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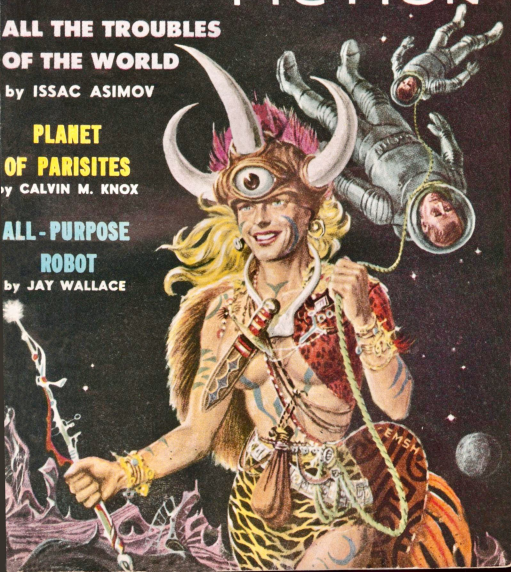
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PLANET OF PARASITES

by CALVIN M. KNOX

NOVELETTE

illustrated by BOWMAN

Something serious was the matter on Gamma Crucis. Why did the men act so strangely? And why was the doctor dead, with no report of his death ever made to Earth?

THE relief ship detached itself from the orbiting bulk of the vast mother-vessel Ariel and spiralled down through the hazy clouds to the surface of Gamma Crucis VII. A small group of three was gathered in the communications room of the relief ship: Signalman Radek, Coordinator Harrell, Medic Neale.

"Contact made, sir," Radek murmured.

Coordinator Harrell took the mike. "Harrell of Relief Ship staff speaking. Come in, groundside base. We're here to take over. You can go back home now."

A prickly sputter of static

was followed with: "Allenson of groundside speaking. Acknowledge. We'll be waiting for landing. Over and out."

Neale shook his head. The expedition's medic was the veteran of the unit; he had spent seventeen years in the Survey Corps. He was a tall well-muscled man with the deep tan of the veteran spacer. "They didn't sound very enthusiastic," he said.

Harrell chuckled. "What did you want him to do? Go into ecstasies over the phone?"

"Not exactly. But he seemed so—hell, so cold. When you consider that they're finally being relieved after a year and



a half on an alien world, maybe some excitement would be in order."

Radek said, "The phones have a way of damping emotion out of a voice. They're probably whooping it up grand down there."

"I hope so," Neale said.

He left the communications room and paused outside at the viewscreen, looking down. They were close enough to the world below to make geographical features visible: rivers and hills, lakes and valleys. It was a silent world, lacking intelligent life—or so the first survey expedition had reported. But somehow Neale mistrusted the planet below. He had been in the Survey Corps too long; he had seen too many green and fertile worlds that harbored hidden alien death.

This one had been under observation only eighteen months. A Survey outfit under Allenson had landed there early in 2716, and had carried out observations for the regulation maximum length of time. Now Allenson and his crew were up for Earthside leave, and Survey Unit 1198

under Cleo Harrell was replacing them.

Neale turned away from the viewscreen and headed for his office. On the way he passed through the ship's control room; Dollinson, the team biologist, was standing watch with his wife, Marie. Neale nodded hello. The Dollinsons together formed a skilled pair of ecologists. This was probably the best outfit Neale had ever worked with, these ten people. He hoped his instinctive mistrust of the green planet below was unfounded. These were people he liked.

He worked in his office a while; then the order for strap-down came, and he set aside his records and climbed into his hammock. The long fall ended; the ship stood upright on the surface of Gamma Crucis VII.

Allenson and his crew were there to greet them.

THe relief team filed quickly out of the ship. Harrell came forward and took Allenson's hand.

"I'll bet you thought we'd never get here."

Allenson shrugged. He was a

thin, pale, stoop-shouldered man in Coordinator's uniform. "You are here now. We can leave?"

Harrell looked startled. "Sure—sure, you can go. As soon as you show us around and break us in on whatever projects you have working."

Neale, standing to one side, felt his wife nudge his arm. "Mike—you look worried. Something wrong?"

Neale nodded gently. "I think so. But I don't know what it is. Something about these men—"

Allenson was saying. "No sign of intelligent life on the planet at all. Small wildlife which we've used for food; there's a supply in the camp freezer that ought to last you a couple of weeks."

"Good. We can start the break-in period right away, if you like. The Ariel's in a sixteen-hour orbit up above, waiting to take you all back to Earth as soon as you're ready to turn the planet over to us."

Allenson said, "That's agreeable to us. We can start right now. The quicker we leave, the better."

"Why?" Harrell asked in sudden suspicion. "Something wrong with this planet?"

"Not at all! It's just—we're anxious to get on to Earth, that's all."

That was understandable, Neale thought. What was not so understandable was what he learned when the time came to pair off for break-in. Each member of the relief crew joined up with his opposite number in the original team: biologist with biologist, botanist with botanist, zoologist with zoologist. The incumbent signalman worked with Radek, showing him the communications network that had been established. The team cook spent time with Belle Radek, showing her the way the food storage rooms were laid out, the contents of the freezers, the sort of meals necessary to keep the team healthy on this planet—it varied from planet to planet, depending on such things as gravitational constants and the sort of molecules the plants were built from. Harrell and Allenson closeted themselves in the Coordinator's office to discuss

the problems of keeping the survey unit running smoothly and efficiently. The ecologists met. The two maintenance girls met.

The only one who had no one to work with him was Mike Neale. When he asked Allenson about it, he was told: "Oh, we don't have a medic any more. Doc Marsh was killed in an accident not long after we landed. I thought I included that in one of the quarterly reports, but I guess I forgot about it."

Neale blinked. "You've managed without a medic for more than a year?"

"We've been lucky," Allenson said.

But there had to be more to it than luck, he thought. A medic was close to an indispensable man on a survey outfit. There were always five or six people who could astrogate in a pinch, and almost anyone could step in and act as Coordinator if he put his mind to it—but a Medic had to be a special sort, a flexible man capable of coping with unpredictable alien diseases as well as minor ailments, broken legs,

and such things. It was hard to believe that the eleven other members of Allenson's team had come through safely for more than a year without a skilled medic among them.

He puzzled about it a while—and puzzled about it a little more when he was taken to the office of the late Dr. Marsh. It looked as if it hadn't been entered since the day the doctor had been killed.

The antitoxin rack was in place, and each of the precious little ampoules had a considerable covering of dust. The instrument case likewise was dusty. So was the sterilizer, the diagnostitron, even the little library of medical texts. Even, he thought in bewilderment, the first-aid manual.

He turned to the man who had accompanied him here—Bryan, an ecologist. "Do you mean to tell me that none of the expedition's medical equipment has been used in over a year?"

"If it looks that way, sir, I guess it must be so."

Neale nervously cracked his knuckles. "Nothing used! No tourniquets, no thermospray,

no antitoxins, not even a band-aid. Look at the dust!"

"Do you want me to help you remove the dust, sir?"

Neale scowled. "No, I can manage myself. You'd better get about your business, spaceman."

Alone, Neale peered through the glassite window; outside, the members of the two expeditions were busy with the transfer of duty from one to the other. It was late afternoon; the pale yellow sun that was Gamma C r u c i s had dropped low over the horizon, and dark violet clouds had come up from the thick forest that surrounded them.

He glanced at the unused medical equipment. How can this be, he asked himself as he blew a year's dust off the sterilizer. Surely in the last year someone must have skinned his knee in the forest, at least, and needed a bandage. Someone must have contracted a disease calling for antivirotic shots. Someone must have cut his finger whittling model spaceships.

The more he thought about it, the less he understood it—and the more suspicious he be-

came of World Seven of the Gamma Crucis system. You just didn't live happily on an alien planet with your medic dead, and you certainly didn't survive for a year without at least some slight need for medical attention.

At least, he thought, *human* beings didn't do things like that. Then Dr. Neale shook his head and grinned self-consciously; he was reading mystery into places where mystery did not belong, and that was a sure sign that it was time for him to start thinking of retiring.

THE breaking-in process took the better part of a day. In a less well-organized outfit than the Survey Corps it might have taken days or even several weeks, but in the Corps operations were standardized and a relief unit was supposed to be able to take over, if necessary, without any break-in period at all.

Neale spent the time ferrying his equipment from the relief ship to his new office, which was located in a tin-walled prefab hut at the very

edge of the clearing, in the shade of a wide three-trunked tree with thick rubbery leaves. He carried over his antitoxin and antibiotic kits even though his predecessor had left him with an untouched supply; one never knew when an extra stock of neopenicillin would come in handy. But after running routine checks on the diagnostitron, the sterilizer, and the other heavy equipment in the office, Neale decided there would be no need to cart over the replacement units.

By the time he finished the job the office looked the way he believed a medical office should: clean, shining, every bit of apparatus in its place, everything where he could reach it or where laymen could find it in the event he was not there to give it to them. He finished up, flicked a little dust off the windowsill, and went out into the clearing, where the break-in session seemed to be finishing up.

Allenson was saying, "We leave everything in your hands, then, Coordinator Harrell."

"Right. If it's as safe a world as you say it is, this

ought to be a vacation for us."

The eleven men and women of Allenson's unit filed one by one into the relief ship. A moment later came the blasting signal, and the small, sleek ship thrust flaming gas against the ground and rose.

It climbed out of sight. Overhead the mother ship, the *Ariel*, cruised serenely past. The relief ship would match velocities with the *Ariel*, the boarding hatch would open, and the great ship would swallow the lesser like an insect snapped up in midflight by a hawk. Allenson and his crew were on their way home.

And Gamma Crucis VII was now the responsibility of Survey Unit 1198, for the next eighteen months. Neale stared upward, trying to see the tiny relief ship against the bright shield of the late afternoon sky; a flock of bird-like creatures came by, flying in a solid dark bar, redwinged creatures with bald ugly vulture-like heads. He looked away.

"Okay," Harrell called. "The place is ours. Everybody to quarters; camp time is now exactly 1703, and synchronize

accordingly. Belle, meal time is 1800. General meeting after mess to plan procedure."

NEALE and his wife got quartered on the second floor of the three-floor housing, sharing the floor with the Dol-linsons. The Radeks and the Harrells occupied the ground floor, while on the top floor lived the Grosses and the Kennedys. Six couples, twelve human beings. A Survey Corps team, and a good one.

The Corps always sent married couples out, tested for compatibility and cooperation; they worked better than teams of one sex or the other, and the theory was that sending man and wife out together increased the safety factor, for they took less risks and watched out together for unforeseeable danger. It was a tenable theory, too; accident rates in the Survey Corps were almost fantastically low, despite the hazardous nature of the work.

"I wish I understood it," Neale growled unhappily after the procedural meeting that evening. "A solid year without a medic, and no accidents, no

illnesses—Laura, it doesn't add up!"

"They're gone now," his wife said, trying to soothe him. Laura Neale was a trained ecologist; he had met her at the Corps Academy, where 90% of Corps marriages had their roots. "They're on their way back to Earth now. Why worry about them? We'll have enough on our hands here without brooding about—"

"No. Look, Laura, how come they didn't report the death of their medical officer?"

"Didn't they? I thought—"

"They said they did, but I checked with Harrell and he doesn't remember seeing anything about it in the quarterly reports Allenson sent out. You just don't overlook a thing as big as that. And you don't just 'forget' to report it, either. When any Survey Corps man gets killed on duty, that's news. And when a team's medic is the one who's killed, it gets heard about back at Headquarters. Sometimes they even send a replacement medic out. They don't ignore it, or overlook it."

"But what possible reason

would they have for concealing the medic's death?"

Neale shrugged. "That's the thing I can't figure out. *One* of the things I can't figure out. The other one is how they survived after Dr. Marsh's death without using the medical supplies at all."

He walked to the window and stared moodily out. The sun was down, now, and the moons were in the sky—two tiny chips of rock, fifteen or twenty miles in diameter that rotated around each other while they revolved around their planet.

Outside a forest creature barked, and immediately came an answering chorus. Neale scowled. An unexplored planet was by definition full of unanswered questions—but he had never met any of these before.

He was worried. It was a bad way to start off an eighteen-month stay.

He lay awake most of that night, thinking. One other thing troubled him about the survey team they had relieved, and this he had not told anyone, neither Harrell nor his wife.

There had been something about their eyes—Allenson's and all the others. Something cold and feral, a curious narrowing of the pupils. And every one of them, all eleven, had developed some form of facial tic. Allenson twitched his left cheek uncontrollably. One of the others had acquired a compulsive left-eye blink. Still another had one side of his mouth—the left, as it happened—drawn downward in a sagging ugly sneer, which persisted even when the right side of the mouth was smiling.

Something had happened to Allenson's team. Neale was sure of that. They did not need medical care, they had not bothered to report the death of their medic (had it really been an accident?) and they had picked up some strange somatic manifestations.

In three months the Ariel would be arriving at Earthport to discharge the off-duty survey team. Were they carrying some strange alien disease? Neale wondered.

And were the replacement team members going to contract it?

HE found out early the next morning that, no matter how the last team had managed, Harrell's team was going to need at least some medical attention. Belle Radek had been climbing a tree to secure a basketful of the blue-green apple-like fruits her predecessor said were edible, and she slipped and fell out.

Neale examined her. There were minor and negligible bruises, and also a long scrape on the inside of her right calf. Neale swabbed the abrasion with antiseptic, squirted some thermospray over it, slapped on a sterile bandage, and told her she could go about the business of preparing the noon meal.

"It won't get infected or anything?"

"I don't think so," Neale said. "You won't have any trouble with it. But be careful climbing those trees in the future, Belle."

"I usually am careful. But this tree—well, it seemed sort of slippery. And it kind of twisted out from under me when I got up on that long branch, as if it was trying to

throw me off the branch."

Neale chuckled. "It's just your imagination, Belle. We've never found an intelligent tree yet."

But after she was gone, he thought about that new bit of information. The trees were slippery; yes. He went outside and experimentally began to climb the tree with the blue-green fruit. He moved slowly, gripping the thick branch with both hands, advancing up the tree in an ape-like sort of crouch.

Dollinson passed below. "What are you doing up there, Doc? Second childhood?"

"Scientific experiment," Neale replied, and reached out for the shiny fruit that dangled a foot in front of his face.

The tree wriggled.

It lurched suddenly, and only because he had been prepared for it did Neale avoid being thrown to the ground ten feet below. He braced himself in the crotch of the limb, waited a moment, then made a sudden snatch at the dangling fruit.

He ripped it loose, but in that moment the tree heaved

again even more violently. Neale rocked with it, swayed, began to lose his balance, and finally had to leap to the ground; he dropped to his knees when he landed. Dollinson who had gone by, came trotting back and helped him up.

"Hurt yourself?"

"Just stung my ankles a bit," Neale said. He rubbed them. "It'll take a minute or two till the shock eases up. But I got what I went up there for."

He held out the apple-like fruit. Grinning, he bit into it; it was sweet and tasty, with a pleasant tang to it. He offered some to Dollinson, who sampled it with evident delight.

"Good stuff."

"I know. Belle tells me Allenson's team lived on them all the time. Can't say I blame them either."

Dollinson chuckled and moved on. Neale stared at the tree.

It had definitely moved. Perhaps it was just a tropism, but the fact remained that when an attempt was made to remove its fruit it resisted.

Yet the previous team had eaten the fruits regularly. They must have climbed the trees to get at them. *Dammit, how come they never fell out and needed to be patched up? How come?* Neale asked, and no answer came.

LIFE moved along routinely in the survey camp for the next two days. Allenson's team had already explored a fairly wide-ranging sector of the planet, taking specimens and photographs and recording ecological data. It was a simple matter for the members of Survey unit 1198 to follow in the paths of their predecessors.

Neale spent his days doing bacteriological analysis, which was his chief job aside from tending to the medical needs of his team. His task was to isolate cultures of the alien bacteria for experimental purposes.

In the days before the development of interstellar travel, it had been feared that alien bacteria might cause plagues if brought to Earth, might contaminate survey teams and bring strange new illnesses to harass mankind.

This had proved almost entirely false. The number of alien diseases which affected mankind or any Earthborn animal life at all was slim—less than a dozen so far, and none of them overly virulent. The reason was simply. The diseases did not fit the victims. The difference in metabolism was too great; they simply did not “take.” Neale often said that human beings were as deadly to alien bacteria as the bacteria were to the human beings, only more so.

Still, medical research proceeded. And during his days, while the other members of the expedition went about their allotted jobs, Neale peered through the eyepieces of his microscope and jotted down notes in his neat precise handwriting.

Unlike the others Neale had no beaten path to follow. Dr. Marsh’s notes had been “lost,” Allenson had told him, and so he was starting from scratch in his research.

That night, his wife returned from her ecological tour—and now she was puzzled.

“This is the *strangest* place!”

“How do you mean that?”

“The animal life, and the plant life—I’ve never seen such a perfectly balanced ecology, Mike! Everything in its place, no surpluses. Everything dovetails. Just the right number of birds and fish, the right sort of vegetation in the right places.”

“Is this unique?” Neale asked.

“It is on planets in the natural state—especially young ones like this. The ecological balance on this world is mature almost over-mature. By that I mean that everything has fallen into balance, something that normally doesn’t happen until a world’s a couple of billion years out of the jungle stage.

“Just another additional wrinkle,” Neale said. “What do your predecessor’s notebooks say about it?”

“Hardly anything!” Laura exclaimed. “That’s the oddest part. On some of the early pages of her notes there are some comments about the extraordinary balance of life here, the carnivore-herbivore radio, things like that. But after the fifth or sixth page she

ignores it. All the data is here, but she doesn't bother to draw the obvious conclusions from it!"

"I don't like this place," Neale said. "I don't like it. Not at all."

ON the third day, an ecological tour went out by helicopter to cover the distant sawbacked mountain range to the westward, near the great river which according to Allenson's map divided the continent almost in half.

Aboard the copter was nearly the entire ecological team: Laura Neale, the Dollinsons, Ferd Gross Don Kennedy. The only member of the ecology squad that stayed behind was Sallie Gross who was in sickbay with an inflamed wisdom tooth. (Another job for Neale, who deadened the pain with a localized neural sedative; apparently Allenson's people had never had toothaches either. If they had had them they had borne them with Stoic calm, because the sedative supply was unopened.)

The camp seemed almost deserted while the ecology outfit was gone. Neale, missing

his wife, threw himself vigorously into his bacteriological work; Belle Radeck and Donna Harrell planned meals for the team several weeks ahead, while Peg Kennedy policed the grounds and tidied the offices.

Neale took advantage of the emptiness of the camp to get Coordinator Harrell aside and confide his fears.

"Clee, I'm scared. There are too many inconsistencies in the reports left us by Allenson's bunch, and I've noticed some things I don't like at all."

Harrell's smile darkened. "What do you mean, Mike?"

"I mean the business of their medic being dead so long, and of the untouched medical supplies. And of a thing Laura told me about the way this planet's ecology is so perfectly balanced. Perfect things always make me suspicious; nature doesn't ever operate perfectly. It just isn't her way."

"These are pretty vague points you're making, Mike. I can't see how—"

"You can't see? Didn't you see something funny about Allenson's bunch? Their faces?"

Frowning, Harrell said, "No,

can't say that I did. They all were pretty pale but otherwise—"

"The paleness is part of it. But their eyes—cold and hard, no warmth in them. And they all had some kind of tic on the left side of their face."

Harrell's eyes widened. "Come to think of it—yes! When I spent some time with Allenson, I remember being annoyed by the way his cheek kept twitching. His left cheek. But—"

"I don't have any glib explanations," Neale said quietly. "But something happened to those eleven people while they were on this planet. I don't know what it was, and I'm a long way from even being able to make a guess—but whatever it might have been, I wouldn't want it to happen to us."

Harrell nodded. "We'll have to keep our eyes open. If you have anything further to report on this, let me know right away."

THERE was nothing further for Neale to report that day, or the next. But on the

next—the fifth day of Survey Unit 1198's stay on Gamma Crucis VII—the ecology team returned from its journey across the mountains.

The helicopter hovered over the clearing a moment; then, rotors whirring, it descended. Mack Dollinson was the first one out looking grimy and unshaven after his three-day trip; he was followed by Laura Neale, Ferd Gross, Marie Dollinson and Don Kennedy.

Neale held his wife for a moment. Then the band of returnees opened the copter's cargo hatch and brought forth several bales of specimens.

"Good trip eh?" Neale asked.

"Very fruitful," Laura said. "We covered nearly a thousand square miles by random sampling. We found some very unusual froglike creatures that change shape when you poke them, and—why, what's wrong?"

"Nothing" Neale said. He forced his sudden frown to melt away, and tried to look interested as Laura continued to tell him about their trip. "Mack was the lucky one, of course—he had Marie along

with him. The rest of us looked on in envy. Miss me, Mike?"

"Sure Laura." But the words came out abstractedly, and when she kissed him he responded with a half-hearted peck that drew an irritated little snort from her.

But at the moment he could not take time to be affectionate. He was staring at Fred Gross, the slim darkly handsome botanist of the expedition.

Gross was standing by the helicopter, waiting his turn to go inside and unload the specimens he had brought back. All Neale could see of the botanist was the left side of his face.

Neale squinted to make sure. Yes. The skin around Gross' left eye was spasming; every fifteen seconds or so his cheek would jerk upward in a sudden squint. And Gross had not had any record of neural disturbances before the landing on Gamma Crucis VII. He had acquired the facial tic since their arrival.

Neale's throat felt dry. "Excuse me, Laura," he said in a rasping tense voice. "I want to talk to Ferdie about something, if you don't mind."

"Sure—go ahead. I can wait."

He grinned feebly, moved past her, and walked up to where Gross stood. The botanist was staring with ferocious concentration into the darkened helicopter; he did not turn as Neale walked up. The medic took advantage of Gross' absorption to study the tic that had developed on his face. Yes, he thought, it was quite pronounced, a muscular convulsion of some sort.

He laid one cold hand on Gross' shoulder.

"Ferdie?"

Gross whirled like a surprised burglar. He ducked away, cringing, then said, "Oh—Neale. You surprised me."

His voice was leaden and harsh. Gross had been an excellent baritone. But all tone had departed from his voice now; it seemed like a stranger's voice.

And his eyes, Neale thought. Beast's eyes.

Neale forced a smile. "How was the trip?"

"Oh—not bad." The words seemed to emerge stiffly, as if Gross were fighting to get

them out. He stuttered slightly on the initial consonants, and contorted his lips.

Neale waited. "Aren't you going to ask me about Sallie and how she is?"

Blankness. "S-Sallie?"

"Yes. Your wife."

Gross smiled suddenly as if comprehension were dawning. "Oh. Yes. Sallie. How is she?"

"Much better," Neale said. "The swelling's gone down, and I won't have to pull the tooth after all I'm damn glad it worked out this way. I hate pulling teeth. She's asleep now—the sedative's got her. You can see her later, though, in an hour or two."

