sticks there, in my unworthy opinion."

"I know. May I look at it?"

"Of course. Please be careful, though. It opens rather fast."

Baxter took the intricately carved prayer stick and pressed the handle. A blade shot out of the other end, narrowly grazing his leg.

"It *is* fast!" Baxter said. "Fastest I've seen."

"Did you cut yourself?"

"A mere scratch. Beautiful damascene work on that blade."

They talked for a few minutes

about the threefold significance of the knife blade in Western Buddhism and of recent developments in the Western Buddhist spiritual center in Sinkiang. Then Baxter carefully closed the prayer stick and returned it to Brynne.

"A truly beautiful thing. Good day again, Dear Brother Brynne, and —"

Baxter halted in mid-sentence. His mouth was open and he seemed to be staring at a point just in back of Brynne's head.

Brynne turned, but nothing was there except the wall. When he turned back, Baxter's features were congested and a light froth had gathered at the corners of his mouth.

"Sir!" cried Brynne.

Baxter tried to speak, but couldn't. He took two tottering steps forward and collapsed to the floor.

Brynne rushed to the receptionist's office. "Call a doctor! Quick! Quick!" he shouted to the frightened girl. Then he rushed back to Baxter.

He was looking at the first American case of the mutated disease that was to be called the Sinkiang Plague. Transmitted on a hundred contaminated prayer sticks, it would go through New York like a flash fire, leaving a million dead in its wake. Within the week, the symptoms of Sinkiang Plague would be better known than those of measles.

But Brynne was looking at the first casualty.

With horror, he stared at the hard, brilliant apple-green shine of Baxter's hands and face.

III

ON THE morning of April 12, 1959, Ned Brynne awakened and washed and dressed. At 1:30 that afternoon, he had an appointment with Ben Baxter, the president of Baxter Industries. Brynne's entire future hinged upon the outcome of that meeting. If he could get the backing of the gigantic Baxter enterprises and do so on favorable terms . . .

Brynne was a tall, darkly handsome man of thirty-six. There was a hint of thoughtfulness in his carefully bland eyes, a look of reason and willingness to compromise in his relaxed mouth. His movements had the careless surety of a man who knows his place in the world.

He was almost ready to leave. He tucked an umbrella under his arm and slipped a paperbound copy of *Murder on the Metro* into his pocket. He was never without a good mystery of some sort.

Finally he fixed to his lapel the small onyx pin of a Commodore the Ocean Cruising Club. Some people thought him too young for such an honor. But they had to

agree that Brynne carried the prerogatives and requirements of his office with a dignity quite beyond his years.

He locked his apartment and walked to the elevator. There was a small crowd waiting, mostly shopkeepers, but two businessmen as well.

"Pleasant day, Mr. Brynne," the operator said as the car started down.

"Hope so," Brynne said, deep in thought about Ben Baxter. At the corner of his eye, he noticed one of the occupants of the car, a great blond Viking of a man, talking to a tiny, half-bald fellow. Brynne wondered what they were doing in his apartment building. He knew most of the tenants by sight, though he hadn't lived in the building long enough to get acquainted with them.

The elevator reached the lobby and Brynne forgot about the Viking. He had a lot on his mind today. There were some problems connected with Ben Baxter, problems he hoped to resolve before the meeting. He stepped outside, into a dismal gray April morning, and decided to go to Childs' for breakfast.

It was 10:25 A.M.

"WHAT do you think?" asked Dr. Sveg.

"He looks ordinary enough," said Edwin James. "He even looks reasonable. We'll find out."

They were following half a block behind Brynne. There was no losing Brynne's tall, erect figure, even in New York's morning rush.

"I am certainly not one to advocate violence," said Dr. Sveg. "But this time — why don't we knock him over the head and be done with it?"

"That method was selected by Aaui and Beatty. Miss Chandragore and Lan Il decided to try bribery. We are committed to a course of reason."

"But suppose he can't be reasoned with, what then?"

James shrugged his shoulders.

"I don't like it," Dr. Sveg said.

Following half a block behind, they saw Brynne collide with a portly, florid-faced businessman.

