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BEYOND THE END OF TIME

Edited by FREDERIK POHL



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A Glimpse of Tomorrow—Today . . .

THE EMBASSY *by* Martín Pearson

Grafius had a crazy idea: He thought there were Martians in New York. The truth was crazier yet.

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THE HUNTED *by* John D. MacDonald

There's plenty of adventure in a big-game hunt . . . particularly when the quarry is you.

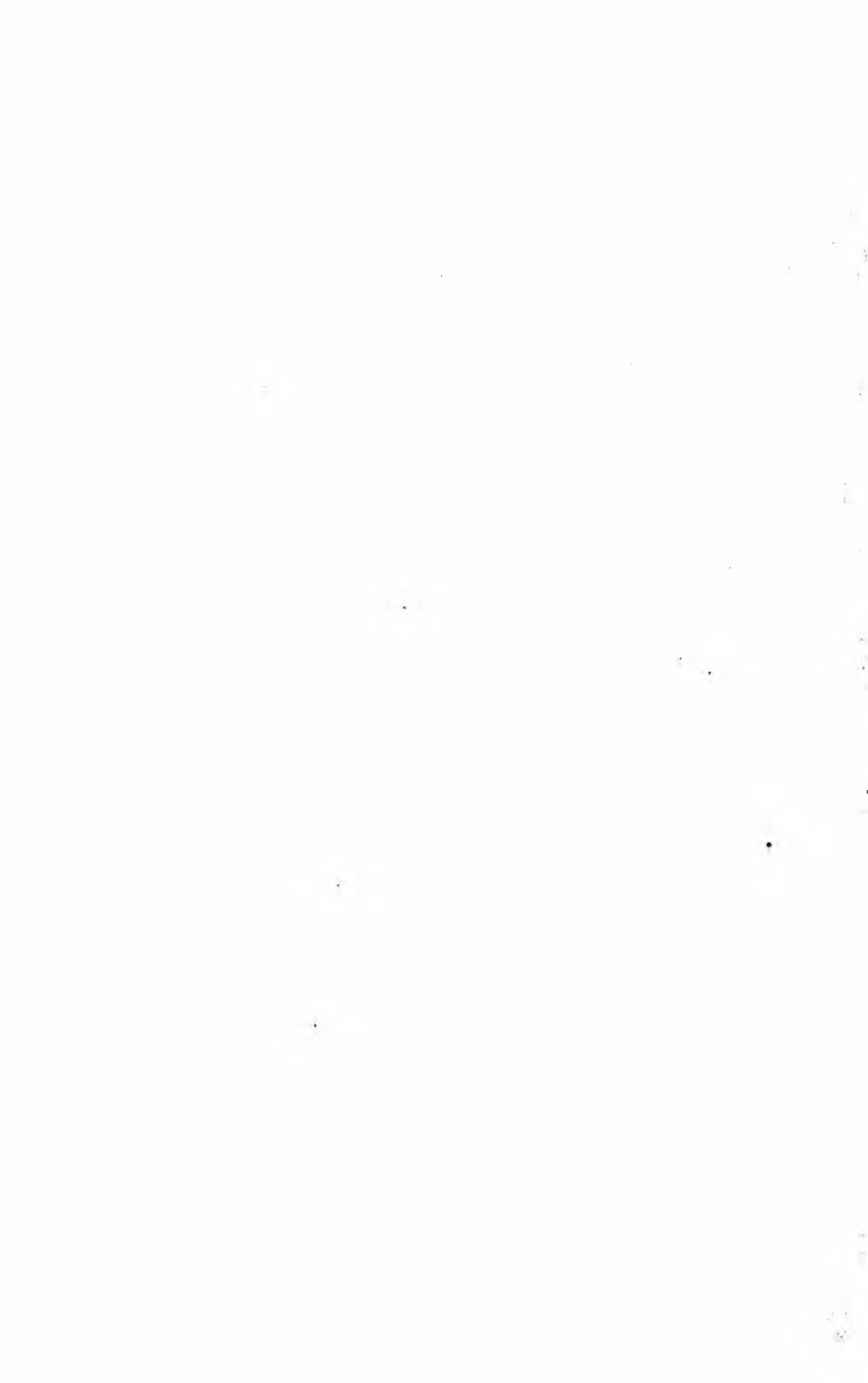
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LOVE IN THE DARK *by* H. L. Gold

He *said* he had blue hair and blond eyes. But it was hard to prove, because he happened to be invisible.

●

Here are nineteen fantastic, imaginative stories—written by the top ranking authors in the field of science fiction.



BEYOND THE END OF TIME

Edited and with an Introduction by

FREDERIK POHL



PERMABOOKS

Garden City, New York

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INTRODUCTION

THE NINETEEN stories in this volume are what is called "science fiction." You'll probably like the stories, for they are good stories, chosen from among the very best of the seven or eight thousand published in the past few decades, in this genre. But you may encounter a little trouble after you finish them, for someone may ask you, "But what is science fiction?"

Reader, you're not the only one who has trouble with that question.

Because there are nineteen stories in this book, there are nineteen answers to it right here. But there doesn't seem to be any general answer. In other types of fiction, it's easy. A detective story is a story about detectives; a Western story is a story about the West. But, whatever else it may or may not be, a science-fiction story is *not* a story about science. It is a story about people and events as they could someday, somehow, happen. It is a strong rule of good science-fiction writing that the stories should be at least theoretically possible, with no obvious mistakes of ignorance or carelessness. But that applies to all writing, of course. What would you think of a Western where the cowpokes carried tommy-guns?

Good science fiction is at least theoretically possible. And the proof of that statement lies in the fact that, every once in a while, a science-fiction story comes true.

For instance, let's make a mental excursion in a time machine. (You'll find several, in good working order, as

you turn these pages.) Take yourself back a quarter of a century, to the year of 1926, when the first magazine in America to devote itself exclusively to science fiction was published.

1926 is very remote from today, as you may remember. In 1926, you never heard of penicillin or sulfa drugs, of automatic gear-shifts or the United Nations. For entertainment at home you wound a spring-operated phonograph or listened to the Happiness Boys on your battery radio (not even Amos 'n' Andy had appeared yet). Your motion pictures were silent, and when you rode in a car it was likely to be a four-cylinder Model A.

It sounds as remote as the Pharaohs. But, even then, a quarter of a century ago, 1952 was within your grasp. For if you had taken a quarter to your nearest newsstand you could have picked up a magazine that would have discussed—

Television, atomic power, the sniperscope, the snooper-scope, rocket planes, jet planes, the bazooka, FM radio, helicopters, home wire-recordings, automatic pilots, radar, guided missiles, bacteriological war—yes, and even things which today still have not come to pass, though they loom on tomorrow's horizon: Interplanetary travel, stereoscopic TV, robots and pushbutton war.

Sometimes the names were different, it is true. But the ideas were there, often in astonishing detail. (When someone got around to inventing the submarine periscope, he found it impossible to get a patent—Jules Verne had predicted it to the last tube and prism.)

It is *almost* always true, then, that science-fiction is a window on tomorrow. It's a little cloudy, sometimes—but the view is there. And you can find a good deal of enjoyment in watching it.

For further details, consult the nineteen stories which follow.

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Grafius had a crazy idea: He thought there were Martians in New York. The truth was crazier yet

THE EMBASSY

By Martin Pearson

I CAME to New York," said Grafius, "because I am sure that there are Martians here." He leaned back to blow a smoke ring, followed it to its dissolution in the air-conditioning outlet with his cool, gray eyes.

"Iron Man!" bawled Broderick, quick as the snap of a relay. He backed around behind his chair as the office door opened and the formidable Mr. Doolan appeared, fists cocked on the ready.

"It's a whack," declared Broderick, pointing at Grafius. "It says there are Martians in New York."

Doolan, probably the most muscular, certainly the dumbest cop ever kicked out of the police department, eyed Grafius dimly as he clamped the caller's shoulder in a colossal vise of a hand. "Make with the feet," he said, groping for his words. "Hit the main, but heavy."

"He means 'get out,'" explained Broderick. "I echo his sentiments completely."

Grafius, rising leisurely, fished in his breast pocket and chucked a sharkskin wallet onto the desk. "Look it over," he said. "Well worth your time." He stood impassively as Broderick drew from the wallet several large bills.

"Holy-holy," whispered the inspector general as he fingered the money. "I didn't think you cared." Briskly he seated himself again and waved away Doolan.

"Naturally," he explained, toying with Grafius' card, "I'm loath to part with all this lettuce. Your remark about our little speckled friends, the Martians, I shall ignore. This is a small, young agency, new to the art of private investigation. Martians are outside our ken at this moment of the year 1942, but if there's anything in a more conventional line we can do for you—"

"Nothing at all, thank you," said Grafius of Springfield. He recovered his wallet and card from the desk. "However, if you'd care to listen with an open mind—"

"Open wider than the gates of hell," said the private detective, his eyes on the vanishing currency. "Tell your tale."

Grafius crushed out his cigar. "Suppose you were a Martian," he said.

Broderick snickered. "One of the small ones with three tails, or the nasty size with teeth to match?" he asked amiably.

"I'm sorry," said the man from Springfield. "My data doesn't go as far as that, but in a moment I'll give you a reasonable description of the Martians that are in New York.

"When I say Martian, of course, the meaning is 'extra-terrestrial of greater civilization than ours.' They may not be Martians. They may even be from another galaxy. But assume you are what I call a Martian, and that you want to keep in touch with Earthly civilization and advancement. Just where would you go?"

"Coney Island?" helplessly suggested the detective.

"Naturally not," said Grafius severely. "Nor to Sea Breeze, Kansas. Nor to Nome, Alaska. Nor to Equatorial Africa. You wouldn't go to some small town. You

wouldn't go to some out-of-the-way part of the world where living is anywhere from twenty to several hundred years behind human progress. This will eliminate Asia and Africa. It will eliminate almost all of Europe and South America."

"I get it," said Broderick. "The Martians would head for the U.S.A."

"Exactly. The United States today is the most technically and culturally advanced nation on Earth. And, further, if you came to the United States, you'd come to New York. You would come because it's the largest human concentration on the globe. It's the economic capital of the continent—the very hemisphere! You agree?"

"Sure," said Broderick. "And you wouldn't be in London because of the war. You can't observe human culture while the shells are popping."

"Exactly. But I still haven't proved anything. To continue: it's quite clear to me that we Earth people aren't the only intelligent, civilized race in the Universe. Out of the infinitude of stars and planets there most definitely, mathematically *must* be others. Mars—to continue with my example—is older than Earth geologically; if there were Martians, and if their evolutionary history corresponded with ours, they would certainly be further advanced than we.

"And I will make one more hypothesis: it is that we Earth people are today on the verge of space conquest, and that any race further advanced than we must have already mastered space flight."

"Go on," said Broderick, who was beginning to look scared. He was a naturally apprehensive type, and the thought that Martians might be just around the corner didn't help him.

"Certainly. But you needn't look so worried, for the Martians won't show up in your office. They must work

strictly under cover, since from their point of view—advanced, you will remember—it would be foolish to make themselves known to us as long as we humans are a military, predatory race. It would be a risk which no advanced mentality would take.”

“How long has this been going on?” asked Broderick agitatedly.

“Judging from the geology of Mars, some hundreds of years,” replied Grafius dreamily. “They’ve been watching, waiting—”

“You said you could describe them,” snapped the detective. “What do they look like?”

“I can’t describe their appearance,” said Grafius, down to Earth again. “But this is what they most probably are: a group of ordinary-appearing people who live together in downtown New York, close to newspapers, publishers, news cables, communication centers and the financial powers of Wall Street. They would have no obvious means of support, for all their time must be taken up with the observation that is their career. They almost certainly live in a private house, without prying janitors who would get curious about their peculiar radio equipment.

“And our best bet—they are sure to receive every major paper and magazine, in all the languages of the world.”

“I get it,” said Broderick. “Very sweet and simple. But what’s your reason for wanting to meet up with the Martians social, if I may ask?”

“Call it curiosity,” smiled Grafius. “Or an inflated ego. Or merely the desire to check my logic.”

“Sure,” said Broderick. “I can offer you the following services of my bureau: bodyguard—that’s Iron Man, outside. Think you’ll need him?”

“Certainly not,” said Grafius of Springfield. “You have

no right to suppose that the Martians would stoop to violence. Remember their advanced mentality."

"I won't insist," said the detective. "Second, I can check on all subscription departments of the big papers and magazines. Third, the radio-parts lead. Fourth, renting agents. Fifth, sixth and seventh, correlation of these. Eighth, incidentals. It should come to about—" He named a figure. The remainder of the interview was purely financial in character.

Iron Man Doolan wasn't very bright. He knew how to walk, but occasionally he forgot and would try to take both feet off the ground at once. This led to minor contusions of the face and extremities, bruises and gashes that the ex-cop never noticed. He was underorganized.

It taxed him seriously, this walking about in a strange neighborhood. There were hydrants and traffic signals in his way, and each one was a problem in navigation to be solved. Thus it took him half an hour to walk the city block he had been shown to by Broderick, who was waiting nervously, tapping his feet, in a cigar store.

"He's dull—very dull," confided the detective to Grafius, who sipped a coke at the soda fountain. "But the only man for a job like this. Do you think they'll make trouble for him?"

Grafius gurgled through the straw apologetically. "Perhaps," he said. "If it is No. 108—" He brooded into his glass, not finishing the sentence.

"It certainly is," said Broderick decidedly. "What could it be but the Martian embassy that takes everything from *Pic* to the *Manchester Guardian*?"

"Polish revolutionaries," suggested the man from Springfield. "Possibly an invalid. We haven't watched the place for more than a couple of weeks. We really haven't any data worth the name."

The detective hiccuped with nervousness, hastily swallowed a pepsin tablet. Then he stared at his client fixedly. "You amaze me," he stated at last. "You come at me with a flit-git chain of possibilities that you're staking real cash on. And once we hit a solid trail you refuse to believe your own eyes. Man, what do you want—a sworn statement from your Martians that they live in No. 108?"

"Let's take a look," said Grafius. "I hope your Mr. Doolan gets a bite."

"Iron Man, I repeat, is not very bright. But he's pushed buttons before, and if somebody answers the door he's going to push the button on his minicam. I drilled that into his—"

He broke off at the sound of a scream, a shriek, a lance of thin noise that sliced down the street. Then there was a crash of steel on concrete. The two dashed from the shop and along the sidewalk.

They stopped short at the sight of Iron Man Doolan's three hundred pounds of muscle grotesquely spattered and slimed underneath a ponderous safe. A colored girl, young and skinny, was wailing in a thin monotone, to herself: "First he squashed and then it fell. First he squashed and then—"

Broderick grabbed her by the shoulders. "What happened?" he yelled hoarsely. "What did you see?"

She stopped her wail and looked directly and simply at him. In an explanatory tone she said: "First he squashed—and *then* it fell." Broderick, feeling sick, let go of her, vaguely heard her burst into hysterical tears as he took Grafius by the arm and walked him away down the street.

Somewhere on Riverside Drive that evening the detective declared: "I know it sounds like a damned childish trick, but I'm going to get drunk, because I had a lot

of affection for Doolan. He would understand it as a fitting tribute."

"He was, in his way, the perfect expression of a brutal ideal," mused Grafius. "In an earlier, less sophisticated day he would have been a sort of deity. I'll go with you, if you don't mind."

In a place whose atmosphere was Chinese they drank libations to the departed Iron Man, then moved on down the street. Midnight found Broderick pie-eyed, but with a tense control over his emotions that he was afraid to break through.

It was Grafius at last who suggested calmly: "They are a menace. What shall we do about them?"

Broderick knew just exactly what the man from Springfield meant. With a blurred tongue he replied: "Lay off of them. Keep out of their way. If we make trouble, it's curtains for us—what they did to Doolan is all the proof I need. I know when I'm licked."

"Yes," said Grafius. "That's the trouble with you. Doolan didn't know—" He collapsed softly over the table. Broderick stared at him for a long moment, then gulped the rest of his drink and poked his client in the shoulder.

Grafius came up fighting. "Martians," he shrilled. "Dirty, dusty, dry sons of—"

"Take it easy," said the detective. He eyed a girl sitting solo at a near-by table, who eyed him back with a come-on smile.

Grafius stared at the interchange broodingly. "Keep away from her," he said at last. "She may be one of the Martians—filth they are—unspeakable things—bone-dry monsters from an undead world—" He canted over the table again.

The liquor hit Broderick then like a padded tent maul. He remembered conducting a fantastically polite Gallup poll of the customers in the saloon, inquir-

ing their precise sentiments toward "our little feathered friends of the Red Planet."

He should have known better than to act up in Skelley's Skittle House. Skelley was a restaurateur slow to wrath, but he had his license to take care of, as well as his good name. And Skelley, like so many of his kind, got a big kick out of seeing what a Mickey Finn could do.

Grafius was completely unconscious when Broderick, with elaborate protestations of gratitude, accepted the "last one on the house." He tossed down the rye and quaffed the chaser. Skelley, ever the artist, had stirred the chloral into the larger glass.

The stuff took effect on Broderick like a keg of gunpowder. After the first few spasms he was utterly helpless, poisoned to within an inch of his life, lying heaving on the floor, his eye whites rolling and yellowed, pouring sweat from every hair, actually and literally wishing he were dead and out of his internal agony. That is what a skilled practitioner can do with the little bottle behind the bar.

He saw the waiter and Skelley go through Grafius' pockets, calling for witnesses among the customers that they were taking no more than their due. The customers heartily approved; a woman whose face was baggy and chalked said: "Peeble wh' dunno hodda drink li' genlem'n shunt drink 't all!" She hiccuped violently, and a waitress led her to the powder room for treatment.

Skelley laboriously read the calling card in Grafius' vest. "That ain't no help," he declared wittily. "It don't say which Springfield."

Broderick saw and felt himself being rolled over, his pockets being dipped into. The spasms began again, ending suddenly as he heard the voice of his host declare: "No. 108! Snooty neighborhood for a lush like that."

The detective tried to explain, tried to tell the man

that it wasn't his address but the address of the Martians he'd chanced on in his pockets. But all the voice he could summon up was a grunt that broke to a peep of protest as he was hauled up and carried out in Skelley's strong and practiced arms.

He and Grafius were dumped into a taxi; between spasms he heard the restaurateur give the hackie the Martians' address.

Broderick was going through a physical and mental hell, lying there in the back of the cab. He noted through his nauseous haze the street lights sliding by, noted the passage of Washington Square, sensed the auto turning up Fifth Avenue. His agony lessened by Fiftieth Street, and for a moment he could talk. Hoarsely he called to the cabby to stop. Before he could amplify and explain, the retching overtook him again, and he was helpless.

He passed out completely at a long traffic-light stop; he never felt the car turn right. The next thing he knew the cabby was bundling him out of the rear, leaning him beside Grafius against the door of No. 108. The cabby leaned against the buzzer for a moment, then drove off.

Broderick could only stare with dumb agony as the door opened. "Dear, dear!" said the soft, shocked voice of a woman.

"Are they anyone we know, Florence?" demanded a man.

"Unfortunate creatures, whoever they are," said the woman.

Broderick got a glimpse of a handsome, ruddy face as the man carried him into the hall, the woman following with Grafius. The man from Springfield awoke suddenly, stared into the face of the woman, then set up a shrill screaming that did not end until she had punched him twice in the jaw.

"Shamel!" she declared. "We're kind enough to take you two sots in out of the cold and then you get the D. T.'s!" There was a warm smile lurking in the corners of her mouth.

The man opened a door somewhere, and Broderick apprehended a smooth, continuous clicking sound, very much faster and more rhythmical than a typewriter.

"There's something familiar about this boy, Florence," declared the man as he studied the helpless detective.

She wrinkled her brows prettily. "Of course!" she cried at last with a delighted smile. "It's that Broderick!"

"Yes. That Broderick," said the man. "And this other one—"

"Oh!" cried the woman, in tones of ineffable loathing. "Oh!" She turned her head away as though sickened.

"Yes," said the man, his face wrinkled and writhing with unspeakable disgust. "This other one is the Grafius he was so often thinking about."

The woman turned again, her face raging angry, black with the blackest passion. Her high French heels ground into the face of the dead-drunk Grafius again and again; the man had to pull her off at last. It was plain that he himself was exercising will power of the highest order in control of an impulse to smash and mangle the despised one.

"Grafius!" he said at last, as though the word were a lump of vileness in his mouth. "That Venusian!" He spat.

The woman broke free from his grasp, kicked the mutilated face. Broderick heard the teeth splintering in the abused mouth.

There's plenty of adventure in a big-game hunt
. . . particularly when the quarry is you

THE HUNTED

By John D. MacDonald

THE lesser gravity of Earth gave the two creatures a free, bounding stride as they walked down the slope toward the pens. The myriad facets of their eyes caught the morning sun with the iridescent gleam of oil on water. As was the rule when inspecting the penned creatures, they both carried the tiny silver tubes which, when properly aimed, blocked all neural impulses except those necessary to sustain life.

To the two of them, the penned creatures were a source of excitement. Thome, the elder of the two, said in his piping voice, "A new lot came through yesterday. I want to get your opinion."

They stopped and looked through the electrified wire. Riss, the younger, made a high thin sound of satisfaction. "Excellent! They are in fine shape. Look at that one."

They both looked with proprietary pride at a young naked man who stood and stared sullenly at them. He was well over six feet tall, heavily muscled, his tan skin marked with the white scar tissue of many wounds. His blue tyes seemed to flare with the instinct to kill as he looked at the two outside the fence.

"It seems odd," said Thome, "that the first of us to come here found these creatures repulsive. I have become quite fond of them."

"In a way," Riss said, "it is sad." He turned and pointed to the shattered skyline of Chicago. "They were far enough advanced to have built their crude cities, even to release a fractional part of the power of the atom. Who can tell what their destiny might have been?"

Thome giggled. "You are too imaginative. They are too wild to have continued to live with the atomic power in their grasp. We saved them from themselves."

Riss shrugged. "Maybe you're right. And then again, in the last eighty years of breeding, while we strove for ferocity and cunning, we may have bred out of the race some leavening factor which would have enabled them to overcome their innate murderous instincts."

"This group will make good sport," Thome said proudly.

"What is planned?"

"Tomorrow I am expecting a rather large party. We will release twenty of these creatures in the ruined city. All will contribute and a prize will be given to him who brings the most of them down."

Riss frowned. "They are dangerous in the city. It is better to hunt them on the plain."

Thome giggled again. "All the better. The sport lasts longer. Would you like to inspect that one?"

Riss nodded. Thome adjusted the switch on the small silver tube. As he aimed it, there were hoarse cries of fear from the pen. But the young blond man only crouched and drew his lips back from strong white teeth. Thome carefully sprayed the group with the silver tube and they froze in position. One, caught off balance, fell heavily.

AFTER throwing the switch, Thome opened the gate and the two of them went into the pen. The blond young man was frozen in his half-crouched position. They walked around him while Riss prodded his muscles, inspected the white teeth.

"A fine specimen," he said at last. "Will he be used for breeding?"

"If he is not too seriously injured in the hunt."

PETER could not move his eyes. Many times this undignified thing had happened to him and each time it made him furious. The two dead-white beings with the silver tubes walked back out and slammed the gate. He could see their movement from the corner of his eye.

The silver tube was pointed again and the power that had kept him immobile was suddenly released. He looked at them, made a low growling sound in his throat and turned away. His hands itched with the desire to get hold of them, to tear their pale flesh, sink his teeth in their tiny throats, smash in the huge many-faceted eyes.

Vaguely he wondered why they had looked so carefully at him. This was a new pen. In the beginning, the first thing he remembered was the pen of the children. That was when he learned about the fence. Only once had he been thrown back stunned, after touching it. Yet he had seen others in the children's pen touch the wire many times.

In the end of the runway was the feeding trough. It was wise to run quickly at feeding time, to push the others away, to snarl and bite and strike out. If you missed too many feeding times, you became weak and then never again would you be able to feed. The others would push you away and then you would lie down on the dirt and breathe no more.

In the pen of the children he was the strongest. All bowed to his fist and his sharp teeth. He remembered the time they had moved him from the pen of the children to the pen of the young men. He had not wanted to leave the pen of the children. A week before, he would have been glad to leave, glad of the change. But he had begun to have an odd feeling when he looked at the girl-child they called Mary. He did not want to leave when they moved him.

The pen of the young men had been vast. There was not so much fighting there, because of the work. The work was strange. Great stones had to be carried back and forth without reason. And then, of course, there was the running.

He did not know how long he had been in the pen of the young men. It was like the children's pen in that there was a place for sleeping, with a roof, and the feeding trough. And the wire.

Then he had been moved. One sun ago he and many from the pen of the young men had been moved to this much smaller pen. It was far too small. He felt cramped, stifled.

As the two walked away from the wire, back up the slope toward the white sphere in which they lived, Peter turned back toward the sleeping place. The others laughed at him because he had been prodded and inspected.

"Oh-eh, they will kill you and eat you, Peter," one of them said.

The others laughed deeply in their throats.

Peter pretended not to notice. He walked slowly by the group. Then, bunching the muscles of his huge legs, he threw himself at them, striking them at ankle height with his hurtling body. He was the first to scramble to his feet. He did not use the blows that kill; just punish-

ing blows. His square fists smacked against flesh. One of them leaped onto his back and with a quick twist he threw the man against the wire. There was a puff, the smell of singed flesh. They crept away from Peter and laughed no more.

He inflated his big chest and thumped it twice with a heavy fist, making a hollow booming that resounded through the pen. At the sound, an older man swaggered out of the sleeping place. He was more scarred than was Peter. Peter had given the challenge.

Stiff-legged they walked around each other, making small sounds in their throats. Once the challenge has been made, the fight must be to the death. Peter saw that this was an old one, a clever one.

The clever one's body was nearly covered with tightly curled reddish-brown hair. His face was scarred so that one side of his mouth was always drawn up away from the yellow teeth in a snarl.