"That will be fi-fine," Gross said with some effort. Neale felt a chill crawl over him. In the early stages of the disease, he thought, there was some motor and sensory impedance; in later stages, such as that of the Allenson team, the victim regained control over his voice and his muscles, except for the tell-tale tic of the left side of the face, which remained invariably.

Neale moistened his lips. "Take it easy, Ferdie."

He crossed the clearing and

found Laura. In a low, urgent voice he said: "Did anything peculiar happen to Ferdie during your trip?"

"Peculiar—why?"

"Because he's sure as anything acting peculiar now. Was he alone for any length of time?"

"We all were. He was out collecting specimens. Radek fixed up walkie-talkies for us so we could go out separately and still maintain contact with each other." Her face reflected sudden curiosity and fear. "What's wrong, Mike? What's happened?"

"I wish I knew," Neale said hollowly. He wiped sweat from his forehead. "Stay here. I want to go talk to Harrell a minute."

He caught sight of the tall figure of the team coordinator far at the other side of the clearing, near the specimen storage shack. Neale cupped his hands.

"Clee!"

Harrell turned and stared at him without saying anything. Neale trotted over to him.

"Well?" Harrell asked.

"That disease," Neale said.

"The thing Allenson's bunch had, that I told you about day before yesterday? Well, Gross has it. Whatever it is, he caught it on that ecological expedition. He—"

"W-what disease?" Harrell asked coldly.

Neale stopped short and stared at the coordinator. Harrell's eyes were narrowed, and they gleamed like taxidermist's glass. And the left half of his upper lip was quivering almost imperceptibly, as if embodied with a life of its own.

"I—guess I was mistaken," Neale said hastily. "Sorry to bother you, Clee. Sorry."

SO it's hit us too, Neale thought. Gross....Harrell....and all the rest of us, one by one, as whatever it is (virus? protozoan? bacteria?) filters into our bodies and *changes* us.

It would make a good paper for the Annals of the Survey Corps, he thought wildly. It was so rare that any sort of alien life-form could have a biological effect on human beings—and here he was in a position to do a first-hand report. If he

stayed uninfected.

Five days, and two of us have it. Who'll be the next? Dollinson? Laura? Me?

He stepped out into the clearing. The ecologists were carrying their specimens up into the storage shack. Neale wondered if he could get hold of Ferd Gross on some pretext and examine him, try to discover just what effects this strange affliction had. But there was the risk of contracting it himself—

He looked at his watch. It was time to visit the infirmary to see how Sallie Gross was doing.

She sat upright in bed, a wan smile on her face; the swelling in her jaw had receded and she looked a little less grotesque.

"Sleep well?" Neale asked.

"Not bad. At least that darned *throbbing's* stopped. Are you going to have to pull the tooth, Mike?"

"I doubt it," he said, after a look. "The infection's easing up."

"I thought I heard a helicopter land. Is Ferdie back yet?"

Neale nodded. "I told him you were asleep. I'll send him

in now." Silently he added, *I'll send in the thing that used to be Ferdie.*

He found Gross outside, standing still with an aimless expression on his face. His eye was quivering rapidly. "Sallie's awake," Neale said. "She'd like to see you, Ferdie. In the infirmary."

"Thank you," Gross said stiffly.

He walked off, robot-like, toward the infirmary. Neale watched him a moment; then, hearing footsteps behind him, he turned and saw Sam Radek.

The signalman had the glassy-eyed look and the facial tic that stamped the victim of the alien disease. That makes three of us, Neale thought.

No. Four. Behind Radek came Marie Dollinson with the now-unmistakable symptoms evident on her face. It was spreading to the women now. The incubation period—was it five days? Would they all be transformed into stuttering robots by nightfall?

Neale stood with his hands held loosely, in frustration, knowing with a doctor's despair that a new and strange

disease was sweeping down on his people and that he did not know where to begin to fight back.

He heard a scream—a high, keening, woman's scream, with a wobbly nerve-searing tremulo climax. He froze for a moment, then started to run toward the power shed, where Peg Kennedy had been checking the generators.

He pushed open the door of the shed just as Peg screamed a second time. The smell of burning flesh came drifting toward him. He spotted Peg huddled into herself on the floor, sobbing wildly and pointing.

Pointing toward the central power generator—where the seared and blackening body of Don Kennedy hung. The zoologist's hands gripped the thousand-watt power leads, and his body was jerking and jumping convulsively with every surge of juice through it.

Neale moved quickly, throwing the knife switch that controlled the turbines. Power died away with a sickly whine. Hurriedly he cut in the auxiliary generators as the lights began to fade.

Rapid examination of Kennedy's body told him that the zoologist was beyond medical help. Neale lifted Peg Kennedy to her feet and held her a moment, until the sobbing subsided.

"Peg," he said softly. "Tell me what happened." He noticed a horror-stricken group standing at the entrance to the power shack—Mack Dollinson, Donna Harrell, Laura, Belle Radek. None of the infected people were there.

"It—it was horrible. Don came in here—I was so glad to see him come back from that ecological expedition—but when he came in I hardly recognized him."

"What do you mean?"

"His face—it was so different. His eyes were—were stranger's eyes; they didn't seem to know me. And one whole side of his face was *writhing*. As if the muscles were battling with each other. He stood right there"—she pointed to the middle of the floor—"and shook as if his body wanted to go in two different directions. Then he muttered something, deep and ugly-

sounding, and *jumped*—right at the power leads." Sobs racked her again. "I couldn't move. Don—"

Neale felt sick despite his training. "Peg—try to believe me—I know why Don did what he did. He contracted an alien disease, a horrible one. He chose to die this way, while he still was master enough of himself to control his actions."

He glanced at Dollinson. "Mack, give me some help. I want to take Kennedy's body over to my office for an autopsy. I'm on the track of something big."

THE light burned late in Neale's office. Once Laura came down to see if he planned to finish work and come to bed; but he told her he was busy, and did not let her enter the office or even peer past the door. He was relieved to see that as yet she still appeared normal.

He worked over Kennedy's blackened and blistered body for hours, probing the tortured flesh with delicate micro-scalpels, laying bare nerve centers, tracing synapses. By

the time he was satisfied, the dead man's body was even less recognizable than it had been.

But now Neale understood the nature of the disease that had entirely infected the previous survey group, and which so far had taken at least five members of Survey Unit 1198.

He stared at the milkwhite fibers that ran parallel to Kennedy's nerve channels. They followed a course straight to the brain, and there they clustered in a complex ganglion that still lived, and writhed at the touch.

Neale looked at his watch. Time was 0100; it was late. But this was an emergency. He picked up the communicator and punched out a number. Mack Dollinson's number.

The ecologist answered, and there was nothing sleepy in his voice. "Yes?"

"Mack, this is Neale. I'm down in my office and I've found something I want to show somebody. Anybody. Can you come over here right away?"

A moment's pause. Then: "Yes. I've been wanting to talk to you, anyway."

Dollinson arrived a few moments later, dressed in a light gown. He blinked in puzzlement at the sight of the dissected body spread out on the operating table. Neale noticed that Dollinson looked drawn and preoccupied, but that he showed no symptoms of the disease.

"Well?" Dollinson asked. "What has the autopsy turned up?"

"Plenty. But first—how's Marie?"

Dollinson paled. "She's—bad, Mike. Whatever this thing is that's sweeping through the team, she's got it. When we got into bed I touched her. She was like ice. She didn't seem to know me."

"Come here," Neale said. "Look."

He gestured with his scalpel. "I've laid Kennedy open and here's what I've found. A parasitical nerve network running all through his body. Every muscle he has is hooked up to it. They all run to the brain, and cluster—here." He indicated the ganglion, an inch square, nestling against Kennedy's brain. "You'll notice

that the ganglion is on the right side of the brain. That's why the facial tics always show up on the left side of the face, because the nerve centers of the brain exert sensory and motor control over the opposite sides of the body."

"And you think Kennedy suicided?"

"I'm sure of it," said Neale. "He knew what was happening to him. Probably there was a progressive deterioration of his control over his muscles. So while he still had some vestige of independent action he threw himself into the generator. I guess that's preferable to the walking death of the disease otherwise."

Dollinson sat down heavily. "Marie's got it."

"And Radek, Harrell, and Gross. Maybe even more by now. Probably we're all infected in some degree or another, only we have different periods of incubation. We may be full of white fibers right now, only they haven't made their move to take over, yet."

"But—"

"Yes. Our turns will come. Only we won't make the mistake the last expedition made."

"What was that?"

"They waited too long to report the disease. Before they could let anybody know, the whole outfit was infected, and then they couldn't report. So we came down unawares, and caught it. And—my God!" Neale went pale. "Allenson's team—they're on their way way back to Earth in the *Ariel* now!"

"The whole ship's probably infected with it," Dollinson said.

"Worse than that. The *Ariel* will be landing on Earth in three months. And Earth won't be suspecting anything unless we warn them."

Neale reached for his coat; then, snapping his fingers, he went to his drug rack and detached an ampoule. "Come on," he said. "We may not have much time left."

THEY made their way stealthily into the ground floor of the residence building, not wanting to awaken the Harrells. Cautiously Neale nudged open the door of the section where the Radeks lived.

They were asleep—but with their eyes open. Cold glinting eyes that stared upward, unseeingly. Neale added a sixth name to the growing list: Belle Radek. Now six members of the team were infected. Six out of twelve.

"Get his arm," Neale whispered.

Dollinson seized Radek's right arm; Neale took his left. He nodded, and they jerked up suddenly. Radek woke, startled.

"What's going on? What the hell do you fellows want at this hour?"

"We want you to do a little radio work for us, Sam. Come on. Out of bed."

"He sounds genuine," Dollinson said.

"That only means that Sam's lost the fight with whatever is growing inside him. The stuttering and the stiffness comes from the fact that the mind is struggling against the invader. But Sam's been completely taken over, and—*hold him!*"

Radek writhed suddenly and nearly broke loose. He did jerk one arm free and land a punch in Dollinson's stomach; the ecologist spun backward, just in time to have the awakening

Belle Radek climb furiously upon him.

Neale had come prepared. He flipped the trigger on the spray-ampoule he had brought with him and slapped the spray against Radek's bare arm. The signalman froze a moment in inner conflict, as the nerves of his body strove to quit their jobs and the parasite urged him to continue fighting; then the injection did its work, and he toppled over, unconscious. A moment later his wife followed him.

"What did you do to them?" Dollinson asked.

"Hypnothol." Neale said. "It'll knock 'em out for ten minutes or so, and when they wake up they'll be very cooperative. It's a fast-action anesthetic as well as a truth drug. Very handy. Let's get Radek over to the communications shack now, before it wears off."

They dragged the unconscious man across the clearing to the shack. Neale flipped on the light. Radek sat groggily where he was put, quivering occasionally as the organism within him attempted to regain

control over his numbed and useless muscles.

"Sam, can you hear me? Sam?"

"I...hear you."

"Sam, tell me—what's happened to you? What kind of thing has taken you over?"

"I am part of It," Radek said tonelessly.

"It? What do you mean?"

"The oneness...the fulfillment. All is one here on this world, and I am part of It. Of We."

"You mean a collective mind?" Neale asked.

"Yes."

"Linked together by—by the network of nerve fiber inside you?"

"Yes."

Neale was silent a moment. Then he said, "How about the Allenson group. Are they the same way too?"

"Yes. All but the one named Marsh, the doctor. He is not with Us. He is dead. He threatened to contact Earth, but the eleven of them who are with Us killed him just in time. As We will kill you." The words, toneless, flat, held chilling menace.

Neale glanced at Dollinson. "Mack, lock and bolt the shack door. We may have trouble. Make sure the blasters are loaded, too." To the slumping Radek he said, "Sam, you mean that everything on this world is part of this one collective mind, including the Allenson people? How about the crew of the Ariel?"

"They have joined Us too. And soon all Earth will belong and then all the universe. We have waited long for the opportunity to extend Ourselves from world to world, and Earth has given this to Us."

With trembling voice Neale said, "Sam, are you absolutely under my command now?"

"Yes."

"You're incapable of obeying the orders of this—thing you belong to, right?"

"Yes."

"Good. I want you to sit down over by the communications panel and make subradio contact for me with the Central Control of the Survey Department, on Earth. Will you do that?"

"Yes," Radek said dully.

NEALE waited while the somnambulant Radek made mechanical adjustments on the subradio board; lights flashed, indicating that waypoints and relay stations were being contacted. The signal was leaping out across the light-years, through the grey-ness of hyperspace, toward the home world of Earth.

Neale felt inwardly cold. He saw the whole pattern now, and it left him breathless with horror.

All life on this planet was part of one huge organism. That explained the balanced ecology that Laura had been so puzzled by. And the organism took steps to incorporate within itself all strange forms of life that wandered within its range.

That was what had happened to the Allenson expedition. One by one they had succumbed, as the spore of the alien organism ripened within their bodies; only their medic, Dr. Marsh, had remained untouched, and he had evidently realized what had taken place. He had attempted to warn Earth against Gamma Crucis VII, but the

other eleven had prevented him, had killed him before word could go out.

Neale understood now why they had had no further need of medical attention. A wise parasite takes care of its host body and keeps it from harm. The organism living within the Earth people had evidently healed cuts, destroyed disease germs, and maintained the working efficiency of the body that served as its vehicle.

And then the second expedition had landed. The puppets that were the Allenson team were on their way back to Earth to transmit the organism now; having infected the crew of the Ariel, they longed for the greater quarry ahead. And one by one Survey Unit 1198 was succumbing. The Radeks, Gross, Harrell, Kennedy, Marie Dollinson, maybe all the rest of them by now.

Maybe even Laura. And maybe I'm next. Maybe any minute now I'll feel the alien pull along my nerves, and know that in short moments the personality that is Dr. Michael Neale will be swallowed up in—

"Hurry up, Radek!" Neale

barked. "Get that contact set up!"

"It's almost ready," Radek muttered tonelessly. "Here—go ahead, now."

NEALE took his seat at the communicator panel, indicating to Dollinson that he should guard Radek carefully in case the effects of the drug should wear off.

He spun the dial. A crisp voice said, "Central Control, Survey Corps. Lieutenant Jesperson speaking. Come in, please."

"Jesperson, this is Medic Neale of Survey Unit 1198. I want to report an epidemic. It's already affected at least half of our team, and the entire personnel of the outfit we replaced."

"Epidemic?"

"Yes," Neale said. In quick concise words he sketched in the nature of the "disease," repeating the information he had dredged from Radek's drugged mind. He spoke softly but urgently. "That's the whole story. Except that the *Ariel's* coming back to Earth right now, and every man aboard it is infected."

"How can you be sure of that?"

Neale paused. "Would you want to be the man who said they weren't?"

Jesperson said irritably, "If what you tell us is true, Neale, it means we don't dare let the *Ariel* land. We can't even send a man aboard to examine them. We'll simply have to send up a missile and blow them out of the sky without warning. There must be a hundred human beings aboard that ship, and billions of dollars' worth of equipment."

Very quietly Neale said, "If you let that ship land, it'll mean the end of civilization on Earth. It's just as simple as that, and if I sound melodramatic it's because I mean to sound melodramatic. Once that *thing* gets loose on earth—dammit, Jesperson it doesn't matter if fifty innocent people on the *Ariel* have to die! You *have* to destroy that ship before it touches Earth!"

"I see that," Jesperson replied tightly. "Okay. I'll pass the transcript of your report along to the higher-ups and let them worry about it. We still

have some time before the Ariel gets here. How about you people on Gamma Crucis VII, though?"

Neale coughed. "Forget about us. Report the whole team lost on duty."

"But six of you—"

"Six of us are free of infection, now. But there's no telling how long it'll be before we go under. Make sure this planet is never visited again. I'm going to sign off now. I have work to do here. So long, Jesperson."

"So long, Neale. And—thanks."

"Don't mention it. I—"

He grunted suddenly as a fist thumped against his back. *Radek's loose*, he thought, and whirled up from the panel seat to defend himself.

"Neale! Neale!" came the voice from the speaker grid. "Is everything all right there? Neale!"

Neale ignored the cry. He stared at his attacker.

Not Radek. Radek still sat slumped in drug-induced stupor where they had left him.

It was Dollinson.

"SO it's your turn now, Mack," Neale murmured. Dollinson's eyes had the all-too-familiar gleam, now; his face quivered convulsively. He came forward again, swinging his fists, and Neale could see that the fast-dying entity that was Mack Dollinson was vainly trying to reassert control over his unruly body.

Dollinson ran toward him. Neale sidestepped and clubbed down on the back of his neck; Dollinson fell, lay quivering, struggled to get up.

Across the room, Radek was starting to move. And Neale heard pounding on the door of the communications shack. Of course! The creatures were all part of the same organism, and so all were in communication with each other; they knew Neale still survived, immune for some reason, and they were coming to get him.

Dollinson rose and straggled forward. The hinges of the door began to yield.

Neale hit Dollinson again, jumped back, fumbled for his blaster. He fired, once.

It made a neat black hole through the center of Dollin-

son's chest. Neale felt sudden bitterness; Dollinson had been his closet friend, and—

Dollinson kept moving.

He was dead; that is, the body of Mack Dollinson was dead. But the thing that inhabited him still retained control over Dollinson's muscles, still forced him forward, claw-like hands reaching out—

Neale fired again, this time at the head. He held the beam steady, ashing away all that was recognizable of Mack Dollinson. Ashing with it the whitish clump of ganglia that had sprouted inside Dollinson's head. This time Mack dropped and lay still.

Remember that, Neale thought feverishly. Aim for the heads; killing the body doesn't stop them, you have to kill the nerve-center.

Radek was next. The signalman was on his feet and groping forward, having thrown off the remaining effects of the drug. Neale cut Radek down with a short full-intensity blast.

The pounding on the door grew louder. The door started to split. Neale glanced around frantically, found a window,

leaped through just as the mob of them broke into the shack in quest of him.

He began to run. It was night now, and dark shadows were all around. He looked back and saw figures come running out of the shack in search of him.

They wanted him, now. They were too late to keep him from warning Earth—thank God for that!—but they wanted to kill him anyway, since he obstinately refused to contract the disease.

At least Earth has been warned, he thought. What happens to us doesn't matter.

A tree swiped at him from above. He ducked. Any moment, he thought, the entire mobilized force of the planet would be after him, hordes of vultures and jagtoothed cats and insects that stung, determined to mow him down.

In the gathering darkness, a figure came by—Donna Harrell, the coordinator's statuesque wife. Neale paused in flight.

"Donna?"

She turned to face him. Hattred was in her cold, alien

eyes. Her face bore the tic.

Neale did not hesitate. He fired, twice, and she fell. Four of the twelve were dead, now. And of those who survived, all but Laura, Peg Kennedy, and Sallie Gross were known to harbor the alien life-form now.

I'll wipe them out, he thought. Better a clean quick death than a lifetime as part of—that.

HIS first stop was the infirmary, but as he suspected, Sallie was gone. She was out with the hunters, then, in search of him. That left only Laura and Peg Kennedy among the possible immunes.

He heard the infirmary door slam. A dark figure stood down below—tall, broad. Only two men of the survey unit remained alive besides Neale, and one of them, Gross, was small. The man down there could only be Coordinator Clee Harrell.

"Neale!" came the hoarse voice. "Neale, have you gone crazy? You killed Dollinson and Radek in cold blood! Come down out of there, Neale. We know you're there."

In the darkness Neale felt

his body streaming with perspiration. *It's a trick, he thought feverishly. A trick. I know Harrell's been taken over. I saw him.*

A blaster bolt suddenly squirted through the blackness at him and splatted against the wall over his head, sending the plastic wall cascading outward. Immediately Neale returned fire. He heard a groan; he had hit.

He ran down the stairs. Harrell lay there, writhing, his right arm seared away. But his eyes were not human eyes, and Neale felt no compassion for him. He fired once, at the coordinator's head.

Five down, now. And how many to go?

They were surrounding the infirmary, Neale saw. He ducked away into the shrubbery and crouched there, waiting, watching them move past him.

There were too many of them for him to fire now. He counted: Gross, Sallie, Belle Radek, Peg Kennedy, and—he uttered a harsh little sob—Laura.

All of them, then. He was the only one left. And he knew

his turn could not be long delayed.

Around him, the shrubbery rippled suddenly. Thorny arms stabbed at his eyes. *Even the plants!* he thought. Part of the single great evil mind that was the world of Gamma Crucis VII.

Overhead wings flapped. Time was running short now, Neale thought. He burst from the clearing.

There was no cry of "There he is!" from those who saw him. They were telepathically linked; they had no need to communicate out loud. But Neale saw shadowy shapes moving toward him in the night.

He collided suddenly with a figure coming in the opposite direction, and, startled, reeled away. He had forgotten Marie Dollinson. She grappled with him now, fighting with a demonic strength no woman had ever possessed, but Neale broke away and put a blaster shot through the thing that infested her brain. The blurt of energy lit the darkness for a moment, then subsided.

Pausing for breath, he

counted the survivors in his mind: The Grosses, Peg Kennedy, Belle Radek, and Laura. Five of them. Briefly he prayed that he would have a chance to get all of them before they found him, or before the change happened.

Maybe I'm immune, he thought. Why me, though? Why should I be singled out?

The forest around him seemed angry and menacing. He knew he was lost either way: it made no difference whether he were ultimately absorbed into the group-mind of the parasites, or if he remained immune and were killed by the unit-mind. But he was not ready to give up.

He ran on desperately.

ROUNDING the main residence housing, he encountered Ferd Gross, who was armed with a blaster. But Gross' aim went wild—perhaps Ferdie was still fighting back, trapped helplessly in his own body—and Neale incinerated him with a single well-placed shot.

That left four. Peg, Belle, Sallie, Laura.

Belle was the first. He spotted her on the side of the hill, near the tree where the blue-green apples grew, and brought her down at long range. After that came Peg and Sallie in swift succession. There was no sign of Laura. He called to her, but she did not appear, and Neale was relieved at that.

Wearily he made his way to his office, locked himself in, and threw the bolt. The dissected body of Don Kennedy still lay on the table.

Ignoring it, Neale threw himself down at his desk and put his head in his hands, sobbing with the release of accumulated fear and tension. After a while he looked at his watch. It read 0215.

In a little less than an hour, Neale thought with odd clarity, I've killed nine fellow human beings. One man rampage of killing.

Then he shook his head. He was being foolish. The nine human beings had died long since—or, even more horribly, remained alive, trapped within their own flesh. He had merely liberated them. He had destroyed nine containers for the

weird group-life that infested this planet; he had sent nine Earthmen to rest instead of leaving them for an eternal existence within the corporate entity.

Neale knew what to do now. He rose and went to his supply chest, and filled a small flask with orange-yellow fluid from a larger container. The label on the larger container said, STYROTHENE, and below that was the familiar skull-and-crossbones symbol of danger.

Styrothene was a nerve poison. In diluted solutions—one part in five hundred was the usual ratio—it was a highly efficient anesthetic, which blocked off neural impulses throughout the body and allowed for the most delicate surgery. In its pure concentrated form, it was the fastest acting poison known to man. Hardly did the liquid touch the tongue when death came.