"Sorry," said Brynne.

"Sorry," said the portly businessman.

They exchanged perfunctory nods and went on.

Brynne went into Childs' and sat down at an empty table in the rear. Now was the time to think of Ben Baxter and of what the best approach would be —

"Your order, sir?" a waiter asked him.

"Scrambled eggs, toast, coffee," Brynne said.

"French fries?"

"No, thanks."

The waiter hurried off. Brynne

concentrated on Ben Baxter. With Baxter's financial and political backing of the forest deal, there was no telling —

"Excuse me, sir," a voice said. "May we talk to you?"

Brynne looked up and saw the blond man and his small friend whom he had seen in the elevator.

"What about?"

"A matter of the utmost urgency, sir," said the small man.

Brynne glanced at his watch. It was almost 11:00. He had two and a half hours before his meeting with Baxter.

"Sure, sit down," he invited. "What's on your mind?"

The men looked at each other and exchanged embarrassed smiles. Finally the small man cleared his throat.

"Mr. Brynne," he said, "I am Edwin James. This is my associate, Dr. Sveg. We have a preposterous-sounding story to tell, which I hope you will hear to the end without interruptions. After that, we have certain proofs that may or may not convince you of the story's authenticity."

Brynne frowned, wondering what kind of crackpots he had met. But both men were well dressed, quietly spoken.

"Sure, go ahead," Brynne said.

AN HOUR and twenty minutes later, Brynne was saying, "Wow! That's quite a little yarn!"

"I know," Dr. Sveg said apologetically. "Our proofs —"

"— are impressive. Let me see that first gadget again."

Sveg handed it to him. Brynne stared reverently at the small, shining object.

"Boys, if a thing that size can really turn out heat or cold in those quantities — the electrical corporations would give a couple of billion to get it!"

"It is a product of our technology," said Chief Programmer James, "as are the other gadgets. With the exception of the motrifier, they are all straight-line developments, refinements of present trends."

"And that thallasator. Nice, simple, inexpensive way of extracting fresh water from salt." He looked at the two men. "It is possible, of course, that these items are a hoax."

Dr. Sveg raised both eyebrows.

"But I'm not exactly untrained in science. Even if they're a hoax, they'd have to be every bit as advanced as the real thing. I guess you've sold me. Men from the future! Well, well!"

"Then you accept what we say about you?" James asked. "And about Ben Baxter and time-line selection?"

"Well . . ." Brynne thought hard. "Tentatively."

"Will you cancel your appointment with Baxter?"

"I don't know."

"Sir?"

"I said I don't know. You've got a lot of nerve," Brynne said angrily. "I've worked like a galley slave, driving toward this goal. This meeting is the biggest chance I've ever had or ever will have. And you ask me to give up all that because of some nebulous prediction —"

"The prediction isn't nebulous," James said. "It is very explicit and most precise."

"Look, there's more involved than just me. I have a business, employees, associates, stockholders. I have to keep this meeting for their sake, too."

"Mr. Brynne," said Sveg, "consider the larger issues at stake!"

"Yeah, sure," Brynne said sourly. "How about those other teams you talked about? Maybe I've been stopped in some other probability world."

"You haven't."

"How do you know?"

"I couldn't say so to the teams," Chief Programmer James said, "but the probability of their success was vanishingly small — just as the probability of *my* success with you is small, statistically."

"Hell," said Brynne, "you guys come dropping out of the future and casually ask a man to change his entire life. You haven't got the right!"

"If you could postpone the appointment for a single day," Dr. Sveg suggested, "that might —"

"You don't postpone appointments with Ben Baxter. Either you keep the one he's given you or you wait — maybe forever — until he gives you another." Brynne stood up. "Look, I don't know what I'm going to do. I've heard you, I more or less believe you, but I just don't know. I'll have to make up my own mind."

Dr. Sveg and James also stood up.

"That is your privilege," said Chief Programmer James. "Goodby. I hope you make the right decision, Mr. Brynne."

They shook hands. Brynne hurried out.

Dr. Sveg and James watched him go. Sveg said, "What do you think? It looks favorable, doesn't it? Don't you think so?"