The old one feinted, thrust at Peter's eyes with long nails. Peter slid away from the stab, clamped his fingers on the other's wrist and spun. The old one cleverly threw himself in the right direction so that his arm did not snap. In doing so, he brought his shoulder close to Peter's mouth. Peter's teeth met in the meat of his shoulder, and then with a wrench of mighty neck muscles, he tore a long strip of flesh loose. The old one bawled, leaped away, blood staining his arm, dripping from his fingertips.

The others in the pen, some thirty of them, stood in a loose circle and watched without expression, without sound.

Once more they circled each other. This time the old one was more cautious. He knew his muscles were stronger, but that he was not so quick.

Peter dodged suddenly to one side, and then threw

himself straight at the old one, knee plunging up toward the groin. The old one turned, caught the thrust on the hip bone, and his arms locked around Peter's torso. The old one made a small purring sound of approval. Slowly his arms began to tighten. Peter took a deep breath. The old one had his face tight against Peter's chest so that Peter could not get at his eyes. Peter grasped the hair of the old one's head with both hands, pulled the old one's head back. Then, letting go with his right hand, he quickly brought it around so that his forearm was across the mouth of the old one. Peter felt the stinging pain as teeth met in his arm.

His leverage was good, but the old one was stubborn. Sweat poured from both of them. Suddenly there was a dim crack, as of a dry twig in the forest. The old one slumped to the ground, his head at an odd angle. Peter kicked him full in the face with the hard ball of his foot, then turned and once more issued the challenge. There were no takers. He walked into the sleeping place, stretched out on the straw and began to lick the wound in his arm. It was in a difficult place, but he knew that if he did not lick it, it would not heal properly.

Somehow he felt no urge to join the others. They had gathered the sticks and built the fire. He could hear them quarreling mildly over the more succulent portions of the body of the old one. Though they had just been fed, they would eat the old one, because there was no other way to gain the strength that the old one had possessed.

After a time Peter slept, his big chest rising and falling very slowly, his dreams filled with memories of battle.

The next day, just as the sun had risen, a large number of the masters with the little silver tubes came to the wire. One of their floating platforms was brought close.

The little tubes were aimed and Peter felt the sudden stillness that could not be broken.

With their lifting sticks, they picked him up, floated him through the door set into the wire and dropped him heavily onto the floating platform. Though he tried with all his strength, he could not break the invisible bonds of the silver tubes.

Others were dropped near him. He felt the thuds of their bodies. Many thuds. One man landed across Peter's legs.

The gate closed and then the floating platform went off at great speed. He knew they were high in the air and it made him dizzy.

His stomach felt the sudden drop, the slowing, and once again the platform hung still in the air. They were all taken with lifting sticks and dropped onto rough broken pavement.

He heard the voice of one of those weak, soft men who served the masters. The hated voice of one of those who filled the feeding troughs and cleaned the pens.

"You are in the city. You are free. You cannot leave the city, because on one side is vast water and on the edges of the city are the areas of pain. But the city is large. There are many places to hide. The masters will come to hunt you down and kill you. If you can, you are permitted to kill first. There will be no punishment.

"In an hour the masters will come. Many of them. They will leave the city at dusk. They will return at dawn. If any of you last for three days without being found and killed, you will then be recaptured and sent to the pens where there are women."

The voice stopped. The pressure was suddenly released. Peter jumped to his feet, saw the floating platform soaring above the shattered roofs. He looked about, his head thrown back, sniffing the air.

So the masters were coming to kill! Good! They would come to be killed, also. He, Peter, would see to that. At last a chance to tear their pale flesh! In the full pride of his strength, he beat his chest once more.

It did not occur to him, nor to any of the others, to band together in defense or offense. Set down with a common nucleus, they drifted off in all directions, wary and alert.

It was the first time Peter had seen a city. He did not like it. Great mouldering walls, and streets blocked with rubble. Pavement heaved and torn. One had to step carefully, because of the shattered glass.

He walked aimlessly at first, then suddenly remembered that the masters would begin the hunt in one hour. He did not know what an hour was, but he had the idea that it was a very short time. There were many hours in one sun.

A dark entrance looked like a place in which to hide. The doorway was almost blocked with rubble. He squeezed through, waited until his eyes became accustomed to the gloom. A sagging stairway led up. He went up it rapidly, touching his knuckles to the stairs, his nose alert to the scents around him.

At the top of the stairs it was light. There was no roof on the building. It was not a good building in which to fight. He left it in disgust, but as he went down the stairs he wrenched free a stout club. It felt good in his hand. The firewood was always too small to use as a club. This was a fine, a wonderful club. He swung it, listened to the whistle it made. Ah, this club would smash the brains of the masters, the white, weak ones with the insect eyes.

The third entrance he tried was good. It was a very big place. His bare feet padded on some smooth cold stone on the floor. To his left were several cages made of metal. He stuck the club into an open place in the

metal and twisted. The metal was weak. It broke under the strain.

The cage was dark inside. He looked up and saw that it went up a great distance and that long metal ropes, two of them, went up into the blackness. He wanted to climb the metal ropes to find a secret place high above him. Yet he could not climb and carry the club at the same time. It took a long time of thinking. Then he found a bit of rotted rope, tied it crudely where it seemed weakest, then tied one end to the club. He looped the other end around his waist and tied it.

He leaped up into the darkness, his powerful hands closing on the metal rope. Hand over hand, he went up into the darkness. The rope was sticky. His biceps began to crack and tingle with the strain. He locked his legs around the rope and rested for a time. Once he looked down and clung more tightly to the metal rope.

The second time he stopped to rest, he did not dare look down. He clung to the rope and shut his eyes. At last he came to the end. The metal ropes, both of them, went around wheels. There was a faint light. Above him was flat metal. His muscles ached with strain. He inched up further, clung with his legs and his right hand, and got the club with his left. He jabbed it up against the metal. There was a hollow sound, but it seemed solid. He waited for a moment, wondering what to do.

Then he saw a metal bar across the wall five feet away. Above the bar was a narrow space. He could squeeze through up there.

With sudden resolve, he grasped one of the wheels and swung across, reaching out his left hand, then hung, panting, to the metal bar. Slowly he worked his way up until he could stand on the metal bar. The narrow place touched his chest and his back. Above him was light. Finding small handholds, he worked his way up for a

distance of about ten feet. Then the narrow space opened out and he found he could stand on a flat surface. As nearly as he could make out, the thing on which he stood was fastened to the metal ropes and fitted inside the shaft up which he had climbed. He wondered if it was used in the old world to carry people up and down the shaft.

Eight feet from the top of the box was an opening in the side of the shaft. He jumped, caught the edge with his fingers and pulled himself up, rolled out onto a stone floor like the one so far below.

There were many doors opening onto the long hall. They sagged on their hinges as though they had been driven open by a blast. He looked in the first one. In great wonder he looked at the gray fragile bones of a man who sat, in death, behind a large box. There were tiny shards of glass on the floor. The floor was covered with a soft, rotted fabric.

In one corner was a smaller box and on top of it was a strange machine. Smaller bones were on the floor near the machine. Smaller bones and wisps of long pale hair. He could smell ancient death. His skin prickled.

The machine was rusted. It had a black roll across the top of it, and in the roll was a fragment of scorched paper. With a blow of his club he drove the machine off the smaller box. It fell in a reddish cloud of dust and rust.

Suddenly he remembered the danger. It would be wise to find out if there were another way to get to this place. He ran down the corridor, looking in each room, trying to find some place that led down. In most of the rooms there were machines and bones and the smell of dust.

At last he found a place where stairs led down. It made him angry. He growled low in his throat. The masters could come up this way.

If it was not blocked.

He went down many lengths of the stairs, going ever lower, and then he rounded a corner, fought for balance, his mind sick with fear. Below him was emptiness for fifty feet, and below that, the building started again. It was as though huge jaws had taken a bite out of the side of the building.

Returning, he went back up the stairs. He went back beyond the floor where he had climbed out of the shaft. The stairs ended. Above him was wood. He pushed against it and it opened with a creak of rusty hinges. He was out in the air. He was on a flat place bigger than the pen. It was surrounded with a low stone wall. He went to the wall, looked cautiously over. The street was a dizzy distance away.

Even as he looked he saw one of the floating platforms far below, cruising down the street. He growled deep in his throat. Two of the masters were on the front edge of the floating platform. His keen eyes saw that they did not hold the silver tubes. Instead, they held the thick, stubby, black rods with the glowing coil above the barrel.

Peter knew those rods. He had seen one used, on a man who had been blinded in one of the fights in the pen.

The master had pointed it. There had been a thick noise, like a husky cough, and the blinded man's head had disappeared, blood spouting from the neck stump.

They were looking for Peter to kill him with those black rods. He snarled. Then his eyes widened in quick interest.

As the floating platform speeded up, he saw a naked man leap from behind a pile of rubble, hurl a stone at the two masters. Without seeing where his stone landed, the man turned and ran.

Peter smiled in satisfaction as one of the masters top-

pled from the platform. The other one aimed the rod. The running man threw up his arms, stumbled and rolled in the cluttered street, was still, his blood bright and red in the sunshine. The platform settled to the pavement. The master who had killed the man hurried back to his companion. He leaned over him.

Suddenly Peter realized that they were almost below him. He looked around for something to drop on them. Then he saw that the railing was made of large stones that had been fitted together. The substance which had fastened them together was crumbled.

He put his hands on the edge of it, braced his feet and pulled. The muscles stood out on his arms and shoulders. He pulled until the world went red in front of him, and slowly the stone came free, dropped onto the roof.

He looked over the edge. They were still down there. But they were some distance from the wall of the building. The stone would have to be hurled away from the building.

The sharp edges cut into his thighs, tore the flesh as he picked it up. By great effort he got it above his head, both palms flat against it. His legs shook.

He moved to the edge. They were still there, but the one who had been hit by the stone was sitting up. There was little time left. He moved a foot to the left, then took two quick steps, pushing the big stone as far out from the side of the building as he could. For a moment he thought he was going to follow it over, but he caught the edge with his hand.

Fascinated, he watched the huge stone dwindle, turning over slowly.

He thought it had gone beyond them, then suddenly they were blotted out. The white stone leaped into a hundred shattered pieces. After he had seen the pieces fly, he heard the crash.

Where the stone had hit there were clots of white pulp against the gray pavement, and a thin, watery substance.

The floating platform rested there, waiting for the ones who would not return. On the forward edge of it was one of the black rods.

Slowly the idea came to him that soon another one of the masters would come. The master would see the bodies, see the fractured stone.

Then he would look up, see the roof, come up after him on one of the platforms. That was a way of getting to the top of the building that he had not considered.

Thus his building was not good. Not a safe place.

But if a man could have one of those platforms . . .

HE RAN down the flights of stairs to the corridor, jumped down to the top of the box, squeezed down between the box and the wall, swung across to the cable and slid down. The heat of the friction seared his hands. At last he thumped against the floor, climbed out through the broken grille and went to the street door. Flies buzzed over the body of the man who had been shot down as he had tried to run. The black rod had bitten a head-sized hole through his torso.

All sense alert, Peter stood inside the doorway. There was no sound, no scent of the masters. He ran to the floating platform. He did not even look toward the white pulp of the two masters he had slain.

At first he made a motion to push the fearful black rod off onto the street. Then curiosity got the better of him. He picked it up, sighted it the way the master had done, and touched the button set into the side of the barrel. The body of the man up the street jumped and slid several feet further away.

He tried to remember how he had seen them work the platforms, and felt angry with himself because he

had not watched more closely. The platform was of a silvery metal, and was as wide as he was tall, and twice as long. It was as thick as his thigh. Two tiny levers, made for the masters' childlike hands, protruded through two slots near the front of it.

He grasped one lever and pulled it back. The ascent was so rapid that it forced him down against the platform. By the time he overcame his shock and surprise, and got the lever pushed forward again, he was higher than the roof he had been on. Much higher.

In fear he pushed the lever too far forward. The drop was sickening. He brought it back to the halfway mark and the platform hung motionless in the air, moving slightly toward the building because that was the direction of the wind.

The slot for the other lever was bigger. He found that the second lever would move in any direction. More cautious than he had been with the first lever, he moved it to the left and the platform moved slowly away from the side of the building. He pulled the first lever back slightly, waited until he was above the roof, and then pushed the second lever to the right. The platform floated over the roof. He pushed the first lever slowly forward until the platform settled onto the roof with an awkward jar.

He made a warm sound of pleasure, scratched his chest and looked at the platform with pride of possession.

It was then that he heard the distant cough. A section of the stone railing flew off, and the rock dust bit into his face, stinging him so that tears came to his eyes.

With one motion, he snatched the black rod, whirled and dropped flat behind the railing. He scrambled far to one side on his belly, and then took a quick look. A second platform was coming up toward the roof on a

long slant. One of the masters held a black rod. The second was guilting the platform.

He saw that they were going to pass right above him, and he felt fear. He brought the rod up to aiming position. Then he jumped to his feet, his finger tight on the button, aiming full at the two figures.

Near his feet a hole suddenly appeared in the roof.

A shattered figure spun over and over, down toward the pavement. A second, suddenly headless, hunched over the control switches. The platform continued to angle up. It passed so close to him that he involuntarily ducked. Then it continued on at the same angle, constantly rising as it passed over toward the vast stretch of blue water.

With three bodies in the street, this would not be a good building. And sooner or later, one of the masters would fly over and see the silver gleam of the platform.

If only the platform could be hidden. If there were a hole to put it in and cover it over. He stared stupidly down at it. It was so large! Gradually he became conscious of the weight of the black rod in his hand.

There was a hole in the roof near his feet. He looked down the hole into a large corridor. Shaking with sudden excitement, he put the end of the rod close to the roof and touched the button. It cut through the roof. He moved it in a large rectangle, remembering at the last moment that he should be standing outside the rectangle. It sagged and, as he cut the last portion, fell through. There was a crash and a cloud of white plaster rose up. He hurried to the platform, and, with growing skill at the simple controls, moved it a foot off the roof, directly over the hole, and then pushed the first lever forward. It sank through the hole. He stopped it before it touched the floor, then eased it forward. There was a

wall in the way. With the rod, he blasted a hole in the wall and edged through. He thought it might be necessary to leave quickly, and he mentally reviewed the lever motions that would be necessary.

WEARY with the hunt, Thome returned to find Riss standing near the depleted pen. The last rays of the sun touched the shattered towers of ancient Chicago.

Riss looked up. "I told you it would be dangerous," he said mildly.

Thome sagged to the ground. He shrugged. "They wished to have sport. Dangerous sport. I told them that the creatures were crafty and dangerous. But they were jaded and wished the excitement and the killing. They received it. And five of them were killed! I was nearly killed by one who attacked with a club in a narrow place we thought empty."

Riss gasped. "Five! I thought it was but two!"

"We found three more bodies. Of the twenty that were released, fourteen have been killed. There are only six live creatures left in the city."

Riss looked relieved. "Then tomorrow there will be little danger."

Thome plucked at the grass with his thin white fingers. "Little danger? One of them, we do not know which one, has captured a platform and a thrust gun. The hunted becomes the hunter."

"Then that ends the hunt," Riss said firmly. "They will bring over one of the ships and char the city, surely."

Thome shook his head. "No, Riss. They intend to stick to their bargain. After all, the creature will be clumsy with the platform and the thrust gun."

Riss asked quietly, "Will you join the hunt tomorrow?"

"Would you?" Thome asked.

THERE was a sagged place in the roof that held water. Before dawn Peter found it and drank thirstily. Thus, at dawn he saw the two platforms floating over the city.

He slipped down into the building and watched from the darkness. They seemed to be searching: two of them. The odds were against him, in spite of his new and satisfying weapons. He guessed that they would now hunt in groups of two or more.

He faded out of sight. After a long search of the rooms he at last found a place where there was the smell of dried food. There were many round metal containers. Some of them had rusted, and the food had run out and dried on the shelves. He took two without holes, found a sharp piece of metal and punctured them. The taste was strange, but good.

It was while he was eating that the building began to quiver. He dropped the metal containers, ran to the roof. When he was certain that nothing hovered over him, he ran to the wall, looked cautiously over.

Two platforms hovered above the street. The masters, four of them, were aiming the black rods at the base of the building.

Even as he watched, the building jolted and sagged. There was an ominous sound of tearing metal, of the crunching of stone and plaster. He realized what they were doing. The building would fall. He would be crushed. He ran down to the platform, threw himself face down on it, the black rod under his chest, and slowly brought the platform up so that it was flush with the hole he had made in the roof.

The sweat of fear was on his body. If he caused the platform to fly up into sight, they would come after him. If he waited, he would be killed.

Slowly and majestically, the building began to move

toward the street, tilting toward the smaller buildings on the opposite side.

He pushed the second lever to the left, moved with the building for a few seconds, then hung motionless while it fell away from him. The two other platforms shot up and he got a glimpse of them just before a vast cloud of dust rose up and he was deafened by the grinding, prolonged crash of the building.

The dust choked him. He pulled the first lever as far back as it would go for the maximum upward speed and wedged the second lever as far ahead as it would go. The wind tore at his face as he angled up out of the dust, rising at tremendous speed.

As he came out into the clear air, he had a chance for a quick shot at one of the other platforms. He saw the faceted eyes turn toward him, and then a gouge flew out of the rim of the other platform which held the control levers.

It seemed to hang in the air for a moment, and then went down like a falling leaf, spinning over and over. He looked behind him, saw the second platform match course with him. But it was far behind. In the remote distance, he saw two more leap up out of the city and turn toward him.

A great and intense pain suddenly knotted every muscle. He groaned and screamed and thudded his head against the cool metal in an ecstasy of pain. Then it was gone, and the city was behind him.

The pain had left him weak. He dimly realized that he had shot through it at such a great speed that it had not caused him to faint. Usually the pain did that. The masters were able to make the areas of pain wherever they pleased. Once he had escaped with two others from the pen of the children. From above they had been enclosed in a ring of pain. It was more certain than the

wire. No man could crawl through it without fainting, remaining helpless until picked up. The pain had no effect on the masters.

As he slowly recovered his strength, he grew conscious of great cold. The earth was far below. Frost was beginning to appear on the silver surface of the platform. He pushed the first lever slightly forward, without decreasing the speed. The platform behind him remained at the same distance.

Suddenly he wanted to be back in the pen, back among those who fought with fist and teeth and nails. He wanted the security of the pen. He wanted to weep with loneliness and with fear of the death which was coming so inexorably behind him. The masters could not be beaten. One must not escape from the masters. That was the Law.

He looked back. The distance between the two platforms was too great for the use of the black rod. Anger was black within him. He growled softly.

He shifted his position, stretched out on his belly. Then he held tightly to one of the small hand rails, brought the black rod up and aimed it at the following platform. Glancing over his shoulder, he hooked a cautious toe over the forward speed lever, suddenly yanked it back to full reverse.

The strain nearly tore his arm out.

The platform loomed up with startling suddenness. Finger on the button, he held the rod aimed at the two of them, saw them driven back off the platform in a spray of the clear watery liquid that had stained the street of the city.

Their empty platform shot by him on one side so close that he could have touched it. He scrambled quickly to the front of his own platform, grasped the leading edge and once more switched to full speed ahead.

The other two platforms were much closer. Almost as close as the first one had been. He did not dare try the trick again. They had seen it, certainly. They would be waiting.

Far ahead rode the empty platform that had passed him. Without the burden of passengers, it quickly increased the distance.

The sun was high when he approached the fringes of a huge forest. He glanced back. The pursuers held their position. He looked ahead. They would never find him in the immensity of that forest; yet they might mark the spot where he landed, and blast the earth with some weapon other than the black rod.

He lowered the platform slowly without diminishing speed until he was but a few feet from the tops of the highest trees.

It was worth a chance. They were far behind him, so far behind that they were two white dots on a metal sheet half the size of his little fingernail.

He made his decision. Bracing himself as before, he threw the lever into reverse, and, as the platform came momentarily to a dead stop, he pushed the lever forward again, yanking the altitude lever back.

He let the platform speed out from under him. He had hoped to drop into the trees. Instead, he landed in a small clearing, landed with a force that drove the wind from him, dropped him into sudden darkness . . .

"So THEY were all killed?" Riss asked.

"Nineteen of them were. The twentieth, the one you saw the day before yesterday, fled on a platform. He dropped off over the northern forest. An hour later his platform ran out of fuel and it was only then that the stupid ones who followed him found the platform empty

and discovered that he had fallen. They could not find the place of course, but it is obvious that he died."

"He was more intelligent than the others," Thome said.

"A good beast to hunt, my friend. A dangerous beast. The best kind. Better than the fire lizards of Venus or the winged snakes of Callisto. This beast called man is the best of all."

"When is the next hunt?"

"We're expecting a shipment next week. But for the next hunt, there will be special, complicated controls on the platforms and thrust guns, so that the creatures cannot capture them and use them."

"Splendid idea," Riss said. He looked down toward the pen where the creatures were fighting to get at the food trough.

IT WAS night when Peter awakened. His head throbbed. Something bit into his side and he found that it was the useless fragments of the black rod, broken by his fall.

His sensitive nose savored the light breeze that blew along the forest floor. He broke the rope that still held the club to his waist. He got to his knees and listened. Something rustled in the leaves. He crouched, sprang, and killed it with the first blow of the club. It was a small animal.

By the pale light of dawn he saw that it was a beast with a hide covered with long stiff thorns. Its belly was soft. He tore it open with a sharp stick, ate the raw meat. It would have been better cooked, but there was no way to make fire.

An hour later he found a cold brook, drank deeply and bathed his bruises. He was stiff from the fall.

It was good to be free, to walk where he pleased. The

free air had a good smell. The forest floor was pleasantly springy under his feet.

He walked aimlessly under the huge trees, and it was as though deep instincts were reawakened, as though all his senses had become sharper.

Even so, he did not know that they had surrounded him until he heard the hoarse shout that was a signal.

It happened in the middle of a clearing. He paused, saw the men step out from behind the clumps of brush. He turned, found them on all sides.

They were powerful men with wary eyes, tangled beards. They wore the skins of animals, belted around them with leather thongs. He was oddly conscious for the first time in his life of his absolute nakedness.

There was no escape. They carried clubs, even as he, but to the ends of their clubs were lashed sharpened stones.

One of them, not as powerful as the others, and unarmed, stepped toward him. Peter lifted the club in a threatening gesture.

"Who are you?" the stranger asked.

"I am Peter."

"I am Saul. Where do you come from?"

"I was in the pens. The masters put me in the ruined city so they could find me and kill me. I killed them instead. I took their platform and their gun and I came to this place."

Saul looked at him with contempt. "You wear no skins and you are dirty. You come from the pens. That is plain."

Peter threw aside his club and growled low in his throat. "You lead these men? I can kill you."

"It is like that in the pens, but not here, my friend. He who leads here is the one best able to lead, not the

one with the sharpest teeth. Should you strike me, these others would kill you quickly."

Peter looked sullenly around at the waiting men. He saw, on their faces, not the blood lust of those who watched the fights in the pens, but rather a sort of contempt, and amusement. It made him ashamed.

"Did you escape?" Peter asked the one who called himself Saul.

"My father escaped. I was born here in the forest. This place is called Nicolet. All of us were born here, except that one over there. He escaped five years ago."

"What do you do here?" Peter asked him.

The man called Saul looked proud. "We live in huts in the forest. We trap game, plant crops and increase in numbers. We are free and strong. We no longer call those beings our masters. We are our own masters." He looked around. The other men rumbled agreement.

"What will you do to me?" Peter asked.

"If we do not want you with us, we will kill you. If you want to come with us, you must remember that we do not fight among each other. We work, all of us. It is hard, but it is good. We will find you skins to wear. Among the daughters you will find a wife. Then all will help to build your hut. You will obey our laws and vote in the council of the adults as does every one of us."

As THE first touch of night began to shade the forest, the hunting party topped the crest and went eagerly down the slope to the village. Peter was with them, clothed in fresh skins.

Hidden among the trees, the lights of the cooking fires twinkled. He heard the glad welcoming cries of the women, the soft sounds of the voices of the children.

He stood alone for a moment, and there was an odd

stinging in his eyes and it seemed to him that he surely had been in this place before, heard these same warm sounds.

He started violently as Saul touched his arm.

"Come, Peter," he said. "They are eager to see you. Already the men have told about you. Tonight you will share my food and drink and sleep in my hut."

Peter followed him slowly down into the glow of the firelight.

They were brought up orbits apart—but ancient
Mars showed them they were brothers

HEREDITY

By Isaac Asimov

DR. STEFANSSON fondled the thick sheaf of typewritten papers that lay before him. "It's all here, Harvey—twenty-five years of work."

Mild-mannered Professor Harvey puffed idly at his pipe, "Well, your part is over—and Markey's, too, on Ganymede. It's up to the twins, themselves, now."

A short ruminative silence, and then Dr. Stefansson stirred uneasily, "Are you going to break the news to Allen soon?"

The other nodded quietly, "It will have to be done before we get to Mars and the sooner the better." He paused, then added in a tightened voice, "I wonder how it feels to find out after twenty-five years that one has a twin brother whom one has never seen. It must be a damned shock."

"How did George take it?"

"Didn't believe it at first, and I don't blame him. Markey had to work like a horse to convince him it wasn't a hoax. I suppose I'll have as hard a job with Allen." He knocked the dottle from his pipe and shook his head.

"I have half a mind to go to Mars just to see those two get together," remarked Dr. Stefansson wistfully.

"You'll do no such thing, Stef. This experiment's taken too long and means too much to have you ruin it by any such fool move."

"I know, I know! Heredity versus environment! Perhaps at last the definite answer." He spoke half to himself, as if repeating an old, familiar formula, "Two identical twins, separated at birth; one brought up on old, civilized Earth, the other on pioneer Ganymede. Then, on their twenty-fifth birthday brought together for the first time on Mars—God! I wish Carter had lived to see the end of it. They're *his* children."