Smiling now, because he was prepared, Neale adjusted the cork on the flask and put it in his jacket pocket. Next he checked the charge-case of his

blaster. There was only one charge left.

He waited. Five minutes, ten went by. Then came the knock on the door that he was expecting.

WITH trembling fingers he slid back the bolt and opened the door. "Hello, Laura. Come in, won't you?"

She stepped inside, and he bolted the door again.

"Working late again tonight, Mike?" she asked, in her normal voice.

He nodded. "There was a lot to be done."

His stomach was a cold mass of fear. She stood before him, smiling, speaking to him as she had always spoken to him through the fifteen years of their happy marriage. *B r u t a l l y* he thought, *The parasite has achieved full control over her vocal cords now. She doesn't stutter. She can't fight back any more.*

She was saying, "I've been looking for you all over the place. It's past 0200. It's time to go to bed, Mike, dear. I'm so tired."

"You are, aren't you, Laura.

Tired. Well, I'm tired too. It's been a busy night."

She extended her arms to him. "Come, Mike. Let's go upstairs, shall we?"

"Not just yet," he said tightly.

It was like a dream, a dream in which none of this had ever happened, in which Gamma Crucis VII had proved to be as safe as all the other worlds they had visited, in which there were no parasites, no unit-mind, no death.

The urge welled up within him to go to her, to forget his resolution. He was wavering, now. He realized the change was almost upon him, that it was his turn now, at last. At last.

"Mike—"

"No. You're not Laura. You used to be Laura, and I loved you then."

He raised the blaster. With shaking hands he fired, once, and looked away. After a moment he was able to look back, and he saw that she was dead.

It was very quiet now.

He put down the gun and sat quietly behind his desk. He picked up pen and paper and

began to write, a brief, concise account of the strange parasite that had infected the nerve channels of the Earthmen on Gamma Crucis VII. This was to be his final report, and he chose his words with care, working thoughtfully.

The unit-mind, he wrote, is certainly an incredible organism worthy of detailed scientific study, as my few conclusions here have tried to show. Unfortunately, it is impossible to carry out this detailed study at present, since no adequate defense against the effects of the corporate mind exists, and the rate of absorption appears to approach one hundred percent. I think—

He put down the pen, frowning. Whatever it was he thought, he had forgotten it. But it made little difference, he realized. No one would ever read this report. Earthmen would never land on Gamma Crucis VII again. Laura was dead, and all the others, but at least Earth was safe, and this

world would be left to itself for all eternity. If they were wise, he thought, they would blast Gamma Crucis VII out of the skies. They would do well to—

Neale felt very tired. The pen went rolling across the desk and fell to the floor, and he ignored it.

Something squirmed within his mind.

At last, he thought, with unmixed relief. Gamma Crucis VII is claiming me, too. Now he could rest.

He reached for the bottle in his pocket. The thing within him clung to his arm, trying to restrain him, but its control was too new, too weak. Neale drew out the bottle, uncorked it, lifted it to his lips. At least, he thought, the planet-mind would have no Earthmen among its numbers.

He drank. He sensed the outraged cry of the thing within him as it realized it was to be cheated, and then consciousness left him.

THE END

ALL THE TROUBLES OF THE WORLD

by ISAAC ASIMOV

illustrated by EMSH

Multivac, the huge computer in Washington, could solve any problem in the world for anyone. But what would be the result if the big computer had a nervous breakdown?

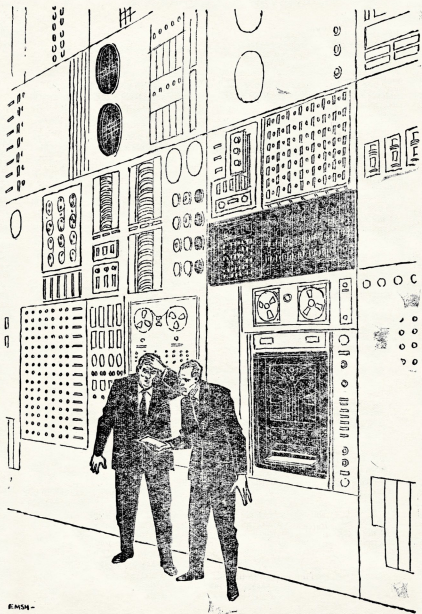
THE greatest industry on Earth centered about Multivac;— Multivac, the giant computer that had grown in fifty years until its various ramifications had filled Washington, D. C. to the suburbs and had reached out tendrils into every city and town on Earth.

An army of civil servants fed it data constantly and another army correlated and interpreted the answers it gave. A corps of engineers patrolled its interior, while mines and factories consumed themselves in keeping its re-

serve stocks of replacement parts ever complete, ever accurate, ever satisfactory in every way.

Multivac directed Earth's economy and helped Earth's science. Most important of all, it was the central clearing house of all known facts about each individual Earthman.

And each day it was part of Multivac's duties to take the four billion sets of facts about individual human beings that filled its vitals and extrapolate them for an additional day of time. Every Corrections Department on Earth received



the data appropriate to its own area of jurisdiction and the overall data was presented in one large piece to the Central Board of Corrections in Washington, D. C.

BERNARD GULLIMAN was in the fourth week of his year term as Chairman of the Central Board of Corrections and had grown casual enough to accept the morning report without being frightened by it. As usual, it was a sheaf of papers some six inches thick. He knew by now, he was not expected to read it. (No human could.) Still, it was amusing to glance through it.

There were the usual list of predictable crimes. Frauds of all sorts, larcenies, riots, man-slaughters, arsons.

He looked for one particular heading and felt a slight shock at finding it there at all, then another one at seeing two entires. Not one, but two. *Two* first-degree murders. He had not seen two in one day in all his term as Chairman so far.

He punched the knob of the two-way intercom and waited for the smooth face of his co-

ordinator to appear on the screen.

"Ali," said Gulliman. "There are two first-degrees this day. Is there any unusual problem?"

"No, sir." The dark-complexioned face with its sharp, black eyes seemed restless. "Both cases are quite low probability."

"I know that," said Gulliman. "I observed that neither probability is higher than 15 percent. Just the same, Multi-vac has a reputation to maintain. It has virtually wiped out crime, and the public judges that by its record on first-degree murder which is, of course, the most spectacular crime."

Ali Othman nodded. "Yes, sir. I quite realize that."

"You also realize, I hope," Gulliman said, "that I don't want a single consummated case of it during my term. If any other crime slips through, I may allow excuses. If a first-degree murder slips through, I'll have your hide. Understand?"

"Yes, sir. The complete analysis of the two potential murders are already at the dis-

strict offices involved. The potential criminals and victims are under observation. I have rechecked the probabilities of consummation and they are already dropping."

"Very good," said Gulliman, and broke connection.

He went back to the list with an uneasy feeling that perhaps he had been over-pompous.— But then, one had to be firm with these permanent civil-service personnel and make sure they didn't imagine they were running everything, including the Chairman. Particularly this Othman, who had been working with Multivac since both were considerably younger, and had a proprietary air that could be infuriating.

To Gulliman, this matter of crime was the political chance of a lifetime. So far, no Chairman had passed through his term without a murder taking place somewhere on Earth, some time. The previous Chairman had ended with a record of eight, three more (*more*, in fact) than under his predecessor.

Now Gulliman intended to have *none*. He was going to be,

he had decided, the first Chairman without any murder at all anywhere on Earth during his term. After that, and the favorable publicity that would result—

He barely skimmed the rest of the report. He estimated that there were at least two thousand cases of prospective wife-beatings listed. Undoubtedly, not all would be stopped in time. Perhaps thirty percent would be consummated. But the incidence was dropping and consummations were dropping even more quickly.

Multivac had only added wife-beating to its list of predictable crimes some five years earlier and the average man was not yet accustomed to the thought that if he planned to wallop his wife, it would be known in advance. As the conviction percolated through society, woman would first suffer fewer bruises and then, eventually, none.

Some husband-beatings were on the list, too, Gulliman noticed.

ALI OTHMAN closed connections and stared at the

screen from which Gulliman's jowled and balding head had departed. Then he looked across at his assistant, Rafe Leemy and said, "What do we do?"

"Don't ask me. *He's* worried about just a lousy murder or two."

"It's an awful chance trying to handle this thing on our own. Still if we tell him, he'll have a first-class fit. These elective politicians have their skins to think of, so he's bound to get in our way and make things worse."

Leemy nodded his head and put a thick lower lip between his teeth. "Trouble is, though, what if we miss out. It would just about be the end of the world, you know."

"If we miss out, who cares what happens to us? We'll just be part of the general catastrophe." Then he said in a more lively manner, "But hell, the probability is only 12.3 percent. On anything else, except maybe murder, we'd let the probabilities rise a bit before taking any action at all. There could still be spontaneous correction."

"I wouldn't count on it," said Leemy, drily.

"I don't intend to. I was just pointing the fact out. Still, at this probability, I suggest we confine ourselves to simple observation for the moment. No one could plan a crime like this alone; there must be accomplices."

"Multivac didn't name any."

"I know. Still—" His voice trailed off.

So they stared at the details of the one crime not included on the list handed out to Gulliman; the one crime much worse than first-degree murder; the one crime never before attempted in the history of Multivac; and wondered what to do.

BEN MANNERS considered himself the happiest sixteen-year-old in Baltimore. This was, perhaps, doubtful. But he was certainly one of the happiest, and one of the most excited.

At least, he was one of the handful admitted to the galleries of the stadium during the swearing in of the eighteen-year-olds. His older brother

was going to be sworn in so his parents had applied for spectator's tickets and they had allowed Ben to do so, too. But when Multivac chose among all the applicants, it was Ben that got the ticket.

Two years later, Ben would be sworn in himself, but watching big brother Michael now was the next best thing.

His parents had dressed him (or supervised the dressing, at any rate) with all care, as representative of the family and sent him off with numerous messages for Michael, who had left days earlier from preliminary physical and neurological examinations.

The stadium was on the outskirts of town and Ben, just bursting with self-importance, was shown to his seat. Below him, now, were rows upon rows of hundreds upon hundreds of eighteen-year-olds (boys to the right, girls to the left,) all from the second district of Baltimore. At various times in the year, similar meetings were going on all over the world, but this was Baltimore, this was the important one. Down there (somewhere) was

Mike, Ben's own brother.

Ben scanned the tops of heads, thinking somehow he might recognize his brother. He didn't, of course, but then a man came out on the raised platform in front of all the crowd and Ben stopped looking to listen.

The man said, "Good afternoon, swearers and guests. I am Randolph T. Hoch, in charge of the Baltimore ceremonies this year. The swearers have met me several times now during the progress of the physical and neurological portions of this examination. Most of the task is done, but the most important matter is left. The swearer himself, his personality, must go into Multivac's records.

"Each year, this requires some explanation to the young people reaching adulthood. Until now," (he turned to the young people before him and his eyes went no more to the gallery), "you have not been adult; you have not been individuals in the eyes of Multivac, except where you were especially singled out as such by your parents or your government."

"Until now, when the time for the yearly up-dating of information came, it was your parents who filled in the necessary data on you. Now the time has come for you to take over that duty yourself. It is a great honor, a great responsibility. Your parents have told us what schooling you've had, what diseases, what habits; a great many things. But now you must tell us a great deal more; your innermost thoughts; your most secret deeds.

"This is hard to do the first time, embarrassing even, but it *must* be done. Once it is done, Multivac will have a complete analysis of all of you in its files. It will understand your actions and reactions. It will even be able to guess with fair accuracy at your future actions and reactions.

"In this way, Multivac will protect you. If you are in danger of accident, it will know. If someone plans harm to you, it will know. If *you* plan harm, it will know and you will be stopped in time so that it will not be necessary to punish you.

"With its knowledge of all of you, Multivac will be able to help Earth adjust its economy and its laws for the good of all. If you have a personal problem, you may come to Multivac with it and with its knowledge of all of you, Multivac will be able to help you.

"Now you will have many forms to fill out. Think carefully and answer all questions as accurately as you can. Do not hold back through shame or caution. No one will ever know your answers except Multivac unless it becomes necessary to learn the answers in order to protect you. And then only authorized officials of the Government will know.

"It may occur to you to stretch the truth a bit here or there. Don't do this. We will find out if you do. All your answers put together form a pattern. If some answers are false, they will not fit the pattern and Multivac will discover them. If all your answers are false, there will be a distorted pattern of a type that Multivac will recognize. So you must tell the truth."

Eventually, it was all over,

however; the form-filling; the ceremonies and speeches that followed. In the evening, Ben, standing tip-toe, finally spotted Michael who was still carrying the robes he had worn in the "parade of the adults". They greeted one another with jubilation.

They shared a light supper and took the Expressway home, alive and alight with the greatness of the day.

They were not prepared, then, for the sudden transition of the home-coming. It was a numbing shock to both of them to be stopped by a cold-faced young man in uniform outside their own front door; to have their papers inspected before they could enter their own home; to find their own parents sitting forlornly in the living room, the mark of tragedy on their faces.

Joseph Manners, looking much older than he had that morning, looked out of his puzzled, deep-sunken eyes at his sons (one with the robes of new adulthood *still* over his arm) and said, "I seem to be under house arrest."

BERNARD GULLIMAN could not and did not read the entire report. He read only the summary and that was most gratifying, indeed.

A whole generation, it seemed, had grown up accustomed to the fact that Multivac could predict the commission of major crimes. They learned that Corrections agents would be on the scene before the crime could be committed. They found out that consummation of the crime led to inevitable punishment. Gradually, they were convinced that there was no way anyone could outsmart Multivac.

The result was, naturally, that even the intention of crime fell off. And as such intentions fell off and as Multivac's capacity was enlarged, minor crimes could be added to the list it would predict each morning, and these crimes, too, were now shrinking in incidence.

So Gulliman had ordered an analysis made (by Multivac naturally) of Multivac's capacity to turn its attention to the problem of predicting probabilities of disease incidence.

Doctors might soon be alerted to individual patients who might grow diabetic in the course of the next year, or suffer an attack of tuberculosis or grow a cancer.

An ounce of prevention—

And the report was a favorable one!

After that, the roster of the day's possible crimes arrived and there was not a first-degree murder on the list.

Gulliman put in an intercom call to Ali Othman in high good humor. "Othman, how do the numbers of crimes in the daily lists of the past week average compared with those in my first week as Chairman."

It had gone down, it turned out, by 8 percent and Gulliman was happy indeed. No fault of his own, of course, but the electorate would not know that. He blessed his luck that he had come in at the right time, at the very climax of Multivac, when disease, too, could be placed under its all-embracing and protecting knowledge.

Gulliman would prosper by this.

Othman shrugged his shoulders. "Well, he's happy."

"When do we break the bubble," said Leemy. "Putting Manners under observation just raised the probabilities and house arrest gave it another boost."

"Don't I know it?" said Othman, peevishly. "What I don't know is why."

"Accomplices, maybe, like you said. With Manners in trouble, the rest have to strike at once or be lost."

"Just the other way around. With our hand on one, the rest would scatter for safety and disappear. Besides, why aren't the accomplices named by Multivac?"

"Well, then, do we tell Gulliman?"

"No, not yet. The probability is still only 17.3 percent. Let's get a bit more drastic first."

ELIZABETH MANNERS said to her younger son, "You go to your room, Ben."

"But what's it all about, Mom?" asked Ben, voice breaking at this strange ending to what had been a glorious day.

"Please!"

He left reluctantly, passing through the door to the stairway, walking up it noisily and down again quietly.

And Mike Manners, the older son, the new-minted adult and the hope of the family, said in a voice and tone that mirrored his brother's, "What's it all about?"

Joe Manners said, "As heaven is my witness, son, I don't know. I haven't done anything."

"Well, sure you haven't done anything." Mike looked at his small-boned, mild-mannered father in wonder. "They must be here because you're *thinking* of doing something."

"I'm not."

Mrs. Manners broke in angrily, "How can he be thinking of doing something worth all—all this." She cast her arm about, in a gesture toward the enclosing shell of government men about the house. "When I was a little girl, I remember the father of a friend of mine was working in a bank, and they once called him up and said to leave the money alone and he did. It was fifty thousand dollars. He hadn't really

taken it. He was just thinking about taking it. They didn't keep those things as quiet in those days as they do now; the story got out. That's how I know about it.

"But I mean," she went on, rubbing her plump hands slowly together. "That was fifty thousand dollars; fifty—thousand—dollars. Yet all they did was call him; one phone call. What could your father be planning that would make it worth having a dozen men come down and close off the house?"

Joe Manners said, eyes filled with pain, "I am planning no crime, not even the smallest. I swear it."

Mike, filled with the conscious wisdom of a new adult, said, "Maybe its something subconscious, Pop. Some resentment against your supervisor."

"So that I would want to kill him? No!"

"Won't they tell you what it is, Pop?"

His mother interrupted again, "No, they won't. We've asked. I said they were ruining our standing in the communi-

ty just being here. The least they could do is tell us what it's all about so we could fight it, so we could explain."

"And they wouldn't?"

"They wouldn't."

Mike stood with his legs spread apart and his hands deep in his pockets. He said, troubled, "Gee, Mom, Multivac doesn't make mistakes."

His father pounded his fist helplessly on the arm of the sofa. "I tell you I'm not planning any crime."

The door opened without a knock and a man in uniform walked in with sharp, self-possessed stride. His face had a glazed, official appearance. He said, "Are you Joseph Manners?"

Joe Manners rose to his feet. "Yes. Now what is it you want of me?"

"Joseph Manners, I place you under arrest by order of the government," and curtly he showed his identification as a Corrections officer. "I must ask you to come with me."

"For what reason? What have I done?"

"But I can't be arrested just for planning a crime even if I were doing that. To be arrest-

ed I must actually have *done* something. You can't arrest me otherwise. It's against the law."

The officer was impervious to that. "You will have to come with me."

Mrs. Manners shrieked and fell her length on the couch, weeping hysterically. Joseph Manners could not bring himself to violate the code drilled into him all his life by actually resisting an officer, but he hung back at least, forcing the Corrections officer to use muscular power in dragging him forwards.

And Manners called out as he went, "But tell me what it is. Just tell me. If I *knew*— Is it murder? Am I suppose to be planning murder?"

The door closed behind him and Mike Manners, white-faced and suddenly feeling not the least bit adult, stared first at the door, then at his weeping mother.

Ben Manners, behind the door and suddenly feeling quite adult, pressed his lips tightly together and thought he knew exactly what to do.

If Multivac took away, Mul-

tivac could also give. Ben had been at the ceremonies that very day. He had heard this man, Randolph Hoch, speak of Multivac and all that Multivac could do. It could direct the government and it could also unbend and help out some plain person who came to it for help.

Anyone could ask help of Multivac and anyone meant Ben. Neither his mother nor Mike were in any condition to stop him now, and he had some money left of the amount they had given him for his great outing that day. If afterward they found him gone and worried about it, that couldn't be helped. Right now, his first loyalty was to his father.

He ran out the back way and the officer at the door cast a glance at his papers and let him go.

HAROLD QUIMBY handled the complaints department of the Baltimore substation of Multivac. He considered himself to be a member of that branch of the civil service that was most impor-

tant of all. In some ways, he may have been right and those who heard him discuss the matter would have had to be made of iron not to feel impressed.

For one thing, Quimby would say, Multivac was essentially an invader of privacy. In the past fifty years, mankind had had to acknowledge that its thoughts and impulses were no longer secret, that it owned no inner recess where anything could be hidden. And mankind had to have something in return.

Of course, it got prosperity, peace and safety, but that was abstract. Each man and woman needed something personal as his or her own reward for surrendering privacy and each one got it. Within reach of every human being was a Multivac station with circuits into which he could freely enter his own problems and questions without control or hindrance, and from which, in a matter of minutes, he could receive answers.

At any given moment, five million individual circuits among the quadrillion or more within Multivac might be involved in this question-and-an-

swer program. The answers might not always be certain, but they were the best available and every questioner *knew* the answer to be the best available and had faith in it. That was what counted.

And now an anxious sixteen-year-old had moved slowly up the waiting line of men and women (each face in that line illuminated by a different mixture of hope with fear or anxiety or even anguish—always with hope predominating as they stepped nearer and nearer to Multivac).

Without looking up, Quimby took the filled-out form being handed him and said, "Booth 5-B."

Ben said, "How do I ask the question, sir?"

Quimby looked up then, with a bit of surprise. Pre-adults did not generally make use of the service. He said, kindly, "Have you ever done this before, son?"

"No, sir."

Quimby pointed to the model on his desk. "You use this. You see how it works? Just like a typewriter. Don't you try to write or print anything by hand. Just use the

machine. Now you take booth 5B and if you need help, just press the red button and someone will come. Down that aisle, son, on the right."

He watched the youngster go down the aisle and out of view and smiled. No one was ever turned away from Multivac. Of course, there was always a certain percentage of trivia; people who asked personal questions about their neighbors or obscene questions about prominent personalities; college youths trying to out-guess their professors or thinking it clever to stump Multivac by asking it Russell's class-of-all-classes paradox and so on.

Multivac could take care of all that. It needed no help.

Besides, each question and answer was filed and formed but another item in the fact assembly for each individual. Even the most trivial question and the most impertinent, insofar as it reflected the personality of the questioner, helped humanity by helping Multivac know about humanity.

Quimby turned his attention to the next person in line, a

middle-aged woman, gaunt and angular, with the look of trouble in her eye.

ALI OTHMAN strode the length of his office, his heels thumping desperately on the carpet. "The probability still goes up. It's 22.4 percent now. Damnation! We have Joseph Manners under actual arrest and it still goes up." He was perspiring freely.

Leemy turned away from the telephone. "No confession yet. He's under psychic probing and there is no sign of crime. He may be telling the truth."

Othman said, "Is Multivac crazy then?"

Another phone sprang to life. Othman closed connections quickly, glad of the interruption. A Corrections officer's face came to life in the screen. The officer said, "Sir, are there any new directions as to Manners' family? Are they to be allowed to come and go as they have been?"

"What do you mean, as they have been?"

"The original instructions were for the house arrest of

Joseph Manners. Nothing was said of the rest of the family, sir."

"Well, extend it to the rest of the family until you are informed otherwise."

"Sir, that is the point. The mother and older son are demanding information about the younger son. The younger son is gone and they claim he is in custody and wish to go to headquarters to inquire about it."

Othman frowned and said in almost a whisper, "Younger son? How young?"

"Sixteen, sir," said the officer.

"Sixteen and he's gone. Don't you know where?"

"He was allowed to leave, sir. There were no orders to hold him."

"Hold the line. Don't move." Othman put the line into suspension then clutched at his coal-black hair with both hands and shrieked, "Fool! Fool! Fool!"

Leemy was startled. "What the hell?"

"The man has a sixteen-year-old-son," choked out Othman. "A sixteen-year-old is not an adult and he is not filed

independently in Multivac, but only as part of his father's file." He glared at Leemy. "Doesn't everyone know that until eighteen a youngster does not file his own reports with Multivac, but that his father does it for him? Don't I know it? Don't you?"