"I can't guess," James said. "The possibility of altering events within a time-line is never favorable. I honestly have no idea of what he's going to do."

Dr. Sveg shook his head, then sniffed. "Some air, eh?"

"Quite," said Chief Programmer James.

BRYNNE decided to take a stroll along the waterfront to quiet his nerves. The sight of the great ships lying calm and steadfast in their berths never failed to soothe him. He walked steadily


Murder Incorporated

along, trying to reason out what had happened to him.

That ridiculous story . . .

In which he believed.

But what about his duty, the years spent working his way up to optioning that huge forest tract, its tremendous possibilities to be culminated and completed this afternoon at the desk of Ben Baxter?

He stopped and looked at the bow of a great ship. The *Theseus* . . .

He thought of the Caribbean, its blue skies, brilliant sunshine, wine, relaxation. Those things would never be his. Work, frantic effort, that was the life he had set for himself. No matter what the loss, he would continue to work under the iron-gray skies of New York.

But why, he asked himself. He was moderately well off. His business could take care of itself. What was to stop him from boarding that ship, dropping everything, spending a year in the sun?

Excitement stirred in him as he realized that *nothing* was stopping him. He was his own man, a strong, determined man. If he had the guts to succeed in business, he also had the guts to leave it, drop everything, and follow his heart.

And in that way, the ridiculous damned future would be safe.

"To hell with Ben Baxter!" he said to himself.

But he didn't mean it.

The future was just too uncertain, too far away. This whole thing might well be an elaborate hoax, arranged by a business competitor.

Let the future take care of itself!

Ned Brynne turned abruptly away from the *Theseus*. He had to hurry to make his appointment with Baxter on time.

In Baxter's building, riding up in the elevator, Brynne tried not to think. It was enough simply to act. He got off at the 16th floor and walked up to the receptionist.

"My name is Brynne. I have an appointment with Mr. Baxter."

"Yes, Mr. Brynne. Mr. Baxter is expecting you. You can go right in."

Brynne didn't move. A wave of doubt flooded his mind and he thought of the future generations, whose chances he was damaging by his act. He thought of Dr. Sveg and Chief Programmer Edwin James, earnest, well-meaning men. They wouldn't ask him to make such a sacrifice unless it was absolutely essential.

And he considered one thing more —

Among those future generations would be descendants of his own.

"You may go in, sir," the girl said.

Abruptly, something snapped in Brynne's mind.

"I've changed my mind," he said, in a voice he hardly recognized. "I'm canceling the appointment. Tell Baxter I'm sorry — about everything."

He turned, before he could change his mind, and ran down sixteen flights of stairs.

IN THE meeting room of the World Planning Council, the five representatives of the Federated Districts of Earth were seated around a long table, waiting for Edwin James. He entered, a small man, impressively ugly.

"Reports," he said.

Aaui, looking somewhat the worse for wear, told about their attempt at violence and its result. "Perhaps," he concluded, "if we had been conditioned to use more violence — faster — we could have stopped him."

"And perhaps not," said Beatty, who looked considerably worse than Aaui.

Lan Il reported the partial success and total failure of his mission with Miss Chandragore. Brynne had agreed to accompany them to India, even if it meant giving up the meeting with Baxter. Unfortunately, Brynne had found himself able to do both things.

Lan Il ended with several philosophical comments about the shockingly flexible schedules of steamship companies.

Chief Programmer James stood up. "The future we were selecting for was one in whose past Ben Baxter lived to complete his work of buying forests. That, unfortunately, is not to be. Our best line, under the circumstances, is the Main Historic Line, in which Dr. Sveg and I bent our efforts."

"You haven't reported yet," Miss Chandragore said. "What happened?"

"Reason," said Edwin James, "and an appeal to the intelligence seem to be the best operating procedures. After due thought, Brynne decided not to keep his appointment with Ben Baxter. But —"

BEN BAXTER was short, solid, bull-chested. He was totally bald and his eyes, behind gold pince-nez, were expressionless. His business suit was severe and affixed to the lapel was the small ruby-and-pearls emblem of the Wall Street Club.