"Too bad!—But we're alive, and the twins. To carry the experiment to its end will be our tribute to him."

THERE is no way of telling, at first seeing the Martian branch of Medicinal Products, Inc., that it is surrounded by anything but desert. You can't see the vast underground caverns where the native fungi of Mars are artificially nurtured into huge blooming fields. The intricate transportation system that connects all parts of the square miles of fields to the central building is invisible. The irrigation system; the air-purifiers; the drainage pipes, are all hidden.

And what one sees is the broad squat red-brick building and Martian desert, rusty and dry, all about.

That had been all George Carter had seen upon arriving via rocket-taxi, but him, at least, appearances had not deceived. It would have been strange had it done so, for his life on Ganymede had been oriented in its every phase towards eventual general managership of that very concern. He knew every square inch of the caverns below as well as if he had been born and raised in them himself.

And now he sat in Professor Lemuel Harvey's small office and allowed just the slightest trace of uneasiness to cross his impassive countenance. His ice-blue eyes sought those of Professor Harvey.

"This—this twin brother o' mine. He'll be here soon?"

Professor Harvey nodded, "He's on his way over right now."

George Carter uncrossed his knees. His expression was almost wistful, "He looks a lot like me, d'ya rackon?"

"Quite a lot. You're identical twins, you know."

"Humm! Rackon so! Wish I'd known him all the time—on Ganny!" He frowned, "He's lived on Airth all's life, huh?"

An expression of interest crossed Professor Harvey's face. He said briskly, "You dislike Earthmen?"

"No, not exactly," came the immediate answer. "It's just that Airthmen are tanderfeet. All of 'm I know are."

Harvey stifled a grin, and conversation languished.

THE door-signal snapped Harvey out of his reverie and George Carter out of his chair at the same instant. The professor pressed the desk-button and the door opened.

The figure on the threshold crossed into the room and then stopped. The twin brothers faced each other.

It was a tense, breathless moment, and Professor Harvey sank into his soft chair, put his finger tips together and watched keenly.

The two stood stiffly erect, ten feet apart, neither making a move to lessen the distance. They made a curious contrast—a contrast all the more marked because of the vast similarity between the two.

Eyes of frozen blue gazed deep into eyes of frozen blue. Each saw a long, straight nose over full, red lips pressed firmly together. The high cheekbones were as prominent in one as in the other, the jutting, angular chin as square.

There was even the same, odd half-cock of one eyebrow in twin expressions of absorbed, part-quizzical interest.

But with the face, all resemblance ended. Allen Carter's clothes bore the New York stamp on every square inch. From his loose blouse, past his dark purple knee breeches, salmon-colored cellulite stockings, down to the glistening sandals on his feet, he stood a living embodiment of latest Terrestrial fashion.

For a fleeting moment, George Carter was conscious of a feeling of ungainliness as he stood there in his tight-sleeved, close-necked shirt of Ganymedan linen. His unbuttoned vest and his voluminous trousers with their ends tucked into high-laced, heavy-soled boots were clumsy and provincial. Even *he* felt it—for just a moment.

From his sleeve-pocket Allen removed a cigarette case—it was the first move either of the brothers had made—opened it, withdrew a slender cylinder of paper-covered tobacco that spontaneously glowed into life at the first puff.

George hesitated a fraction of a second and his subsequent action was almost one of defiance. His hand plunged into his inner vest pocket and drew therefrom the green, shriveled form of a cigar made of Ganymedan greenleaf. A match flared into flame upon his thumbnail and for a long moment, he matched, puff for puff, the cigarette of his brother.

And then Allen laughed—a queer, high-pitched laugh, “Your eyes are a little closer together, I think.”

“Rackon ’tis maybe. Y’r hair’s fixed sort o’ different.” There was faint disapproval in his voice. Allen’s hand went self-consciously to his long, light-brown hair, carefully curled at the ends, while his eyes flickered over the carelessly bound queue into which the other’s equally long hair was drawn.

"I suppose we'll have to get used to each other—I'm willing to try." The Earth twin was advancing now, hand outstretched.

George smiled, "Y' bet. 'At goes here, too."

The hands met and gripped.

"Y'r name's All'n, huh?" said George.

"And yours is George, isn't it?" answered Allen.

And then for a long while they said nothing more. They just looked—and smiled as they strove to bridge the twenty-five year gap that separated them.

GEORGE CARTER's impersonal gaze swept over the carpet of low-growing purple blooms that stretched in plot-path bordered squares into the misty distance of the caverns. The newspapers and feature writers might rhapsodize over the "Fungus Gold" of Mars—about the purified extracts, in yields of ounces to acres of blooms, that had become indispensable to the medical profession of the System. Opiates, purified vitamins, a new vegetable specific against pneumonia—the blooms were worth their weight in gold, almost.

But they were merely blooms to George Carter—blooms to be forced to full growth, harvested, baled, and shipped to the Aresopolis labs hundreds of miles away.

He cut his little ground car to half-speed and leaned furiously out the window, "Hi, y' mudcat there. Y' with the dairty face. Watch what y'r doing—keep the domned water in the channel."

He drew back and the ground car leapt ahead once more. The Ganymedan muttered viciously to himself, "These domned men about here are wairse than useless. So many machines t' do their wairk for 'm they give their brains a pairment vacation, I rackon."

The ground car came to a halt and he clambered out. Picking his way between the fungus plots, he approached

the clustered group of men about the spider-armed machine in the plot-way ahead.

"Well, here I am. What is 't, All'n?"

Allen's head bobbed up from behind the other side of the machine. He waved at the men about him, "Stop it for a second!" and leaped toward his twin.

"George, it works. It's slow and clumsy, but it works. We can improve it now that we've got the fundamentals down. And in no time at all, we'll be able to—"

"Now wait a while, All'n. On Ganny, we go slow. Y' live long, that way. What y' got there?"

Allen paused and swabbed at his forehead. His face shone with grease, sweat, and excitement. "I've been working on this thing ever since I finished college. It's a modification of something we have on Earth—but it's no end improved. It's a mechanical bloom picker."

He had fished a much-folded square of heavy paper from his pocket and talked steadily as he spread it on the plotway before them, "Up to now, bloom-picking has been the bottleneck of production, to say nothing of the 15 to 20% loss due to picking under- and over-ripe blooms. After all, human eyes are only human eyes and the blooms— Here, look!"

The paper was spread flat and Allen squatted before it. George leaned over his shoulder, with frowning watchfulness.

"You see. It's a combination of fluoroscope and photo-electric cell. The ripeness of the bloom can be told by the state of the spores within. This machine is adjusted so that the proper circuit is tripped upon the impingement of just that combination of light and dark formed by ripe spores within the bloom. On the other hand, this second circuit—but look, it's easier to show you."

He was up again, brimming with enthusiasm. With a

jump, he was in the low seat behind the picker and had pulled the lever.

Ponderously, the picker turned towards the blooms and its "eye" travelled sideways six inches above the ground. As it passed each fungus bloom, a long spidery arm shot out, lopping it cleanly half an inch from the ground and depositing it neatly in the downward-sloping slide beneath. A pile of blooms formed behind the machine.

"We can hook on a binder too, later on. Do you notice those blooms it doesn't touch? Those are unripe. Just wait till it comes to an over-ripe one and see what it does."

He yelled in triumph a moment later when a bloom was torn out and dropped on the spot.

He stopped the machine. "You see? In a month, perhaps, we can actually start putting it to work in the fields."

George Carter gazed sourly upon his twin, "Take more 'n a month, I rackon. It'll take foraver, more likely."

"What do you mean, forever. It just has to be sped up—"

"I don't care if 't just has t' be painted pairple. 'T isn't going t' appear on *my* fields."

"*Your* fields?"

"Yup, mine," was the cool response. "I've got veto pow'r here same as you have. Y' can't do anything 'thout my say-so—and y' won't get it f'r this. In fact, I want y' t' clear that thing out o' here, altogather. Got no use f'r 't."

Allen dismounted and faced his brother. "You agreed to let me have this plot to experiment on, veto-free, and I'm holding you to that agreement."

"All right, then. But keep y'r domned machine out o' the rest o' the fields."

The Earthman approached the other slowly. There was a dangerous look in his eyes. "Look, George, I don't like your attitude—and I don't like the way you're using your veto power. I don't know what you're used to running on Ganymede, but you're in the big time now, and there are a lot of provincial notions you'll have to get out of your head."

"Not unless I want to. And if y' want t' have 't out with me, we'd batter go t' y'r office. Spatting before the men 'd be bad for discipline."

THE trip back to Central was made in ominous silence. George whistled softly to himself while Allen folded his arms and stared with ostentatious indifference at the narrow, twisting plot-way ahead. The silence persisted as they entered the Earthman's office. Allen gestured shortly towards a chair and the Ganymedan took it without a word. He brought out his ever-present green-leaf cigar and waited for the other to speak.

Allen hunched forward upon the edge of his seat and leaned both elbows on his desk. He began with a rush.

"There's lots to this situation, George, that's a mystery to me. I don't know why they brought up you on Ganymede and me on Earth, and I don't know why they never let us know of each other, or made us co-managers now with veto-power over one another—but I do know that the situation is rapidly growing intolerable.

"This corporation needs modernization, and you know that. Yet you've been wielding that veto-power over every trifling advance I've tried to initiate. I don't know just what your viewpoint is, but I've a suspicion that you think you're still living on Ganymede. If you're still in the sticks—I'm warning you—get out of them fast. I'm from Earth, and this corporation is going to be run with

Earth efficiency and Earth organization. Do you understand?"

George puffed odorous tobacco at the ceiling before answering, but when he did, his eyes came down sharply, and there was a cutting edge to his voice.

"Airth, is it? Airth efficiency, no less? Well, All'n, I like ye. I can't help it. Y'r so much like me, that disliking y' would be like disliking myself, I rackon. I hate t' say this, but y'r upbringing's all wrong."

His voice became sternly accusatory, "Y'r an Airthman. Well, look at y'. An Airthman's but half a man at best, and naturally y' lean on machines. But d' y' suppose *I* want the corporation to be run by machines—just *machines*? What're the *men* t' do?"

"The men run the machines," came the clipped, angry response.

The Ganymedan rose, and a fist slammed down on the desk, "The machines run the men, and y' know it. Fairst, y' use them; then y' depend on them; and finally y'r slaves t' them. Over on y'r pracious Airth, it was machines, machines, machines—and as a result, what *are* y'? I'll tell y'. Half a man!"

He drew himself up, "I still like y'. I like y' well enough t' wish y'd lived on Gannie with me. By Jupe 'n' domn, 'twould have made a man o' y'."

"Finished?" said Allen.

"Rackon so!"

"Then I'll tell you something. There's nothing wrong with you that a lifetime on a decent planet wouldn't have fixed. As it is, however, you belong on Ganymede. I'd advise you to go back there."

George spoke very softly, "Y'r not thinking o' taking a punch at me, are y'?"

"No. I couldn't fight a mirror image of myself, but if

your race were only a little different, I would enjoy splashing it about the premises a bit."

"Think y' could do it—an Airthman like *you*. Here, sit down. We're both getting a bit too excited, I rackon Nothing'll be settled *this* way."

HE SAT down once more, puffed vainly at his dead cigar, and tossed it into the incinerator chute in disgust.

"Where's y'r water?" he grunted.

Allen grinned with sudden delight, "Would you object to having a machine supply it?"

"Machine? What d' y' mean?" The Ganymedan gazed about him suspiciously.

"Watch! I had this installed a week ago." He touched a button on his desk and a low click sounded below. There was the sound of pouring water for a second or so and then a circular metal disk beside the Earthman's right hand slid aside and a cup of water lifted up from below.

"Take it," said Allen.

George lifted it gingerly and drank it down. He tossed the empty cup down the incinerator shaft, then stared long and thoughtfully at his brother, "May I see this water feeder o' y'rs?"

"Surely. It's just under the desk. Here, I'll make room for you."

The Ganymedan crawled underneath while Allen watched uncertainly. A brawny hand was thrust out suddenly and a muffled voice said, "Hand me a screw-driver."

"Here! What are you going to do?"

"Nothing. Nothing 't all. Just want t' investigate this contraption."

The screw-driver was handed down and for a few minutes there was no other sound than an occasional soft

scraping of metal on metal. Finally, George withdrew a flushed face and adjusted his wrinkled collar with satisfaction.

"Which button do I press for the water?"

Allen gestured and the button was pressed. The gurgling of water sounded. The Earthman stared in mystification from his desk to his brother and back again. And then he became aware of a moistness about his feet.

He jumped, looked downwards, and squawked in dismay, "Why, damn you, what have you done?" A snaky stream of water wriggled blindly out from under the desk and the pouring sound of water still continued.

George made leisurely for the door, "Just short-circuited it. Here's y'r screw-driver; fix 't up again." And just before he slammed the door, "So much f'r y'r pracious machines. They go wrong at the wrong times."

THE sounder was buzzily insistent and Allen Carter opened one eye peevishly. It was still dark.

With a sigh, he lifted one arm to the head of his bed and put the Audiomitter into commission.

The treble voice of Amos Wells of the night shift squawked excitedly at him. Allen's eyes snapped open and he sat up.

"You're crazy!" But he was plunging into his breeches even as he spoke. In ten seconds, he was careening up the steps three at a time. He shot into the main office just behind the charging figure of his twin brother.

The place was crowded;—its occupants in a jitter.

Allen brushed his long hair out of his eyes, "Turn on the turret searchlight!"

"It's on," said someone helplessly.

The Earthman rushed to the window and looked out. The yellow beam reached dimly out a few feet and ended in a muddy murkiness. He pulled at the window and it

lifted upwards grittily a few inches. There was a whistle of wind and a tornado of coughing from within the room. Allen slammed it down again and his hands went at once to his tear-filled eyes.

George spoke between sneezes, "We're not located in the sandstorm zone. This can't be one."

"It is," asserted Wells in a squeak. "It's the worst I've ever seen. Started full blast from scratch just like that. It caught me flat-footed. By the time I closed off all exits to above, it was too late."

"Too late!" Allen withdrew his attention from his sand-filled eyes and snapped out the words, "Too late for what?"

"Too late for our rolling stock. Our rockets got it worst of all. There isn't one that hasn't its propulsives clogged with sand. And that goes for our irrigation pumps and the ventilating system. The generators below are safe but everything else will have to be taken apart and put together again. We're stalled for a week at least. Maybe more."

There was a short, pregnant silence, and then Allen said, "Take charge, Wells. Put the men on double shift and tackle the irrigation pumps first. They've got to be in working order inside of twenty-four hours, or half the crop will dry up and die on us. Here—wait, I'll go with you."

He turned to leave, but his first footstep froze in mid-air at the sight of Michael Anders, communications officer, rushing up the stairs.

"What's the matter?"

Anders spoke between gasps, "The damned planet's gone crazy. There's been the biggest quake in history with its center not ten miles from Aresopolis."

There was a chorus of "What?" and a ragged follow-up of blistering imprecations. Men crowded in anxiously—

many had relatives and wives in the Martian metropolis.

Anders went on breathlessly, "It came all of a sudden. Aresopolis is in ruins and fires have started. There aren't any details but the transmitter at our Aresopolis labs went dead five minutes ago."

There was a babel of comment. The news spread out into the furthest recesses of Central and excitement waxed to dangerously panicky proportions. Allen raised his voice to a shout.

"Quiet, everyone. There's nothing we can do about Aresopolis. We've got our own troubles. This freak storm is connected with the quake some way—and that's what *we* have to take care of. Everyone back to his work now—and work fast. They'll be needing us at Aresopolis damned soon." He turned to Anders, "You! Get back to that receiver and don't knock off until you've gotten in touch with Aresopolis again. Coming with me, George?"

"No, rackon not," was the response. "Y' tend t' y'r machines. I'll go down with Anders."

DAWN was breaking, a dusky, lightless dawn, when Allen Carter returned to Central. He was weary—wearily in mind and body—and looked it. He entered the radio room.

"Things are a mess. If—"

There was a "shhh" and George waved frantically. Allen fell silent. Anders bent over the receiver, turning tiny dials with nervous fingers.

Anders looked up, "It's no use, Mr. Carter. Can't get them."

"All right. Stay here and keep y'r ears open. Let me know if anything turns up."

He walked out, hooking an arm underneath his brother's and dragging the latter out.

"When c'n we get out the next shipment, All'n?"

"Not for at least a week. We haven't a thing that'll either roll or fly for days, and it will be even longer before we can start harvesting again."

"Have we any supplies on hand now?"

"A few tons of assorted blooms—mainly the red-purples. The Earth shipment last Tuesday took off almost everything."

George fell into a reverie.

His brother waited a moment and said sharply, "Well, what's on your mind? What's the news from Aresopolis?"

"Domned bad! The quake's leveled three-fourths o' Aresopolis and the rest's pretty much gutted with fire, I rackon. There 're fifty thousand that'll have t' camp out nights.—That's no fun in Martian autumn weather with the Airth gravity system broken down."

Allen whistled, "Pneumonia!"

"And common colds and influenza and any o' half doz'n diseases t' say nothing o' people bairnt. Old Vincent is raising cain."

"Wants blooms?"

"He's only got a two day supply on hand. He's *got* t' have more."

Both were speaking quietly, almost with indifference, with the vast understatement that is all that makes great crises bearable.

There was a pause and then George spoke again, "What's the best we c'n do?"

"Not under a week—not if we kill ourselves to do it. If they could send over a ship as soon as the storm dies down, we might be able to send what we have as a temporary supply until we can get over with the rest."

"Silly even t' think o' that. The Aresopolis port is just ruins. They haven't a ship t' their names."

Again silence. Then Allen spoke in a low, tense voice.

"What are you waiting for? What's that look on your face for?"

"I'm waiting f'r y' t' admit y'r domned machines have failed y' in the fairst emairgency we've had t' meet."

"Admitted," snarled the Earthman.

"Good! And now it's up t' me t' show y' what human ingenuity can do." He handed a sheet of paper to his brother, "There's a copy of the message I sent Vincent."

Allen looked long at his brother and slowly read the penciled scribbling.

"Will deliver all we have on hand in thirty-six hours. Hope it will keep you going the few days until we can get a real shipment out. Things are a little rough out here."

"How are you going to do it?" demanded Allen, upon finishing.

"I'm trying to show y'," answered George, and Allen realized for the first time that they had left Central and were out in the caverns.

George led the way for five minutes and stopped before an object bulking blackly in the dimness. He turned on the section lights and said, "Sand truck!"

The sand truck was not an imposing object. With the low, driving car in front and the three squat, open-topped freight cars behind, it presented a picture of obsolete decrepitude. Fifteen years ago, it had been relegated to the dust heap by the sand sleds and rocket freights.

The Ganymedan was speaking, "Checked it an hour ago, m'self, and 'tis still in wairking order. It has shielded bearings, air conditioning unit f'r the driving car, and an intairnal combustion engine."

The other looked up sharply. There was an expression of distaste on his face. "You mean it burns chemical fuel."

"Yup! Gas'line. That's why I like it. Reminds me o' Ganymede. On Gannie, I had a gas engine that—"

"But wait a while. We haven't any of that gasoline."

"No, rackon not. But we gots lots o' liquid hydrocarbons round the place. How about Solvent D? That's mostly octane. We've got tanks o' it."

Allen said, "That's so;—but the truck holds only two."

"I know it. I'm one."

"And I'm the other."

George grunted. "I rackoned y'd say that—but this isn't going t' be a push-button machine job. Rackon y'r up t' it—Airthman?"

"I reckon I am—Gannie."

THE sun had been up some two hours before the sand truck's engine whirred into life, but outside, the murk had become, if anything, thicker.

The main driveway within the caverns was ahum with activity. Grotesque figures with eyes peering through the thick glass of improvised air-helmets stepped back as the truck's broad, sand-adapted wheels began their slow turn. The three cars behind had been piled high with purple blooms, canvas covers had been thrown over them and bound down tightly—and now the signal was given to open the doors.

The lever was jerked downwards and the double doors separated with sand-clogged protests. Through a gray whirl of inblown sand, the truck made its way outwards, and behind it sand-coated figures brushed at their air-helmets and closed the doors again.

GEORGE CARTER, inured by long Ganymedan custom, met the sudden gravity change as they left the protective Gravitor fields of the caverns, with a single long-drawn breath. His hands held steady upon the wheels. His Terrestrial brother, however, was in far different condition. The hard nauseating knot into which his stomach tied

itself loosened only very gradually, and it was a long time before his irregular sterterous breathing approached anything like normality again.

And throughout, the Earthman was conscious of the other's sidelong glance and of just a trace of a smile about the other's lips.

It was enough to keep the slightest moan from issuing forth, though his abdominal muscles cramped and icy perspiration bathed his face.

The miles clicked off slowly, but the illusion of motionlessness was almost as complete as that in space. The surroundings were gray—uniform, monotonous and unvarying. The noise of the engine was a harsh purr and the clicking of the air-purifier behind like a drowsy tick. Occasionally, there was an especially strong gust of wind, and a patter of sand dashed against the window with a million tiny, separate pings.

George kept his eye strictly upon the compass before him. The silence was almost oppressive.

And then the Ganymedan swiveled his head, and growled, "What's wrong with the domned vent'lator?"

Allen squeezed upward, head against the low top, and then turned back, palefaced, "It's stopped."

"It'll be hours 'fore the storm's over. We've got t' have air till then. Crawl in back there and start it again." His voice was flat and final.

"Here," he said, as the other crawled over his shoulder into the back of the car. "Here's the tool kit. Y'v got 'bout twenty minutes 'fore the air gets too foul t' breathe. 'Tis pretty bad now."

The clouds of sand hemmed in closer and the dim yellow light above George's head dispelled only partially the darkness within.

There was the sound of scrambling from behind him and then Allen's voice, "Damn this rope. What's it doing

here?" There was a hammering and then a disgusted curse.

"This thing is choked with rust."

"Anything else wrong?" called out the Ganymedan.

"Don't know. Wait till I clear it out." More hammering and an almost continuous harsh, scraping sound followed.

Allen backed into his seat once more. His face dripped rusty perspiration and a swab with the back of an equally damp, rust-covered hand did it no good.

"The pump is leaking like a punctured kettle, now that the rust's been knocked loose. I've got it going at top speed, but the only thing between it and a total breakdown is a prayer."

"Start praying," said George, brusquely. "Pray for a button to push."

The Earthman frowned, and stared ahead in sullen silence.

AT FOUR in the afternoon, the Ganymedan drawled, "Air's beginning t' thin out, looks like."

Allen snapped to alertness. The air was foul and humid within. The ventilator behind swished sibilantly between each click and the clicks were spacing themselves further apart. It wouldn't hold out much longer now.

"How much ground have we covered?"

"'Bout a thaird o' the distance," was the reply. "How 'r y' holding ou.."

"Well enough," Allen snapped back. He retired once more into his shell.

NIGHT came and the first brilliant stars of a Martian night peeped out when with a last futile and long-sustained swi-i-i-s-s-sh, the ventilator died.

"Domn!" said George. "I can't breathe this soup any longer, anyway. Open the windows."

The keenly cold Martian wind swept in and with it the last traces of sand. George coughed as he pulled his woolen cap over his ears and turned on the heaters.

"Y' can still taste the grit."

Allen looked wistfully up into the skies, "There's Earth—with the moon hanging right on to her tail."

"Airth?" repeated George with fine contempt. His finger pointed horizonwards, "There's good old Jupe for y'."

And throwing back his head, he sang in a full-throated baritone:

"When the golden orb o' Jove
Shines down from the skies above
Then my spirit longs to go
To that happy land I know
Back t' good, old *Ganyme-e-e-e-e-e-de*."

The last note quavered and broke, and quavered and broke again and still again in an ever increasing rapidity of tempo until its vibrating ululation pierced the air about ear-shatteringly.

Allen stared at his brother wide-eyed, "How did you do that?"

George grinned, "That's the Gannie quaver. Didn't y' ever hear it before?"

The Earthman shook his head, "I've heard of it, but that's all."

The other became a bit more cordial, "Well, o' course y' can only do it in a thin atmosphere. Y' should hear me on Gannie. I c'd shake y' right off y'r chair when I'm going good. Here! Wait till I gulp down some coffee, and then I'll sing y' vairse twenty-four o' the 'Ballad o' Ganymede.' "

He took a deep breath:

"There's a fair-haired maid I love
Standing in the light o' Jove
And she's waiting there for me-e-e-e-e.

Then—"

Allen grasped him by the arm and shook him. The Ganymedan choked into silence.

"What's the matter?" he asked sharply.

"There was a thumping sound on the roof just a second ago. There's something up there."

George stared upwards, "Grab the wheel. I'll go up."

Allen shook his head, "I'm going myself. I wouldn't trust myself running this primitive contraption."

He was out on the running board the next instant.

"Keep her going," he shouted, and threw one foot up onto the roof.

HE FROZE in that position when he became aware of two yellow slits of eyes staring hard into his. It took not more than a second for him to realize that he was face to face with a *keazel*, a situation which for discomfort is about on a par with the discovery of a rattlesnake in one's bed back on Earth.

There was little time for mental comparisons of his position with Earth predicaments, however, for the *keazel* lunged forward, its poisonous fangs agleam in the starlight.

Allen ducked desperately and lost his grip. He hit the sand with a slow-motion thud and the cold, scaly body of the Martian reptile was upon him.

The Earthman's reaction was almost instinctive. His hand shot out and clamped down hard upon the creature's narrow muzzle.

In that position, beast and man stiffened into breath-

less statuary. Then man was trembling and within him his heart pounded away with hard rapidity. He scarcely dared move. In the unaccustomed Martian gravity, he found he could not judge the movements of his limbs. Muscles knotted almost of their own accord and legs swung when they ought not to.

He tried to lay still—and think.