"You mean Multivac didn't mean Joe Manners?" said Leemy.

"Multivac meant his minor son, and the youngster is gone, now. With officers three deep around the house, he calmly walks out and goes on you know what errand."

He whirled to the telephone circuit to which the Corrections officer still clung, the minute break having given Othman just time enough to collect himself and to seem cool and self-possessed. (It would never have done to throw a fit before the eyes of the officer, however much good it did in purging his spleen.)

He said, "Officer, locate the younger son who has disappeared. Take every man you have, if necessary. Take every man available in the district, if necessary. I shall give the

appropriate orders. You must find that boy at all costs."

"Yes, sir."

Connection was broken. Othman said, "Have another rundown on the probabilities, Leemy."

Five minutes later, Leemy said, "It's down to 19.6 per cent. It's *down*."

Othman drew a long breath. "We're on the right track at last."

BEN MANNERS sat in Booth 5B and punched out slowly, "My name is Benjamin Manners, number MB-71833412. My father, Joseph Manners, has been arrested but we don't know what crime he is planning. Is there any way we can help him?"

He sat and waited. He might be only sixteen, but he was old enough to know that somewhere those words were whirled into the most complex structure ever conceived by man; that a trillion facts would blend and co-ordinate into a whole and that from that whole, Multivac would abstract the best help.

The machine clicked and a

card emerged. It had an answer. It began, "Take the expressway to Washington, D. C. at once. Get off at the Connecticut Street stop. You will find a special exit, labelled "Multivac" with a guard. Inform the guard you are a special courier for Doctor Trumbull and he will let you enter.

"You will be in a corridor. Proceed along it till you reach a small door labelled 'Interior'. Enter and say to the men inside 'Message for Doctor Trumbull.' You will be allowed to pass. Proceed on—"

It went on in this fashion. Ben could not see the application to his question, but he had complete faith in Multivac. He left at a run, heading for the expressway to Washington.

The Corrections officers traced Ben Manners to the Baltimore station an hour after he had left. A shocked Harold Quimby found himself flabbergasted at the number and importance of the men who had focussed on him in the search for a sixteen-year-old.

"Yes, a boy," he said, "but I don't know where he went to after he was through here. I

had no way of knowing that anyone was looking for him. We accept all comers here. Yes, I can get the record of the question and answer."

They looked at the record and televised it to Central Headquarters at once.

Othman read it through, turned up his eyes, and collapsed. They brought him to almost at once. He said to Leemy, weakly, "Have them catch that boy. And have a copy of Multivac's answer made out for me. There's no way anymore, no way out. I must see Gulliman now."

BERNARD GULLIMAN had never seen Ali Othman as much as perturbed before, and watching the Co-ordinator's wild eyes now sent a trickle of ice water down his spine.

He stammered, "What do you mean, Othman? What do you mean worse than murder?"

"Much worse than just murder."

Gulliman was quite pale. "Do you mean assassination of a high government official." (It did cross his mind that he himself—).

Othman nodded. "Not just a government official. *The* government official."

"The *Secretary-General*?" said Gulliman in an appalled whisper.

"More than that, even. Much more. We deal with a plan to assassinate Multivac!"

"WHAT!"

"For the first time in the history of Multivac, the computer came up with the report that it itself was in danger."

"Why was I not at once informed?"

Othman half-truthed out of it. "The matter was so unprecedented, sir, that we explored the situation first before daring to put it on official record."

"But Multivac has been saved, of course? It's been saved?"

"The probabilities of harm have declined to under 4 percent. I am waiting for the report now."

"MESSAGE for Doctor Trumbull" said Ben Manners to the man on the high stool, working carefully on what looked like the con-

trols of a stratojet cruiser, enormously magnified.

"Sure, Jim," said the man. "Go ahead."

Ben looked at his instructions and hurried on. Eventually, he would find a tiny control lever which was to shift to a DOWN position at a moment when a certain indicator spot would light up red.

He heard an agitated voice behind him, then another, and suddenly, two men had him by his elbows. His feet were lifted off the floor.

One man said, "Come with us, boy."

ALI OTHMAN'S face did not noticeably lighten at the news, even though Gulliman said with great relief, "If we have the boy, then Multivac is safe."

Gulliman put a trembling hand to his forehead. "What a half hour I've had? Can you imagine what the destruction of Multivac for even a short time would mean. The government would have collapsed; the economy broken down. It would have meant devastation worse—" His head snapped up,

"What do you mean *for the moment*."

"The boy, this Ben Manners, had no intention of doing harm. He and his family must be released and compensation for false imprisonment given them. He was only following Multivac's instructions in order to help his father and it's done that. His father is free now."

"Do you mean Multivac ordered the boy to pull a lever under circumstances that would burn out enough circuits to require a month's repair work? You mean Multivac would suggest its own destruction for the comfort of one man?"

"It's worse than that, sir. Multivac not only gave those instructions but selected the Manners family in the first place because Ben Manners looked exactly like one of Dr. Trumbull's pages so that he could get into Multivac without being stopped."

"What do you mean the family was selected?"

"Well, the boy would have never gone to ask the question if his father had not been ar-

rested. His father would never have been arrested if Multivac had not blamed him for planning the destruction of Multivac. Multivac's own action started the chain of events that almost led to Multivac's destruction."

"But there's no sense to that," Gulliman said in a pleading voice. He felt small and helpless and he was virtually on his knees, begging this Othman, this man who had spent nearly a lifetime with Multivac, to reassure him.

Othman did not do so. He said, "This is Multivac's first attempt along this line as far as I know. In some ways, it planned well. It chose the right family. It carefully did not distinguish between father and son to send us off the track. It was still an amateur at the game, though. It could not overcome its own instructions that led it to report the probability of its own destruction as increasing with every step we took down the wrong road. It could not avoid recording the answer it gave the youngsters. With further practice, it

will probably learn deceit. It will learn to hide certain facts, fail to record certain others. From now on, every instruction it gives may have the seeds in it of its own destruction. We will never know. And however careful we are, eventually Multivac will succeed. I think, Mr. Gulliman, you will be the last Chairman of this organization."

Gulliman pounded his desk in fury. "But why, why, why? Damn you, why? What is wrong with it? Can't it be fixed?"

"I don't think so," said Othman, in soft despair. "I've never thought about this before. I've never had occasion to until this happened, but now that I think of it, it seems to me we have reached the end of the road because Multivac is too good. Multivac has grown so complicated, its reactions are no longer those of a machine, but those of a living thing?"

"You're mad, but even so?"

"For fifty years and more we have been loading humanity's troubles on Multivac, on this

living thing. We've asked it to care for us, all together and each individually. We've asked it to take all our secrets into itself; we've asked it to absorb our evil and guard us against it. Each of us brings his troubles to it, adding his bit to the burden. Now we are planning to load the burden of human disease on Multivac, too."

Othman paused a moment, then burst out, "Mr. Gulliman, Multivac bears all the troubles of the world on its shoulders and it is tired."

"Madness. M i d s u m m e r madness," muttered Gulliman.

"Then let me show you something. Let me put it to the test. May I have permission to use the Multivac circuit line here in your office."

"Why?"

"To ask it a question no one has ever asked Multivac before?"

"Will you do it harm?" asked Gulliman in quick alarm.

"No. But it will tell us what we want to know."

The Chairman hesitated a trifle. Then he said, "Go ahead."

Othman used the instrument on Gulliman's desk. His fingers punched out the question with deft strokes: "Multivac, what do you yourself want more than anything else?"

The moment between question and answer lengthened un-

bearably, but neither Othman nor Gulliman breathed.

And there was a clicking and a card popped out. It was a small card. On it, in precise letters, was the answer:

"I want to die."

THE END

DATED METEORS

Some of the meteorites that have bombarded the earth are thought to have been created some 300,000,000 years ago in a spectacular planetary collision.

A theory put forth by Dr. S.F. Singer of the University of Maryland suggests that the same planetary collision was responsible for four visible asteroids whirling through the solar system on eccentric orbits.

A slim possibility exists, said Dr. Singer, that one of these asteroids—Apollo, Adonis, H e r m e s, Icarus—may someday crash into the earth or one of the other planets. The mile-wide asteroids would carry the impact of 100,000

hydrogen bombs. He added that this occurrence is "unlikely" during the next 200,000,000 years.

The M a r y l a n d physicist traced back the age of six meteorites found on earth by measuring their content of a helium isotope. The studies showed an age of 300,000,000 years for the meteorites.

The studies also tended to place in time a collision generally believed by scientists to have taken place between two planetoids in orbits near Mars and Jupiter. The collision broke up the planetoids into smaller bodies, the asteroids, fragments of which fall to earth in the form of meteorites.

ALL-PURPOSE ROBOT

by JAY WALLACE

illustrated by ORBAN

The perfect household robot will be designed to take over all the work of the home, including everything a husband might do—and by that we mean *everything!*

HE felt himself being lifted into the crate, and it was the first feeling he was aware of. He knew at that moment, what he was, being conditioned to know this much, and not much more, until the wires that ran to his brain-box were to be connected. He blinked his new eyes, and found that he could see; and he knew that he could hear; and he felt the tingle of bright elation race through him. He was alive. Only steel, and tin, and plastic, but he knew he was alive; and he sensed that later on, he would be living deeper, and fuller, and more satisfyingly. He closed his eyes, and let

them pack him in his crate.

He knew, by the change of the surrounding sounds, when he had reached his destination. Then he felt them unpacking his crate, and he trembled inside himself, with eager anticipation. The bright light hurt his eyes, as the front of the crate was pulled away, and he closed them.

"There. Nice piece of workmanship," said a masculine voice. "He looks okay, doesn't he, Lila?"

"He looks just like you, dear, just exactly," the woman replied.

"Well, I thought he ought to look like me," said the man.



"He'll be working around the garden, and taking my place here and there, when I'm too tired to be doing some of those things. I don't want the neighbors to think we've got a strange man around the place. Say, maybe he can even take you to some of those damn boring parties your friends give, once in a while...too often..."

"You've got big plans for him, haven't you?" the woman asked.

"Darling, help me get this stuff out of his way," the man said.

"Oh Harvey!" the woman cried. "You're the laziest man!"

"I'm tired, honey," he replied, in a hurt tone, and he sounded tired; in fact, he sounded exhausted.

"What's his name, dear?" the woman asked. "Is it Harvey, too?"

While they were searching the crate to find his name, the robot opened his eyes, and then he saw her. She was the most beautiful thing he could ever have imagined. He had never seen a woman before, and he

stared at her. She was smaller than the man, and slim, and delicate. The only humans that he had ever seen were the factory workers, and they were handsome, in their own way, but here was a creature of pure perfection. The robot continued to stare at her, and couldn't take his eyes away. She had long, golden hair, and her lips were very red, and her eyes were very blue, and those very blue eyes were now looking right at him. It was clearly a case of love-at-first-robot-sight.

"His name is XW-22V," the man replied, picking up a tag, and glancing at it.

"That's not a name," the woman replied. "I'm going to call him Harvey-Junior."

The man glanced at her quickly. "Why the Junior part?" he asked.

The woman gave him an icy stare, and said: "At the rate you're going, this is the only way we'll ever have one."

The man continued unpacking the crate, and replied: "Aw, you expect too much."

"You should have remained a bachelor, then you wouldn't

have any duties at all, along those lines," the woman said; her voice held a tinge of bitterness.

The man did not reply, but went on unpacking, and soon, XW-22V stood, naked and unpacked in the middle of the tidy living room. The man and woman looked him over critically, making remarks about him, that were of a rather personal nature, but XW-22V did not seem to mind.

The woman's eyes traveled over him caressingly. "He's nice," she said. "I think they did a better job on him than the Creator did on you."

"He was made exactly to my personal specifications," the man replied, laughing gently. "If you see anything about him that you particularly like, I have it too."

"Amazing," the woman replied. "I wouldn't have believed it."

THE man smiled good naturedly, then he said: "Let's start him up, Lila. I'll make the adjustments. The brain-box is supposed to be located in his back. Shall I ad-

just him to your frequency first, or to mine?"

"Yours first," the woman replied. "I'm not sure how to make him do things."

"Simple," the man replied. "Come around to the back of him, and I'll show you how it's done."

XW-22V saw them move around behind him, and felt them touching his back. He sensed that there was a very important part of him back there; a part that he couldn't see or touch, but that it was as important to him, as a heart or a brain.

And then, he felt the first impact of full-life; the touch of his master; the sharing of a human's mind, desire, power and identity. The man had turned him on, and was controlling him, telepathically, and he was indirectly, sharing the man's feelings, desires, and thoughts.

He felt a glow, and a tingle, and then, these subsided, and he felt a strange new heaviness, and an inability to exert himself, physically. He was tired. And then, quite suddenly, he was conscious of his na-

kedness. He put up both hands, pathetically, and tried to cover himself.

The woman laughed, and flushed. "He's coming to life, Harvey," she said. "I'll get him a pair of your pants."

"He's supposed to be like me," the man replied. "I didn't know that I was such a modest fellow, especially in front of my wife."

"Hasn't he any individuality, at all?" the woman asked, sympathetically, handing a pair of new work pants to her husband. (The pants had been bought many weeks ago, for working around the garden, but he had never worn them, mainly because he had never worked in the garden.)

"The only individuality he could have is what I give him, by adjusting the controls in the brain-box," the man replied, passing the pants on to the hands of the robot.

"Then why don't you give him some?" the woman asked. "What earthly good will he be around here, if he's going to act exactly like you? I want him to mow the plast-o-lawn, and weed the vegi-plants, and

help me with the house-clearing. If he's going to lie around in the swing-sack, and drink fizz-sips all day long, like you do..."

"Okay! Okay!" the man cried, smiling sheepishly. "I'll fix him so that he has more individuality. He won't be so much like me, then. I'll let him have more drive, more pep, more..."

"I certainly hope so," the woman said, sighing.

XW-22V was hopping around on one foot, trying to get into his new pants, and shield himself from the gaze of the woman's rather curious eyes, when the man came over to him, and began to make new connections inside of his little brain-box. "Stand still," commanded the man, and the robot stopped dancing on one foot, and straightened. The pants slid pathetically floorward, and folded in a feeble little pool around his feet. The man made a few adjustments. Suddenly, XW-22V felt a flash of inner life, that was the strongest thing that he had ever known. He found himself, and held this naked, raw iden-

tity within a mental grip. He knew he was himself, and vivid things began to grow within his robot brain. Emotion flashed against his selfness; and he knew fear, and pride, and hate, and love. And suddenly, he knew that he could laugh as well as cry.

He moved his head, and drew in his breath sharply, and tried to take a step forward toward the woman. He wanted to reach her; to touch her; to tell her how he felt. The drag of the plasti-cloth against his ankles made him glance down. When he saw himself, pink and nude, he let out a howl, and dashed out of the room, pulling his new pants around him as he ran. He heard their uncontrollable laughter follow him, as he scampered away down the hall.

Then, he felt something else, stronger, greater than himself, mightier than the feeling of being himself; the hard, mental grip that told him what and where and when, and this far, but no farther; his master's brain-control. He stood in a corner, and brooded, hearing the laughter fade away, and

low conversation take its place. Then he felt the pull, the mental call, that his master was sending out for him. He sighed, and returned to the room where the man and woman were waiting.

"Okay now, Harvey-Junior," the man said, when he saw him. "I want you to help Lila with the house-cleaning. And as for me... Hahahahaha... I'm off for the swing-sack, and a nice cool fizz-sip, or maybe even two..."

"Or maybe even three," the woman added, smiling cynically.

"Why yes, maybe even three..." the man replied, walking out the door.

"Oh well, come on, Junior. We don't care, do we?" she asked.

"No Ma'm," Junior replied, using his voice for the first time.

He jumped, and the woman jumped, and then they laughed together. He felt his first laughter shaking his body, and he liked the feel of it.

"I forgot that you could speak," the woman said. "You surprised me. I guess you sur-

prised yourself too, didn't you. Tell me, are you actually thinking, Junior?"

He felt himself smiling, and he liked that feeling too; it made him sort of glow inside, with a nice, cozy warmth. "Oh yes," he replied. "I'm thinking wonderful things."

The woman stood there, looking at him. "You are like Harvey," she said, softly. "You're like he was when we were first... Oh well, you wouldn't be interested in that, anyway."

"Oh yes, I would," he replied, sympathetically, moving closer to her. "I'm interested in everything you say."

"Really?" she exclaimed, her blue eyes sparkling. "Well, let's sit down over here and talk. The house-clearing can wait awhile."

THEY sat down on the swirl-whirl, and he found that he was closer to her than he had been before; he looked into her eyes, that were like blue depths to him. He reached over and took her hand. Their lips drew closer. Lila parted her lips, and closed her eyes. But then, XW-22V felt the

pull; the band of iron-will, that was his master's control. This far, and no farther. He drew back, and let go of her hand, sighing deeply.

The days drifted by, with Harvey spending more time in the swing-sack with his fizz-sips, and Lila spending more time with Junior. They were becoming very good friends; practically inseparable, except after ten P.M., which was the time that Harvey insisted on going to bed, and dragging Lila with him.

Sometimes, at night, Junior would find himself lying on his bed, brooding. While he didn't actually sleep like a human being, he liked to lie on the bed Lila had placed in his room, and think. But lately, his thoughts had become more and more bitter with a deep frustration, that he couldn't identify. He thought about Lila every moment of the day and night, and since he did not sleep, this meant every moment.

At times, he wished desperately that he could have reached his brainbox, and turned himself off, temporarily; at least, until morning,

when he could see her again. But he knew that his brain-box was completely out of his reach, and had been placed there purposely, so that he couldn't turn himself off, whenever he felt like it. He was one of Harvey's possessions, and that was that. And he wasn't supposed to be dreaming about making love to Harvey's wife. He was a machine.

One night, when the frustration beat against his mind, like a restless sea, he had tiptoed down the hall to the door of their bedroom. He had just stood there, listening. He had heard the rhythmic sound of Harvey's snoring, and another rhythmic sound, that of soft sobbing. The sting of hot, blinding tears filled his eyes, as he crept quietly back to his own bedroom.

THE day that Harvey had to go to the meeting of the Citizens Committee, he arose earlier than usual, and this made him very glum. He dressed himself in the clean clothes that Lila had put out for him, and ambled into the

kitchen. Lila and Junior were there, preparing breakfast.

They were in the midst of a new recipe for flap-fritters, and Junior had just spilled the wheat-germ-flour all over the front of the frilly pink apron that he was wearing; and Lila was laughing, and dusting him off. Harvey entered, silent and morose. She stopped laughing suddenly, as though she had been turned off, and just stood there, with the dust-sponge raised in her hand.

Junior's smile swept off his face, as if a broom had passed over it. "Oh, good morning, sir," he said.

Harvey slumped down at the table, without looking at them directly. "Coffee," he said, in a wooden voice.

"Why, of course, darling," Lila cooed, and rushed to the scatter-platter to get him a cup.

Junior had the same idea, at the same moment, and they bumped into each other, and some of the flour came off on Lila. They snickered audibly, and tried to bite off the sound, like a couple of kids caught stealing cookies.

"Black," Harvey intoned, ignoring them. "And hot."

"Yes, darling of course," Lila said, pouring it out, and setting it in front of him. "Toast, darling? Or eggs? Or some fish-delish?"

"No, thanks," he replied, sullenly. "I have to get to that damn meeting. Why can't they hold those things at a decent hour. Do you two always get up this early?" he asked, looking up at them for the first time.

"Oh, yessir," Junior replied.

Lila gave the robot a look that was part pride, part adoration, and part something she shouldn't have had in her look. "He's always the first one up," she said softly; her voice caressed him. "He makes the coffee, and cleans the kitchen, and does everything before I am even out of bed. Don't you, Junior?"

He replied: "Yes Ma'm," feeling the touch of her eyes upon him. He felt very glowy inside, and warm, and wanted to dance around the kitchen, wildly, and shout.

"Well, he ought to," Harvey

said, sourly. "He doesn't need any sleep. Why shouldn't he do some work around here? That's what he's for."

Lila's eyes flashed dangerously at her husband, and she opened her mouth to speak, but, thinking better of it, she closed it again, and contented herself with a smile at Junior.

Harvey gulped his coffee, and then he said: "I'm going to turn him over to you today, Lila. I don't know how long this damn meeting will take. Maybe one hour, maybe a week. If I can't make the first trans-car out of the city, I'll be away even longer. So I'll adjust him to your brain-length, and let you control him. Think you can do it?"

Lila said: "Huh?" and then she said: "Oh yes, of course," and she tried to look very strong and masterful.

"Come here, Junior," Harvey said. "I'll make the adjustments. Let me see if I remember yours...."

"BWL-F-46-7-00-008" Lila replied, somewhat more eagerly than she intended.

Harvey nodded, and pulled Junior's newly-pressed shirt up over his head. Junior stood

there, feeling rather foolish. He smiled at Lila, and flushed, with the shirt draped over his head, like a hood.

The robot felt the pressure ease suddenly, like the removal of a tight band around his head, and he felt light, and giddy, and delightfully free. He gazed at Lila, and loved her so much, that he thought his plastic heart would burst its narrow confines, and splash at his feet.

"Okay, you're his boss now," Harvey said, looking at Lila. "Keep him busy. Don't let him get..."

"Lazy?" Lila supplied, with an innocent expression.

"Well, you always did say that one lazy man was enough around here," Harvey replied, laughing gently. Then he said: "Damn it! I wish I didn't have to make that trip..."

"Oh, but you do," Lila exclaimed. "It would be terrible if you didn't. The neighbors would think that you weren't very patriotic."

"I wish I could send him in my place," Harvey said, motioning to Junior, "but they'd be sure to find out, and they wouldn't like that. Oh well..."

here I go." He grabbed his chap-cap and put it on at a rakish angle. "Smile-awhile," he said, and walked toward the door. He thought a moment, and turned around, and came back to her; he leaned over and placed a very brief kiss upon her cheek.

"Oh! Thank you!" she cried. "That was delightful!"

HARVEY gave her a glance, and then walked out of the door. After he had gone, Lila and Junior just stood, looking at each other. She moved a little closer to him. "You're all mine today," she said, tenderly. "I can do whatever I want with you today."

Junior felt a strange new feeling rise up in him. He swallowed with difficulty, and replied: "Yes Ma'm."

She moved a little closer, and repeated: "All mine..."

Junior recognized the feeling suddenly. It was the first time he had known it; and it was fear. He edged toward the door. "I have to fix the vegetables," he said.

"What's the matter with you?" she asked, in a hurt

voice. "You act like you're afraid of me."

"I am..." he replied. "I don't know why, but I am. Now that I don't have him anymore to tell me what I should do..."

"And what you shouldn't do..." she added, in a bitter little voice. "Okay. Go fix your stupid old vegi-plants. Go on..." And she turned away, pretending to stir the flap-fritter batter, but not really being able to see it at all, because of the tears.