He had been sitting motionless for half an hour now, thinking about figures, trends, movements.

His buzzer sounded.

"Yes, Miss Cassidy?"

"Mr. Brynne was here. He just left."

"What do you mean?"

"I really don't understand it, Mr. Baxter. He came up and said he wanted to cancel his appointment."

"What did he say? Repeat it exactly, Miss Cassidy."

"He said he had an appointment with you and I said he could go right in. And he stood there looking at me very strangely, frowning. He seemed angry and upset. I told him again he could go in. Then he said —"

"Word for word now, Miss Cassidy."

"Yes, sir. He said, 'I've changed my mind. I'm canceling the appointment. Tell Baxter I'm sorry — for everything.' "

"That's all he said?"

"Every last word, Mr. Baxter."

"And then?"

"He turned and hurried downstairs."

"Stairs?"

"Yes, Mr. Baxter. He didn't wait for the elevator."

"I see."

"Is there anything else, Mr. Baxter?"

"No, nothing else, Miss Cassidy. Thank you."

Ben Baxter turned off the intercom and slumped wearily behind his desk.

So Brynne knew!

It was the only possible explanation. Word must have gotten out somehow, somewhere. He had thought it was safely hidden for another day, at least. But there must have been a leak.

Baxter smiled grimly to himself. He couldn't blame Brynne, though the man should at least have talked to him. But perhaps not. Maybe it was best this way.

But *how* had he found out? Who had broken the news to him that the Baxter industrial empire was hollow, decaying, crumbling at the foundations?

If only the news could have been concealed for another day, another few hours! He would have signed with Brynne. A fresh venture would have pumped new blood into the Baxter holdings. By the time people found out, he would once again have had a solid base from which to operate.

Brynne knew and had been scared off. That meant everyone knew.

There was no holding things together now. The wolves would be at him. His friends, his wife, his partners and all the little people who had depended upon him . . .

Well, he had decided years ago what to do in this eventuality.

Without hesitation, Baxter opened his desk drawer and took out a small bottle. He extracted two white tablets.

He had always lived by his own rules. Now was the time to die by them.

Ben Baxter popped the pills into his mouth. In two minutes, he slumped forward on the desk.

His death precipitated the great stock market crash of '59.

— ROBERT SHECKLEY

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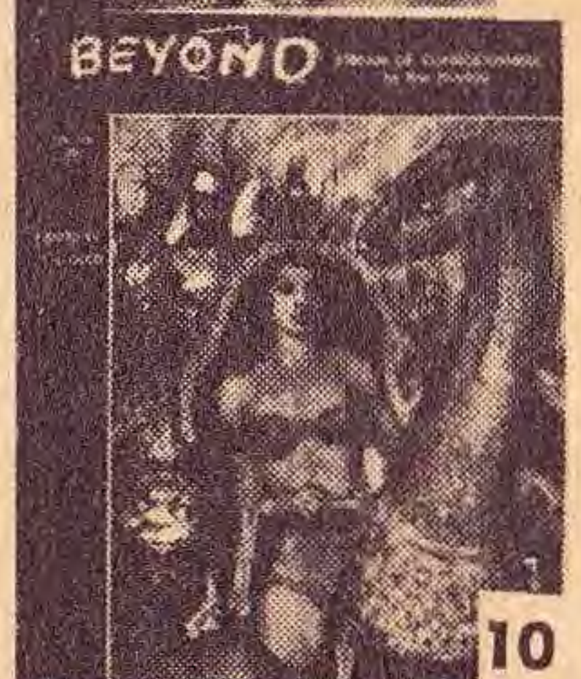