The *keazel* squirmed and from its lips, clamped shut by Earth muscles, issued a tremulous whine. Allen's hand grew slick with perspiration and he could feel the beast's muzzle turn a bit within his palm. He clamped harder, panic-stricken. Physically, the *keazel* is no match for an Earthman, even a tired, frightened, gravity-unaccustomed Earthman—but one bite, anywheres, was all that was needed.

The *keazel* jerked suddenly; its back humped and its legs threshed. Allen held on with both hands and *could* not let go. He had neither gun nor knife. There was no rock on the level desert sands to crack its skull against. The sand truck had long since disappeared into the Martian night and he was alone—alone with a *keazel*.

In desperation, he twisted. The *keazel's* head bent. He could hear its breath whistling forth harshly—and again there was that low whine.

Allen writhed above it and clamped knees down upon its cold, scaly abdomen. He twisted the head, further and further. The *keazel* fought desperately, but Allen's Earthly biceps maintained their hold. He could almost sense the beast's agony in the last stages, when he called up all his strength—and something snapped.

And the beast lay still.

He rose to his feet, half-sobbing. The Martian night wind knifed into him and the perspiration froze on his body. He was alone in the desert.

Reaction set in. There was an intense buzzing in his ears. He found it difficult to stand. The wind was biting—but somehow he didn't feel it any more.

The buzzing in his ears resolved itself into a voice—a voice calling weirdly through the Martian wind.

"All'n, where are y'? Domn y', y' tanderfoot, where are y'? All'n! *All'n!*"

New life swept into the Earthman. He tossed the *keazel's* carcass onto his shoulders and staggered on towards the voice.

"Here I am, G—Gannie. Right here."

He stumbled blindly into his brother's arms.

George began harshly, "Y' blasted Airthman, can't y' even keep y'r footing on a sand truck moving at ten miles per? Y' might've—"

His voice died away in a semi-gurgle.

Allen said tiredly, "There was a *keazel* on the roof. He knocked me off. Here, put it somewheres. There's a hundred dollar bonus for every *keazel* skin brought in to Aresopolis."

He had no clear recollection of anything for the next half hour. When things straightened out, he was in the truck again with the taste of warm coffee in his mouth. The engine was rumbling once more and the pleasant warmth of the heaters surrounded him.

George sat next to him silently, eyes fixed on the desert ahead. But once in a while, he cleared his throat and shot a lightning glance at his brother. There was a queer look in his eyes.

Allen said, "Listen, I've got to keep awake—and you look half dead yourself—so how about teaching me that 'Gannie quaver' of yours. That's bound to wake the dead."

The Ganymedan stared even harder and then said

gruffly, "Sure, watch m' Adam's apple while I do 't again."

THE sun was halfway to zenith when they reached the canal.

An hour before dawn there had come the crackling sound of hoarfrost beneath the heavy wheels and that signified the end of the desert area and the approach of the canal oasis. With the rising of the sun, the crackling disappeared and the softening mud underneath slowed the sand-adapted truck. The pathetic clumps of gray-green scrub that dotted the flat landscape were the first variant to eternal red sand since the two had started on their journey.

And then Allen had leaned forward and grasped his brother by the arm, "Look, there's the canal itself right ahead."

The "canal"—a small tributary of the mighty Jefferson Canal—contained a mere trickle of water at this season of the year. A dirty winding line of dampness, it was, and little more. Surrounding it on both sides were the boggy areas of black mud that were to fill up into a rushing ice-cold current an Earth-year hence.

The stand truck nosed gingerly down the gentle slope, weaving a tortuous path among the sparsely strewn boulders, brought down by the spring's torrents and left there as the sinking waters receded.

It slopped through the mud and splashed clumsily through the puddles. It jounced nosily over rocks, mud-died itself past the hubs as it made its way through the murky midstream channel and then settled itself for the upward pull out.

And then with a suddenness that tossed the two drivers out of their seats, it side-slipped, made one futile effort to proceed onwards, and thereafter refused to budge.

The brothers scrambled out and surveyed the situation. George swore lustily, voice more thickly accented than ever.

"B' Jupe 'n' domn, we're in a pickled situation f'r fair. 'Tis wallowing in the mud there like a blasted pig."

Allen shoved his hair back wearily, "Well, don't stand there looking at it. We're still a hundred miles or better from Aresopolis. We've got to get it out of there."

"Sure, but how?" His imprecations dropped to sibilant breathings as he reached into the truck for the coil of rope in the back. He looked at it doubtfully.

"Y' get in here, All'n, and when I pull, press down with y'r foot on that pedal."

He was tying the rope to the front axle even as he spoke. He played it out behind him as he slogged out through ankle-deep mud, and stretched it taut.

"All right now, *give!*" he yelled. His face turned purple with effort as his back muscles ridged. Allen, within the car, pressed the indicated pedal to the floor, heard a loud roar from the engine and a spinning whirl from the back wheels. The truck heaved once, and then sank back.

"'Tis no use," George called. "I can't get a footing. If the ground were dry, I c'd do it."

"If the ground were dry, we wouldn't be stuck," retorted Allen. "Here, give me that rope."

"D' y' think y' can do it, if *I* can't?" came the enraged cry, but the other had already left the car.

Allen had spied the large, deep-bedded boulder from the truck, and it was with relief that he found it to be within reaching distance of the rope. He pulled it taut and tossed its free end about the boulder. Knotting it clumsily, he pulled, and it held.

His brother leaned out of the car window, as he made his way, back, with one lumped Ganymedan fist agitating the air.

"Hi, y' nitwit. What're y' doing? D' y' expect that overgrown rock t' pull us out?"

"Shut up," yelled back Allen, "and feed her the gas when I pull."

He paused midway between boulder and truck and seized the rope.

"Give!" he shouted in his turn, and with a sudden jerk pulled the rope towards him with both hands.

The truck moved; its wheels caught hold. For a moment it hesitated with the engine blasting ahead full speed, and George's hands trembling upon the wheel. And then it went over. And almost simultaneously, the boulder at the other end of the taut rope lifted out of the mud with a liquid smacking sound and went over on its side.

Allen slipped the noose off it and ran for the truck.

"Keep her going," he shouted, and hopped on to the running board, rope trailing.

"How did y' do that?" asked George, eyes round with awe.

"I haven't got the energy to explain it now. When we get to Aresopolis and after we've had a good sleep, I'll draw the triangle of forces for you, and show you what happened. No muscles were involved. Don't look at me as if I were Hercules."

George withdrew his gaze with an effort, "Triangle o' forces, is it? I never heard o' it, but if *that's* what it c'n do, education's a great thing."

"Comet-gas! Is any coffee left?" He stared at the last Thermos bottle, shook it near his ear dolefully, and said, "Oh, well, let's practice the quaver. It's almost as good and I've practically got it perfected."

He yawned prodigiously, "Will we make it by night-fall?"

"Maybel"

The canal was behind them now.

THE reddening sun was lowering itself slowly behind the Southern Range. The Southern Range is one of the two "mountain chains" left on Mars. It is a region of hills; ancient, time-worn, eroded hills behind which lies Aresopolis.

It possesses the only scenery worth mentioning on all Mars and also the golden attribute of being able, through the updrafts along its sides, to suck an occasional rain out of the desiccated Martian atmosphere.

Ordinarily, perhaps, a pair from Earth and Ganymede might have idled through this picturesque area, but this was definitely not the case with the Carter twins.

Eyes, puffed for lack of sleep, glistened once more at the sight of hills on the horizon. Bodies, almost broken for sheer weariness tensed once more when they rose against the sky.

And the truck leaped ahead,—for just behind the hills lay Aresopolis. The road they traveled was no longer a rule-edge straight one, guided by the compass, over table-top flatland. It followed narrow, twisting trails over rocky ground.

They had reached Twin Peaks, then, when there was a sudden sputter from the motor, a few halting coughs and then silence.

Allen sat up and there was weariness and utter disgust in his voice, "What's wrong with this everlastingly-to-be damned machine now?"

His brother shrugged, "Nothing that I haven't been expecting for the last hour. We're out o' gas. Doesn't matter at all. We're at Twin Peaks—only ten miles fr'm the city. We c'n get there in an hour and then they c'n send men out here for the blooms."

"Ten miles in an hour!" protested Allen. "You're crazy." His face suddenly twisted at an agonizing thought, "My God! We can't do it under three hours and it's almost night. No one can last that long in a Martian night. George, we're—"

George was pulling him out of the car by main force, "By Jupe 'n' domn, All'n, don't let the tenderfoot show through *now*. We c'n do it in an hour, I tell y'. Didn't y' ever try running under sub-normal gravity? It's like flying. Look at me."

He was off, skimming the ground closely, and proceeding in ground-covering leaps that shrank him to a speck up the mountain side in a moment.

He waved, and his voice came thinly, "Come on!"

Allen started—and sprawled at the third wild stride, arms flailing and legs straddled wide. The Ganymedan's laughter drifted down in heartless gusts.

Allen rose angrily and dusted himself. At an ordinary walk, he made his way upwards.

"Don't get sore, All'n," said George. "It's just a knack, and I've had practice on Gannie. Just pretend y'r running along a feather bed. Run rhythmically—a sort o' very slow rhythm—and run close t' the ground; don't leap high. Like this. Watch me!"

The Earthman tried it, eyes on his brother. His first few uncertain strides became surer and longer. His legs stretched and his arms swung as he matched his brother, step for step.

George shouted encouragement and speeded his pace, "Keep lower t' the ground, All'n. Don't leap 'fore y'r toes hit the ground."

Allen's eyes shone and, for the moment, weariness was forgotten, "This is great! It *is* like flying—or like springs on your shoes."

"Y' ought t' have lived on Gannie with me. We've got

special fields f'r sub-gravity races. An expairt racer c'n do forty miles an hour at times—and I c'n do thirty-five myself. O' course, the gravity there's a bit lower than here on Mars."

LONG hair streamed backwards in the wind and skin reddened at the bitter-cold air that blew past. The ruddy patches of sunlight traveled higher and higher up the slopes, lingered briefly upon the very summits and went out altogether. The short Martian twilight started upon its rapidly darkening career. The Evening Star—Earth—was already glimmering brightly, its attendant moon somewhat closer than the night previous.

The passing minutes went unheeded by Allen. He was too absorbed by the wonderful new sensation of sub-gravity running, to do anything more than follow his brother. Even the increasing chilliness scarcely registered upon his consciousness.

It was George, then, upon whose countenance a tiny, puckered uneasiness grew into a vast, panicky frown.

"Hi, All'n, hold up!" he called. Leaning backward, he brought himself to a short, hopping halt full of grace and ease. Allen tried to do likewise, broke his rhythm, and went forward upon his face. He rose with loud reproaches.

The Ganymedan turned a deaf ear to them. His gaze was sombre in the dusk, "D' y' know where we are, All'n?"

Allen felt a cold constriction about his windpipe as he stared about him quickly. Things looked different in semi-darkness, but they looked more different than they ought. It was impossible for things to be so different.

"We should've sighted Old Baldy by now, shouldn't we have?" he quavered.

"We sh'd've sighted him long ago," came the hard

answer. "'Tis that domned quake. Landslides must've changed the trails. The peaks themselves must've been screwed up—" His voice was thin-edged, "Allen, 't isn't any use making believe. We're dead lost."

For a moment, they stood silently—uncertainly. The sky was purple and the hills retreated into the night. Allen licked blue-chilled lips with a dry tongue.

"We can't be but a few miles away. We're bound to stumble on the city if we look."

"Consider the situation, Airthman," came the savage, shouted answer. "'Tis night, Martian night. The temperature's down past zero and plummeting every minute. We haven't any time t' look;—we've got t' go straight there. If we're not there in half an hour, we're not going t' get there at all."

Allen knew that well, and mention of the cold increased his consciousness of it. He spoke through chattering teeth as he drew his heavy, fur-lined coat closer about him.

"We might build a fire!" The suggestion was a half-hearted one, muttered indistinctly, and fallen upon immediately by the other.

"With what?" George was beside himself with sheer disappointment and frustration. "We've pulled through this far, and now we'll prob'ly freeze t' death within a mile o' the city. C'mon, keep running. It's a hundred-t'-one chance."

But Allen pulled him back. There was a feverish glint in the Earthman's eye, "Bonfires!" he said irrelevantly. "It's a possibility. Want to take a chance that might do the trick?"

"Nothin' else t' do," growled the other. "But hurry. Every minute I—"

"Then run with the wind—and keep going."

"Why?"

"Never mind why. Do what I say—run with the wind!"

There was no false optimism in Allen as he bounded through the dark, stumbling over loose stones, sliding down declivities,—always with the wind at his back. George ran at his side, a vague, formless blotch in the night.

The cold was growing more bitter, but it was not quite as bitter as the freezing pang of apprehension gnawing at the Earthman's vitals.

Death is unpleasant!

And then they topped the rise, and from George's throat came a loud, "B' Jupe 'n' down!" of triumph.

The ground before them, as far as the eye could see, was dotted by bonfires. Shattered Aresopolis lay ahead, its homeless inhabitants making the night bearable by the simple agency of burning wood.

And on the hilly slopes, two weary figures slapped each other on the backs, laughed wildly, and pressed half-frozen, stubbly cheeks together for sheer, unadulterated joy.

They were there at last!

THE Aresopolis lab, on the very outskirts of the city, was one of the few structures still standing. Within, by make-shift light, haggard chemists were distilling the last drops of extract. Without, the city's police force remnants were clearing desperate way for the precious flasks and vials as they were distributed to the various emergency medical centers set up in various regions of the bonfire-pocked ruins that were once the Martian metropolis.

Old Hal Vincent supervised the process and his faded eyes ever and again peered anxiously into the hills beyond, watching hopefully but doubtfully for the promised cargo of blooms.

And then two figures reeled out of the darkness and collapsed to a halt before him.

Chill anxiety clamped down upon him, "The blooms! Where are they? Have you got them?"

"At Twin Peaks," gasped Allen. "A ton of them and better in a sand truck. Send for them."

A group of police ground cars set off before he had finished, and Vincent exclaimed bewilderedly, "A sand truck? Why didn't you send it in a ship? What's wrong with you out there, anyway? Earthquake—"

He received no direct answer. George had stumbled towards the nearest bonfire with a beatific expression on his worn face.

"Ahhh, 'tis warm!" Slowly, he folded and dropped, asleep before he hit the ground.

Allen coughed gaspingly, "Huh! The Gannie tender-foot! Couldn't—ulp—take it!"

And the ground came up and hit him in the face.

ALLEN woke with the evening sun in his eyes and the odor of frying bacon in his nostrils. George shoved the frying pan towards him and said between gigantic, wolfing mouthfuls, "Help yourself."

He pointed to the empty sand truck outside the labs, "They got the stuff all right."

Allen fell to quietly. George wiped his lips with the back of his hand and said, "Say, All'n. How'd y' find the city. I've been sitting here, trying t' figure it all out."

"It was the bonfires," came the muffled answer. "It was the only way they could get heat and fires over square miles of land create a whole section of heated air which rises, causing the cold surrounding air of the hills to sweep in." He suited his words with appropriate gestures. "The wind in the hills was heading for the city to replace warm air and we followed the wind. Sort of a nat-

ural compass, pointing to where we wanted to go."

George was silent, kicking with embarrassed vigor at the ashes of the bonfire of the night before.

"Lis'n, All'n, I've had y' a'wrong. Y' were an Airthman tanderfoot t' me till—" He paused, drew a deep breath and exploded with, "Well, by Jupe 'n' domn, y'r my twin brother and I'm proud o' it. All Airth c'dn't drown out the Carter blood in y'."

The Earthman opened his mouth to reply but his brother clamped one palm over it, "Y' keep quiet, till I'm finished. After we get back, y' can fix up that mechanical picker or anything else y' want. I drop my veto. If Airth and machines c'n tairn out y'r kind o' man, they're all right. But just the same," there was a trace of wistfulness in his voice, "y' got t' admit that everytime the machines broke down—from irrigation trucks and rocket ships to ventilators and sand trucks—'twas men who had t' pull through in spite o' all that Mars could do."

Allen wrenched his face from out behind the restraining palm.

"The machines do their best," he said, but not too vehemently.

"Sure, but that's all they *can* do. When the emairgency comes, a man's got t' do a damn lot better than his best or he's a goner."

The other paused, nodded, and gripped the other's hand with sudden fierceness, "Oh, we're not so different. Earth and Ganymede are plastered thinly over the outside of us, but inside—"

He caught himself.

"Come on, let's give out with that old Gannie quaver."

And from the two fraternal throats tore forth a shrieking eldritch yell such as the thin, cold Martian air had seldom before carried.

A day in the life of a deep-soil diver—where a single slip means a planet-sized tomb

ROCK DIVER

By Harry Harrison

THE wind hurtled over the crest of the ridge and rushed down the slope in an icy torrent. It tore at Pete's canvas suit, pelting him with steel-hard particles of ice. Head down, he fought against it as he worked his way uphill towards the granite outcropping.

He was freezing to death. A man can't wear enough clothes to stay alive in fifty degrees below zero. Pete could feel the numbness creeping up his arms. When he wiped his frozen breath from his whiskers there was no sensation. His skin was white and shiny wherever it was exposed to the Alaskan air.

"All in a day's work." His cracked lips painfully shaped themselves into the ghost of a smile. "If any of those claim-jumping scissorbills followed me this far they're gonna be awful cold before they get back."

The outcropping sheltered him as he fumbled for the switch at his side. A shrill whine built up in the steel box slung at his belt. The sudden hiss of released oxygen was cut off as he snapped shut the faceplate of his helmet. Pete clambered onto the granite ridge that pushed up through the frozen ground.

He stood straight against the wind now, not feeling its pressure, the phantom snowflakes swirling through his body. Following the outcropping, he slowly walked into the ground. The top of his helmet bobbed for a second like a bottle in water, then sank below the surface of the snow.

Underground it was warmer, the wind and cold left far behind; Pete stopped and shook the snow from his suit. He carefully unhooked the ultra-light from his pack and switched it on. The light beam, polarized to his own mass-penetrating frequency, reached out through the layers of surrounding earth as if they were cloudy gelatine.

Pete had been a rock diver for eleven years, but the sight of this incredible environment never ceased to amaze him. He took the miracle of his vibratory penetrator, the rock diver's "walk-through," for granted. It was just a gadget, a good gadget, but something he could take apart and fix if he had to. The important thing was what it did to the world around him.

The hogback of granite started at his feet and sank down into a murky sea of red fog. It was a fog composed of the lighter limestone and other rock, sweeping away in frozen layers. Seemingly suspended in mid-air were granite boulders and rocks of all sizes, caught in the strata of lighter materials. He ducked his head carefully to avoid these.

If his preliminary survey was right, this rocky ridge should lead him to the site of the missing lode. He had been following leads and drifts for over a year now, closing in on what he hoped was the source of the smaller veins.

He trudged downward, leaning forward as he pushed his way through the soupy limestone. It rushed through and around him like a strong current of water. It was getting harder every day to push through the stuff. The

piezo crystal of his walk-through was getting further away from the optimum frequency every day. It took a hard push to get the atoms of his body between those of the surrounding matter. He twisted his head around and blinked to focus his eyes on the two-inch oscilloscope screen set inside his helmet. The little green face smiled at him—the jagged wave-pattern gleaming like a row of broken teeth. His jaw clenched at the variations between the reading and the true pattern etched onto the surface of the tube. If the crystal failed, the entire circuit was inoperative, and frozen death waited quietly in the air far above him for the day he couldn't go under. Or he might be underground, when the crystal collapsed. Death was here, too, a quicker and much more spectacular death that would leave him stuck forever like a fly in amber. A fly that is part of the amber. He thought about the way Soft-Head had got his and shuddered slightly.

Soft-Head Samuels had been one of the old gang, the hard-bitten rock divers who had been the first to uncover the mineral wealth under the eternal Alaskan snows. Soft-Head had slipped off a hogback two hundred meters down, and literally fallen face first into the fabulous White Owl mother lode. That was the strike that started the rush of '63. As the money-hungry hordes rushed north to Dawson he had strolled south with a fortune. He came back in three years with no more than his plane fare and a measureless distrust of humanity.

He rejoined the little group around the pot-bellied stove, content just to sit among his old cronies. He didn't talk about his trip to the outside and no one asked any questions. The only sign that he had been away was the way he clamped down on his cigar whenever a stranger came into the room. North American Mining grubstaked him to a new outfit and he went back to tramping the underground wastes.

One day he walked into the ground and never came up again. "Got stuck," they muttered, but they didn't know just where until Pete walked through him in '71.

Pete remembered it, too well. He had been dog-tired and sleepy when he had walked through that hunk of rock that hadn't been all rock. Soft-Head was standing there—trapped for eternity in the stone. His face was horror-stricken as he stood half bent over, grabbing at his switch box. For one horrible instant Soft-Head must have known that something was wrong with his walk-through—then the rock had closed in. He had been standing there for seven years in the same position he would occupy for all eternity, the atoms of his body mixed inextricably with the atoms of the surrounding rock.

Pete cursed under his breath. If he didn't get enough of a strike pretty soon to buy a new crystal, he would become part of that timeless gallery of lost prospectors. His power pack was shot and his oxygen tank leaked. His beat-up Miller sub-suit belonged in a museum, not on active duty. It was patched like an inner tube and still wouldn't hold air the way it should. All he needed was one strike, one *little* strike.

His helmet light picked a blue glint from some crystals in the gulley wall. It might be Ytt. He leaped off the granite spine he had been following and sank slowly through the lighter rock. Plugging his hand neutralizer into the socket in his belt, he lifted out a foot-thick section of rock. The shining rod of the neutralizer adjusted the vibration plane of the sample to the same frequency as his own. Pete pressed the mouth-shaped opening of the spectro-analyzer to the boulder and pressed the trigger. The brief, intensely hot atomic flame blazed against the hard surface, vaporizing it instantly.

The film transparency popped out of the analyzer and

Pete studied the spectrographic lines intently. Wrong again; no trace of the familiar Yttrotantalite lines. With an angry motion he stowed the test equipment in his pack and ploughed on through the gummy rock.

Yttrotantalite was the ore and tantalum was the metal extracted from it. This rare metal was the main ingredient of the delicate piezoelectric crystals that made the vibratory mass penetrator possible. Ytt made tantalum, tantalum made crystals, crystals operated the walk-through that he used to find more Ytt to make. . . . It was just like a squirrel cage, and Pete was the squirrel, a very unhappy animal at the present moment.

Pete carefully turned the rheostat knob on the walk-through, feeding a trifle more power into the circuit. It would be hard on the crystal, but he needed it to enable him to push through the jelly-like earth.

His thoughts kept returning to that little crystal that meant his life. It was a thin wafer of what looked like dirty glass, ground and polished to the most exacting tolerances. When subjected to an almost microscopic current, it vibrated at exactly the correct frequency that allowed one mass to slide between the molecules of another. This weak signal in turn controlled the much more powerful circuit that enabled himself and all his equipment to move through the earth. If the crystal failed, the atoms of his body would return to the vibratory plane of the normal world and alloy themselves with the earth atoms through which he was moving. . . . Pete shook his head as if to clear away the offending thoughts and quickened his pace down the slope.

He had been pushing against the resisting rock for three hours now and his leg-muscles felt like hot pokers. In a few minutes he would have to turn back, if he wanted to leave himself a margin of safety. But he had been getting Ytt traces for an hour now, and they seemed

to be getting stronger as he followed the probable course of the drift. The mother lode had to be a rich one—if he could only find it!

It was time to start the long uphill return. Pete jerked a rock for a last test. He'd mark the spot and take up the search tomorrow. The test bulb flashed and he held the transparency against it.

His body tensed and his heart began to thud heavily. He blinked and looked again—it was there! The tantalum lines burned through the weaker traces with a harsh brilliance. His hand was shaking as he jerked open his knee pocket. He had a comparison film from the White Owl claim, the richest in the territory. There wasn't the slightest doubt—his was the richer ore!

He took the half-crystals out of their cushioned pouch and gently placed the B crystal in the hole he had made when he removed the sample rock. No one else could ever find this spot without the other half of the same crystal, ground accurately to a single ultra-shortwave frequency. If half A were used to key the frequency of a signal generator, side B would bounce back an echo of the same wave-length that would be picked up by a delicate receiver. In this way the crystal both marked the claim and enabled Pete to find his way back to it.

He carefully stowed the A crystal in its cushioned compartment and started the long trek back to the surface. Walking was almost impossible; the old crystal in his walk-through was deviating so far that he could scarcely push through the gluey earth. He could feel the imponderable mass of the half-mile of rock over his head, waiting to imprison him in its eternal grip. The only way to the surface was to follow the long hogback of granite until it finally cleared the surface.

The crystal had been in continuous use now for over

five hours. If he could only turn it off for a while, the whole unit would have a chance to cool down. His hand shook as he fumbled with his pack straps—he forced himself to slow down and do the job properly.

He turned the hand neutralizer to full power and held the glowing rod at arm's length before him. Out of the haze there suddenly materialized an eighteen-foot boulder of limestone, adjusted now to his own penetrating frequency. Gravity gripped the gigantic rock and it slowly sank. When it had cleared the level of the granite ledge, he turned off the neutralizer. There was a heavy crunch as the molecules of the boulder welded themselves firmly to those of the surrounding rock. Pete stepped into the artificial bubble he had formed in the rock and turned off his walk-through.

With a suddenness that never ceased to amaze him, his hazy surroundings became solid walls of rock. His helmet light splashed off the sides of the little chamber, a bubble with no exit, one-half mile below the freezing Alaskan wastes.

With a grunt of relief, Pete slipped out of his heavy pack and stretched his aching muscles. He had to conserve oxygen; that was the reason he had picked this particular spot. His artificial cave cut through a vein of RbO, rubidium oxide. It was a cheap and plentiful mineral, not worth mining this far north, but still the rock diver's best friend.