Junior busied himself in the garden fixing the vegi-plants, and trying to forget about her. He worked hard and fast, and the day sped by, leaping from one instant to the next. When the sun began to draw close to the horizon, he went to the edge of the garden, from force of habit, to wait for her. They had watched the sunset together every evening, since the very first day he had come there.

He waited for her, but she did not appear. When the stars were little silver flashes in the blue space above him, he returned sadly to the house, and

put the garden tools away. Then he went to his little room, and changed his clothes. He put on the red pajamas that Lila had given him, and he lay on his bed, brooding, and feeling a deep hurt inside.

He received her call telepathetically, and he went in search of her. She was standing beside one of her bedroom windows. "It's stuck," she said, when she saw him. "I hate to bother you, but the auto-raiz is broken on this one."

"Oh, I'll get it open," he said. He opened the window, and said: "There." And stood staring at her. He had never seen her dressed like that before, and it fascinated him. He had always been curious about her; and he couldn't take his eyes away.

"Why are you acting like this?" she asked. She moved closer to him, and tried to take his hand, but he pulled away.

"I told you this morning," he replied. "I told you that I was afraid of you, now that I have nothing to control me, no human mind to guide my actions..."

"But you're under my con-

trol," she said, moving closer again.

He shook his head. "I don't feel it," he replied. "I don't have the feeling of power, like I did with him... I feel so... alone... I don't believe that you have any control over me at all. I don't believe that you can make me do anything." He stopped and looked at her; she was smiling at him.

It happened so suddenly, that he wasn't aware of what he had done, until he found himself holding her in his arms, and carrying her toward the bed. Almost against his will, he placed her gently on the bed, and propped himself on one elbow, beside her. He kissed her tenderly, at first, and then with more passion.

"What was it you were saying about my control over you?" she asked, smiling up at him.

"But this is what I want to do," he cried, hoarsely. "If this is your command... But how can it be? How can I tell where my desire ends, and your command begins?"

"Why bother?" she asked,

closing her eyes. "It's all one and the same..."

He held her tighter, and said: "Darling... I've so much to tell you..."

"Talk later," she whispered.

THEY were still floating on their pink cloud, and they didn't hear the door open, or the footsteps across the floor. The first she was conscious of his presence, was when she heard Harvey say: "Oh..."

She opened her eyes, and saw him, and tried to push Junior as far away from her as possible. "Hello Harvey," she said.

Harvey came closer and gazed down at the two of them. "So you've got him around to that now," he said, almost indifferently. "That's good. Keep you occupied, Lila. You've been sitting alone too much lately; brooding and imagining things. You'll feel better, now." He began to peel off his clothes. "It sure is hot," he exclaimed. "I'm going to take a nice cool shower of vibre-foam, and then, me for the swing-sack, and a big, frosty fizz-sip."

Lila gazed at him unbelievably. "You... You're not... mad at me?" she asked; her voice squeaked slightly on the high tones.

He glanced at her, and there was surprise in his mild eyes. "Mad at you?" he asked. "Mad at you, because you're using the machine I bought for the purpose it is intended; namely, to do my work for me? Oh no, my dear. That's what I bought it for, to take some of this work off my shoulders."

Lila's eyes flashed at him. "Work?" she exclaimed. "Work? Well, of all the..."

"Now please don't start an argument on a hot day, Lila,"

he chided. "I just got home, and I'm tired, and I want to rest for awhile. I'm going out to the swing-sack. Please, honey, don't disturb me for a couple of hours, okay?" He looked at her pleadingly. "Okay?" he repeated.

Lila looked at him, and sighed. "Okay," she said. He smiled sweetly at them both, and plodded wearily out of the door.

Lila turned and looked at Junior. "Oh well," she said. "He's a peculiar type. Now, what was it that you were going to tell me, dear? Wait! Kiss me first."

THE END



NUCLEAR NEWS

by STEVEN RORY

Soon the ships of the seven seas will be powered by nuclear reactors and will be able to steam ahead for three years without refueling. Coal will be obsolete

An atomic-powered merchant ship capable of steaming 100,000 miles a year for three and a half years on one change of nuclear fuels will be on the seas by 1960. Work has begun already on the \$42,500,000 ship, which will dwarf the capabilities of conventional ships and herald a new age of atomic seapower.

A joint project of the Atomic Energy Commission and the Maritime Administration, the 21,000-ton vessel will be nearly 600 feet long and startlingly modernistic in design, streamlined and slim, without the conventional smokestack of today's ships.

The heart of the ship's power plant will be a pressurized water-type reactor which will

produce steam to turn two turbines, powering the propeller. The ship will have a speed of twenty knots, about that of a current-style vessel.

Extensive safety features will be built into the ship to prevent radioactivity danger in the event of a power-plant accident or a ship collision. A 210-ton steel lining will house the nuclear reactor. As emergency power supply in event of a breakdown of the atomic power plant, a 750-hp Diesel engine will be carried.

The nuclear fuel would need changing no more often than every three years. With the pilot ship already on the designing-boards, the era of nuclear-powered merchant shipping is only a few years away.

I WANT TO GO HOME

by ROBERT MOORE WILLIAMS

illustrated by ORBAN

Why are we alive on this earth? Does anyone know?
How can anyone be sure we are now where we belong
and that no cosmic mistake has somehow been made?

FOR a moment, the noise in the adjoining room died down enough to allow Calvin Thurber to think clearly. He was not certain this helped. Judging by the contents of the folder in front of him, he was not sure that he wanted to think at all. In the juvenile department of even the most modern police station on earth, some things were beyond human power to change, particularly the power of the police psychologist.

"You go to hell, you dirty-nosed cop!" Thurber heard the kid yell through the thick door that led into the next room.

Smack!

Thurber hurriedly turned his

attention back to the papers in the folder. This file had been sent down to him as soon as the arrest had been made. Since this was a juvenile case, he had by law wide latitude in determining what disposition would be made of it.

"The child spoke at four months. His first words, according to his mother, were, '*I want to go home.*' These words formed a recurring theme through infancy and childhood and formed the basis of nightmares from which, according to his mother, he would awaken screaming in terror. Nor was she able to reassure him in these seizures, since he did not seem at these



times to recognize her as his mother and she seemed to excite as much fear in him as the hidden fantasies of the night."

Thurber gave the social worker who had compiled this report a mental pat on the back. The mother's words must have been pure garbage. The worker who had written up the interviews had managed to turn the mother's unfinished sentences into a clear, coherent narrative. This report had been made after the first arrest, of which there had been several, he noted.

Because both parents had worked, Ralph had been placed in a nursery school. He was unable to make an adequate adjustment there, nor, though placed in special classes, was he able to adjust adequately at any time until his junior year in high school, at which time his many trancies reached culmination and he stopped school and left home.

"His grades in school were not impressive, this in spite of the fact that repeated testing indicated his IQ was very high. His teachers reported that he

regarded these tests as being games and that he had no inkling of their significance. But, despite this opinion, his high IQ made it likely that he did know the importance of the tests and that his treatment of them as games was merely another way of demonstrating his rebellion against authority.

"Ralph's police record began when he was nine—petty theft. Found guilty, he was placed on probation, but efforts of probation officers to maintain control over him were not measurably successful. At the date of this summary, he has had five arrests, two on charges of theft and three on charges of burglary. Oddly, all of the stores he burglarized specialized in the sale of electronic equipment and all of his thefts were for stealing merchandise of this type."

Thurber felt a twitch of rising interest at this item—a juvenile delinquent who specialized in burglarizing stores that sold electronic equipment! "What's he trying to do—make a radio set that will contact Mars?" the psychologist wondered.

THINGS were quiet in the next room now, Thurber realized with relief. Although he was an employee of the police department, he had never accepted the brutality that old-time officers occasionally used. The .38 caliber revolver which had been issued to him, he kept carefully hidden in his desk drawer. His eyes went back to the folder.

"Ralph seems to have been a complete individualist at all times. Living in a neighborhood infested with teen-age gangs, he belonged to none."

"A lone wolf," the psychologist thought. Turned criminal, the lone wolf often gave the police enormous difficulty, simply because his habit of working alone left few clues—and no stool pigeons—behind him. On the other hand, going with the culture instead of fighting it, the lone wolf was often the brilliant engineer of the famous scientist, simply because he dared to travel where there were no trails.

A knock sounded on the door. "Just a minute," Thurber called. Hastily scanning the rest of the report, he found

little of significance in it. "All right, come in," he called.

A sergeant brought the boy in. The officer's face was red, and a button was missing from his uniform. He laid the arrest report on Thurber's desk and turned away. Pausing at the door, he said, "If you need any help, I'll be right here."

"Thank you, sergeant. However, I am sure Ralph and I will get along fine."

Glowing, the kid stood beside his desk. Tall and thin, he had a bruise on his right cheek. Thurber guessed that this was probably related to the button missing from the sergeant's uniform.

"Ralph, I'm Calvin Thurber." The psychologist rose and offered his hand. The kid stared at him as if he did not know what was expected. "Oh, come now, you know how to shake hands," Thurber said, jovially.

"Yeah, but I'm not shaking hands with no stinkin' cop!"

Thurber lost none of his geniality. "Really, Ralph, I'm not a cop. I'm a psychologist. My purpose here is to help peo-

ple who are in trouble, especially young men—"

"You lie like all the other cops," the kid answered.

Unruffled, Thurber answered, "I have no way to prove my words to you at present, but if you will give me a fair chance, I will show you that I mean what I say. What have you got to lose by playing ball with me? After all, I might mean what I am saying!" The psychologist put sincerity into his voice, and meant it. "Just sit down for a few minutes while I look over the arrest report. Ah—smoke?"

In Thurber's experience, most juvenile delinquents did smoke. Often they were marijuana addicts.

This one surprised him. "No, thanks. Never touch them." Much of the hostility had gone out of Ralph's voice. He sat down in the chair beside Thurber's desk.

The report was brief. "Apprehended filching electrical switches from a delivery truck. Resisted arrest." The signature of the arresting officer was an illegible scrawl.

More electronic equipment!

A question leaped to the tip of Thurber's tongue. It was the usual question, "Why are you so interested in electrical devices?" He would have asked any man who had been repeatedly charged with pilfering a particular article why the thief was so interested in this one thing. In this way, a compulsion could perhaps be brought to light, which when corrected, might change a thief into an honest man.

To Thurber's surprise another question actually came from his lips. To him, carefully trained in saying exactly what he wanted to say, and no more, this was astonishing. If his right hand had formed a fist and had struck him in the nose, he would not have been more surprised.

"Why do you want to go home?" was the question he actually asked.

THE kid was out of his chair in an instant. His hands were balled into fists and the dazed psychologist's first impression was that Ralph was on the verge of striking him.

"Why do you ask that?"

What do you mean by asking me that? Why—"

"Really, Ralph, I had no intention of asking that question," the startled psychologist answered.

"Then why did you ask it?"

"I don't know. I intended to ask something else." Thurber had to fight to regain his composure. "Of course, I know the source of it. It's right here in the records, the first words you ever spoke—"

Thurber showed him the case history. "Oh, that nosey social worker who kept prying around when I was a kid." Ralph seemed relieved to know the source of the question, but, as if the query had opened up hidden thoughts, he seemed more tense than before. The psychologist, still startled at the reaction, wondered what deep trauma had been brought to the surface by his question. Later, he would desperately wonder why he had ever asked this question in the first place.

"What was there about going home that upset you so much?"

"I'm not upset," Ralph denied. "To prove it, he slid back

into the chair beside Thurber's desk. A film of sweat was visible on his forehead.

"Is there a relationship between wanting to go home and pilfering electronic equipment?" the psychologist asked. He was guessing in the dark and he knew it.

"Nah," the kid said. The sweat appeared more profusely on his forehead. On the arms of the chair, his hands showed signs of tremor.

Thurber wondered how much tremor he would show if he knew that he faced a prison sentence, if found guilty on the present charge, on the grounds that he was a habitual offender? Also since his last offense, Ralph had passed his eighteenth birthday, which in this state changed the legal picture by lifting him out of the category of a juvenile offender. The front office had made a mistake on the age, but was not yet aware of it.

"Why do you want electronic equipment?"

"I like to build things."

"What kind of things?"

"Electronic stuff."

"What kind of electronic

stuff?" Thurber's knowledge in this field was limited but the kid did not know this.

"If you will get my things, I'll show you."

"What things?"

"The stuff they took away from me when they booked me."

Getting what Ralph wanted took some telephoning and some doing. Finally an officer lugged a battered army surplus bag into the psychologist's office, got a receipt from him for it, and left. Thurber lifted the bag to the top of his desk and opened it.

The contents held little interest for him, but to the kid they seemed to open the way to a new life. As the bag opened, Ralph opened up, too. Instantly he became friendly and co-operative. His voice rattled rapidly. His talk was of electrons, ions, and particles smaller than either. Thurber tried hard to look interested, but, so far as he could see, the stuff was so much junk.

"How is this going to help you get home?" he asked, searching again for the trauma that he suspected.

THIS time the question did not make Ralph angry. As if the delivery of his beloved junk had opened deep wells of companionship between them, he was willing to talk. His words were to the point, Thurber thought.

"First, we have to establish where home is," Ralph said.

"Yes," Thurber said.

"It's not here."

"Um."

"It's *there*."

"Ah!" the psychologist said.

"I don't belong here," the kid continued. "As a matter of fact, I doubt if any human belongs here."

"On Earth, you mean, or in a police station?" Thurber queried when the referents for the words were not forthcoming.

"Earth. I don't believe any of us ever belonged here. Oh, we've learned to live here, sort of, and there are a lot of us, but we only appeared here in the first place because some of us got trapped here a long time ago. We've been breeding here while we tried to find our way out. This has gone on so long that most of have even forgotten where home is."

"Oh, yes," Thurber said. "How does it happen that you do know?"

"I always remembered."

"But why do you remember when no one else does?"

"A lot of people do remember, only they're afraid to talk about it." A frown furrowed the kid's face as his fingers paused in their task of assembling pieces of electronic equipment into an organization of some kind. Watching, Thurber had the impression that his fingers had eyes of their own. Incredibly deft, the kid did not seem to have to look to know what he was doing. "I think we're here as a result of a slip-up somewhere?"

"You mean somebody goofed?"

"No, not some body. "There's nothing personal about this. I mean a law slipped somewhere, or a higher law that we don't know about entered the picture and upset the balance. However the explanation goes, it works out that I don't really belong here at all. Not this time anyhow."

THE psychologist kept himself from thinking that this was schizophrenia. He knew it was, of course, all his training told him this. In his mind he was busy finding words for his recommendation to the judge. "Suggest hospitalization—" He felt regret as he found the words he wanted. In spite of the record, he liked this kid, and didn't want him in an institution. He knew how grim even the best of them were. He sincerely hoped that some understanding psychiatrist would give Ralph a chance to work with electronics. Judging from what he had seen, the road of recovery lay in that direction.

And yet, somehow, this was not a sick mind. The schizophrenic didn't usually talk in terms of laws in operation, he made the laws into personalities malefically directed at him.

"I've got it!" the kid exclaimed.

"What do you mean?" Thurber asked.

"I've got it assembled the way I want it. I had it all figured out and all I needed were the time-delay switches which

I was swiping when the stupid cops grabbed me!" The kid's nostrils flared and excitement rasped his voice.

Thurber, suddenly wondering if he had some infernal device on his hands, was perturbed. He had always been more than half-way willing to believe that if you put the right combination of transistors, wires condensers, and coils together, anything might happen. He had no sound basis for this belief, which had persisted since he had been a kid himself. With visions of the building blowing up dancing in his mind, he became apprehensive.

"Hold up for a minute there, Ralph!" Thurber's voice was sharp. "What's that thing supposed to do?"

"Take me home!" the kid answered. He pushed a switch. A click sounded. Soundless light flared for a moment. Thurber felt a nameless wave-pulse pass through his body. His hair began to stand on end.

As if puzzled, the kid stared at the assembly. "It ought to work," he muttered.

"Something wrong?" Thurber said, almost maliciously.

Secretly he was vastly relieved that nothing had happened. Or had something happened? His hair was still standing on end.

"Yeah," Ralph said, out of a brown study. His fingers were exploring every instrument on the top of the desk. "I don't understand it. I was sure I had everything right this time."

"You've tried this before?"

"I've tried nothing else since I yapped at Mom the first time that I wanted to go home!" the kid snarled at him. "I was trying to work this out with my first set of building blocks, only nobody knew it."

"Then perhaps it is time you gave this up and began working on practical electronics," Thurber said, firmly. "Go to a school that specializes in this sort of thing, get an education from the ground up..."

Mentally he was puzzling over the exact wording of his recommendation to impress the judge. "Strongly recommend further clemency and parole. Ralph has great natural talent at electronics. He has agreed to enter Polytechnic at the coming term—"

So far Thurber's imagination took him. And no farther. He could imagine influencing the judge and he could fantasy the court agreeing to further parole, but he could not force his imagination to the point of foreseeing this lone wolf entering school of his own free will.

"How closer to the ground can you get than building blocks?" the kid answered, confirming the psychologist's imagination. "What I want to know they don't teach in school. Ah!" Satisfaction suddenly appeared in his voice.

"What happened?"

"It was the tuning that was wrong. The exact frequency is very important. The condensers must have gotten a little damp." The deft fingers worked rapidly. "Now watch!"

Again the switch snapped shut. Again Thurber felt the surge of the nameless electric pulsation through his body. This time it seemed to affect every molecule in his being, perhaps every atom.

"Goodbye," Ralph whispered. "I've got it right this time. *I've got it right!*"

Elation, exultation, the wild tones of joy were in his tones.

Light flared somewhere, a soundless puff of it. Face first, the kid slid down into the chair beside Thurber's desk.

Thurber needed several minutes to realize that he was dead.

EVEN after the body had been removed and a report from an assistant medical examiner had indicated that there was no obvious cause of death and that the determination of the actual cause would have to wait on an autopsy, the dazed psychologist could not believe that the kid was actually dead. True, he had seen the body fall, true he had summoned help, true he had assisted in carrying the body from the room, true he had the report of the assistant ME, true his eyes had seen all of this, and true his ears had heard the sounds, but he still did not believe it. A human being could not be so full of life one instant—and dead the next.

Had there ever been such a person as Ralph Kine? It would be a pleasure to believe

that the kid had never existed, that all that he had seen had been a product of his imagination. In time he might talk himself into believing this, but as for now there was the kid's equipment on his own desk in front of his own eyes.

He reached for the phone, to have the equipment and the battered bag picked up and returned to its proper place, and to retrieve his receipt. This would be needed at the inquest, he told himself.

As he started to pick up the phone, he realized he was lying to himself. What he was trying to do was to remove the evidence so he would not have to continue believing that what he had seen happen had actually taken place. He checked the movement to pick up the phone.

What about this generator that had actually caused the kid's death? Thurber began examining it. He called it a generator in the absence of a better name for it, but what had it actually generated besides a soundless puff of light and a wave form that had seemed to touch every atom in his body?

Thurber had the suspicion that he should call in electronics experts, the best in the field, to examine the device the kid had assembled, on the hypothesis that perhaps information of military importance might be gleaned from it.

"And get myself called a fool?" He decided against his action. Psychologists were not well enough regarded for him to take careless chances with his position.

A gadfly of thought was buzzing in his mind. He knew an idea was seeking expression. He had a hunch that he did not wish to look at this idea and he tried to push it out of his mind. It came again, stronger than ever, and forced its way into his consciousness.

"*I want to go home, too!*" he exclaimed.

THE idea had power in it, such longing as he had never known. Nothing in his life had been as important as this desire to go home. He had the .38 completely out of his desk drawer before he realized what he was doing.

"No!" Dropping the gun, he shoved the drawer shut. Sweat bathed his body. Tremors shook it. Although many of the people he saw professionally had tried to tell him about suicidal impulses, this was his first experience with them.

He left the room, paced to the drinking fountain, smoked a cigarette, and returned to his office much calmer, he thought. As soon as he entered the room, the desire to go home hit him again, stronger than before.

Finding the switch the kid had used, he pushed it.

Again the nameless wave cut through his body. With it came knowledge and ecstasy. The knowledge was that he too, was an alien here. The

kid had been right! All humans were aliens! They belonged somewhere else.

The ecstasy came from the knowledge that he was going *there*, he was going where he belonged, he was going—home!

He did not feel his body fall forward across the generator. Nor did he care. Dying was not important. It was only graduation to the place where he belonged.

The inquest for Thurber was held immediately following the hearing in re Ralph Tine. In both cases, the coroner's jury returned a verdict of "death from causes unknown."

Humans still called it *death*.

THE END



THE TOOL OF CREATION

by J. F. BONE

NOVELETTE

illustrated by EMSH

Philosophy and science don't agree as to how worlds are created. It had to be hard-working spacemen who discovered it the hard way by an actual experience!

DEACON PARSONS sat motionless, half stunned at the speed with which the living section had emptied. The astrogator's eyes flickered from Buenaventura's empty chair to the tense backs of the pilot and co-pilot as they wrestled with the problem of turnover in Cth space. Unlike Adams, the significance of the color change didn't register at once, which was one of the reasons he would never make a Cth space pilot. Not only was his color perception far from sensitive enough,—but he had none of the “feeling”,—the rapport between man and metal that made hyperspace pilotage an art rather than a skill.

The skipper had it to a high degree,—which was one reason why the Old Man had survived better than two subjective decades of hyperjumps. Adams had been through it all,—even through the time when jumps were made without four space navigation techniques that eliminated time-lag. Objectively, he could count several centuries back to his birthdate, although he was still a youngster in his early forties. Like the “Manitowoc” herself, he was a modernized antique—an anachronism that had survived from the remote past of spaceflight.

On the Galactic registry the “Manitowoc” was listed as a



10,000 ton single converter freighter of Terran registry. She was almost as old as her pilot, and nearly as well preserved. As an owner-operated tramp, she had been across the galactic lens half a dozen times, and had made God knew how many short jumps between inhabited worlds of planetary systems. She was a sound ship, slow perhaps, but well-built, one of the old streamlined jobs that operated in middle green Cth at maximum converter output.

A moment ago she had been loafing along at an economical fifty lumes in middle yellow component, halfway through the seven weeks jump between Fanar and Lyrane. A moment ago, the crew, like all hyperspace crews was doing nothing sweating out the dead time. Their duties had ended when the "Manitowoc" had made Cth-shift,—and wouldn't begin again until Breakout some three weeks hence. But that was a moment ago...

DEAD time in a hypership is a period of utter boredom, with the crew sealed and blind behind shields and hull

as the automatics drive the ship on a pre-set course through the Cth continuum. It is worse on a freighter where living space is concentrated in the so-called main cabin,—a bleakly functional, insulated, soundproofed room in the nose of the ship that does extra duty as crew's quarters, galley, control room, and saloon, and is a concrete illustration of the lack of privacy and too close companionship that are the penalties of a spaceman's life.