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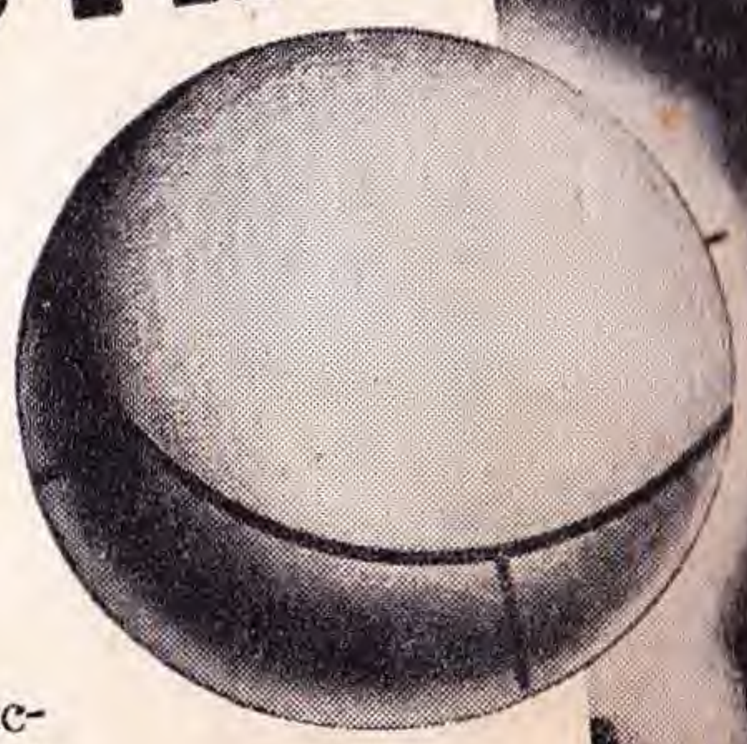

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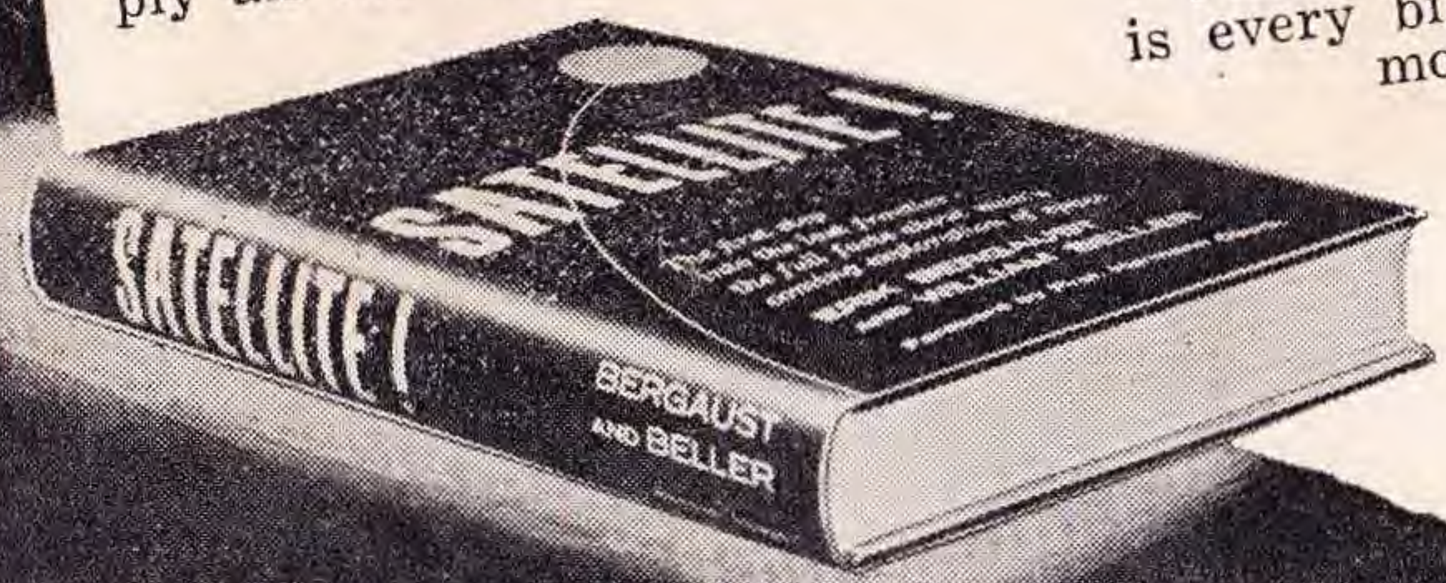

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