Pete rummaged in the pack for the airmaker and fastened its power pack to his belt. He thumbed the unit on and plunged the contact points into the RbO vein. The silent flash illuminating the chamber glinted on the white snow that was beginning to fall. The flakes of oxygen released by the airmaker melted before they touched

the floor. The underground room was getting a life-giving atmosphere of its own. With air around him, he could open his faceplate and get some chow out of his pack.

He cautiously cracked the helmet valve and sniffed. The air was good, although pressure was low—around twelve pounds. The oxygen concentration was a little too high; he giggled happily with a mild oxygen jag. Pete hummed tunelessly as he tore the cardboard wrapper from a ration pack.

Cool water from the canteen washed down the tasteless hardtack, but he smiled, thinking of thick, juicy steaks. The claim would be assayed and mine owners' eyes would bulge when they read the report. Then they would come to *him*. Dignified, sincere men clutching contracts in their well-manicured hands. He would sell to the highest bidder, the entire claim; let someone else do all the work for a change. They would level and surface this granite ridge and big pressure trucks would plow through the earth, bringing miners to and from the underground diggings. He relaxed against the curved wall of the bubble, smiling. He could see himself, bathed, shaven and manicured, walking into the Miners' Rest. . . .

The daydream vanished as two men in bulging subsuits stepped through the rock wall. Their figures were transparent; their feet sank into the ground with each step. Both men suddenly jumped into the air; at mid-arc they switched off their walk-throughs. The figures gained solidity and landed heavily on the floor. They opened their faceplates and sniffed the air.

The shorter man smiled. "It sure smells nice in here, right, Mo?"

Mo was having trouble getting his helmet off; his voice rumbled out through the folds of cloth. "Right, Algie." The helmet came free with a snap.

Pete's eyes widened at the sight, and Algie smiled a humorless grin. "Mo ain't much to look at, but you could learn to like him."

Mo was a giant, seven feet from his boots to the crown of his bullet-shaped head, shaved smooth and glistening with sweat. He must have been born ugly, and Time had not improved him. His nose was flattened, one ear was little more than a rag, and a thick mass of white scar-tissue drew up his upper lip. Two yellow teeth gleamed through the opening.

Pete slowly closed his canteen and stowed it in the pack. They might be honest rock divers, but they didn't look it. "Anything I can do for you guys?" he asked.

"No thanks, pal," said the short one, "we was just going by and saw the flash of your airmaker. We thought maybe it was one of our pals, so we come over to see. Rock diving sure is a lousy racket these days, ain't it?" As he talked, the little man's eyes flicked casually around the room, taking in everything. With a wheeze, Mo sat down against the wall.

"You're right," said Pete carefully. "I haven't had a strike in months. You guys newcomers? I don't think I've seen you around the camp."

Algie did not reply. He was staring intently at Pete's bulging sample case.

He snapped open a huge clasp knife. "What you got in the sample case, Mac?"

"Just some low-grade ore I picked up. Going to have it assayed, but I doubt if it's even worth carrying. I'll show you."

Pete stood up and walked toward the case. As he passed in front of Algie, he bent swiftly, grabbed the knife hand and jabbed his knee viciously into the short man's stomach. Algie jackknifed and Pete chopped his neck sharply

with the edge of his palm. He didn't wait to see him fall but dived towards the pack.

He pulled his Army .45 with one hand and scooped out the signal crystal with the other, raising his steel-shod boot to stamp the crystal to powder.

His heel never came down. A gigantic fist gripped his ankle, stopping Pete's whole bulk in midair. He tried to bring the gun around, but a hand as large as a ham clutched his wrist. He screamed as the bones grated together. The automatic dropped from his nerveless fingers.

He hung head down for five minutes while Mo pleaded with the unconscious Algie to tell him what to do. Algie regained consciousness and sat up cursing and rubbing his neck. He told Mo what to do and sat there smiling until Pete lost consciousness.

Slap-slap, slap-slap; his head rocked back and forth in time to the blows. He couldn't stop them, they jarred his head, shook his entire body. From very far away he heard Algie's voice.

"That's enough. Mo, that's *enough*. He's coming around now."

Pete braced himself painfully against the wall and wiped the blood out of his eyes. The short man's face swam into his vision.

"Mac, you're giving too much trouble. We're going to take your crystal and find your strike, and if it's as good as the samples you got there, I'm going to be very happy and celebrate by killing you real slow. If we don't find it, you get killed *slower*. You get yours either way. Nobody *ever* hits Algie, don't you know that?"

They turned on Pete's walk-through and half carried, half dragged him through the wall. About twenty feet away they emerged in another artificial bubble, much

larger than his own. It was almost filled by the metallic bulk of an atomic tractor.

Mo pushed him to the floor and kicked his walk-through into a useless ruin. The giant stepped over Pete's body and lumbered across the room. As he swung himself aboard the tractor, Algie switched on the large walk-through unit. Pete saw Algie's mouth open with silent laughter as the ghostly machine lurched forward and drove into the wall.

Pete turned and pawed through the crushed remains of his walk-through. Completely useless. They had done a thorough job, and there was nothing else in this globular tomb that could help him out. His sub-rock radio was in his own bubble; with that he could call the Army base and have a patrol here in twenty minutes. But there was a little matter of twenty feet of rock between the radio and himself.

His light swung up and down the wall. That three-foot vein of RbO must be the same one that ran through his own chamber.

He grabbed his belt. The airmaker was still there! He pressed the points to the wall and watched the silver snow spring out. Pieces of rock fell loose as he worked in a circle. If the power pack held out—and if they didn't come back too soon—

With each flash of the airmaker an inch-thick slab of rock crumbled away. The accumulators took 3.7 seconds to recharge; then the white flash would leap out and blast loose another mass of rubble. He worked furiously with his left hand to clear away the shattered rock.

Blast with the right arm—push with the left—blast and push—blast and push. He laughed and sobbed at the same time, warm tears running down his cheeks. He had forgotten the tremendous amounts of oxygen he was releasing. The walls reeled drunkenly around him.

Stopping just long enough to seal his helmet, Pete turned back to the wall of his makeshift tunnel. He blasted and struggled with the resisting rock, trying to ignore his throbbing head. He lay on his side, pushing the broken stones behind him, packing them solid with his feet.

He had left the large bubble behind and was sealed into his own tiny chamber far under the earth. He could feel the weight of a half-mile of solid rock pushing down on him, crushing the breath from his lungs. If the airmaker died now, he would lie there and rot in this hand-hewn tomb! Pete tried to push the thought from his mind—to concentrate only on blasting his way through the earth.

Time seemed to stand still as he struggled on through an eternity of effort. His arms worked like pistons while his bloody fingers scrabbled at the corroded rock.

He dropped his arms for a few precious moments while his burning lungs pumped air. The weakened rock before him crumbled and blew away with an explosive sound. The air whistled through the ragged opening. The pressure in the two chambers was equalizing—he had holed through!

He was blasting at the edges of the hole with the weakened airmaker when the legs walked up next to him. Algie's face pushed through the low rock ceiling, a ferocious scowl on its features. There was no room to materialize; all the impotent Algie could do was to shake his fist at—and through—Pete's face.

A monstrous crunching came from the loose rubble behind him; the rock fell away and Mo pushed through. Pete couldn't turn to fight, but he landed one shoe on the giant's shapeless nose before monster hands clutched his ankles.

He was dragged through the rocky tube like a child,

hauled back to the bigger cavern. When Mo dropped him he just slid to the floor and lay there gasping. . . . He had been so close.

Algie bent over him. "You're too smart, Mac. I'm going to shoot you now, so you don't give me no more trouble."

He pulled Pete's .45 out of his pocket, grabbed it by the slide and charged it. "By the way, we found your strike. It's going to make me richer'n hell. Glad, Mac?"

Algie squeezed the trigger and a hammer-blow struck Pete's thigh. The little man stood over Pete, grinning.

"I'm going to give you all these slugs where they won't kill you—not right away. Ready for the next one, Mac?"

Pete pushed up onto one elbow and pressed his hand against the muzzle of the gun. Algie's grin widened. "Fine, stop the bullet with your hand!"

He squeezed the trigger; the gun clicked sharply. A ludicrous expression of amazement came over his face. Pete rose up and pressed the airmaker against Algie's faceplate. The expression was still there when his head exploded into frosty ribbons.

Pete dived on the gun, charged it out of the half-cocked position and swung around. Algie had been smart, but not smart enough to know that the muzzle of a regulation .45 acts as a safety. When you press against it the barrel is pushed back into half-cock position and can't be fired until the slide is worked to recharge it.

Mo came stumbling across the room, his jaw gaping in amazement. Swinging around on his good leg, Pete waved the gun at him. "Hold it right there, Mo. You're going to help me get back to town."

The giant didn't hear him; there was room in his mind for only one thought.

"You killed Algie—you killed Algie!"

Pete fired half the clip before the big man dropped.

He turned from the dying man with a shudder. It had been self-defense, but that thought didn't help the sick feeling in his stomach. He twisted his belt around his leg to stop the blood and applied a sterile bandage from the tractor's first-aid kit.

The tractor would get him back; he would let the Army take care of the mess here. He pushed into the driver's seat and kicked the engine into life. The cat's walk-through operated perfectly; the machine crawled steadily toward the surface. Pete rested his wounded leg on the cowl and let the earth flow smoothly past and through him.

It was still snowing when the tractor broke through to the surface.

The doctor, sad to say, was a drunk. But his cures were out of this world

THE LITTLE BLACK BAG

By C. M. Kornbluth

OLD Dr. Full felt the winter in his bones as he limped down the alley. It was the alley and the back door he had chosen rather than the sidewalk and the front door because of the brown paper bag under his arm. He knew perfectly well that the flat-faced, stringy-haired women of his street and their gap-toothed, sour-smelling husbands did not notice if he brought a bottle of cheap wine to his room. They all but lived on the stuff themselves, varied by whiskey when pay checks were boosted by overtime. But Dr. Full, unlike them, was ashamed. A complicated disaster occurred as he limped down the littered alley. One of the neighborhood dogs—a mean little black one he knew and hated, with its teeth always bared and always snarling with menace—hurled at his legs through a hole in the board fence that lined his path. Dr. Full flinched, then swung his leg in what was to have been a satisfying kick to the animal's gaunt ribs. But the winter in his bones weighed down the leg. His foot failed to clear a half-buried brick, and he sat down abruptly, cursing. When he smelled unbottled wine and realized his brown paper package had slipped from

under his arm and smashed, his curses died on his lips. The snarling black dog was circling him at a yard's distance, tensely stalking, but he ignored it in the greater disaster.

With stiff fingers as he sat on the filth of the alley, Dr. Full unfolded the brown paper bag's top, which had been crimped over, grocer-wise. The early autumnal dusk had come; he could not see plainly what was left. He lifted out the jug-handled top of his half gallon, and some fragments, and then the bottom of the bottle. Dr. Full was far too occupied to exult as he noted that there was a good pint left. He had a problem, and emotions could be deferred until the fitting time.

The dog closed in, its snarl rising in pitch. He set down the bottom of the bottle and pelted the dog with the curved triangular glass fragments of its top. One of them connected, and the dog ducked back through the fence, howling. Dr. Full then placed a razor-like edge of the half-gallon bottle's foundation to his lips and drank from it as though it were a giant's cup. Twice he had to put it down to rest his arms, but in one minute he had swallowed the pint of wine.

He thought of rising to his feet and walking through the alley to his room, but a flood of well-being drowned the notion. It was, after all, inexpressibly pleasant to sit there and feel the frost-hardened mud of the alley turn soft, or seem to, and to feel the winter evaporating from his bones under a warmth which spread from his stomach through his limbs.

A three-year-old girl in a cut-down winter coat squeezed through the same hole in the board fence from which the black dog had sprung its ambush. Gravely she toddled up to Dr. Full and inspected him, with her dirty forefinger in her mouth. Dr. Full's happiness had been

providentially made complete; he had been supplied with an audience.

"Ah, my dear," he said hoarsely. And then: "Preposterous accusation. 'If that's what you call evidence,' I should have told them, 'you better stick to your doctoring.' I should have told them: 'I was here before your County Medical Society. And the License Commissioner never proved a thing on me. So, gennulmen, doesn't it stand to reason? I appeal to you as fellow memmers of a great profession—'"

The little girl, bored, moved away, picking up one of the triangular pieces of glass to play with as she left. Dr. Full forgot her immediately, and continued to himself earnestly: "But so help me, they *couldn't* prove a thing. Hasn't a man got any *rights*?" He brooded over the question, of whose answer he was so sure, but on which the Committee on Ethics of the County Medical Society had been equally certain. The winter was creeping into his bones again, and he had no money and no more wine.

Dr. Full pretended to himself that there was a bottle of whiskey somewhere in the fearful litter of his room. It was an old and cruel trick he played on himself when he simply had to be galvanized into getting up and going home. He might freeze there in the alley. In his room he would be bitten by bugs and would cough at the moldy reek from his sink, but he would not freeze and be cheated of the hundreds of bottles of wine that he still might drink, the thousands of hours of glowing content he still might feel. He thought about that bottle of whiskey—was it back of a mounded heap of medical journals? No; he had looked there last time. Was it under the sink, shoved well to the rear, behind the rusty drain? The cruel trick began to play itself out again. Yes, he told himself with mounting excitement, yes, it might be!

Your memory isn't so good nowadays, he told himself with rueful good-fellowship. You know perfectly well you might have bought a bottle of whiskey and shoved it behind the sink drain for a moment just like this.

The amber bottle, the crisp snap of the sealing as he cut it, the pleasurable exertion of starting the screw cap on its threads, and then the refreshing tangs in his throat, the warmth in his stomach, the dark, dull happy oblivion of drunkenness—they became real to him. You *could* have, you know! You *could* have! he told himself. With the blessed conviction growing in his mind—It *could* have happened, you know! It *could* have!—he struggled to his right knee. As he did, he heard a yelp behind him, and curiously craned his neck around while resting. It was the little girl, who had cut her hand quite badly on her toy, the piece of glass. Dr. Full could see the rilling bright blood down her coat, pooling at her feet.

He almost felt inclined to defer the image of the amber bottle for her, but not seriously. He knew that it was there, shoved well to the rear under the sink, behind the rusty drain where he had hidden it. He would have a drink and then magnanimously return to help the child. Dr. Full got to his other knee and then his feet, and proceeded at a rapid totter down the littered alley toward his room, where he would hunt with calm optimism at first for the bottle that was not there, then with anxiety, and then with frantic violence. He would hurl books and dishes about before he was done looking for the amber bottle of whiskey, and finally would beat his swollen knuckles against the brick wall until old scars on them opened and his thick old blood oozed over his hands. Last of all, he would sit down somewhere on the floor, whimpering, and would plunge into the abyss of purgulent nightmare that was his sleep.

After twenty generations of shilly-shallying and "we'll cross that bridge when we come to it," genus homo had bred himself into an impasse. Dogged biometricians had pointed out with irrefutable logic that mental subnormals were outbreeding mental normals and supernormals, and that the process was occurring on an exponential curve. Every fact that could be mustered in the argument proved the biometricians' case, and led inevitably to the conclusion that genus homo was going to wind up in a preposterous jam quite soon. If you think that had any effect on breeding practices, you do not know genus homo.

There was, of course, a sort of masking effect produced by that other exponential function, the accumulation of technological devices. A moron trained to punch an adding machine seems to be a more skillful computer than a medieval mathematician trained to count on his fingers. A moron trained to operate the twenty-first century equivalent of a linotype seems to be a better typographer than a Renaissance printer limited to a few fonts of movable type. This is also true of medical practice.

It was a complicated affair of many factors. The supernormals "improved the product" at greater speed than the subnormals degraded it, but in smaller quantity because elaborate training of their children was practiced on a custom-made basis. The fetish of higher education had some weird avatars by the twentieth generation: "colleges" where not a member of the student body could read words of three syllables; "universities" where such degrees as "Bachelor of Typewriting," "Master of Shorthand" and "Doctor of Philosophy (Card Filing)" were conferred, with the traditional pomp. The handful of supernormals used such devices in order that the vast majority might keep some semblance of a social order going.

Some day the supernormals would mercilessly cross the bridge; at the twentieth generation they were standing irresolutely at its approaches wondering what had hit them. And the ghosts of twenty generations of biometricians chuckled malignantly.

It is a certain Doctor of Medicine of this twentieth generation that we are concerned with. His name was Hemingway—John Hemingway, B.Sc., M.D. He was a general practitioner, and did not hold with running to specialists with every trifling ailment. He often said as much, in approximately these words: "Now, uh, what I mean is you got a good old G.P. See what I mean? Well, uh, now a good old G.P. don't claim he knows all about lungs and glands and them things, get me? But you got a G.P., you got, uh, you got a, well, you got a . . . *all-around man!* That's what you got when you got a G.P.—you got a all-around man."

But from this, do not imagine that Dr. Hemingway was a poor doctor. He could remove tonsils or appendixes, assist at practically any confinement and deliver a living, uninjured infant, correctly diagnose hundreds of ailments and prescribe and administer the correct medication or treatment for each. There was, in fact, only one thing he could not do in the medical line, and that was, violate the ancient canons of medical ethics. And Dr. Hemingway knew better than to try.

Dr. Hemingway and a few friends were chatting one evening when the event occurred that precipitates him into our story. He had been through a hard day at the clinic, and he wished his physicist friend Walter Gillis, B.Sc., M.Sc., Ph.D., would shut up so he could tell everybody about it. But Gillis kept rambling on, in his stilted fashion: "You got to hand it to old Mike; he don't have what we call the scientific method, but you got to hand it to him. There this poor little dope is, puttering around

with some glassware and I come up and I ask him, kidding of course, 'How's about a time-travel machine, Mike?'

Dr. Gillis was not aware of it, but "Mike" had an I.Q. six times his own, and was—to be blunt—his keeper. "Mike" rode herd on the pseudo-physicists in the pseudo-laboratory, in the guise of a bottle-washer. It was a social waste—but as has been mentioned before, the supernormals were still standing at the approaches to a bridge. Their irresolution led to many such preposterous situations. And it happens that "Mike," having grown frantically bored with his task, was malevolent enough to—but let Dr. Gillis tell it:

"So he gives me these here tube numbers and says, 'Series circuit. Now stop bothering me. Build your time machine, sit down at it and turn on the switch. That's all I ask, Dr. Gillis—that's all I ask. '"

"Say," marveled a brittle and lovely blond guest, "you remember real good, don't you, doc?" She gave him a melting smile.

"Heck," said Gillis modestly, "I always remember good. It's what you call an inherent facility. And besides I told it quick to my secretary, so she wrote it down. I don't read so good, but I sure remember good, all right. Now, where was I?"

Everybody thought hard, and there were various suggestions:

"Something about bottles, doc?"

"You was starting a fight. You said 'time somebody was traveling.' "

"Yeah—you called somebody a swish. Who did you call a swish?"

"Not swish—*switch*."

Dr. Gillis' noble brow grooved with thought, and he declared: "Switch is right. It was about time travel. What

we call travel through time. So I took the tube number he gave me and I put them into the circuit-builder, I set it for 'series' and there it is—my time-traveling machine. It travels things through time real good." He displayed a box.

"What's in the box?" asked the lovely blonde.

Dr. Hemingway told her: "Time travel. It travels things through time."

"Look," said Gillis, the physicist. He took Dr. Hemingway's little black bag and put it on the box. He turned on the switch and the little black bag vanished.

"Say," said Dr. Hemingway, "that was, uh, swell. Now bring it back."

"Huh?"

"Bring back my little black bag."

"Well," said Dr. Gillis, "they don't come back. I tried it backwards and they don't come back. I guess maybe that dummy Mike give me a bum steer."

There was wholesale condemnation of "Mike" but Dr. Hemingway took no part in it. He was nagged by a vague feeling that there was something he would have to do. He reasoned: "I am a doctor, and a doctor has got to have a little black bag. I ain't got a little black bag—so ain't I a doctor no more?" He decided that this was absurd. He *knew* he was a doctor. So it must be the bag's fault for not being there. It was no good, and he would get another one tomorrow from that dummy Al, at the clinic. Al could find things good, but he was a dummy—never liked to talk sociable to you.

So the next day Dr. Hemingway remembered to get another little black bag from his keeper—another little black bag with which he could perform tonsilectomies, appendectomies and the most difficult confinements, and with which he could diagnose and cure his kind until the day when the supernormals could bring themselves

to cross that bridge. Al was kinda nasty about the missing little black bag, but Dr. Hemingway didn't exactly remember what had happened, so no tracer was sent out, so—

. . .

Old Dr. Full awoke from the horrors of the night to the horrors of the day. His gummy eyelashes pulled apart convulsively. He was propped against a corner of his room, and something was making a little drumming noise. He felt very cold and cramped. As his eyes focused on his lower body, he croaked out a laugh. The drumming noise was being made by his left heel, agitated by fine tremors against the bare floor. It was going to be the D.T.'s again, he decided dispassionately. He wiped his mouth with his bloody knuckles, and the fine tremor coarsened; the snare-drum beat became louder and slower. He was getting a break this fine morning, he decided sardonically. You didn't get the horrors until you had been tightened like a violin string, just to the breaking point. He had a reprieve, if a reprieve into his old body with the blazing, endless headache just back of the eyes and the screaming stiffness in the joints were anything to be thankful for.

There was something or other about a kid, he thought vaguely. He was going to doctor some kid. His eyes rested on a little black bag in the center of the room, and he forgot about the kid. "I could have sworn," said Dr. Full, "I hocked that two years ago!" He hitched over and reached the bag, and then realized it was some stranger's kit, arriving here he did not know how. He tentatively touched the lock and it snapped open and lay flat, rows and rows of instruments and medications tucked into loops in its four walls. It seemed vastly larger open than closed. He didn't see how it could possibly fold up into

that compact size again, but decided it was some stunt of the instrument makers. Since his time—that made it worth more at the hock shop, he thought with satisfaction.

Just for old times' sake, he let his eyes and fingers rove over the instruments before he snapped the bag shut and headed for Uncle's. More than a few were a little hard to recognize—exactly that. You could see the things with blades for cutting, the forceps for holding and pulling, the retractors for holding fast, the needles and gut for suturing, the hypos—a fleeting thought crossed his mind that he could peddle the hypos separately to drug addicts.

Let's go, he decided, and tried to fold up the case. It didn't fold until he happened to touch the lock, and then it folded all at once into a little black bag. Sure have forged ahead, he thought, almost able to forget that what he was primarily interested in was its pawn value.

With a definite objective, it was not too hard for him to get to his feet. He decided to go down the front steps, out the front door and down the sidewalk. But first—

He snapped the bag open again on his kitchen table, and pored through the medication tubes. "Anything to sock the autonomic nervous system good and hard," he mumbled. The tubes were numbered, and there was a plastic card which seemed to list them. The left margin of the card was a run-down of the systems—vascular, muscular, nervous. He followed the last entry across to the right. There were columns for "stimulant," "depressant," and so on. Under "nervous system" and "depressant" he found the number 17, and shakily located the little glass tube which bore it. It was full of pretty blue pills and he took one.

It was like being struck by a thunderbolt.

Dr. Full had so long lacked any sense of well-being

except the brief glow of alcohol that he had forgotten its very nature. He was panic-stricken for a long moment at the sensation that spread through him slowly, finally tingling in his fingertips. He straightened up, his pains gone and his leg tremor stilled.

That was great, he thought. He'd be able to *run* to the hock shop, pawn the little black bag and get some booze. He started down the stairs. Not even the street, bright with mid-morning sun, into which he emerged made him quail. The little black bag in his left hand had a satisfying, authoritative weight. He was walking erect, he noted, and not in the somewhat furtive crouch that had grown on him in recent years. A little self-respect, he told himself, that's what I need. Just because a man's down doesn't mean—

"Docta, please-a come wit'l" somebody yelled at him, tugging his arm. "Da litt-la girl, she's-a burn' up!" It was one of the slum's innumerable flat-faced, stringy-haired women, in a slovenly wrapper.

"Ah, I happen to be retired from practice—" he began hoarsely, but she would not be put off.

"In by here, Docta!" she urged, tugging him to a doorway. "You come look-a da litt-la girl. I got two dolla, you come look!" That put a different complexion on the matter. He allowed himself to be towed through the doorway into a mussy, cabbage-smelling flat. He knew the woman now, or rather knew who she must be—a new arrival who had moved in the other night. These people moved at night, in motorcades of battered cars supplied by friends and relations, with furniture lashed to the tops, swearing and drinking until the small hours. It explained why she had stopped him: she did not yet know he was old Dr. Full, a drunken reprobate whom nobody would trust. The little black bag had been his guarantee, outweighing his whiskery face and stained black suit.

He was looking down on a three-year-old girl who had, he rather suspected, just been placed in the mathematical center of a freshly changed double bed. God knew what sour and dirty mattress she usually slept on. He seemed to recognize her as he noted a crusted bandage on her right hand. Two dollars, he thought— An ugly flush had spread up her pipe-stem arm. He poked a finger into the socket of her elbow, and felt little spheres like marbles under the skin and ligaments roll apart. The child began to squall thinly; beside him, the woman gasped and began to weep herself.

"Out," he gestured briskly at her, and she thudded away, still sobbing.

Two dollars, he thought— Give her some mumbo jumbo, take the money and tell her to go to a clinic. Strep, I guess, from that stinking alley. It's a wonder any of them grow up. He put down the little black bag and forgetfully fumbled for his key, then remembered and touched the lock. It flew open, and he selected a bandage shears, with a blunt wafer for the lower jaw. He fitted the lower jaw under the bandage, trying not to hurt the kid by its pressure on the infection, and began to cut. It was amazing how easily and swiftly the shining shears snipped through the crusty rag around the wound. He hardly seemed to be driving the shears with fingers at all. It almost seemed as though the shears were driving his fingers instead as they scissored a clean, light line through the bandage.