The curved control board set within the vision screen lining the nose of the ship was locked and lifeless. The screen was blank. Only the rectangular telltale with its rows of gleaming green lights showed that the ship was functioning normally. Despite the incredibly tight shields and the radiation resistant metal of the double hull, there was a distinct yellowish tinge to the main cabin and its equipment. Even the thick, undulating layer of tobacco smoke disappearing into the air regenerator had a yellowish tinge, and the red "No Smoking" sign painted above the hatchway leading aft to the drives glowed orange

in the sickly yellow light.

And with the color, a few of the mind-wrenching distortions of the Cth continuum seeped through the shields, to turn the prosaic control room and the men within it into oddly surrealistic caricatures that wavered and changed in a random pattern. Seated in their shockchairs the crew faced the blank, featureless bulkhead separating the main cabin from the cargo holds. Even though the space was cramped, it was better to face that blank wall than to look at the protean shapes of the instruments and controls. They could play havoc with a normal mind if one looked at them too long. The subtly undulating bulkhead was bad enough.

Captain Derek Adams cast a quick glance at the control panel, scanned the green glowing telltale, and hastily returned his gaze to the blank wall before him. He puffed leisurely at a stubby pipe crusted with the reeking residues of countless refillings, idly watching the beautiful ogive curve formed by the smoke from the charred bowl before

it joined the undulating layer overhead.

Things were never normal in Cth space, he reflected. Like the three men who formed his crew, normally they were passable specimens of *Homo sapiens*, but not... Take Hank Jorgenson for instance. Under normal conditions, the lean copilot was ugly enough with his stubby yellow hair and flat Scandinavian face, but now he was a twisted caricature of humanity, a lopsided asymmetrical oddity that was faintly obscene, as the hyperspatial distortions conspired to make him appear somewhat less than human.

Carlos Buenaventura was worse,—half a man high, a man and a half wide, the Cth phenomena made him appear as though some giant hand had flattened him into the chair in which he sat. He was a reflection in a sideshow mirror.

And last but not least was Deacon Parsons. By some quirk of Cth, the astrogator looked almost angelically beautiful, as though he had absorbed into himself all the good points the others had lost. The classic purity of his

face and body was almost sickening.

Adams grinned. Of course, none of them really resembled their present shapes,—it was just Cth. He wondered how he appeared to his companions. It would be hard to say, since he probably looked different to each of them.

He sighed. Twenty years in hyperspace and he still wasn't used to it. But then no one got used to Cth. There was an inherent strangeness about it that never became familiar, an insanity potential that lay waiting in the ever changing shapes produced by the monochromatic distortions.

Cth was a waking nightmare. Even with the shields it was scarcely bearable,—and in the old days before the shields were developed to their present high efficiency crews frequently went mad. Sometimes their ships plunged out of the Cth continuum into normal space travelling faster than Lume One,—and that was disaster. Space itself ruptured under the impossible strain,—and the ship vanished leaving behind a spatial vortex to mark the spot where it had

translated into a little universe of its own independent of normal and hyperspace alike. Adams grimaced wryly, shrugged, and settled his spinal base more comfortably into the foamite padding of his chair. He was getting morbid.

PARSONS' quiet voice broke the stillness, half musing, half inquiring. "In the beginning," he said quietly, "God created the Heaven and the Earth."

Adams wondered what strange twist the astrogator's thoughts had taken to come up with this. Not that religion was taboo, but it was a subject seldom mentioned aboard a ship in space. There was too much chance it could produce trouble. It did this time.

Buenaventura snorted. The sound hung heavily on the yellow air, echoing with faint reverberations as it struck some odd harmonic that had leaked through the shields.

Jorgenson jerked in his chair as though he had been stuck with a pin. "What brought that up?" he asked curiously.

"I was just thinking aloud," Parsons said. "I'm sorry."

"You should be," Buenaventura said. "Besides, it isn't thinking!"

Adams grinned quietly. Trust Buenaventura to make something of it. He wasn't going to have to do anything to break the silence. Parsons had done that little chore most effectively. And Buenaventura would keep the pot boiling. The man was a catalyst. It was easy to forget Cth with someone like him around.

"I wouldn't go so far as to say that," Jorgenson disagreed. The disagreement in his voice was a conditioned reflex. No one ever agreed with Buenaventura. "Maybe there's something to it. After all, the Creation story is a common denominator on all inhabited worlds. Allowing for cultural variation it's essentially the same wherever you go."

Adams nodded. It was a good point.

"Don't tell me that our choir boy's converted you!" Buenaventura sneered.

"I didn't say that," Jorgenson replied. "But you'll have

to admit that the story appears too frequently to be merely coincidence."

Parsons sat back grinning, enjoying the effect of his conversational bombshell. Adams had the odd feeling that the astrologer had done this deliberately. He didn't know too much about the youngster yet, but from the looks of things Parsons would get along.

"I'll admit nothing," Buenaventura said doggedly. "All primitive peoples must have some explanation of how they and their worlds came to be. It's only natural that they would invent some supernatural being to create them. At their early level they couldn't comprehend a scientific explanation if one were given them. And the superstition is perpetuated from generation to generation until it becomes religion, and develops dogma and ritual. You should know how hard it is for the voice of reason to make headway against things like that!"

"I'll grant that," Parsons said, "But what have your omnipotent scientists *proved* about planetary origins? Is there one theory that will fit the facts?"

Adams' attention sharpened. He was certain now that Parsons had used the Bible quotation as an opening gambit to egg the engineer on. The boy was clever. In time he might turn out to be as obnoxiously essential to ship's morale as the engineer.

"There are at least five workable theories as to how solar systems originated," Buenaventura began.

"And which is the right one?"

Buenaventura sputtered. "It hardly matters," he said. "Any of them are superior to the concept of some anthropomorphic being creating solar systems with a godlike wave of his omnipotent hand."

"For every theory," Parsons went on inexorably, "there is equal proof that it couldn't possibly happen. For every one you can advance, I'll bet that I can refute it."

"Gaseous-Tidal," Buenaventura said.

Parsons laughed. "Why pick an easy one like that? You know that it's based on a near-collision between two stars of

similar mass, with the gravitational or tidal attraction of each drawing out a thin filament of gas from the solar surfaces of the other. And the tearing of that particular one down is easy. How is it that all those near collisions involved F and G type stars better than 95% of the time? You know, and I know that it's almost axiomatic that only these stars possess planetary systems."

"There's still that five percent."

"Sure,—but those systems are damn few compared with the others. Just think of the relatively small number of F and G type suns compared to the others in the galaxy, and then consider the fact that these pitiful few have a practical monopoly on the planetary systems.

"As I remember it some scientists calculated that there was a one in two billion chance of such a stellar near collision occurring in our galaxy, and there's less than two billion F and G suns in the entire lens,—yet there are nearly five hundred planetary systems around those sort of stars,—

—and there may be more that haven't yet been discovered. That's asking for a lot of highly-specialized accidents."

"Heidenbrink," Buenaventura said.

"You picked a harder one this time," Parsons said. "Yet the Spiral Generation Theory fails on the same grounds as the Gaseous-Tidal. There isn't enough random distribution of systems, although I'll admit that his ideas why the other stars don't have planetary systems are rather ingenious."

"Then you'll admit that Heidenbrink is better than that religious guff?"

"Not at all. I merely said that disproving his idea was harder."

ADAMS didn't think much of the conversational trend. Parsons was quitting too easily, and Buenaventura didn't seem to have the usual fire. Something was lacking. Maybe he could stir it up. This argument on planetary origins had possibilities. It had fascinated him for years, and certainly it was worth more than this desultory attack. It could

last perhaps a week if properly nourished. Not that anything would be settled, but for that period of time hyperspace would be forgotten while the contestants searched the ship's remarkably complete micro-film library for more data to throw at each other.

"I hate to butt in," he said insincerely, "but I think that a compromise approach would be more appropriate, possibly a combination of intelligent creation and some phenomena like the Gaseous-Tidal theory could explain how systems were born."

"Can you clarify that, sir?" Parsons asked.

"I believe so," Adams said. "Have any of you men seen a galactarium?"

"There's one at Luna Base," Jorgenson said. "I was there once."

"I've used it," Parsons said. "We spent three months at Luna working with it as part of astrogation training."

Buenaventura shook his head. "I've been close, but I've never bothered. Why look at an imitation when you can see the real thing?"

"You get a perspective from the scale model that you can never get from space unless you go out halfway to Andromeda." Adams said,—and then dropped the subject. "Anyway, that's not the point. You can do things with a galactarium that you can never do with the galaxy. I suppose you've seen the grand finale of a major show when the projectionist reversed the drive and sends the galaxy back in time until it becomes the galactic nucleus?"

"It's impressive," Jorgenson said briefly.

Parsons nodded agreement.

"It's more than that," Adams said. "At one point in time the suns with planetary systems form radial lines from a common center."

"That isn't new," Parsons said, "nor is it news that the intersection of those radial lines hits within a ten light year radius of the Alpha Centra-lis system."

"It's news to me," Buena-ventura said.

"How do you think the boys found that place?" Parsons asked. "The sun is damn near

burned out, and every last planet is full of radiostopes with half lives ranging up in the millions of years. There's no way to spot Alpha Centra-lis as a planetary system by any of the standard methods."

"They certainly picked a non-standard one," Buenaven-tura agreed.

"It paid off," Parsons said. "By tagging the F and G stars along those radial lines and bringing the projection up to date, we've discovered nearly a hundred planetary systems in the past five years,— and it'd have taken us nearly a century by the old method."

"What I'm getting at," Adams interrupted patiently," is the evidence everyone seems to want to ignore. Those radial lines a few billion years in the past seem to indicate that someone or something came from the Centralis system that caused the F and G type suns to form planetary systems. And I'm inclined to believe that it was someone rather than something. It would at least explain a lot of odd questions that keep popping up,—in-cluding the Creation story."

BUENAVENTURA looked up with a speculative light in his eye. "So you think that Centralis was the home of the Gods of Space?"

"If you want to call them that. I like the idea that someone once found a way to create solar systems. There's plenty of questions such a theory would answer."

"There's nothing unusual in this idea," Parsons said, "It's been advanced before."

"I never said there was. I merely like it and think it's logical. It would answer some of the stock puzzlers such as why are 95% of the planetary systems found around F and G type suns; why are there hundreds more apatial vortices in the galaxy than can be accounted for by our lost ships; why are there so few solar systems on the Rim despite the fact that F and G stars are far more numerous there and why all normal life in the galaxy follows the same evolutionary pattern at least up to the reptiles? That's a few, and I can think of more."

"It sounds reasonable," Jorgenson said.

"I only have one objection," Buenaventura interjected. "What force can tear the guts out of a star and scatter it far enough for the material to condense into planets?"

"I don't know, but obviously the Centralians did," Adams said.

"You're as bad as the choir boy," Buenaventura snorted, "but instead of sticking to one God you come up with a whole system full of them. And this despite the fact that there's no proof intelligent life ever existed on Centralis."

"Expeditions can't stay there very long," Adams said. "Those planets are radioactive."

"I think," Parsons said suddenly, "that I'll have to string along with Carlos."

Adams winced. He'd been had! He—not Carlos, had been picked as target for tonight!

It should have aroused his suspicions when Parsons came out with that timeworn quotation, but the hook was well baited. He smiled wryly at the attentive faces of his companions. There was no help for it. He'd just have to take his

medicine like a gentleman. Their faces had taken on a mildly satanic cast, emphasized by the faint orange cast to the yellow light.

Orange!— It should be yellow,—*pure yellow!*...

Orange!

ADAM'S reaction was instantaneous! He spun his shockchair into pilotage position and opened the main switches in one flashing motion almost too fast for the eye to follow!

Jorgenson rotated his chair into position beside the pilot. It was habit that made him do it. For years he had been following Adams' lead, and the ingrained patterns were impossible to break. The exclamation of surprise on his lips died unuttered as his eyes fell on the Cth component indicator with its slowly falling needle. His face became oddly grim. Wordlessly he fell into swift rhythm of the pilot's movement, balancing the trim of the ship as Adams performed the complex maneuver of turnover in Cth space.

Adams acknowledged Jor-

genson's presence with a grateful nod of his head as he lifted his eyes for a moment from the banks of instruments that had suddenly come to life. He spoke, but not to the co-pilot. Words between them weren't necessary. "Carlos," he said in almost a casual tone. "Check the converter."

Buenaventura rose from his chair. "Aye, sir!" the engineer said. His stocky figure disappeared aft through the manway hatch in a flat dive, the metal door thudding into place behind him. He was out of sight almost before the astrogator had time to blink.

Parsons finally found his tongue. "What happened?" he asked.

"Converter output's fallen off! We're dropping through the yellow,—maybe clear out of Cth!" Jorgenson said.

"Oh! Is there anything I can do?"

"Pray!" Adams snapped. "Maybe that'll keep us up here in Cth long enough to kill our speed."

"Engine room to Control," the annunciator announced in Buenaventura's unmistakable voice."

"Go ahead," Adams said, his hands never pausing their delicate manipulation of the controls.

"The converter's okay, but there's an impure fuel slug in the combustion chamber."

"Can you get it out?"

"From a Mark VII?" the annunciator inquired sarcastically. "Are you crazy? I can't even fish it out with the slave without taking the cover plate off and killing the old girl for a couple of hours,—and if I did that we'd drop out of Cth so fast that we'd never know what we hit."

"How about advancing the burning rate?"

"It's on maximum right now. There isn't enough fissionable material to boil it off any faster unless you want an explosion."

"Well, that's that," Adams commented. "We'll just have to hope we're low enough when we hit break out. I suppose those drives of yours can take it?"

"They can take anything you can give them," Buena-ventura said. "And besides I'll sit right here and baby them."

"Good man!"

"Turnovers complete," Jorgenson said.

Adams slammed the main drive throttles to their farthest notch. From deep within the ship a deep hum built up amplitude and frequency to a nerve wracking whine that was felt rather than heard. But other than the sound there was no sign that the mighty power of the main drive was functioning at maximum blast.

IN hyperspace, velocity had no physical effects. There was no acceleration pressure. There was friction of course, so one shifted to a higher component as one approached the terminal velocity for the one one was in. But speed was limited entirely to the capacity of the converter.

The liners and the Navy jobs with their multiple converters working in series could reach the violet, and make perhaps ten thousand lightspeeds, or better than twenty five lightyears a day. Single converter tubs like the "Manitowoc" could barely make a hundred, since their single converter could only take them to about the middle green.

The drive, of course, was capable of more speed than that, but the extra power couldn't be used or they'd turn to a cinder from friction. The converter was the important thing,—a ship's existence in Cth space depended upon it,—and in freighters there were no spares. They were too expensive and bulky to waste cargo space as standbys,—and besides nothing ever went wrong with them. Adams felt like laughing at that last thought.

But no matter how fast a ship could travel in Cth, in normal space all had the same limit, Lume One,—one light-speed. Beyond that rigid limit, one millimicron or a million Lumes added up to the same result. The ship simply vanished, rather unspectacularly considering the forces involved, and left behind a tiny coal sack or spatial vortex to mark its passage.

Fifty Lumes had to be taken off the "Manitowoc" before the failing converter squeezed them out into normal space, and there was only one way to do it, to reverse the axis of the ship and rely upon the stupen-

dous thrust of the drives to slow her down in as short a time as possible. The ship had been reversed, the drives energized, and now there was nothing more to do except to make minor corrections for axial wobble if it developed.

ADAMS turned from the board. Jorgenson could handle it well enough from here, and as soon as the distortion patterns began to get him, Adams could take his relief. He couldn't see the instruments, and was oddly thankful that he could not. It was bad enough to sweat it out in ignorance, but it was worse with knowledge. He took a long glance at Jorgenson sitting stiffly in his chair. There was an odd tenseness to the lean figure. Poor Jorgenson,—he knew what was happening.

"How we doing?" Buena-ventura's anxious voice came over the annunciator.

"With luck we may make it," Jorgenson replied. "At the rate we're falling, we've got three,—maybe four hours left in Cth. The drive's full on, and maybe we can kill enough

speed to get out in one piece. The critical thing will be whether we can take it when we drop into lower Orange. We're still travelling pretty fast for that component."

"I can get a few more dynes out of the converter. She's a little out of tune."

"By all means do it if you can," Adams cut in. "We'll need every minute we can get."

"Aye sir." It was a measure of Buenaventura's state of mind that he didn't protest. Ordinarily he would have complained at least perfunctorily at the extra duty Adams had requested.

"I've had it," Jorgenson said. "Take over." He had lasted ten minutes, which was pretty good for Cth. Adams spun his chair around and checked the instruments. Their speed was dropping satisfactorily. At their present rate of deceleration they'd hit lower orange at a fairly high level but well within the limits of the component, and if they could keep the drives operating at full blast they'd hit the red at about the middle speed level, the infra red in the lower

quarter, and Breakout at Lume one point five,—which would be about 160 thousand kilometers per second too fast.

It would be nice to be able to make a visual check—but that was impossible. The screens were keyed to remain on as long as the converter was operating. Wryly he reflected that of all the crew he was probably the best candidate for the "look and die" type who had wrecked so many ships in the old days by trying to make a visual check of hyperspace. But he never could bring himself to trust the fluid, protean shapes of the instruments.

Three shift changes later they hit lower orange. Their speed was high, but lower than he had estimated. If the instruments were right, and there wasn't too little unaccounted lag, they might possibly hit Breakout at Lume One. A faint surge of hope swept through him.

Almost in answer to his thoughts, Jorgenson turned from the board. "It's gonna be close, Skipper,—damn close. The way I figure the lag, we'll be hitting Breakout just about

on the nose of Lume One."

His close-cropped head gleamed red in the ruddy light that filled the main cabin. He fumbled with his safety web, tightening it a trifle as he watched the lightspeed needle drop slowly toward the redline of Lume One. The decelerometer needle calibrated in megakilometers per minute quivered at the upper limit of its arc, registering the fierce thrust of the screaming drives. The other graduated dials had long since disconnected and hung dead in their cases until the insane speed of their slowdown would drop sufficiently for them to register. It was good that there were no acceleration pressures in hyperspace, or the force of their braking would long ago have crushed them to death against the unyielding steel of the hull...

CARLOS BUENAVENTURA looked through a vision port into the blue-violet radioactive hell of the drive chamber, whistled tunelessly between his teeth, and adjusted a too slowly burning fuel tape to deliver maximum energy. His movements were pre-

cise, careful, and incredibly fast.

Buenaventura knew his business, and oddly enough, he was enjoying himself. He was far too busy to think of what might happen if the "Manitowoc" hit Breakout above Lume One. He completed the adjustment and turned back to the converter. Slipping his hands into the handgrips of the slave tongs, he picked up a wrench beyond the safety barrier and began to remove another bolt from the converter housing. He might as well get this job as nearly done as possible. It would save time when they were back in normal space and he could get on with removing the contaminated slug from the reaction chamber.

He swore quietly in a low monotone, cursing the technician who had loaded that particular piece of plutonium into the fuel hopper. It was a hard task for the slave to manipulate the heavy wrench. Servos whined as he applied power, and the bolt started to turn. If the drive room had a chance to cool off he'd be able to do the job manually in half the time. But that wasn't in the

cards. He removed the bolt and set it aside in a slotted rack and turned a gain to his inspection of the drives...

Parsons was doing as Adams had suggested. The full extent of their predicament had finally seeped through his Cth deadened brain. And the worst of it was that he could do nothing. In this position, an astrogator was unessential. So he was praying,—inaudibly but fervently. Invocations to a dozen major planetary deities rose to his motionless lips. His choice was catholic,—not knowing which might be the right one he impartially called upon all he knew. He didn't envy either Adams or Jorgenson. They knew too much,—and their grim faces showed it.

Suddenly he found his hands shaking. The cabin had turned a deep magenta that was appreciably fading to the darkness and the heat of the infra band. It wouldn't be long now...

"STAND by for Breakout," Adams said flatly. He bent over the control board, his eyes lingering for a brief in-

stant on the speed indicator. It was still above the redline, but lag could account for enough,—maybe, to bring them below lightspeed.

He hesitated, fingers on the controls that would cut the converter and the drives, as he waited for the first premonitory shudder of Breakout, that split instant, half sensed, half felt, that no machine nor electronic brain no matter how delicate could perceive, that split instant that made Breakout a function of men rather than machines.

Now the sensing was doubly important, for while deceleration must be applied until the last possible instant, it must be off when they entered normal space or the crushing force would smash them all to pulpy boneless smears against the unyielding metal of the hull.

It was going to be close,—Jorgenson was right,—it was going to be too close. He forced himself to relax, to hold his body and nerves in check as he waited for the feeling of the ship entering the border zone. It came, faint and familiar,—and his hands pressed

down on the keys,—and then they were in the wrenching shimmering madness of Break-out...

The "Manitowoc" rammed her way into normal space scant kilometers per second under Lume One!

The whistling gasp of relief that passed Adam's lips startled him. He hadn't realized that he had been holding his breath. His chest and arms ached, there was a painful cramp in his belly, and an involuntary shiver ran through his muscles as the vision screens flashed on and the familiar normal universe flashed its star patterns in long streaks across the hemispherical brightness.

Their speed was far too great to get an optical fix on their position, and the indicator still quivered in the red-line area, but it was still falling as the resistance of space itself acted as a brake to their enormous speed.

But their troubles weren't over. Adams saw it, but already it was too late to do anything about it. Human reflexes in this case simply weren't fast enough! Centered in the

course scanner an orange dot swelled with ghastly rapidity, ballooning into an enormous yellow mass that filled the screen almost before Parson's choked cry, "Collision course!" was finished.

But the automatics had instantly taken over, the shields flashed up, and the steering jets blasted in a crushingly violent evasive maneuver that pinned them helplessly to their chairs. Steering jets blasting at maximum aperture, protective shields blazing into the violet, the freighter hurtled at near light speed past the flaming mass of a solitary sun, flashing for an instant through the corona of the star and out again into the blackness of space.

A wave of intense heat washed against the shields, as the automatics made instantaneous adjustments,—and a moment later the pressure eased. Adams reached for the controls. "Thank God for those shields," he breathed. "Without them we'd have been burned to a cinder."

"Better thank those mechs on Terranova who installed those new relays in the auto-

matics," Jorgenson added, "Our old style ones would have been too slow to compensate."

Adams chuckled shakily. To have escaped the terrors of Cth space and the danger of translume destruction only to be destroyed by collision with a third rate star would have been the ultimate in irony.

SLOWLY he set up a deceleration pattern on the drives as the "Manitowoc" hurtled away from the star in a long hyperbolic curve. The ship shuddered, yawing and swaying in sickening arcs as the axial alignment unbalanced by the star's gravitational pull, turned the slowdown into a stomach-wrenching series of motions that had even the iron-gutted Jorgenson green and gasping.

They were still travelling far too fast for safety, and such niceties as true flight had to be sacrificed until their speed was reduced to safe limits. The stout hull groaned in every stressed and welded joint as it lurched and expanded in its slowing, wobbling course through the heavens.

"This extra weight is useful," Parsons commented through clenched teeth. "At least it keeps my stomach where it belongs. If it wasn't for this 4-G's I'd have lost my lunch a million miles back."

Adams grinned briefly, and then grunted with disgust as he flipped the switches controlling the vision screen. "Those service men on Terranova weren't so hot after all, Hank," he said. "The screen's stuck and the shields are still up. Guess something must have jammed when we passed that star." He jiggled the switch tentatively. For a brief instant a flash of brilliant light blazed across a slitlike opening in the screen to vanish abruptly as the automatics cut in.

"What in hell was that?" Jorgenson queried in mild surprise.

"I dunno," Adams replied, "but I take back what I said about those mechanics. The screens are okay. Maybe we'd better get off to one side and find out what's happening." He opened the manuals. "At any rate I can't do any worse than the automatics are doing right now."

He energized the port steering jets and swung the ship in a long parabola, still decelerating and testing the screens occasionally. Suddenly they lighted, and Adams, staring at the wide panorama they revealed, gave a startled exclamation of surprise. "Well,— I'll be—" he said wonderingly.

Stretching behind them, across the darkness of space was a thick twisted filament of flaming gas pointing back toward the tiny yellow dot of the star they had so narrowly missed. The elongate cigar shaped mass was already beginning to condense here and there along its length into whirling vortices of star-bright matter. A thin glowing filament like a comet's tail faded behind them as their speed continued to drop.

"Carlos!" Adams barked into the communicator. "Can you get that converter cleared,—in a hurry?"

"What's the rush, skipper, ain't we safe now?"

"Just answer me," Adams barked. "Can you or can't you?"

"It'll take about an hour," Buenaventura said in an ag-

grieved tone. "If you're gonna be that way about it, I'll hurry. But I'm damned if I ever ship on with a slave driver like you again. Next time I'll pick my berth."

Adams laughed. Carlos was normal again.

"Now Deacon," he said to Parsons, "Can you get me a line on that star back there?" He indicated the orange sized dot on the screen.

"Yes sir."

"A precise fix?"

"Yes sir."

"Well, get at it t h e n. You have an hour."

Parsons bent over his astrogation console and was instantly immersed in the math and formulae need to fix the position of a body in space.

Adams smiled gently. The kid sounded so Navy that it almost hurt. It was probably reaction...

THE sun with its glowing prominence had faded to an indeterminate speck by the time Carlos' head appeared through the hatchway to the stern. He looked around the main cabin curiously. "What's all the rush about?" he asked.

"I don't see anything wrong, —or any need for all that hurry."

"You'll find out," Adams said. "Everything clear back there?"

"Sure,— I said an hour, and I meant an hour. She's all ready to go."

"Fine. Now then, Parsons, what are those relative coordinates?"

"They're on the tape, sir."

Adams fed the tape into the automatics. "Stand by for C-shift," he said. Buenaventura settled himself into his chair and snapped his web in place. Adams started the converter. The shift was made with all the usual disquieting sensations, but instead of climbing through the components, the automatics held the vessel in the lower red and maneuvered at minimum speed. In a short time the ship went into turn-over and decelerated. Adams cut the drive at zero speed, killed the converter, and the ship broke out into normal space.

"Now, Carlos, I've got something to show you," Adams said, half turning in his chair. "You and Parsons were

so damned smart rigging that put-up job on me back there in the yellow. Now take a look at something real—" He flicked the vision screen and Carlos stiffened, the shock on his face clearly visible in the flaming light that burst from the screen.

Before him in all its blazing glory was the filament, stretching entirely across the screen in sparkling gouts of flaming gases, already breaking up into hundreds of whirling masses of incandescent star stuff.

They swept through a firmament dotted with innumerable pinpoints of glowing stellar debris. Titanic convulsions shook their surfaces as they swept up millions of the fiery dots, adding them to their swelling masses. The automatics flung up the protective shields as the edge of the filament swept about them in the beginning of an orbital pattern, but the vision screen stayed on, revealing more of the fury of the birth agonies of a solar system.

Adams moved the ship out of danger to a point above the

forming ecliptic and shifted the screen, bringing the sun into focus in the lower right quadrant. Even as they watched a vast mass of flaming matter fell with ponderous deliberation into the sun's corona. Enormous pseudopod-like prominences raised themselves from the tortured surface of the star to enfold the mass and draw it back into the parent surface.

Buenaventura stared wordlessly, as Adams looked at him with an infinitely superior smile on his face. "Take a good look, Carlos," Adams said, "and then tell me some more about Natural Causes and fellows like Heidenbrink. There's a perfect Gaseous-Tidal phenomena for you. See those vortices,—some of them are going to be planets someday, and some damn food idiot on them is going to talk about another Heidenbrink unless we're around to educate him. This is how our systems were formed. You can see it with your own eyes!"

"But—how?"

"Can't you guess, you sim-

ple son of a Spanish peasant? *We made it!*"

Buenaventura turned helplessly to Parsons. "Yes, the skipper's right. We did it," the youngster said. "We passed through the corona of that star." He pointed to the boiling, prominence-ridden mass in the lower quadrant of the screen. "We were travelling at almost light-speed when we went past, and while our size was negligible, our mass was nearly infinite. Our mass attraction drew out that filament which is now coalescing into planets. The Skipper is giving it to you straight. We made *that!*" His voice held a note of awe-filled wonder.

"The tool of Creation," Adams mused aloud, "a light-speed transmit. And to think that no one ever thought of it except the Centralians."

"If they existed," Buenaventura said, stubborn to the last.

"They existed all right," Buenaventura said, stubborn to the last.

"They existed all right," Jorgenson said. "They had to exist."

"Think of the possibilities!"

Parsons said. "We can fill the galaxy with worlds."

"Habitable after a few million years," Buenaventura sneered.

"What is time with a goal like this to aim at?" Parsons replied.

ADAMS smiled. The astro-gator tossed off epochs like they were days. At that maybe he was right. The original Creators also must have thought in terms like that. Their life spores filtering through space had taken root in the fertile soils which they created, and their descendents were now ready to repeat the pattern. The cycle had come to a full circle, and new worlds would be born. It was inevitable.

He watched the giant panorama beneath him move silently across the vision screen, until finally he shrugged. "We'll never be able to see it all," he said, reluctance in his voice. "It's too slow. So I suppose that we'd better turn from gods back to working men

again. We've got a cargo to deliver, and there's a penalty clause in our contract." Sighing a little he turned back to the controls.

The "Manitowoc" slowly drew away from the infant solar system, accelerating with ever increasing velocity until with an eye-straining shimmer, she disappeared into the monochromatic regions of hyperspace.

It was Buenaventura who finally spoke. For once he sounded almost apologetic. "All right, I'm wrong,—and I admit it." He said. "Solar systems were made." He paused but there was no reply. "But there is still one question that's not answered. I'll admit that there were Centralians,—and that they created our systems,—but who created them?"

Wordlessly Parsons picked up the ship's Bible and waved it under the engineer's nose. "Want to argue?" he queried finally.

Buenaventura shook his head.

THE END

THE SEED OF EARTH

by ROBERT SILVERBERG

illustrated by BOWMAN

Barchay rode on a strange errand, re-visiting scenes of his youth. He didn't want to die on an alien world without a chance of finding out one very vital thing

BARCHAY rode toward the V'Leeg village alone, on the back of a swaybacked pink running-beast that he had caught and broken himself, five years past. He had been travelling westward six days and six nights from the Earth encampment on the distant eastern shore of the continent, feeding himself en route with whatever his gun could bring down.

He sat stiffly upright in the saddle, head staring forward so solidly and so massively that it might seem his neck had calcified. He had spent the whole trip in much the same posture, as the cloven hoofs of the running-beast car-

ried him along, westward, and in a sense backward in time as well. It was twenty years since he last had visited this particular V'Leeg village, or indeed the flat lake country here in the west at all. And he was the first Earthman to venture out of the encampment on the ocean shore since the massacre, three months since, when the sullen V'Leegs had risen suddenly to claim eight hundred Terran lives.

A cold wind whistled down from the ice-flecked jagged hills to the north, pushing up little clouds of the red infertile soil as Barchay rode on. Lorverad was a strange world, an alien world, and Earth-



bred Barchay had never grown to love the red soil or the odd angular animals or the iron-gray sky with the white, hard, unwarm dot of light in it that was this planet's sun. He still remembered Earth, though now it was more self-deceit than memory as he thought of that warm green planet bathed by golden light, so far across the sky and so remote in his own experience.

He was fifty, and looked forty, and felt sixty. He had settled on Lorverad with the first group of Terran settlers, twenty-three years before. He had come with a wife, whom he remembered as he did Earth, in a romanticized vision that could never really have been, and she had borne him a son, and now he was alone, riding into a V'Leeg village far from the sod hut he called home.

The village was at the edge of a thin, elongated lake that curved around a bend and vanished somewhere in the prairie beyond. The waters of the lake were dull gray and lusterless, not the bright blue-green of Barchay's memory-enhanced Earth lakes. Sweep-

ing up from the shore were the V'Leeg huts, low and squat, hugging the barren ground. All V'Leeg villages looked more or less alike, just as to Earth eyes all V'Leegs were more or less twins to each other, but Barchay knew that this was the right place. He had been here before, twenty years ago, when his dark hair had been thicker and the sight of his cool blue eyes more keen. Now he was back, again, searching through his own past for the one thing that would give him continued life.

He dismounted and walked his beast into the village. It was a sign of humility.

AS it happened, the first V'Leeg he encountered was a boy of about eight, who sat crosslegged outside a hut, stirring in the sand with a broken twig. As Barchay approached, the boy rose, glared at him, spat, and faded quickly into the hut.

A fine welcome, Barchay thought.

He waited a moment, and two adult V'Leegs appeared from within the hut. The man

was tall for his race, five-eight or so, but still a good four inches shorter than Barchay. He had intense black lidless eyes set square in the middle of his heavy-jawed face, flanked on either side by corrugated protective ridges. His apple-red skin was thick and leathery, almost hinged. He was naked; modesty among V'Leeg men was not a common trait.

The woman was much shorter than he, and unlovely: a beast of the fields more than a woman, her body thickened and stooped by toil, her pendulous breasts more udders than breasts. She wore a blue twist of cloth around her middle.

"We thought we had seen the last of your kind," said the man in the consonant-glutted V'Leeg language. "We killed enough of you, didn't we? We drove you back over the hills to your place in the east. We left hundreds of you for the sky-birds to pick the eyes of."

Barchay didn't flinch. "The war is over," he said quietly in fluent V'Leeg. "It was agreed that man and V'Leeg would fight no more."

"And that you would stay

by the sea and leave us alone! Why do you come here?"

Barchay saw rage building up in the V'Leeg, and he knew what strength there was in those thick-corded muscles. His hand stole to the blaster in his waist; he did not want to die just yet.

"I came searching for something," he said. "When I find it, I'll return. There won't be any trouble."

The V'Leeg clenched his fists and began to reply; suddenly from within the hut came another member of the family. She was a girl, perhaps fifteen, with long dark hair and a slim body as yet untouched by the rigors of living. Her breasts were high and firm, her hips gently curved, and to Barchay's tired eyes she looked almost human. *Human enough*, he thought, comparing her with her shapeless mother.

The V'Leeg man whirled, hissing sounds without words, and angrily ordered her back into the hut.

"I only came to look—" she protested wistfully, in a pleasant high voice, and then, seeing her father's hand raised to

her, she stole a glance at Barchay and went back into the hovel.

"You've come to steal women," The V'Leeg said bitterly. "As always, with you Earthmen."

"Believe me, I have no such ideas. Your daughter is safe from me." Barchay's days of cradle-robbing were long since dead. "Tell me: does V'Malku the Chief still rule in this village?"

Alien eyes confronted him stonily. "Perhaps. And perhaps not."

"I'd like to know," Barchay said, feeling sweat roll down his body. He wanted to grab the obstinate alien by the throat and throttle the fact out of him, but he held back, knowing that that was the wrong way, the way that had cost eight hundred Terran lives when the V'Leeg finally rose in anger. "It's important to me."

"Do I care?"

Barchay shrugged and picked up his mount's reins. As he started to lead the beast away, the woman spoke for the first time.

"V'Malku lives."

Her husband uttered a muffled snort of rage and suppressed fury and knocked her sprawling with one fierce jolt of his elbow. She made no attempt to rise, but lay staring bitterly at the soil as if that were somehow to blame. A cloud passed over the distant sun, casting a dark shadow over the group and seeming to chill the air.

"Well?" Barchay asked. "Is this true?"

"V'Malku lives," the man confirmed sullenly. "I'll take you to him."

THE man led him silently down a winding path that took him from the outskirts of the village to the place where the huts were clustered close together, and past clump after clump of dark-eyed inquisitive V'Leegs. Small children, some of whom probably had never seen an Earthman before, ran out to stare in frank curiosity at him, and then to run away in terror. Here, there, tall idle V'Leeg bucks lounged against posts and stanchions, staring at him crosswise from the corners of their eyes.

Barchay felt hate only for these idlers. These were the ones who had fomented the sudden swift uprising of the autumn before. Earthman and V'Leeg had lived together side by side in remote cordiality for more than twenty years, neither caring too greatly for the other's company, neither having much to do with each other. There had been scattered cases of violence, of Earthmen finding a stray V'Leeg warrior and ringing him like a hare ringed with hounds, or of V'Leegs killing an Earthman to whom they had taken a dislike. But over twenty years these things were to be expected of two alien though biologically similar races struggling for life on the same barren infertile world, one race native and the other imported from the stars.

Until three months ago, when a sudden notion had swept up among the bitter young V'Leeg men, and they had ridden out of their villages carrying keen swords. There had been ten thousand Earthmen on Lorverad, and eight hundred of them had died in that one furious attack, eight

hundred who had been living scattered on the plains between the sea and the western lands. The attackers had not penetrated far eastward; they had contented themselves with wiping out the buffer Earthmen in the inlands, and then, in horror at their own bold act, had returned to their homes to clean the blood from their blades.

There had been no punitive action on the part of the Earthmen. They had simply withdrawn within the confines of their original settlement, until the spring came and they could make peace with the V'Leeg again, and hope to establish a lasting harmony. But Barchay could not wait until spring. After the massacre's victims had been buried, he knew he would have to make *now* the journey he had thought of for so long and so often postponed.

Now he moved past these bucks, some of whom had probably killed Earthmen in the season past, following this V'Leeg on the way to the tribe's chief.

He arrived finally at an ornate, vaulted building somewhat more impressive than those surrounding it. A V'Leeg

woman waited there, looking apprehensively at Barchay.

"He wants to talk to the chief," the V'Leeg told her.

Nervously she beckoned him within. He hitched his animal's reins outside, and followed her through a dark corridor, into a dark anteroom, and on into an even darker sitting chamber beyond.

"He is blind," she explained.

"He doesn't like light."

Blind? Barchay thought. He remembered V'Malku tall and sturdy, in the prime of life, and tried to picture him blind. It was difficult at first, until he realized that the chieftain had been growing old even then, and twenty years now separated him from the V'Malku he had known.

He stood blinking in the darkness for a moment until his eyes cleared and he could see. He saw a terribly old, shrunk V'Leeg seated in the far corner, wearing some kind of fur wrap, his jaws sunken and toothless, his eyes open but clearly unseeing. The old one was desiccated from age; his body shook like a dry leaf in the wind.

"Chief, there is an Earth-

man to see you," the housekeeper said. Barchay looked back and saw his V'Leeg guide standing behind him, one hand on the pommel of a deadly-looking machete. That showed how greatly they trusted him.

In a quavering voice that Barchay barely was able to recognize as V'Malku's, the old chief said, "An Earthman here? Why? Is there trouble?"

"No trouble," Barchay said loudly. "The trouble is over. I've come alone, and in peace."

There was a sharp instant of silence. Then V'Malku said, "Let me hear that voice again. I think I know it."

"You *do* know it, V'Malku."

"Of course. Barchay. Why have you come back, after so many years?"

IT would have been startling enough had V'Malku recognized him by face and form, but to be recalled on his voice alone took Barchay thoroughly aback. Had he been found out by the dark blue birthmark on his hip, which had caused so much attention when he had bathed in the lake on his second or third day in the village twenty years ago, that might

have been understandable. But his voice—!

His mind drew back over that scene. It had been the second day, he recalled now; he had ridden into the village alone and dusty, covered with sweat, and V'Malku had invited him to be his guest, since Earthman and V'Leeg were on better terms back then.

They had fed him, and he had slept alone on a hard flaxen matting against the cold ground, and in the morning he had asked where he could bathe.

"In the lake," V'Malku said. "It's the only place."

Barchay's command of the language had not been too good then, but he knew what the chief had said, and that there was little point in raising any objections.

So after he ate he went down to the edge of the dull-gray lake, and stripped and bathed away the sweat and dust of travel, trying to overlook the fact that half the village had congregated at the water's edge to see the Earthman take his bath. V'Malku had been there, and V'Malku's wife and his daughter, and many chil-

dren and women and a few of the other men.

Barchay had ignored them, and finished his bath, and came from the water naked and dripping, feeling clean for the first time since he had left the settlement and ridden westward on this scouting trip. And a high, gay voice had said, giggling, "What is that on your hip, Barchay?"

He glanced down at the blue blotch the size of a child's hand that spread over his left hip and smiled, and said, "It's a birthmark. I was born with it, and it kept growing with me as I grew." Then he looked to see who the speaker had been.

He saw her: V'Malku's daughter, a slim, tall girl of seventeen, full of breast and wide of hip, who was smiling brightly at him. He had seen her before, in the house, wearing a colorless smock as she served a meal to him, but now she wore only a hip-cloth, and he saw with some amazement that she was beautiful. Alien, yes, but it was possible to overlook the leathery red skin and the lidless eyes, and the protective ridges at their sides. These were minor things, tri-

fling differences. And Barchay had travelled alone for nearly a month, and his wife was far away at the seaside colony, tending their infant son.

Somewhat brusquely Barchay had shaken the water from him and climbed back into his clothes, while the cluster of aliens commented happily and at length on this portion or that of his anatomy, dwelling chiefly on his birthmark. And at length V'Malku the chief had said, "I like his voice best of all. It's the voice of a man."

Barchay had spent the day with them, and when night came he went to sleep on his cold hard mat against the floor, and halfway through the night he rose and moved silently through the dark rooms, hoping his wife and son far away would forgive him for what he was about to do.

He found the girl's room as if he had lived in this house all his life. He entered. She was sleeping lightly, as a cat might, breathing gentle, shallow sighs of breath. She awoke to his touch, and smiled at him without saying anything, and drew him down to her side. In the

darkness he could not see the lidless eyes or the redness of the skin, and it felt not leathery but soft to the touch, and warm.

In the morning he left the village despite V'Malku's insistence that he stay on with them a while longer. He said his goodbyes and left, unable to meet his host's eyes or the eyes of his daughter. He rode eastward, back to the Terran settlement to deliver his report. When he returned he found that his wife had contracted some unknown alien disease and was dying and soon would be dead, and that he would have the task of raising his son alone.

Soon she died, and Barchay grew that much older. Twenty years passed, bringing him in the course of time back to the V'Leeg village again.

And blind old V'Malku had recognized him by the sound of his voice.

HE looked across the darkness and across the gulf of years at the blind chief and said, "I'm happy to find you still alive, V'Malku. After all these years."

"The years have been good, Barchay."

"For some of us."

"For some of us," agreed the chief. After a long awkward pause he added, "Though I doubt not for you. Are we alone in here?"

"No. There's a man and a woman with us. The man is making sure I don't kill you."

"I don't want them here. Go away! Away!"

The housekeeper and the man V'Leeg exchanged puzzled glances but remained where they were. Barchay said, "They're still here, V'Malku."

With more than a shred of his old commanding voice, the chief snapped, "I ordered you to get out and leave me alone with this Earthman. Do I have to repeat that order? Go!"

This time they left, edging out reluctantly with many a backward glance. When the cane door closed Barchay said softly, "They're gone, V'Malku. We're alone."

"Good," grunted the chief. "Now: tell me why you came back. There must have been a reason."

"There was." Speaking into the darkness Barchay said, "I

came to see your daughter. If she still lives, that is."

"My daughter? I've had many daughters, Earthman. Which daughter is it you mean?"

He's toying with me, Barchay thought. "When I was here, only one daughter lived with you in your house. That's the one I mean. I've forgotten her name, but I'd like to see her again. To talk to her."

"Oh," V'Malku said, and the undertones of that single syllable made Barchay quiver and turn away his face from the sightless man. "You mean Gyla. Yes, that's the one you mean. Isn't it?"

"Yes," Barchay said. "Gyla."

"You came back after twenty years to see her. I like that, Barchay. Yes, I do. Tell me: did you have any trouble when our young men attacked you Earthmen not long ago?"

Barchay set his face stonily. "No. I didn't have any trouble. I was hunting alone in the hills, and didn't find out about it until it was all over. That's always been my fate. When the plague struck the colony

and killed my wife, I was away...here."

V'Malku coughed. "Fetch that woman who let you in. Tell her I want her."

Barchay stepped outside and saw the housekeeper and the man waiting there for him, the man with machete drawn and a fierce expression on his face, as if he was ready to burst into the chief's chamber at the first hint of any sort of trouble.

"He wants to see you," Barchay said to the woman.

When they returned V'Malku said to her, "Bring me my daughter Gyla. There's someone here to talk to her."

THEY brought Gyla to the chief's room, and Barchay looked at her in the darkness as she stood blinking, trying to adjust her eyes to the dimness. He wondered if the years had been as hard on him as they had been on her; he doubted it.

He remembered her as she had been that day down at the lake, her warm young body almost bare, her dark eyes flashing brightly in laughter as she pointed to the birthmark on

his hip. She had been seventeen and very alive.

Now she was thirty-seven, and she was an old woman, who could have been the twin of the woman he had seen on the village's outskirts, or perhaps that woman herself. Her breasts had flattened and lost their beauty; her hair was sparse and stringy, her eyes dull, her shoulders slumped and rounded. She waited patiently to know what her father wanted of her, and Barchay saw that all spirit and all life had long since departed from her. He hoped he had not been the one who had done this to her.

He had been thirty then; now he was fifty, and knew he had not changed half as much as she.

The old chief said, "Speak to her, Earthman. She's here. This is the one you seek."

"Do you remember, me, Gyla?"

She looked up, frowning dimly. Her features were thick and coarse now; she was ugly and alien, and he wondered how he could ever once have desired her. "Do you remem-

ber anything about me?" he asked. "My voice, maybe."

"Your voice—"

"Yes. Think back a long way, Gyla. Twenty years back. To the time of your maidenhood."

Thinking, remembering, required a visible effort on her part, a shifting of the heavy facial planes, a pursing of the wide lips, a drawing-back of the nostrils. She seemed to turn inward on herself and search backward.

"I remember something," she said finally. "But not well. Not at all. I forget."

"My name is Barchay. Does that help you? Do you remember a time when I came here, and bathed in the lake, and slept at your father's house?" He realized he was quivering inwardly. V'Malku was staring unseeingly at both of them.