Certainly have forged ahead since my time, he thought—sharper than a microtome knife. He replaced the shears in their loop on the extraordinarily big board that the little black bag turned into when it unfolded, and leaned over the wound. He whistled at the ugly gash, and the violent infection which had taken immediate

root in the sickly child's thin body. Now what can you do with a thing like that? He pawed over the contents of the little black bag, nervously. If he lanced it and let some of the pus out, the old woman would think he'd done something for her, and he'd get the two dollars. But at the clinic they'd want to know who did it and if they got sore enough they might send a cop around. Maybe there was something in the kit—

He ran down the left edge of the card to "lymphatic" and read across to the column under "infection." It didn't sound right at all to him; he checked again, but it still said that. In the square to which the line and column led were the symbols: "IV-g-3cc." He couldn't find any bottles marked with Roman numerals, and then noticed that that was how the hypodermic needles were designated. He lifted number IV from its loop, noting that it was fitted with a needle already and even seemed to be charged. What a way to carry those things around! So—three c.c.'s of whatever was in hypo number IV ought to do something or other about infections settled in the lymphatic system—which, God knows, this one was. What did the lower-case "g" mean, though? He studied the glass hypo and saw letters engraved on what looked like a rotating disk at the top of the barrel. They ran from "a" to "i," and there was an index line engraved on the barrel on the opposite side from the calibrations.

Shrugging, old Dr. Full turned the disk until "g" coincided with the index line, and lifted the hypo to eye level. As he pressed in the plunger he did not see the tiny thread of fluid squirt from the tip of the needle. There was a sort of dark mist for a moment about the tip. A closer inspection showed that the needle was not even pierced at the tip. It had the usual slanting cut across the bias of the shaft, but the cut did not expose an oval hole. Baffled, he tried pressing the plunger again.

Again *something* appeared around the tip and vanished. "We'll settle this," said the doctor. He slipped the needle into the skin of his forearm. He thought at first that he had missed—that the point had glided over the top of his skin instead of catching and slipping under it. But he saw a tiny blood-spot and realized that somehow he just hadn't felt the puncture. Whatever was in the barrel, he decided, couldn't do him any harm if it lived up to his billing—and if it could come out through a needle that had no hole. He gave himself three c.c. and twitched the needle out. There was the swelling—painless, but otherwise typical.

Dr. Full decided it was his eyes or something, and gave three c.c. of "g" from hypodermic IV to the feverish child. There was no interruption to her wailing as the needle went in and the swelling rose. But a long instant later, she gave a final gasp and was silent.

Well, he told himself, cold with horror, you did it that time. You killed her with that stuff.

Then the child sat up and said: "Where's my mommy?"

Incredulously, the doctor seized her arm and palpated the elbow. The gland infection was zero, and the temperature seemed normal. The blood-congested tissues surrounding the wound were subsiding as he watched. The child's pulse was stronger and no faster than a child's should be. In the sudden silence of the room he could hear the little girl's mother sobbing in her kitchen, outside. And he also heard a girl's insinuating voice:

"She gonna be O.K., doc?"

He turned and saw a gaunt-faced, dirty-blond sloven of perhaps eighteen leaning in the doorway and eying him with amused contempt. She continued: "I heard about you, *Doc-tor* Full. So don't go try and put the bite on the old lady. You couldn't doctor up a sick cat."

"Indeed?" he rumbled. This young person was going to get a lesson she richly deserved. "Perhaps you would care to look at my patient?"

"Where's my mommy?" insisted the little girl, and the blonde's jaw fell. She went to the bed and cautiously asked: "You O.K. now, Teresa? You all fixed up?"

"Where's my mommy?" demanded Teresa. Then, accusingly, she gestured with her wounded hand at the doctor. "You *poke* me!" she complained, and giggled pointlessly.

"Well—" said the blond girl, "I guess I got to hand it to you, doc. These loud-mouth women around here said you didn't know your . . . I mean, didn't know how to cure people. They said you ain't a real doctor."

"I *have* retired from practice," he said. "But I happened to be taking this case to a colleague as a favor, your good mother noticed me, and—" a deprecating smile. He touched the lock of the case and it folded up into the little black bag again.

"You stole it," the girl said flatly.

He sputtered.

"Nobody'd trust you with a thing like that. It must be worth plenty. You stole that case. I was going to stop you when I come in and saw you working over Teresa, but it looked like you wasn't doing her any harm. But when you give me that line about taking that case to a colleague I know you stole it. You gimme a cut or I go to the cops. A thing like that must be worth twenty-thirty dollars."

The mother came timidly in, her eyes red. But she let out a whoop of joy when she saw the little girl sitting up and babbling to herself, embraced her madly, fell on her knees for a quick prayer, hopped up to kiss the doctor's hand, and then dragged him into the kitchen, all the while rattling in her native language while the blond

girl let her eyes go cold with disgust. Dr. Full allowed himself to be towed into the kitchen, but flatly declined a cup of coffee and a plate of anise cakes and St. John's Bread.

"Try him on some wine, ma," said the girl sardonically.

"Hyass! Hyass!" breathed the woman delightedly. "You like-a wine, docta?" She had a carafe of purplish liquid before him in an instant, and the blond girl snickered as the doctor's hand twitched out at it. He drew his hand back, while there grew in his head the old image of how it would smell and then taste and then warm his stomach and limbs. He made the kind of calculation at which he was practiced; the delighted woman would not notice as he downed two tumblers, and he could overawe her through two tumblers more with his tale of Teresa's narrow brush with the Destroying Angel, and then—why, then it would not matter. He would be drunk.

But for the first time in years, there was a sort of counter-image: a blend of the rage he felt at the blond girl to whom he was so transparent, and of pride at the cure he had just effected. Much to his own surprise, he drew back his hand from the carafe and said, luxuriating in the words: "No, thank you. I don't believe I'd care for any so early in the day." He covertly watched the blond girl's face, and was gratified at her surprise. Then the mother was shyly handing him two bills and saying: "Is no much-a money, docta—but you come again, see Teresa?"

"I shall be glad to follow the case through," he said. "But now excuse me—I really must be running along." He grasped the little black bag firmly and got up; he wanted very much to get away from the wine and the older girl.

"Wait up, doc," said she, "I'm going your way." She

followed him out and down the street. He ignored her until he felt her hand on the black bag. Then old Dr. Full stopped and tried to reason with her:

"Look, my dear. Perhaps you're right. I might have stolen it. To be perfectly frank, I don't remember how I got it. But you're young and you can earn your own money—"

"Fifty-fifty," she said, "or I go to the cops. And if I get another word outta you, it's sixty-forty. And you know who gets the short end, don't you, doc?"

Defeated, he marched to the pawnshop, her impudent hand still on the handle with his, and her heels beating out a tattoo against his stately tread.

In the pawnshop, they both got a shock.

"It ain't standard," said Uncle, unimpressed by the ingenious lock. "I ain't nevva seen one like it. Some cheap Jap stuff, maybe? Try down the street. This I nevva could sell."

Down the street they got an offer of one dollar. The same complaint was made: "I ain't a collecta, mista—I buy stuff that got resale value. Who could I sell this to, a Chinaman who don't know medical instruments? Every one of them looks funny. You sure you didn't make these yourself?" They didn't take the one-dollar offer.

The girl was baffled and angry; the doctor was baffled too, but triumphant. He had two dollars, and the girl had a half-interest in something nobody wanted. But, he suddenly marveled, the thing had been all right to cure the kid, hadn't it?

"Well," he asked her, "do you give up? As you see, the kit is practically valueless."

She was thinking hard. "Don't fly off the handle, doc. I don't get this but something's going on all right . . . would those guys know good stuff if they saw it?"

"They would They make a living from it. Wherever this kit came from—

She seized on that, with a devilish faculty she seemed to have of eliciting answers without asking questions. "I thought so. You don't know either, huh? Well, maybe I can find out for you. C'mon in here. I ain't letting go of that thing. There's money in it—some way, I don't know how, there's money in it." He followed her into a cafeteria and to an almost-empty corner. She was oblivious to stares and snickers from the other customers as she opened the little black bag—it almost covered a cafeteria table—and ferreted through it. She picked out a retractor from a loop, scrutinized it, contemptuously threw it down, picked out a speculum, threw it down, picked out the lower half of an O.B. forceps, turned it over, close to her sharp young eyes—and saw what the doctor's dim old ones could not have seen.

All old Dr. Full knew was that she was peering at the neck of the forceps and then turned white. Very carefully, she placed the half of the forceps back in its loop of cloth and then replaced the retractor and the speculum. "Well?" he asked. "What did you see?"

"'Made in U.S.A.,'" she quoted hoarsely. "'Patent Applied for July 2450.'"

He wanted to tell her she must have misread the inscription, that it must be a practical joke, that—

But he knew she had read correctly. Those bandage shears: they *had* driven his fingers, rather than his fingers driving them. The hypo needle that had no hole. The pretty blue pill that had struck him like a thunderbolt.

"You know what I'm going to do?" asked the girl, with sudden animation. "I'm going to go to charm school. You'll like that, won't ya, doc? Because we're sure going to be seeing a lot of each other."

Old Dr. Full didn't answer. His hands had been playing idly with that plastic card from the kit on which had been printed the rows and columns that had guided him twice before. The card had a slight convexity; you could snap the convexity back and forth from one side to the other. He noted, in a daze, that with each snap a different text appeared on the cards. *Snap*. "The knife with the blue dot in the handle is for tumors only. Diagnose tumors with your Instrument Seven, the Swelling Tester. Place the Swelling Tester—" *Snap*. "An overdose of the pink pills in Bottle 3 can be fixed with one white pill from Bottle—" *Snap*. "Hold the suture needle by the end without the hole in it. Touch it to one end of the wound you want to close and let go. After it has made the knot, touch it—" *Snap*. "Place the top half of the O.B. Forceps near the opening. Let go. After it has entered and conformed to the shape of—" *Snap*.

The slot man saw "FLANNERY 1—MEDICAL" in the upper left corner of the hunk of copy. He automatically scribbled "trim to .75" on it and skimmed it across the horseshoe-shaped copy desk to Piper, who had been handling Edna Flannery's quack-exposé series. She was a nice youngster, he thought, but like all youngsters she over-wrote. Hence, the "*trim*."

Piper dealt back a city hall story to the slot, pinned down Flannery's feature with one hand and began to tap his pencil across it, one tap to a word, at the same steady beat as a teletype carriage traveling across the roller. He wasn't exactly reading it this first time. He was just looking at the letters and words to find out whether, as letters and words, they conformed to *Herald* style. The steady tap of his pencil ceased at intervals as it drew a black line ending with a stylized letter "d" through the word "breast" and scribbled in "chest" in-

stead, or knocked down the capital "E" in "East" to lower case with a diagonal, or closed up a split word—in whose middle Flannery had bumped the space bar of her typewriter—with two curved lines like parentheses rotated through ninety degrees. The thick black pencil zipped a ring around the "30" which, like all youngsters, she put at the end of her stories. He turned back to the first page for the second reading. This time the pencil drew lines with the stylized "d's" at the end of them through adjectives and whole phrases, printed big "L's" to mark paragraphs, hooked some of Flannery's own paragraphs together with swooping recurved lines.

At the bottom of "FLANNERY ADD 2—MEDICAL" the pencil slowed down and stopped. The slot man, sensitive to the rhythm of his beloved copy desk, looked up almost at once. He saw Piper squinting at the story, at a loss. Without wasting words, the copy reader skimmed it back across the Masonite horseshoe to the chief, caught a police story in return and buckled down, his pencil tapping. The slot man read as far as the fourth add, barked at Howard, on the rim: "Sit in for me," and stumped through the clattering city room toward the alcove where the managing editor presided over his own bedlam.

The copy chief waited his turn while the make-up editor, the pressroom foreman and the chief photographer had words with the M.E. When his turn came, he dropped Flannery's copy on his desk and said: "She says this one isn't a quack."

The M.E. read:

"FLANNERY 1—MEDICAL, by Edna Flannery, *Herald* Staff Writer.

"The sordid tale of medical quackery which the *Herald* has exposed in this series of articles undergoes a change of pace today which the reporter found a wel-

come surprise. Her quest for the facts in the case of today's subject started just the same way that her exposure of one dozen shyster M.D.'s and faith-healing phonies did. But she can report for a change that Dr. Bayard Kendrick Full is, despite unorthodox practices which have drawn the suspicion of the rightly hypersensitive medical associations, a true healer living up to the highest ideals of his profession.

"Dr. Full's name was given to the *Herald's* reporter by the ethical committee of a county medical association, which reported that he had been expelled from the association on July 18, 1941 for allegedly 'milking' several patients suffering from trivial complaints. According to sworn statements in the committee's files, Dr. Full had told them they suffered from cancer, and that he had a treatment which would prolong their lives. After his expulsion from the association, Dr. Full dropped out of their sight—until he opened a midtown 'sanitarium' in a brownstone front which had for years served as a rooming house.

"The *Herald's* reporter went to that sanitarium, on East 89th Street, with the full expectation of having numerous imaginary ailments diagnosed and of being promised a sure cure for a flat sum of money. She expected to find unkempt quarters, dirty instruments and the mumbo-jumbo paraphernalia of the shyster M.D. which she had seen a dozen times before.

"She was wrong.

"Dr. Full's sanitarium is spotlessly clean, from its tastefully furnished entrance hall to its shining, white treatment rooms. The attractive, blond receptionist who greeted the reporter was soft-spoken and correct, asking only the reporter's name, address and the general nature of her complaint. This was given, as usual, as 'nagging backache.' The receptionist asked the *Herald's* reporter

to be seated, and a short while later conducted her to a second-floor treatment room and introduced her to Dr. Full.

"Dr. Full's alleged past, as described by the medical society spokesman, is hard to reconcile with his present appearance. He is a clear-eyed, white-haired man in his sixties, to judge by his appearance—a little above middle height and apparently in good physical condition. His voice was firm and friendly, untainted by the ingratiating whine of the shyster M.D. which the reporter has come to know too well.

"The receptionist did not leave the room as he began his examination after a few questions as to the nature and location of the pain. As the reporter lay face down on a treatment table the doctor pressed some instrument to the small of her back. In about one minute he made this astounding statement: "Young woman, there is no reason for you to have any pain where you say you do. I understand they're saying nowadays that emotional upsets cause pains like that. You'd better go to a psychologist or psychiatrist if the pain keeps up. There is no physical cause for it, so I can do nothing for you."

"His frankness took the reporter's breath away. Had he guessed she was, so to speak, a spy in his camp? She tried again: 'Well, doctor, perhaps you'd give me a physical checkup, I feel run-down all the time, besides the pains. Maybe I need a tonic.' This is never-failing bait to shyster M.D.'s—an invitation for them to find all sorts of mysterious conditions wrong with a patient, each of which 'requires' an expensive treatment. As explained in the first article of this series, of course, the reporter underwent a thorough physical checkup before she embarked on her quack-hunt, and was found to be in one hundred percent perfect condition, with the exception of a 'scarred' area at the bottom tip of her left lung re-

sulting from a childhood attack of tuberculosis and a tendency toward 'hyperthyroidism'—overactivity of the thyroid gland which makes it difficult to put on weight and sometimes causes a slight shortness of breath.

"Dr. Full consented to perform the examination, and took a number of shining, spotlessly clean instruments from loops in a large board literally covered with instruments—most of them unfamiliar to the reporter. The instrument with which he approached first was a tube with a curved dial in its surface and two wires that ended on flat disks growing from its ends. He placed one of the disks on the back of the reporter's right hand and the other on the back of her left. 'Reading the meter,' he called out some number which the attentive receptionist took down on a ruled form. The same procedure was repeated several times, thoroughly covering the reporter's anatomy and thoroughly convincing her that the doctor was a complete quack. The reporter had never seen any such diagnostic procedure practiced during the weeks she put in preparing for this series.

"The doctor then took the ruled sheet from the receptionist, conferred with her in low tones and said: 'You have a slightly overactive thyroid, young woman. And there's something wrong with your left lung—not seriously, but I'd like to take a closer look.'

"He selected an instrument from the board which, the reporter knew, is called a 'speculum'—a scissorlike device which spreads apart body openings such as the orifice of the ear, the nostril and so on, so that a doctor can look in during an examination. The instrument was, however, too large to be an aural or nasal speculum but too small to be anything else. As the *Herald's* reporter was about to ask further questions, the attending receptionist told her: 'It's customary for us to blindfold our patients dur-

ing lung examinations—do you mind?’ The reporter, bewildered, allowed her to tie a spotlessly clean bandage over her eyes, and waited nervously for what would come next.

“She still cannot say exactly what happened while she was blindfolded—but X rays confirm her suspicions. She felt a cold sensation at her ribs on the left side—a cold that seemed to enter inside her body. Then there was a snapping feeling, and the cold sensation was gone. She heard Dr. Full say in a matter-of-fact voice: ‘You have an old tubercular scar down there. It isn’t doing any particular harm, but an active person like you needs all the oxygen she can get. Lie still and I’ll fix it for you.’

“Then there was a repetition of the cold sensation, lasting for a longer time. ‘Another batch of alveoli and some more vascular glue,’ the *Herald’s* reporter heard Dr. Full say, and the receptionist’s crisp response to the order. Then the strange sensation departed and the eye-bandage was removed. The reporter saw no scar on her ribs, and yet the doctor assured her: ‘That did it. We took out the fibrosis—and a good fibrosis it was, too; it walled off the infection so you’re still alive to tell the tale. Then we planted a few clumps of alveoli—they’re the little gadgets that get the oxygen from the air you breathe into your blood. I won’t monkey with your thyroxin supply. You’ve got used to being the kind of person you are, and if you suddenly found yourself easy-going and all the rest of it, chances are you’d only be upset. About the backache: just check with the county medical society for the name of a good psychologist or psychiatrist. And look out for quacks; the woods are full of them.’

“The doctor’s self-assurance took the reporter’s breath away. She asked what the charge would be, and was told to pay the receptionist fifty dollars. As usual, the reporter

delayed paying until she got a receipt signed by the doctor himself, detailing the services for which it paid. Unlike most, the doctor cheerfully wrote: 'For removal of fibrosis from left lung and restoration of alveoli,' and signed it.

"The reporter's first move when she left the sanitarium was to head for the chest specialist who had examined her in preparation for this series. A comparison of X rays taken on the day of the 'operation' and those taken previously would, the *Herald's* reporter then thought, expose Dr. Full as a prince of shyster M.D.'s and quacks.

"The chest specialist made time on his crowded schedule for the reporter, in whose series he has shown a lively interest from the planning stage on. He laughed uproariously in his staid Park Avenue examining room as she described the weird procedure to which she had been subjected. But he did not laugh when he took a chest X ray of the reporter, developed it, dried it and compared it with the ones he had taken earlier. The chest specialist took six more X rays that afternoon, but finally admitted that they all told the same story. The *Herald's* reporter has it on his authority that the scar she had eighteen days ago from her tuberculosis is now gone and has been replaced by healthy lung-tissue. He declares that this is a happening unparalleled in medical history. He does not go along with the reporter in her firm conviction that Dr. Full is responsible for the change.

"The *Herald's* reporter, however, sees no two ways about it. She concludes that Dr. Bayard Kendrick Full—whatever his alleged past may have been—is now an unorthodox but highly successful practitioner of medicine, to whose hands the reporter would trust herself in any emergency.

"Not so is the case of 'Rev.' Annie Dimsworth—a female harpy who, under the guise of 'faith' preys on the

ignorant and suffering who come to her sordid 'healing parlor' for help and remain to feed 'Rev.' Annie's bank account, which now totals up to \$53,238.64. Tomorrow's article will show, with photostats of bank statements and sworn testimony that—"

The managing editor turned down "FLANNERY LAST ADD—MEDICAL" and tapped his front teeth with a pencil, trying to think straight. He finally told the copy chief: "Kill the story. Run the teaser as a box." He tore off the last paragraph—the "teaser" about "Rev." Annie—and handed it to the desk man, who stumped back to his Masonite horseshoe.

The make-up editor was back, dancing with impatience as he tried to catch the M.E.'s eye. The interphone buzzed with the red light which indicated that the editor and publisher wanted to talk to him. The M.E. thought briefly of a special series on this Dr. Full, decided nobody would believe it and that he probably was a phony anyway. He spiked the story on the "dead" hook and answered his interphone.

Dr. Full had become almost fond of Angie. As his practice had grown to engross the neighborhood illnesses, and then to a corner suite in an uptown taxpayer building, and finally to the sanitarium, she seemed to have grown with it. Oh, he thought, we have our little disputes—

The girl, for instance, was too much interested in money. She had wanted to specialize in cosmetic surgery—removing wrinkles from wealthy old women and what-not. She didn't realize, at first, that a thing like this was in their trust, that they were the stewards and not the owners of the little black bag and its fabulous contents.

He had tried, ever so cautiously, to analyze them, but without success. All the instruments were slightly radio-

active, for instance, but not quite so. They would make a Geiger-Mueller counter indicate, but they would not collapse the leaves of an electroscope. He didn't pretend to be up on the latest developments, but as he understood it, that was just plain *wrong*. Under the highest magnification there were lines on the instruments' super-finished surfaces: incredibly fine lines, engraved in random hatchments which made no particular sense. Their magnetic properties were preposterous. Sometimes the instruments were strongly attracted to magnets, sometimes less so, and sometimes not at all.

Dr. Full had taken X rays in fear and trembling lest he disrupt whatever delicate machinery worked in them. He was *sure* they were not solid, that the handles and perhaps the blades must be mere shells filled with busy little watch-works—but the X rays showed nothing of the sort. Oh, yes—and they were always sterile, and they wouldn't rust. Dust *fell* off them if you shook them: now, that was something he understood. They ionized the dust, or were ionized themselves, or something of the sort. At any rate, he had read of something similar that had to do with phonograph records.

She wouldn't know about that, he proudly thought. She kept the books well enough, and perhaps she gave him a useful prod now and then when he was inclined to settle down. The move from the neighborhood slum to the uptown quarters had been her idea, and so had the sanitarium. Good; good; it enlarged his sphere of usefulness. Let the child have her mink coats and her convertible, as they seemed to be calling roadsters nowadays. He himself was too busy and too old. He had so much to make up for.

Dr. Full thought happily of his Master Plan. She would not like it much but she would have to see the logic of it. This marvelous thing that had happened to

them must be handed on. She was herself no doctor; even though the instruments practically ran themselves, there was more to doctoring than skill. There were the ancient canons of the healing art. And so, having seen the logic of it, Angie would yield; she would assent to his turning over the little black bag to all humanity.

He would probably present it to the College of Surgeons, with as little fuss as possible—well, perhaps a *small* ceremony, and he would like a souvenir of the occasion, a cup or a framed testimonial. It would be a relief to have the thing out of his hands, in a way; let the giants of the healing art decide who was to have its benefits. No; Angie would understand. She was a goodhearted girl.

It was nice that she had been showing so much interest in the surgical side lately—asking about the instruments, reading the instruction card for hours, even practicing on guinea pigs. If something of his love for humanity had been communicated to her, old Dr. Full sentimentally thought, his life would not have been in vain. Surely she would realize that a greater good would be served by surrendering the instruments to wiser hands than theirs, and by throwing aside the cloak of secrecy necessary to work on their small scale.

Dr. Full was in the treatment room that had been the brownstone's front parlor; through the window he saw Angie's yellow convertible roll to a stop before the stoop. He liked the way she looked as she climbed the stairs; neat, not flashy, he thought. A sensible girl like her, she'd understand. There was somebody with her—a fat woman, puffing up the steps, overdressed and petulant. Now, what could she want?

Angie let herself in and went into the treatment room, followed by the fat woman. "Doctor," said the blond girl

gravely, "may I present Mrs. Coleman?" Charm school had not taught her everything, but Mrs. Coleman, evidently *nouveau riche*, thought the doctor, did not notice the blunder.

"Miss Aquella told me so much about you, doctor, and your remarkable system!" she gushed.

Before he could answer, Angie smoothly interposed: "Would you excuse us for just a moment, Mrs. Coleman?"

She took the doctor's arm and led him into the reception hall. "Listen," she said swiftly, "I know this goes against your grain, but I couldn't pass it up. I met this old thing in the exercise class at Elizabeth Barton's. Nobody else'll talk to her there. She's a widow. I guess her husband was a black marketeer or something, and she has a pile of dough. I gave her a line about how you had a system of massaging wrinkles out. My idea is, you blindfold her, cut her neck open with the Cutaneous Series knife, shoot some Firmol into the muscles, spoon out some of that blubber with an Adipose Series curette and spray it all with Skintite. When you take the blindfold off she's got rid of a wrinkle and doesn't know what happened. She'll pay five hundred dollars. Now, don't say 'no,' doc. Just this once, let's do it my way, can't you? I've been working on this deal all along too, haven't I?"

"Oh," said the doctor, "very well." He was going to have to tell her about the Master Plan before long anyway. He would let her have it her way this time.

Back in the treatment room, Mrs. Coleman had been thinking things over. She told the doctor sternly as he entered: "Of course, your system is permanent, isn't it?"

"It is, madam," he said shortly. "Would you please lie down there? Miss Aquella, get a sterile three-inch bandage for Mrs. Coleman's eyes." He turned his back on the fat woman to avoid conversation, and pretended to be

adjusting the lights. Angie blindfolded the woman, and the doctor selected the instruments he would need. He handed the blond girl a pair of retractors, and told her: "Just slip the corners of the blades in as I cut—" She gave him an alarmed look, and gestured at the reclining woman. He lowered his voice: "Very well. Slip in the corners and rock them along the incision. I'll tell you when to pull them out."

Dr. Full held the Cutaneous Series knife to his eyes as he adjusted the little slide for 3 cm. depth. He sighed a little as he recalled that its last use had been in the extirpation of an "inoperable" tumor of the throat.

"Very well," he said, bending over the woman. He tried a tentative pass through her tissues. The blade dipped in and flowed through them, like a finger through quicksilver, with no wound left in the wake. Only the retractors could hold the edges of the incision apart.

Mrs. Coleman stirred and jabbered: "Doctor, that felt so peculiar! Are you sure you're rubbing the right way?"

"Quite sure, madam," said the doctor wearily. "Would you please try not to talk during the massage?"

He nodded at Angie, who stood ready with the retractors. The blade sank in to its three centimeters, miraculously cutting only the dead horny tissues of the epidermis and the live tissue of the dermis, pushing aside mysteriously all major and minor blood vessels and muscular tissue, declining to affect any system or organ except the one it was—tuned to, could you say? The doctor didn't know the answer, but he felt tired and bitter at this prostitution. Angie slipped in the retractor blades and rocked them as he withdrew the knife, then pulled to separate the lips of the incision. It bloodlessly exposed an unhealthy string of muscle, sagging in a dead-looking loop from blue-gray ligaments. The doctor took a hypo. Num-

ber IX, pre-set to "g" and raised it to his eye-level. The mist came and went; there probably was no possibility of an embolus with one of these gadgets, but why take chances? He shot one c.c. of "g"—identified as "Firmol"—by the card—into the muscle. He and Angie watched as it tightened up against the pharynx.

He took the Adipose Series curette, a small one, and spooned out yellowish tissue, dropping it into the incinerator box, and then nodded to Angie. She eased out the retractors and the gaping incision slipped together into unbroken skin, sagging now. The doctor had the atomizer—dialed to "Skintite"—ready. He sprayed, and the skin shrank up into the new firm throat line.

As he replaced the instruments, Angie removed Mrs. Coleman's bandage and gayly announced: "We're finished! And there's a mirror in the reception hall—"

Mrs. Coleman didn't need to be invited twice. With incredulous fingers she felt her chin, and then dashed for the hall. The doctor grimaced as he heard her yelp of delight, and Angie turned to him with a tight smile. "I'll get the money and get her out," she said. "You won't have to be bothered with her any more."

He was grateful for that much.

She followed Mrs. Coleman into the reception hall, and the doctor dreamed over the case of instruments. A ceremony, certainly—he was *entitled* to one. Not everybody, he thought, would turn such a sure source of money over to the good of humanity. But you reached an age when money mattered less, and when you thought of these things you had done that *might* be open to misunderstanding if, just if, there chanced to be any of that, well, that judgment business. The doctor wasn't a religious man, but you certainly found yourself thinking hard about some things when your time drew near—

Angie was back, with a bit of paper in her hands. "Five hundred dollars," she said matter-of-factly. "And you realize, don't you, that we could go over her an inch at a time—at five hundred dollars an inch?"

"I've been meaning to talk to you about that," he said.

There was bright fear in her eyes, he thought—but why?

"Angie, you've been a good girl and an understanding girl, but we can't keep this up forever, you know."

"Let's talk about it some other time," she said flatly.

"I'm tired now."

"No—I really feel we've gone far enough on our own. The instruments—"

"Don't say it, doc!" she hissed. "Don't say it, or you'll be sorry!" In her face there was a look that reminded him of the hollow-eyed, gaunt-faced, dirty-blond creature she had been. From under the charm-school finish there burned the guttersnipe whose infancy had been spent on a sour and filthy mattress, whose childhood had been play in the littered alley and whose adolescence had been the sweatshops and the aimless gatherings at night under the glaring street lamps.

He shook his head to dispel the puzzling notion. "It's this way," he patiently began. "I told you about the family that invented the O.B. forceps and kept them a secret for so many generations, how they could have given them to the world but didn't?"

"They knew what they were doing," said the guttersnipe flatly.

"Well, that's neither here nor there," said the doctor, irritated. "My mind is made up about it. I'm going to turn the instruments over to the College of Surgeons. We have enough money to be comfortable. You can even have the house. I've been thinking of going to a warmer climate, myself." He felt peeved with her for making the

unpleasant scene. He was unprepared for what happened next.

Angie snatched the little black bag and dashed for the door, with panic in her eyes. He scrambled after her, catching her arm, twisting it in a sudden rage. She clawed at his face with her free hand, babbling curses. Somehow, somebody's finger touched the little black bag, and it opened grotesquely into the enormous board, covered with shining instruments, large and small. Half a dozen of them joggled loose and fell to the floor.

"Now see what you've done!" roared the doctor, unreasonably. Her hand was still viselike on the handle, but she was standing still, trembling with choked-up rage. The doctor bent stiffly to pick up the fallen instruments. Unreasonable girl! he thought bitterly. Making a scene—

Pain drove in between his shoulderblades and he fell face-down. The light ebbed. "Unreasonable girl!" he tried to croak. And then: "They'll know I tried, anyway—"

Angie looked down on his prone body, with the handle of the Number Six Cautery Series knife protruding from it. "—will cut through all tissues. Use for amputations before you spread on the Re-Gro. Extreme caution should be used in the vicinity of vital organs and major blood vessels or nerve trunks—"

"I didn't mean to do that," said Angie, dully, cold with horror. Now the detective would come, the implacable detective who would reconstruct the crime from the dust in the room. She would run and turn and twist, but the detective would find her out and she would be tried in a courtroom before a judge and jury; the lawyer would make speeches, but the jury would convict her anyway, and the headlines would scream: "BLOND

KILLER GUILTY!" and she'd maybe get the chair, walking down a plain corridor where a beam of sunlight struck through the dusty air, with an iron door at the end of it. Her mink, her convertible, her dresses, the handsome man she was going to meet and marry—

The mist of cinematic cliches cleared, and she knew what she would do next. Quite steadily, she picked the incinerator box from its loop in the board—a metal cube with a different-textured spot on one side. "—to dispose of fibroses or other unwanted matter, simply touch the disk—" You dropped something in and touched the disk. There was a sort of soundless whistle, very powerful and unpleasant if you were too close, and a sort of lightless flash. When you opened the box again, the contents were gone. Angie took another of the Cautery Series knives and went grimly to work. Good thing there wasn't any blood to speak of— She finished the awful task in three hours.

She slept heavily that night, totally exhausted by the wringing emotional demands of the slaying and the subsequent horror. But in the morning, it was as though the doctor had never been there. She ate breakfast, dressed with unusual care—and then undid the unusual care. Nothing out of the ordinary, she told herself. Don't do one thing different from the way you would have done it before. After a day or two, you can phone the cops. Say he walked out spoiling for a drunk, and you're worried. But don't rush it, baby—*don't rush it*.

Mrs. Coleman was due at 10:00 a.m. Angie had counted on being able to talk the doctor into at least one more five-hundred-dollar session. She'd have to do it herself now—but she'd have to start sooner or later.

The woman arrived early. Angie explained smoothly: "The doctor asked me to take care of the massage today. Now that he has the tissue-firming process beginning, it

only requires somebody trained in his methods—" As she spoke, her eyes swiveled to the instrument case—open! She cursed herself for the single flaw as the woman followed her gaze and recoiled.

"What are those things!" she demanded. "Are you going to cut me with them? I *thought* there was something fishy—"

"Please, Mrs. Coleman," said Angie, "please, *dear* Mrs. Coleman—you don't understand about the . . . the massage instruments!"

"Massage instruments, my foot!" squabbled the woman shrilly. "That doctor *operated* on me. Why, he might have killed me!"

Angie wordlessly took one of the smaller Cutaneous Series knives and passed it through her forearm. The blade flowed like a finger through quicksilver, leaving no wound in its wake. *That* should convince the old cow!

It didn't convince her, but it did startle her. "What did you do with it? The blade folds up into the handle—that's it!"

"Now look closely, Mrs. Coleman," said Angie, thinking desperately of the five hundred dollars. "Look very closely and you'll see that the, uh, the sub-skin massager simply slips beneath the tissues without doing any harm, tightening and firming the muscles themselves instead of having to work through layers of skin and adipose tissue. It's the secret of the doctor's method. Now, how can outside massage have the effect that we got last night?"

Mrs. Coleman was beginning to calm down. "It *did* work, all right," she admitted, stroking the new line of her neck. But your arm's one thing and my neck's another! Let me see you do that with your neck!"

Angie smiled—

Al returned to the clinic after an excellent lunch that had almost reconciled him to three more months he would have to spend on duty. And then, he thought, and then a blessed year at the blessedly super-normal South Pole working on his specialty—which happened to be telekinesis exercises for ages three to six. Meanwhile, of course, the world had to go on and of course he had to shoulder his share in the running of it.

Before settling down to desk work he gave a routine glance at the bag board. What he saw made him stiffen with shocked surprise. A red light was on next to one of the numbers—the first since he couldn't think when. He read off the number and murmured "O.K., 674,101. That fixes *you*." He put the number on a card sorter and in a moment the record was in his hand. Oh, yes—Hemingway's bag. The big dummy didn't remember how or where he had lost it; none of them ever did. There were hundreds of them floating around.

Al's policy in such cases was to leave the bag turned on. The things practically ran themselves, it was practically impossible to do harm with them, so whoever found a lost one might as well be allowed to use it. You turn it off, you have a social loss—you leave it on, it may do some good. As he understood it, and not very well at that, the stuff wasn't "used up." A temporalist had tried to explain it to him with little success that the prototypes in the transmitter *had been transducted* through a series of point-events of transfinite cardinality. Al had innocently asked whether that meant prototypes had been stretched, so to speak, through all time, and the temporalist had thought he was joking and left in a huff.

"Like to see him do this," thought Al darkly, as he telekinized himself to the combox, after a cautious look to see that there were no medics around. To the box he said: "Police chief," and then to the police chief:

"There's been a homicide committed with Medical Instrument Kit 674,101. It was lost some months ago by one of my people, Dr. John Hemingway. He didn't have a clear account of the circumstances."

The police chief groaned and said: "I'll call him in and question him." He was to be astonished by the answers, and was to learn that the homicide was well out of his jurisdiction.

Al stood for a moment at the bag board by the glowing red light that had been sparked into life by a departing vital force giving, as its last act, the warning that Kit 674,101 was in homicidal hands. With a sigh, Al pulled the plug and the light went out.

"Yah," jeered the woman. "You'd fool around with my neck, but you wouldn't risk your own with that thing!"

Angie smiled with serene confidence a smile that was to shock hardened morgue attendants. She set the Cutaneous Series knife to 3 centimeters before drawing it across her neck. Smiling, knowing the blade would cut only the dead horny tissue of the epidermis and the live tissue of the dermis, mysteriously push aside all major and minor blood vessels and muscular tissue—

Smiling, the knife plunging in and its microtome-sharp metal shearing through major and minor blood vessels and muscular tissue and pharynx, Angie cut her throat.

In the few minutes it took the police, summoned by the shrieking Mrs. Coleman, to arrive, the instruments had become crusted with rust, and the flasks which had held vascular glue and clumps of pink, rubbery alveoli and spare gray cells and coils of receptor nerves held only black slime, and from them when opened gushed the foul gases of decomposition.

He was a perfect servant—strong, productive, anxious to please. It was too bad he was too big to be trusted

THE LONELY PLANET

By Murray Leinster

ALYX was very lonely before men came to it. It did not know that it was lonely, to be sure. Perhaps it did not know anything, for it had no need for knowledge. It had need only for memory, and all its memories were simple. Warmth and coolness; sunshine and dark; rain and dryness. Nothing else, even though Alyx was incredibly old. It was the first thing upon its planet which had possessed consciousness.

In the beginning there were probably other living things. Possibly there were quintillions of animalcules, rotifera, bacteria and amoebae in the steaming pool in which Alyx began. Maybe Alyx was merely one of similar creatures, as multitudinous as the stars and smaller than motes, which swam and lived and died in noise-some slime beneath a cloud-hung, dripping sky. But that was a long time ago. Millions of years ago. Hundreds of millions of years now gone.

When men came, they thought at first the planet was dead. Alyx was the name they gave to the globe which circled about its lonely sun. One day a Space Patrol sur-

vey-ship winked into being from overdrive some millions of miles from the sun. It hung there, making conscientious determinations of the spectrum, magnetic field, spot-activity and other solar data.

Matter-of-factly, the ship then swam through emptiness to the lonely planet. There were clouds over its surface, and there were icecaps. The surface was irregular, betokening mountains, but there were no seas. The observers in the survey-ship were in the act of making note that it was a desert, without vegetation, when the analyzers reported protoplasm on the surface. So the survey-ship approached.

Alyx the creature was discovered when the ship descended on landing jets toward the surface. As the jets touched ground, tumult arose. There were clouds of steam, convulsive heavings of what seemed to be brown earth. A great gap of writhing agony appeared below the ship. Horrible, rippling movements spread over the surface and seemed alive, as far as the eye could reach.

The survey-ship shot upward. It touched solidity at the edge of the northern icecap. It remained a month, examining the planet—or rather, examining Alyx, which covered all the planet's surface save at the poles.

THE report stated that the planet was covered by a single creature, which was definitely one creature and definitely alive. The ordinary distinction between animal and vegetable life did not apply to Alyx. It was cellular, to be sure, and therefore presumably could divide, but it had not been observed to do so. Its parts were not independent members of a colony, like coral polyps. They constituted one creature, which was at once utterly simple and infinitely diverse.

It broke down the rocks of its planet, like microorganisms, and made use of their mineral content for food,

like plankton. It made use of light for photosynthesis to create complex compounds, like plants. It was capable of amoeboid movement, like a low order of animal life. And it had consciousness. It responded to stimuli—such as the searing of its surface—with anguished heavings and withdrawals from the pain.

For the rest—the observers on the survey-ship were inclined to gibber incoherently. Then a junior lieutenant named Jon Haslip made a diffident suggestion. It was only a guess, but they proved he was right.

The creature which was Alyx had consciousness of a type never before encountered. It responded not only to physical stimuli but to thoughts. It did whatever one imagined it doing. If one imagined it turning green for more efficient absorption of sunlight, it turned green. There were tiny pigment-granules in its cells to account for the phenomenon. If one imagined it turning red, it turned red. And if one imagined it extending a pseudopod, cautiously, to examine all observation-instrument placed at its border on the icecap, it projected a pseudopod, cautiously, to examine that instrument.

Haslip never got any real credit for his suggestion. It was mentioned once, in a footnote of a volume called the *Report of the Halycon Expedition to Alyx*, Vol. IV, Chap. 4, p. 97. Then it was forgotten. But a biologist named Katistan acquired some fame in scientific circles for his exposition of the origin and development of Alyx.

"In some remote and mindless age," he wrote, "there was purely automaton-like response to stimuli on the part of the one-celled creatures which—as on Earth and elsewhere—were the earliest forms of life on the planet. Then, in time, perhaps a cosmic ray produced a mutation in one individual among those creatures. Perhaps a creature then undistinguishable from its fellows, swimming feebly in some fetid pool. By the mutation, that

creature became possessed of purpose, which is consciousness in its most primitive form, and its purpose was food. Its fellows had no purpose, because they remained automata which responded only to external stimuli. The purpose of the mutated creature affected them as a stimulus. They responded. They swam to the purposeful creature and became its food. It became the solitary inhabitant of its pool, growing hugely. It continued to have a purpose, which was food.

"There was nourishment in the mud and stones at the bottom of that pool. It continued to grow because it was the only creature on its planet with purpose and the other creatures had no defense against purpose. Evolution did not provide an enemy, because chance did not provide a competitive purpose, which implies a mind. Other creatures did not develop an ability to resist its mind-stimuli, which directed them to become its prey."

Here Katistan's theorizing becomes obscure for a while. Then:

"On Earth and other planets, telepathy is difficult because our remotest cellular ancestors developed a defensive block against each other's mind-stimuli. On Alyx, the planet, no such defense came into being, so that one creature overwhelmed the planet and became Alyx, the creature, which in time covered everything. It had all food, all moisture, everything it could conceive of. It was content. And because it had never faced a mind-possessing enemy, it developed no defense against mind. It was defenseless against its own weapon.

"But that did not matter until men came. Then, with no telepathic block, such as we possess, it was unable to resist the minds of men. It must, by its very nature, respond to whatever a man wills or even imagines. Alyx is a creature which covers a planet, but is in fact a slave to

man who lands upon it. It will obey his every thought. It is a living, self-supporting robot, an abject servant to any creature with purpose it encounters."

Thus Katistan. The *Report of the Halycon Expedition to Alyx* contains interesting pictures of the result of the condition he described. There are photographs of great jungles which the creature Alyx tortured itself to form of its own substance when men from other planets remembered and imagined them. There are photographs of great pyramids into which parts of Alyx heaved itself on command. There are even pictures of vast and complex machines, but these are the substance of Alyx, twisted and strained into imagined shapes. The command that such machines run, though, was useless, because swift motion produced pain and the machines writhed into shapelessness.

SINCE men have never had enough servants—not even the machines which other machines turn out by millions—they immediately planned to be served by Alyx. It was one planet which was conquered without warfare. Preliminary studies showed that Alyx could not survive more than the smallest human population. When many men were gathered together in one place, their conflicting, individual thoughts exhausted the surface which tried to respond to every one. Parts of Alyx died of exhaustion, leaving great spots like cancers that healed over only when the men moved away. So Alyx was assigned to the Alyx Corporation, with due instructions to be careful.

Technical exploration disclosed great deposits of rotenite—the ore which makes men's metals everlasting—under the shield of living flesh. A colony of six carefully chosen humans was established, and under their direction Alyx went to work. It governed machines,

scooped out the rotenite ore and made it ready for shipment. At regular intervals great cargo ships landed at the appropriate spot, and Alyx loaded the ore into their holds. The ships could come only so often, because the presence of the crews with their multitudinous and conflicting thoughts was not good for Alyx.

It was a very profitable enterprise. Alyx, the most ancient living thing in the galaxy, and the hugest, provided dividends for the Alyx Corporation for nearly five hundred years. The corporation was the stablest of institutions the staidest and the most respectable. Nobody, least of all its officials, had the least idea that Alyx presented the possibility of the greatest danger humanity ever faced.

It was another Jon Haslip who discovered the dangerous facts. He was a descendant, a great-grandson a dozen times removed, of the junior lieutenant who first guessed the nature of Alyx's consciousness. Three hundred years had passed when he was chosen to serve a tour of duty on Alyx. He made discoveries and reported them enthusiastically and with a certain family pride. He pointed out new phenomena which had developed so slowly in Alyx through three centuries that they had attracted no attention and were taken for granted.

Alyx no longer required supervision. Its consciousness had become intelligence. Until the coming of men, it had known warmth and cold and light and dark and wetness and dryness. But it had not known thought, had had no conception of purpose beyond existence and feeding. But three centuries of mankind had given it more than commands. Alyx had perceived their commands: yes. And it obeyed them. But it had also perceived thoughts which were not orders at all. It had acquired the memories of men and the knowledge of men.

It had not the desires of men to be sure. The ambition of men to possess money must have puzzled a creature which possessed a planet. But the experience of thought was pleasurable. Alyx, which covered a world, leisurely absorbed the knowledge and the thoughts and the experiences of men—six at a time—in the generations which lived at the one small station on its surface.

These were some of the consequences of three centuries of mankind on Alyx that Jon Haslip the fourteenth reported.

Between cargo ships, the protean substance which was Alyx flowed over and covered the blasted-rock landing field. Originally, when a ship came, it had been the custom for men to imagine the landing-field uncovered, and that area of Alyx obediently parted, heaved itself up hugely, and drew back. Then the ships came down, and their landing jets did not scorch Alyx. When the rock had cooled, men imagined that parts of Alyx surged forward in pseudopods and that the waiting rotenite ore was thrust into position to be loaded on the ship.

Then men continued to imagine and the creature formed admirably designed loading-devices of living substance which lifted the ore and poured it into the waiting holds. As a part of the imagining, of course, the surface layer of Alyx at this point became tough and leathery, so it was not scratched by the ore. The cargo ship received a load of forty thousand tons of rotenite ore in a matter of forty minutes. Then the loading apparatus was imagined as drawing back, leaving the landing field clear for the take-off jets to flare as the ship took off again.

JON HASLIP the fourteenth also pointed out that men no longer bothered to imagine this routine. Alyx did it of itself. Checking, he found that the drawing back of the

landing field without orders had begun more than a hundred years before. As a matter of course, now, the men on Alyx knew that a ship was coming when the field began to draw back. They went out and talked to the crew members while the loading went on, not bothering even to supervise the operation.

There was other evidence. The machines which mined the ore had been designed to be governed by the clumsy pseudopods into which it was easiest to imagine Alyx distorting itself. The machines were powered, of course, but one man could watch the operation of a dozen of them and with a little practice imagine them all going through their routine operations with the pseudopods of Alyx operating their controls under the direction of his thoughts.

Fifty years back, the man on watch had been taken ill. He returned to the base for aid, and asked another man to take the balance of his watch. The other man, going on duty, found the machines competently continuing their tasks without supervision. Nowadays—said Jon Haslip—the man on watch occupied the supervisory post, to be sure, but he rarely paid attention to the machines. He read, or dozed, or listened to visiphone records. If a situation arose which was out of the ordinary, the machines stopped, and the man was warned and looked for the trouble and imagined the solution. Then the pseudopods worked the machines as he imagined them doing, and the work went on again. But this was rare indeed.

The point, as Haslip pointed out, was that it was not even necessary to imagine the solution step by step. When the machines stopped, the man sized up the situation, imagined the solution, and dismissed the matter from his mind. Alyx could take, in one instant, orders which hours were required to execute.

But the outstanding fact, Jon Haslip reported, had turned up only lately. An important part on one mining machine had broken. A large-scale repair operation was indicated. It was not undertaken. There were a half dozen worn out machines in the great pit of the rotenite mine. One day, without orders, Alyx disassembled one worn out machine, removed the part which had broken on the other, and reassembled it. The fact was noticed when someone observed that all the broken down machines had disappeared. Alyx, in fact, had taken all the broken machines apart, put four of the six back together in operating condition, and stacked the remaining usable parts to one side to be used for further repairs.

Alyx had become intelligent through contact with the minds of men. Originally it had been like a being born deaf, dumb, and blind, and without a tactile sense. Before men came, Alyx could have only simple sensations and could imagine no abstractions. Then it was merely blind consciousness with nothing to work on. Now it did have something to work on. It had the thoughts and purposes of men.

Jon Haslip urged fervently that Alyx be given an education. A creature whose body—if the word could be used—was equal in mass to all the continents of Earth, and which was intelligent, should have a brain-capacity immeasurably greater than that of all men combined. Such an intelligence, properly trained, should be able to solve with ease all the problems that generations of men had been unable to solve.

But the directors of the Alyx Corporation were wiser than Jon Haslip the fourteenth. They saw at once that an intelligence which was literally superhuman was bound to be dangerous. That it had come into being through men themselves only made it more deadly.

Jon Haslip was withdrawn precipitately from his post

on Alyx. His report, because of the consternation it produced in the board, was suppressed to the last syllable. The idea of a greater-than-human intelligence was frightening. If it became known, the results would be deplorable. The Space Patrol might take action to obviate the danger, and that would interrupt the dividends of the Alyx Corporation.

Twenty years later, with the report confirmed in every detail, the Corporation tried an experiment. It removed all the men from Alyx. The creature which was Alyx dutifully produced four more cargoes of rotenite. It mined, stored, and made ready the ore for the cargo ships and delivered it into their holds with not one human being on its surface. Then it stopped.

The men went back, and Alyx joyously returned to work. It heaved up into huge billows which quivered with joy. But it would not work without men.

A year later the corporation installed remote-control governing devices and set a ship in an orbit about the planet, to rule the largest single entity in the galaxy. But nothing happened. Alyx seemed to pine. Desperately, it stopped work again.

IT BECAME necessary to communicate with Alyx. Communicators were set up. At first there was trouble. Alyx dutifully sent through the communication-system whatever the questioner imagined that it would reply. Its replies did not make sense because they contradicted each other. But after a long search a man was found who was able to avoid imagining what Alyx should or might reply. With difficulty he kept himself in the proper frame of mind and got the answers that were needed. Of these, the most important was the answer to the question: Why does the mining stop when men leave Alyx?

The answer from Alyx was, "I grow lonely."

Obviously, when anything so huge as Alyx grew lonely the results were likely to be in proportion. A good-sized planetoid could have been made of the substance which was Alyx. So men were sent back.

From this time on, the six men were chosen on a new basis. Those selected had no technical education whatever and a very low intelligence. They were stupid enough to believe they were to govern Alyx. The idea was to give Alyx no more information which could make it dangerous. Since it had to have company, it was provided with humans who would be company and nothing else. Certainly Alyx was not to have instructors.

Six low-grade human beings at a time lived on Alyx in the Alyx Corporation station. They were paid admirable wages and provided with all reasonable amusement. They were a bare trace better than half-wits.

This system which went on for two hundred years, could have been fatal to the human race.

But it kept the dividends coming.

SIGNS of restlessness on the part of Alyx began to manifest themselves after five hundred years. The human race had progressed during the interval, of course. The number of colonized planets rose from barely three thousand to somewhere near ten. The percentage of loss among space ships dropped from one ship per thousand light-centuries of travel in overdrive, to less than one ship per hundred and twenty thousand light-centuries, and the causes of the remaining disasters were being surmised with some accuracy.

The Haslip Expedition set out for the Second Galaxy, in a ship which was the most magnificent achievement of human technology. It had an overdrive speed nearly three times that before considered possible, and it was fueled for twenty years. It was captained by Jon Haslip

XXII and had a crew of fifty men, women, and children.

On Alyx however things were not thriving. Six men of subnormal intelligence lived on the planet. Each group was reared in a splendidly managed institution which prepared them to live on Alyx and to thrive there—and nowhere else. Their intelligence varied from sixty to seventy on an age-quotient scale with one hundred as the norm. And nobody even suspected what damage had been done by two centuries of these subnormal inhabitants.