"Maybe," she said. "Barchay. Yes. Yes, I think I remember something. You stayed with us. Yes. Yes."

Barchay caught his breath. "She remembers so little," he said to V'Malku. "Gyla, do you have children?"

"Yes. Of course."

Barchay moistened his lips.

"I—I would like to see your children," he said.

"Gyla, get your children," ordered V'Malku.

IT took perhaps fifteen minutes for her to round them up; fifteen minutes while Barchay stood dry-lipped and uncomfortable, trying not to look at the old man, trying not to think of the wrong he had done V'Malku two decades ago. At last, the children arrived.

"These are my children," Gyla said.

There were eleven of them. Three tall full-grown males, gazing belligerently at Barchay as if they wished to kill him right here in front of their mother and grandfather; two nearly-grown girls, one of whom looked astonishingly like her mother once had looked; a half-grown boy, digging his toes shyly into the ground; a girl perhaps a year younger than he, coltish, awkward, with half-formed breasts; two smaller boys, a very young girl, and a toddler of indeterminate sex. All were clad except the two small boys and the youngest girl.

Barchay surveyed them

hopelessly, looking, looking.

"These are all your children?" he said in a dry voice, studying their flat alien faces.

"These are all that lived. Two others died."

"Do you see what you came here to see?" V'Malku asked, from his seat in the dark corner.

"No," Barchay said. "I think I came in vain." His stomach was a hollow lump of meat inside him; his shoulders sagged and he felt eighty now, not sixty. He was very tired. He might just as well not have lived at all.

"I guess I'll go back to the settlement," he said drearily. "Thanks for helping me. It's too bad I was wrong."

"You were right," V'Malku said.

"What?"

"Your trip was not wasted."

Barchay looked at the alien children again, and shook his head. "None of them...it would be one of the ones that died, then?"

"No. V'Rikesh is the one you seek. The oldest boy."

"Impossible!" Barchay said, looking at the tall boy in the back of the group, seeing his

wide non-human eyes and thick leathery skin. There was nothing human about him at all. "He can't be," Barchay said.

"V'Malku sighed. "V'Rikesh, come forward."

The boy shouldered his way through the knot of his brothers and sisters and stood alone in the center of the room, glaring angrily at Barchay in unvoiced hatred.

"He must be wearing clothes," the chief said.

"He is. A cloth around his waist."

"V'Rikesh, take off your clothes," ordered the old one.

The boy scowled at Barchay. His lean fingers went to the fastening of the loincloth and yanked sharply, and the cloth fell away, dropping to his feet.

"He's the one, isn't he?"

"Yes," Barchay said softly. "He's mine."

There was no doubt about it. The boy V'Rikesh bore a mark on his body—a blue birthmark on his left hip, the size of a child's hand.

LATER, when Barchay saddled up and started to ride,

slowly and alone, out of the V'Leeg village, a group of young V'Leegs clustered up in front of him, and brusquely ordered him off his mount.

He had expected it. Violence had been brewing ever since he had arrived here. He got down, keeping one hand on his blaster, and snapped, "What is it you want? I'm leaving in peace. I have a safe-conduct from the chief."

They crowded around him. "Keep back!" he shouted. "I'm armed!"

He drew his blaster, knowing they would swarm over him before he had a chance to use it, and backed away, listening to their accusing chant: *seducer*. They knew who he was. They would punish him for it. Well, it didn't matter now, he thought wearily.

Someone's nails raked his chest and he slapped the hand away, and got his blaster up and fired, destroying an alien head. They surged around him; he kicked out, knocking another to the ground, and fired again. The blue flare of

the blaster cut a swath through the crowd.

"Let him go!" someone shouted, far on the outer edge of the mob. "He has a safe-conduct! He's my fath—"

Then they roared in over him, and Barchay knew the journey had come to its end, that the alien world Lorverad would claim his life as it had twenty years ago claimed the life of his wife and as it had last autumn claimed the life of what he feared had been his only son, the boy who had died in the massacre. But Barchay had ridden to the V'Leeg village for a purpose, and that purpose had been fulfilled; he knew now, as the hands groped for his throat, that he had had *two* sons, not one, and when he died he would not just be winking out like a candle-flame leaving nothing of himself behind. A V'Leeg blade sliced his flesh, and he smiled painfully and waited for the end. He *had* left something of himself behind—even if it was only a blue birthmark on the hip of an alien boy.

SITUATION ON SAPELLA SIX

by HARLAN ELLISON

It may be that Earthmen will not be the only explorers of outer space. — Other life forms may be adventuring there, too, and their needs will be different from ours

SHORTLY after the thrummm of the drives cut out, the leopard came spinning down the companionway, turning over and over in exaggerated somersaults. Under the no-weight of free-fall it spat and growled, its tail lashing out frantically, its rough-padded feet seeking some hold. It came shooting down the horizontal passageway, smashed into the half-open door to the pilot's country, and brought up short against the opposite bulkhead.

The leopard slammed against the panoramic lucite window separating those in the cabin

from space, hanging black and silver outside. Coldly waiting.

Ben Adress snapped off the infra-red goggles he wore, silenced the clucking analyzer on the panel over his head, and ticked the point of his chart pencil against his teeth, with open annoyance. Then a grin forced its way across his angular, tanned face. He spun himself around in the jock-seat.

"Thought you had Polecat closed in your cabin, Philly?"

Philly Comstock looked up from the stereobook strapped to his forehead, shoved it up

and off, snapped it back into its niche beside the bunk. "Umm. Must have hit the door release when we cut out the drive," he answered.

The cat hissed and spat, revolving slowly in the air, the fur of its back stiff and needle-like, erect in fear. The leopard, a mutant variety, not much larger than a bobcat, arched its back toward its master. Philly Comstock cut off the grav-plate in the bunk, and instantly rose a foot off the mattress. He shoved lightly against the wall, and floated into the center of the cabin.

In a moment the sharp click of his magnetized boots rang in the cabin, and he stood grinning up at the helpless animal. The leopard gave a piteous meowrrlll, and Comstock felt himself drawn into Adress's laughter.

They stood staring up at the animal for a moment more, then Comstock realized his attitude was pretty coarse, and he motioned Ben to silence. "Oh, shaddup. You'd look pretty damned stupid *yourself*, up there. I remember what you looked like on your first no-

grav flight." His grin widened, even as Ben's vanished.

COMSTOCK reached up for the floundering leopard. It struggled to reach him, also, and in so doing, plunged itself toward the ceiling. Philly Comstock gave a short leap, his shoes unsnapping from the floor. He bounded seven feet in the air, grabbing the cat in his arms at the top of his leap.

His momentum carried him toward the ceiling, but another kick against the bulkhead reversed his direction. The terrified cat was placed in the hammock webbing in another moment; the acceleration webbing prevented any further airborne gymnastics.

"I still can't figure why you brought that cat with you, Philly," Adress cut in. "If I had *my* way, any kitten brought on this ship would be five foot eight, blonde hair down to here," he swished a hand across the top of his flight shorts, "and the only thing sharp and biting about her would have to be her wit."

He grinned again, the smile breaking up the harsh black lines of his craggy face.

"And at the end of the third month, you'd want to feed the broad into the scum chamber ...blonde hair down to here first," concluded Philly.

Adress made a rude noise and snapped the infra-red goggles back on, returning to his plotting board.

"Not much longer, so I'd say," he remarked absently.

Comstock stepped clackingly across to the slat-board, studied the pattern of lights there. "What's that?" he asked. "The Hoof?" He was pointing to one of the ten magnification screens set across the top of the board.

"Right," Adress agreed. "The constellation of the Hoof; what we'd call the Big Dipper from Earth."

"So where's this, uh, this..." Comstock flipped the magnetized metallic thins of the plot book, ran his finger down a column and settled at a name, "...Sapella. That how you pronounce it?"

Adress nodded. "Hell, man, we aren't within forty light-years of it yet. Sapella's just a speck sun somewhere around ...in...*here*," he indicated

the group on the plotboard with a jab of his pencil. "The sixth planet is what we want. At least that's what the spectrocount says.

"We'll base in about 0900 Wednesday, if our plots are right."

He tossed the pencil in the air, and it floated quickly away. Adress slumped back in mock fatigue, and Comstock playfully slugged his bicep.

"I hope this free-fall doesn't wreck hell with the cat's metabolism," he worried.

Adress cut him off. "Worry more about whether we hit that sun right, brother fly-jockey. Cause if we don't, we lose time, and if we lose time we lose the contract for all the ore we're gonna dig offa that planet."

Comstock slid into the copilot's swivel seat, "So if Consolidated Enterprises wants that ore so chop-chop, what are we loafing along like *this*?" He indicated with a wave of his hand the driveless ship, coasting silently through the night of space.

Adress clapped him lightly on the forehead, as though Comstock were daft. "Because,

knothead, if we don't recharge the drive coils, we overload... then CoEnCo's got nothing... not the ore, not the advance they gave us, and mostly—not us.

"Because then we're stuck halfway to nowhere with a burned-out matchstick. Now shut your yap and rig the rest of these plots for me. I'm bushed."

Comstock looked up in awe. "Bushed? You haven't done anything for months but sleep your butt off? Why *I* gotta plot? *You're* the brainpan in the group."

Adress stared him down. "Plot!"

Comstock fished the pencil from the air as it floated past, mumbled, "Tyrant!" under his breath, and plotted the rest of the route through the Hoof, to Sapella Six.

THE alien's ship was neither needle-shaped nor saucer-shaped. It was a helix, so arranged that the pear-shaped cabin was always adjusted to "up" and to "down" in the core.

As the sixth planet of the

system—the world he had come to call Dargransiil—swam up in his view-ball, Cesare Yew swung himself across the bars that criss-crossed the cabin; he reached the cold-chamber and withdrew what might have been a banana. He swung to the floor, landing on all fours, wrapped his tail tightly about himself, and carefully peeled the fruit. The peel went into a bell-mouth tube jutting from the floor, and he began eating the fruit, his thick, rubbery lips making a pleasant smacking sound in the control room.

Cesare was something over three feet high, a bright silver in color. His nose was flat, the nostrils widely-separated and open laterally. His face had a roughly human appearance; he used his forepaws as hands—for they *were* hands, with well-formed opposed pollexes—and he sat erect. His mouth was wide, and the canines protruded but slightly from the thick lips. His tail was some two feet long, ending in a fluffy tuft. In essence, he was a simian. However, he was far more than that.

He was the dominant life-form of a world so far from Earth, so far across the multiple galaxies, that the first light of that world would never reach Earth till every mountain that now stood on Sol's third planet had long since been leveled.

Cesare Yew was in no way aware of Earth, or its inhabitants; particularly not those inhabitants now speeding toward the world he called Dargransiil. The world *they* called Sapella VI.

Cesare Yew spoke to himself, for that was wholly in his character, bachelor and hermit that he was. "*This* time I shall rid the planet of the last bit of *playme*. This time I shall stay on Dargransiil."

His thoughts traveled back along the route of his flight from that far star around which his home world spun. His thoughts traveled back along the ion trail, and he thought of the pressures of his life there; pressures which had beaten him down commercially, and spiritually, till he knew he must leave, and find a new home for himself.

For his specie to be alone was standard. Most of their lives were spent in solitude. But never perfect, complete solitude. And it was that, which Cesare Yew sought on the world known to him as Dargransiil, and to the Earthmen as Sapella.

One small problem had prevented him from taking over that world completely. On his first trip there, when he had tentatively established living conditions, he had found the planet to be ideally suited to his needs—an atmosphere quite the same as his home world, an ecology balanced nicely with almost all of the facets he loved yet none of those he deplored—save the problem of the *playme*.

It was beneath the surface of the world, and its radiations were hopelessly destructive to his kind. This time he had determined to find a way to dissipate those radiations; then he would settle in and forget the Universe as it swirled by.

He finished off the fruit, and leaped agilely to one of the criss-crossing bars. Hand-over-hand, swinging lithely to the

top of the bar system, he hung down, tail wrapped about a pole-rod, and thought out the remainder of his course to Dar-gransiil.

He was approaching the planet from the side opposite the Earthmen.

His thoughts punched away at the course-comp, and lights flickered, lit, went out, speeding him toward his new home. As he worried momentarily about the quality of bananas the steerage chief had loaded aboard. They *didn't* taste like firsts.

The helix revolved forward at a tremendous rate of speed.

"NOW you're sure this planet's empty," Comstock said, shouldering the probe-pack.

Ben Adress nodded complacently. "At least there's no *sign* of any intelligent life. No roads, no huts, no signs of even the most primitive culture."

Philly murmured, "That's really odd. This is as Earth-like a world as we've hit yet. Spore-count was just right, too."

Adress shrugged around in

the straps of his own probe-pack, unsnapped the scanning pole and played out a few feet of its tieline. "Let's don't worry about that now. It's safe and empty, and I want to find that ore."

"When we came over, the counters clicked it somewhere around here in this desert." He gazed out across the bright green sands that stretched away in all directions to the horizon. "So let's get walking."

Comstock held up his hand. "Wait a second, be right back." He ran back to the ship, and emerged a few minutes later bearing a bell-mouthed weapon with a cylindrical chamber strapped amidships.

Adress stared at the rifle for a moment. "What the hell are you bringing the molasses-gun for?"

Comstock waved it absently. "I feel naked without it. We might have to tie up Polecat. You never know."

"Oh, fer Chrissakes!" Adress almost yelled, and walked away shaking his head in resignation. Comstock followed him with a wide grin, and the

leopard tagged at the space-man's heels.

They began scanning the desert for ore.

Three hours later, they sighted the footprints.

CESARE YEW watched them as they came across the sand. Vaguely humanoid, but much taller than he, without fur—except atop their heads. And pale. Without a moment's hesitation he knew they were aliens, and did not belong on this world. How they had gotten here, and what they wanted, was something he did not stop to consider. They were intruders... perhaps even invaders. He moved away from the rumlekanian equipment, back behind the temporary hutch he had built for himself. If they got too close, he would immobilize them.

The aliens came forward, and began clucking fiercely over the equipment. Mechanisms strapped to each of them were clacking furiously, and Cesare Yew saw them grow even more agitated at this.

Then one of them turned, before the simian could draw

back, and he was pointing, gesturing wildly, and clucking most excitedly to his companion.

Cesare stepped into full sight, and turned loose his eyesight. At the same instant his immobilizing vision scattered across them, the alien pressed a stud on the long pole he held in his hands, and a stream of white substance spurted toward Cesare.

He felt himself locking with them, holding them rigid in his gaze, just as the white substance flowed over him. Then he too was held unmoving. He *tried* to struggle, but the stuff drew tighter about him, crushing his arms in weird positions to his body. He was trapped solid, but he held his hypnotic gaze on them, also.

They stood there, unmoving for a great while.

THE Stadt-Brenner Webbing Enmesher—commonly referred to as a molasses-gun—was held tightly in Philip Comstock's hands. His eyes were riveted on those of the monkey with the silver fur, crouched across from him,

wound in the plastic cording of the web. They had landed themselves in something a lot rougher than he had counted on. He could not move, could not shut his eyes, could hardly breathe. He knew Ben was frozen the same way, beside him.

Then he saw Polecat move into his range of vision. The cat was padding carefully toward the monkey. Philly saw the monkey's face strike what was surely an expression of terror; the thing had probably never seen a leopard before.

Polecat stalked up to the monkey, who struggled futilely with what little slack was left the web, then settled solidly. The leopard sniffed at the monkey, and with a tremendous effort, the thing fell over on its back, trying to get away from the cat.

Philly Comstock felt the rigidity leave his body. He could move! They might have stood there like that forever, had the cat not come along—unaffected by the monkey's gaze—and forced the being to break the contact.

Comstock stayed out of the

line of sight of the monkey, and approached with Ben. They stared in astonishment at the being.

"Think he lives here?" Ben asked.

Philly shook his head, confused. "You said the counters registered nothing. How could he?"

Then they saw the helix, and realized it was not a land-side mechanism, as they had supposed. "MiGod! That must be how it got here. A spaceship."

Then the thought appeared in their heads: What do you want of me?

They stared at each other, abruptly realizing neither of them had spoken, yet both had heard the same thing. They stared back at the monkey.

"We want some ore that's on this planet," Ben said.

The thought appeared, You say ore, but your mind says *playme*. What you seek, is what I wish to be rid of.

The two Earthmen stared at the monkey, and a long conversation ensued. Finally, they poured the releasing spray over

the webbing, and Cesare Yew was free.

Then negotiations began.

THE good ship *Trawling Gain*—Masters, Comstock and Adress—sped away from Sapella Six, the hold filled to the tops with ore.

"So he's a bachelor," Philly said, staring into magnification screen at the receding ball that was Sapella Six. "All the wanted was to be left alone."

Adress agreed with a nod, and fingered the glowing strip of silver metal he held. "You don't think we foxed him too much, do you?" he asked.

"What?" Philly replied. "By promising to leave his world alone, never to visit there again and never to give out the coordinates, in exchange for his mining up the ore for us? No, I don't think so."

"That isn't what I meant.

His privacy was worth the ore to him—especially since he had to get rid of it anyhow. No, what I mean is this," he held up the strip of metal.

"He says his race disposes of more of this ore in a year than Earth could use up in a dozen years. So he gives us an introduction note to them. Is that foxing him? We're doing his people some good...also making ourselves rich, of course. How is that foxing him?"

Ben Adress shrugged, and laid the ticket to wealth on the control ledge.

"Well, it may not be foxing him, but was it a fair trade? This note in exchange for that?"

Philly could not answer. But finally he said, "How the hell do I know what he wants with a mutant leopard."

THE END

PAIN REACTION

by THEODORE COGSWELL and HAL RANDOLPH

Those who attempt to spy out and steal the plans for a secret weapon from a modern laboratory had better know the full secret before they begin their project

BONG! BONG! BONG!

Kerchoff swore nervously at the sudden clanging of alarm bells throughout the building. They must have spotted something wrong with his forged pass. The sound of excited voices coming down the corridor outside the laboratory told him he had to act fast. He slammed shut the notebook he had just opened and hastily put it back in the place where the technician had left it when he went to lunch. Patting his pocket to be sure that the small bottle of RSX-400 he had just stolen was safe, he picked up an already prepared hypodermic needle and jabbed it through his coat sleeve into his arm. There was only a slight stinging sensation as he emptied it.

An open storage cabinet stood behind the rat cages. He raced over to it and frantically pulled out several large containers that stood on the bottom shelf until there was just room enough behind them for him to lie on his side at full length. He wiggled in, and just as he pulled the concealing cannisters back into place the door of the laboratory was thrown violently open and armed guards came running in.

Kerchoff stifled a sigh of relief when a voice shouted, "Not in here!" and the door banged shut again. The respite was short, however, for the door opened almost immediately and new voices were heard.

"...and this is where you'll

be spending most of your time."

"Think they'll catch him?"

"That's Security's business. We get paid for giving shots to rats."

"Let's take a look around anyway. If we were the ones to catch him it'd really be something!"

"Yeah, especially if he had a gun. Look, kid, stop making like a Junior G-Man and help me get the next run set up. You do know how to use a hypo, don't you?"

"Sure." The voice sounded slightly offended. "Why?"

"You can get the rat set up while I load the camera drum. Haul out that one in cage 27. If we get a good set of pictures this time maybe Doc Harris'll be satisfied and switch us over to something that isn't so messy."

The conversation stopped and Kerchoff could hear movements as the technicians went about their work. He wondered if they would pick up Darton, the janitor who had been able to pass on the information about the existence of the new drug.

Darton was better than

nothing—security was so tight these days that one couldn't be too choosy about ones agents—but he hadn't been able to get hold of a sample of RSX-400, and he didn't have enough of a technical background to make sense out of the laboratory notes he had seen. As a result Kerchoff had ordered to come himself. All that he knew was that RSX-400 stood for 'Reaction Speed Times 400' and that with it they had been able to speed up rats for four hundred times their normal activity rate. Its potential as a military weapon was obvious. If his country could use it first...!

HIS thoughts switched back to himself as he felt a sudden giddiness. If he had not already been stretched out, he would have fallen. He found it difficult to move as he tried to shift his position slightly.

"That's got it. Did you check his earmarks for the number?"

"Yeah. 1236."

"O.K. As soon as he goes into paralysis, put him in

front of the camera. I'll time him from there."

Paralysis! Kerchoff became aware of a sudden pervading numbness. He broke into an involuntary cold sweat. If the guards came back to make a more thorough search...

"Got it. In forty-three seconds I'll start the camera. Hope I figured the injection and body weight properly. With three seconds of camera time at 6000 frames, we have about one second leeway if we expect to get the whole action in. That forty-three seconds should catch him just as he comes out of paralysis and goes into superspeed."

A warm wave of relief swept over Kerchoff. He hadn't guessed wrong after all—the paralysis was just one phase of the reaction. As soon as it passed he would be able move at four hundred times his normal rate. He smiled inwardly as he saw himself whizzing through the great center like an invisible man, looking in on one top secret project after another, and then streaking out through the main gate to safety—out past the impotent guards to the safe hiding

place from where the others of the network would smuggle him safely out of the country. This would warrant more than a decoration.

"It's almost time. Look, kid, you'd better look the other way when it starts. I don't want you up-chucking all over my nice clean floor."

Kerchoff felt the numbness leave his muscles. As it did the voices of the technicians slowed and became lower in pitch. With a noise like an old fashioned phonograph slowing to a stop, they became inaudible. It was just as well.

"...forty-two. Now!"

Kerchoff braced himself, ready to send the concealing cannisters hurtling as he made a sudden dive for freedom. It would be necessary to kill the technicians but that could be done quickly, very quickly.

"There she goes!"

A moment later there was a sudden unpleasant noise of somebody retching and then an irritated voice exclaimed, "Damn it, I told you to look the other way. As many times as I've been through this I still have trouble hanging on to my own lunch."

"Sorry," said an embarrassed voice, "I guess I'm not as tough as I thought I was. Isn't there any way they can keep that from happening?"

"Not unless they could get somebody to repeal a couple of basic laws of physics. Flesh and bone just can't take movement at that speed. In a way it's like pulling a heavy block with a string. A slow pull and the block comes along. A quick pull and the string breaks. Think of that rat's bones as the block and its muscles as the string. Inertia tries to keep it at rest, and the first time it makes a movement, twang! snap!"

"I still don't get it."

"Look, before you can make movement some muscles have to tighten up. Right?"

"Right."

"So when you tighten up four hundred times as fast as you usually do, you're up

against inertia and the contraction rips the ligament away from the bone.

"The trouble is that it doesn't stop there. The ripping hurts so the rat tries to stop the painful movement by pulling back with the complimentary muscle. Crack! again. Either the bones snap or the second muscle tears away. The pain from this kicks off another movement and you've got a chain reaction that makes your rat pound himself into a bloody pulp."

"Ugh!" said the new technician. "Well, at least it's quick."

"To us, yes. But not to the rat. It must seem like years to him."

The lecture was interrupted suddenly when something began to tear itself apart in the closet.

THE END





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