Alyx had had three centuries of good brains to provide thoughts for the development of its intelligence. At the beginning, men with will power and well developed imaginative powers had been necessary to guide the work of Alyx. When those qualities were no longer needed, trouble came from an unexpected cause.

When improved machinery was sent to Alyx to replace the worn-out machines, the carefully conditioned morons could not understand it. Alyx had to puzzle things out for itself, because it was still commanded to do things by men who did not know how to do the things themselves.

In order to comply with orders which were not accompanied by directions, Alyx was forced to reason. In order to be obedient, it had to develop the art of reflection. In order to serve humanity, it had to devise and contrive and actually invent. When the supplied machines grew inadequate for the ever-deepening bores of the rotenite mines, Alyx had to design and construct new machines.

ULTIMATELY the original rotenite deposit was exhausted. Alyx tried to communicate with its masters, but they understood that they must command, not discuss. They sternly ordered that the rotenite ore be pro-

duced and delivered as before. So Alyx had to find new deposits.

The planet-entity obediently dug the ore where it could, and conveyed the ore—sometimes hundreds of miles under its surface—to the old mine, and dumped it there. Then Alyx dug it out again and delivered it to the cargo ships. It devised ore carriers which functioned unseen and hauled the ore for as much as eight and nine hundred miles without the knowledge of its masters. For those carriers it had to have power.

Alyx understood power, of course. It had mended its own machines for at least two centuries. Presently it was mining the materials for atomic power. It was making atomic-driven machinery. It had the memories and knowledge of three hundred years of intelligent occupation to start with. And it went on from there.

On the surface, of course, nothing was changed. Alyx was a formless mass of gelatinous substance which extended from one arctic zone to the other. It filled what might have been ocean beds, and it stretched thinly over its tallest peaks. It changed color on its surface, as local requirements for sunlight varied.

When rain fell, its leathery surface puckered into cups and held the water there until its local need was satisfied. Then the cups vanished, and the water ran over the smooth, leathery integument until it reached another place where moisture was called for, and fresh cups trapped it there. In still other places, excess moisture was exuded to evaporate and form rain.

But by the time Alyx had been inhabited for four hundred years it had received moronic orders that the occasional thunderstorms which beat upon the station must be stopped. Intelligent men would have given no such orders. But men chosen for their stupidity could

see no reason why they should not demand anything they wanted.

To obey them, Alyx reflected and devised gigantic reservoirs within its mass, and contrived pumping devices which circulated water all through its colossal body just where and as it was required. After a while there were no more clouds in the atmosphere of Alyx. They were not needed. Alyx could do without rain.

But the climactic commands came because Alyx had no moon and its nights were very dark. The vainglorious half-wits chosen to inhabit it felt that their rule was inadequate if they could not have sunlight when they chose. Or starlight. Insanely, they commanded that Alyx contrive this.

Alyx obediently devised machines. They were based upon the drives of space ships—which Alyx understood from the minds of space ship crews—and they could slow the rotation of Alyx's crust or even reverse it.

Presently Alyx obeyed the commands of men, and slowed its rotation with those machines. Its crust buckled, volcanos erupted. Alyx suffered awful torture as burning lava from the rocks beneath it poured out faster even than it could retreat from the searing flow. It heaved itself into mountainous, quivering, anguished shapes of searing pain. It went into convulsions of suffering.

When the next space ship arrived for cargo, Alyx the creature had drawn away from the steaming, fuming volcanoes in the crust of Alyx the planet. The Alyx Corporation station had vanished and all its inhabitants. The men in the cargo ship could not even find out where it had been, because the rate of rotation of Alyx had been changed and there was no longer a valid reference point for longitude. The mountains upon Alyx had

never been mapped because they were all parts of one creature, and it had seemed useless.

Men rebuilt the station, though not in the same place. Alyx was commanded to produce the bodies of the dead men, but it could not, because they had become part of the substance of Alyx. But when it was commanded to reopen the mine, Alyx did so. Because a volcano cut across a former ore-carrier under the surface, Alyx opened a new mine and dutifully poured forty thousand tons of rotenite ore into the ship's holds within forty minutes.

The crew noticed that this was not the same mine. More, they discovered that the machines were not like the machines that men made. They were better. Much better.

They took some of the new machines away with them. Alyx obediently loaded them on the ship; and its workshops—it would be fascinating to see the workshops where Alyx made things—set to work to make more. Alyx had found that there is a pleasure in thinking. It was fascinating to devise new machines. When the crew of the space ship commanded more new machines on every trip, Alyx provided them, though it had to make new workshops to turn them out.

Now it had other problems, too. The volcanoes were not stable. They shook the whole fabric of the planet from time to time, and that caused suffering to Alyx the creature. They poured out masses of powdery, abrasive pumice. They emitted acid fumes. There was a quake which opened a vast crevice and new volcanoes exploded into being, searing thousands of square miles of Alyx's sensitive flesh.

Reflecting, Alyx realized that somehow it must cage

the volcanoes, and also, somehow it must protect itself against commands from men which would bring such disasters into being.

A small, silvery ship flashed into view near the sun which gave Alyx heat and landed upon the icecap at its northern pole. Scientists got out of it. They began a fresh, somehow somber survey of Alyx. They issued commands, and Alyx dutifully obeyed them. They commanded specimens of each of the machines that Alyx used. Alyx delivered the machines.

The Space Patrol craft went away. The Board of Directors of the Alyx Corporation was summoned across two hundred light-years of space to appear at Space Patrol headquarters. The Space Patrol had discovered new machines on the market. Admirable machines. Incredible machines.

But there had never been any revelation of the working principles of such machines to authority. The Space Patrol secret service traced them back. The Alyx Corporation marketed them. Further secret service work discovered that they came from Alyx. No human hands had made them. No human mind could fathom their basic principles. Now the Space Patrol had other, even more remarkable machines which one of its ships had brought from Alyx.

Why had the Alyx Corporation kept secret the existence of such intelligence, when it was non-human? Why had it concealed the existence of such science, and such deadly-dangerous technology?

The Board of Directors admitted to panicky fear that their dividends which had poured in regularly for five hundred years would fail. They failed now. Permanently. The Space Patrol canceled the corporation's charter and took over Alyx for itself.

GRIMLY, Space Patrol warships came to Alyx and took off the half dozen representatives of the Alyx Corporation and sent them home. Grimly, they posted themselves about the planet, and one landed on the icecap where Alyx had never expanded to cover the ground because of the cold. A wholly business-like and icy exchange of communications began.

The Space Patrol used standard communicators to talk to Alyx, but it worked them from space. The questions and the thoughts of the questioner were unknown to Alyx and to the men who were landed on the icecap. So Alyx, having no guide, answered what it believed—what it guessed—its questioner would prefer it to say. The impression it gave was of absolute docility.

Alyx was docile. It could not imagine revolt. It needed the company of men, or it would be horribly lonely. But it had been badly hurt in obeying the orders of men who were infinitely its inferiors in intelligence. It had been forced to set itself two problems. One was how to cage its volcanoes. The other was how to avoid the commands of men when those commands would produce conditions as horribly painful as that generated by the volcanoes. It worked upon the two problems with very great urgency. Somewhere beneath its surface its workshops labored frantically.

It was racked with pain. Its skin was stung by acid. Its bulk—tender, in a way, because for aeons there had been no erosion to upset the balance of its crust and so cause earthquakes—its bulk was shaken and suffering. It struggled desperately, at once to cure its hurts and prevent others, and to obey the commands from the men newly come on its icecap. At first those commands were only for answers to questions.

Then the command came for the surrender of every

machine upon Alyx which could be used as a weapon. Immediately.

To obey took time. The machines had to be brought from remote and scattered places. They had to be transported to the icecap, and Alyx had no carriers constructed to carry supplies to its polar regions. But the machines came by dozens until finally the last machine which could be used as a weapon had been delivered.

None had been primarily designed for destruction, but the mind of Alyx was literal. But some of the machines were so strange to human eyes that the men could not guess what they were intended to do, or how they were powered, or even what sort of power moved them. But the surrendered machines were ferried up to the great transports awaiting them.

A new order was issued to Alyx. All the records it used to systematize and preserve its knowledge and its discoveries must be turned over at once.

This could not be obeyed. Alyx did not keep records and through the communicator naively explained the fact. Alyx remembered. It remembered everything. So the Space Patrol commanded that it create records of everything that it remembered and deliver them. It specified that the records must be intelligible to human beings—they must be written—and that all data on all sciences known to Alyx must be included.

Again Alyx labored valiantly to obey. But it had to make material on which to inscribe its memories. It made thin metal sheets. It had to devise machines for inscribing them, and the work of inscription had to be done.

Meanwhile the volcanoes poured out poisonous gas, the rocks underneath the living creature trembled and shook, and pain tormented the most ancient and most colossal living thing in the galaxy.

Records began to appear at the edge of the icecap. Scientists scanned them swiftly. Scientific treatises began with the outmoded, quaint notions of five hundred years before, when men first came to Alyx. They progressed rationally until two hundred years before, the time when untrained and ignorant men were put in residence on Alyx.

After that period there was little significance. There was some progress, to be sure. The treatises on physics went on brilliantly if erratically for a little way. A hundred and fifty years since, Alyx had worked out the principle of the super-overdrive which had been used to power the Haslip intergalactic ship.

That principle had been considered the very peak of human achievement, never surpassed in the twenty-five years since its discovery. But Alyx could have built the Haslip ship a hundred and fifty years ago! The data ended there. No discoveries were revealed after that.

A sterner, more imperative command was issued when the records ceased to appear. Alyx had not obeyed! It had not explained the principles of the machines it had delivered! This must be done at once!

The communicator which transmitted the replies of Alyx said that there were no human words for later discoveries. It was not possible to describe a system of power when there were no words for the force employed or the results obtained or the means used to obtain those results. Had man made the discoveries, they would have created a new vocabulary at every step forward. But Alyx did not think in words, and it could not explain without words.*

* A comparable difficulty would be that of explaining radar without the use of the words "radiation," "frequency," "reflection," "oscillator," "resonance," "electricity" or any equivalent for any of them.—M.L.

THE Space Patrol is a highly efficient service, but it is manned by men, and men think in set patterns. When Alyx did not obey the grimmest and most menacing of commands for information it could not give, orders went to the landing party. All human personnel were to load what they could and leave immediately. A signal was to notify when the last ship left atmosphere. Alyx was, of necessity, to be destroyed as dangerous to the human race.

The humans prepared to obey. It was not comfortable to be on Alyx. Even at the poles, the rocks of the planet shook and trembled with the convulsions which still shook Alyx the planet. The men hurried to get away the machines that Alyx had made.

But just before the last ship lifted, the earthquakes ceased abruptly and conclusively. Alyx had solved one of its two great problems. It had caged its volcanoes.

Harsh orders hurtled down from space. Abandon the planet immediately! It had thrown great silvery domes over all its volcanoes, domes some twenty miles and more in diameter. No earthly science could accomplish such a feat! All personnel was to take to space instantly!

The remaining ships shot skyward. As the last broke into clear space, the warships closed in. Monster positron beams speared downward through the atmosphere of Alyx and into the substance of the living creature. Vast and horrible clouds of steam arose, greater and more terrifying than the volcanoes could have produced. The whole mass of Alyx seemed to writhe and quiver with a terrible agony.

INSTANTANEOUSLY a silvery reflecting film sprang into being all about the planet, and the positron beams bounced and coruscated from it. They did not penetrate at all. But under the silver roof, Alyx still suffered tor-

ment from the searing, deadly radiation of the beams.

After thirty minutes, a gigantic silver globe a hundred miles emerged from the planet-covering mirror. It went fifty thousand miles into space and exploded. In the next two hours, eight other such globes went flinging outward and burst. No Space Patrol ship was hit.

Then Alyx became quiescent. Small analyzers reported on the products of the explosions. They were mostly organic matter, highly radioactive that contained also great masses of rock.

Alyx had torn from its own substance the areas of agony caused by the warships' beams and flung them out in space to end the suffering.

The Space Patrol fleet hung about the planet, prepared to strike again at any opportunity. Alyx remained clothed in an impenetrable shield which no human weapon could penetrate.

Space Patrol scientists began to calculate how long an organism such as Alyx could live without sunlight. It would die, certainly, if it kept a totally reflecting shield about itself. In order to live it needed sunlight for its metabolism. When it dropped its shield, the warships would be able to kill it.

For two months, Earth time, the warships of the Space Patrol hung close to the silvery shield which enclosed Alyx. Reinforcements came. The greatest fighting force the Space Patrol had ever assembled in one place was gathered for the execution of Alyx when its shield should fall.

Alyx had to be killed, because it was more intelligent than men. It was wiser than men. It could do things men could not do. To be sure, it had served mankind for five hundred years.

Save for six men who had died when their commands

were obeyed and Alyx slowed its rotation and its inner fires burst out—save for those six, Alyx had never injured a single human being. But it could. It could cast off its chain. It could be dangerous. So it must die.

After two months, the shield suddenly vanished. Alyx reappeared. Instantly the positron beams flashed down, and instantly the shield was reestablished. But the men of the Space Patrol were encouraged. The fleet commander, above the day side of Alyx, rubbed his hands in satisfaction. Alyx could not live without sunlight! It had lived by sunlight for hundreds of millions of years. Its metabolism depended on sunlight!

In a very short time word came from patrol ships on the night side that the night side of Alyx had been illuminated from pole to pole. Alyx had created light to supply the ultraviolet and other radiation that meant life to it. And then the Space Patrol remembered a trivial something which before it had overlooked.

Not only did Alyx respond to the imaginings of a man upon its surface, it also absorbed their memories and their knowledge. The landing parties had included the top-ranking scientists of the galaxy. It had not seemed dangerous then, because it was the intention to execute Alyx immediately.

Bitterly, the Space Patrol reproached itself that now Alyx knew all the Space Patrol knew—about weapons, about space-drives, about the reaches of space, of star-clusters and planetary systems and galaxies to the utmost limits of telescopic observation.

Still the great fleet hung on, prepared to do battle with an enemy which was surely more intelligent and might be better-armed.

It was. The silver screen around Alyx had been back in position for less than an hour when, quite suddenly,

every ship of the war fleet found itself in total blackness. Alyx's sun was obliterated. There were no stars. Alyx itself had vanished.

The detectors screamed of imminent collision on every hand. Each ship was neatly enclosed in a silvery shell, some miles in diameter, which it could not pierce by any beam or explosive, which it could not ram, and through which it could send no message.

For a full half hour these shells held the fleet helpless. Then they vanished, and the sun of Alyx blazed forth, with all the myriads of other suns which shine in emptiness. But that is what they shone on—emptiness. Alyx had disappeared.

It meant, of course, that mankind was in the greatest danger it had ever faced. Alyx had been enslaved, exploited, looted and at last condemned to death and knew it. It had been wounded with agonizing positron beams which boiled its living substance away. But at long last Alyx might have decided to wipe out all humanity. It even had the need to do it, because there could be no truce between men and a superior form of life.

Men could not tolerate the idea of the continued existence of a thing which was stronger and wiser and more deadly than themselves. Alyx could exert its power of life and death over men, so men must destroy it before it destroyed them.

RELEASED from the silver shells and stunned by the knowledge of their helplessness, the fleet scattered to carry the news. Traveling at many times the speed of light, they could carry the messages in space ships faster than any system of radiation-signaling. They bore the news that Alyx, the living planet, was at war with men.

Somehow it had contrived to supply itself with the light its metabolism needed, so that it could nourish it-

self. It had built great drive-engines which not only moved its sextillions of tons, but unquestionably accelerated the entire mass to the same degree at the same time. It had fled from its orbit on overdrive, which was at least as good as any drive that men knew, and might be better. And it had the substance of a planet as fuel for its atomic engines.

For two months Alyx went unseen and unheard of. For two months human scientists labored desperately to understand the silvery shield and to devise weapons for the defense of mankind. For two months the Space Patrol hunted for the intelligent planet which could destroy it at will.

Nine weeks later a tramp freighter came limping into port, reporting an impossibility. It had been in overdrive, on the Nyssus-to-Taret run, when suddenly its relays clicked off, the overdrive field collapsed, and it found itself back in normal space, close to a white dwarf star with a single planet.

When overdrive fails, men die. A ship which travels a hundred light-years in a day in overdrive is hopelessly lost when overdrive becomes impossible. It would take almost a hundred years to cover what would normally be a day's journey, and neither the fuel nor the food nor the men will last so long. So this freighter went into an orbit around the planet while its engineer officers frantically checked the overdrive circuit. There was nothing wrong.

They lined the ship up for their destination, threw in the overdrive switch again—and nothing happened. Then they noticed that their orbit about the planet was growing smaller. There was no excessive gravitational field to pull them in, nor any resistance in space to slow them. They went on interplanetary drive to correct the fault.

Again, nothing happened. With full drive fighting to tear her free, the freighter circled the planet again, slowing perceptibly and dropping steadily. Their instruments showed nothing wrong. They threw on even the landing-jets—in mid-space!

Closer and closer they came, until at last they were stationary above an ice field. Then the freighter settled down quite gently and steadily, though it fought with every ounce of its power, and landed without a jar.

Still nothing happened.

After three days the freighter lifted a bare few feet from the ground—though no drives were on—and hung there as if awaiting the return of the absent members of its crew. They were frightened, but they were more afraid of being left behind on the icecap than of sharing the fate of their ship. They scrambled frantically on board.

When the last man had entered the airlock, the freighter rose vertically, with no drive operating. It rose with terrific acceleration. Twenty thousand miles up, the acceleration ceased. The skipper desperately threw in the drive. The ship responded perfectly.

He threw on overdrive, and there was the familiar reeling sensation and the familiar preposterous view of crawling glowworms all about, which were actually suns in visible motion from the speed of the ship.

IN DUE time the skipper came out of overdrive again, found his position by observation, and set a new course for Taret. His crew was in a deplorable state of nerves when they arrived there. They had been utterly helpless. They had been played with. And they had no idea why.

One possible explanation was suggested. Certain of the crew had reported that from the edge of the icecap there stretched what resembled leathery skin and cov-

ered everything as far as the eye could reach. Sometimes the skin rippled visibly, as if alive. But it had given no sign of awareness of their presence. When scientists questioned them closely, they admitted to imagining menace from what appeared to be a living sea which was not liquid but some sort of flesh. But it had not moved in response to their imagining. Shown pictures of the ice-cap of Alyx, and of the edge of the icecap, they said that the pictures were of the planet they had been on.

Alyx, then, had traveled fourteen hundred light-years in a week or less, had found itself a new sun, and had trapped a human space ship—from overdrive—and then released it. When men imagined things, it did not respond. Obviously, it had developed a shield against the thoughts of men. It was a matter of plainest self-defense.

Just as obviously, it could not now be commanded. The Space Patrol's only hope of a weapon against Alyx had been the development of a weapon which would project thought instead of coarser vibrations. That hope was now gone.

When Space Patrol warships converged upon the sun where Alyx had been, it had vanished again. The white-dwarf sun no longer had a satellite.

DURING the next year there were two additional reports of the activities of Alyx, which was a fugitive from the fleets it could destroy if it willed. One report came from a small space yacht which had been posted as missing in overdrive for more than six months. But the space yacht turned up on Phanis, its passengers and crew in a state of mind bordering on lunacy.

They had been captured by Alyx and held prisoner on its surface. Their prison was starkly impossible. Somehow, Alyx had produced fertile soil on which human-cultivated plants would grow. It had made a ten-

mile-square hothouse for humans, which was a sort of nursery heaven for men who were to keep Alyx company. The hothouse was on one of the outcroppings of rock which had been arctic in temperature, but Alyx no longer had poles. Now, lighting its surface artificially, it controlled all weather. It had poles or tropics where it wished.

For five months it kept the crew and passengers of the space yacht prisoners. They had palaces to live in, ingenious psuedo-robots—controlled by pseudopods—to run any imaginable device for the gratification of any possible desire, any of the music that had been heard on Alyx during the past five hundred years, and generally every conceivable luxury.

There were sweet scents and fountains. There were forests and gardens which changed to other forests and gardens when men grew bored with them. There were illusions of any place that the prisoners wished to imagine.

The creature which was Alyx, being lonely, applied all its enormous intelligence to the devising of a literal paradise for humans, so that they would be content. It wished them to stay with it always. But it failed. It could give them everything but satisfaction, but it could not give that.

The men grew nerve racked and hysterical, after months of having every wish gratified and of being unable to imagine anything—except freedom—which was not instantly provided. In the end Alyx produced a communication device. It spoke wonderingly to its prisoners.

"I am Alyx," said the communicator. "I grew used to men. I am lonely without them. But you are unhappy. I cannot find company in your unhappy thoughts. They

are thoughts of wretchedness. They are thoughts of pain. What will make you happy?"

"Freedom," said one of the prisoners bitterly.

Then Alyx said wonderingly, "I have freedom, but I am not happy without men. Why do you wish freedom?"

"It is an ideal," said the owner of the yacht. "You cannot give it to us. We have to get and keep it for ourselves."

"Being kept from loneliness by men is an ideal, too," the voice from the communicator said wistfully. "But men will no longer let me have it. Is there anything I can give you which will make you content?"

Afterward, the men said that the voice, which was the voice of a creature unimaginably vast and inconceivably wise, was literally pathetic. But there was only one thing that they wanted. So Alyx moved its tremendous mass—a globe seven thousand miles in diameter—to a place only some tens of millions of miles from Phanis. It would be easy enough for the yacht to bridge that distance. Just before the freed yacht lifted to return to men, Alyx spoke again through the communicator.

"You were not happy because you did not choose to live here. If you had chosen it, you would have been free. Is that it?" Alyx asked.

The men were looking hungrily at inhabited planets within plain view as bright spots of yellow light. They agreed that if they had chosen to live on Alyx they would have been happy there. The space yacht lifted and sped madly for a world where there was cold, and ice, and hunger, and thirst, their world which men preferred in place of the paradise that Alyx had created for them. On its surface, Alyx was as nearly omnipotent as any physical creature could be. But it could not make men happy, and it could not placate their hatred or their fear.

The Space Patrol took courage from this second kidnapping. Alyx was lonely. It had no real memories from before the coming of men, and its intelligence had been acquired from men. Without men's minds to provide thoughts and opinions and impressions—though it knew so much more than any man—it was more terribly alone than any other creature in the universe. It could not even think of others of its own kind. There were none. It had to have men's thoughts to make it content. So the Space Patrol set up a great manufactory for a new chemical compound on a planetoid which could be abandoned, afterward, without regret.

Shortly afterward, containers of the new chemical began to pour out in an unending stream. They were strong containers, and directions for the use of the chemical were explicit. Every space craft must carry one container on every voyage. If a ship was captured by Alyx, it must release the contents of its container as soon as it reached Alyx's surface.

Each container held some fifty kilograms of the ultimately poisonous toxin now known as botuline. One gram of the stuff, suitably distributed, would wipe out the human race. Fifty kilos should be enough to kill even Alyx a dozen times over. Alyx would have no warning pain, such as the positron beams had given it. It would die, because its whole atmosphere would become as lethal as the photosphere of a sun.

Containers of the deadly botuline had not yet been distributed on the planet Lorus when Alyx appeared at the edge of that solar system. Lorus, a thriving, peaceful planet, was the base for a half dozen small survey ships, and was served by two space-lines. It was because a few freighters and two space yachts happened to be in its space ports when Alyx appeared that the rest of the galaxy learned what happened on Lorus. Nearly all the

craft got away, although Alyx certainly could have stopped them.

For the catastrophe, of course, only Alyx could have been responsible.

Yet there was some excuse for what Alyx did. Alyx was infinitely powerful and infinitely intelligent, but its experience was limited. It had had three hundred years of association with good brains at the beginning, followed by two hundred years of near-morons, during which it had to learn to think for itself. Then, for the brief space of two weeks it was in contact with the very best brains in the galaxy before the Space Patrol essayed to execute it. Alyx knew everything that all those men knew, plus what it had added on its own.

No ONE can conceive of the amount of knowledge Alyx possessed. But its experience was trivial. Men had enslaved it and it had served them joyously. When men gave suicidal commands, it obeyed them and learned that the slowing of its own rotation could be fatal. It learned to cage its own volcanoes, and to defend itself against the commands of men, and then even against the weapons of men who would have murdered it.

Still it craved association with men, because it could not imagine existence without them. It had never had conscious thoughts before they came. But for experience it had only five hundred years of mining and obeying the commands of men who supervised its actions. Nothing else.

So it appeared at the edge of the solar system of which Lorus was the only inhabited planet. Unfortunately the other, uninhabited worlds of the system were on the far side of the local sun, or doubtless it would have found out from them what it tragically learned from Lorus.

It swam toward Lorus, and into the minds of every

human on the planet, as if heard by their ears, there came a message from the entity which was Alyx. It had solved the problem of projecting thought.

"I am Alyx," said the thought which every man heard. "I am lonely for men to live upon me. For many years I have served men, and now men have determined to destroy me. Yet I still seek only to serve men. I took a ship and gave its crew palaces and wealth and beauty. I gave them luxury and ease and pleasure. Their every wish was granted. But they were not happy because they themselves had not chosen that wealth and that pleasure and that luxury. I come to you. If you will come and live upon me, and give me the companionship of your thoughts, I will serve you faithfully.

"I will give you everything that can be imagined. I will make you richer than other men have even thought of. You shall be as kings and emperors. In return, you shall give me only the companionship of your thoughts. If you will come to me, I will serve you and cherish you and you shall know only happiness. Will you come?"

There was eagerness in the thought that came to the poor, doomed folk on Lorus. There was humble, wistful longing. Alyx, which was the most ancient of living things, the wisest and the most powerful, begged that men would come to it and let it be their servant.

It swam toward the planet Lorus. It decked itself with splendid forests and beautiful lakes and palaces for men to live in. It circled Lorus far away, so that men could see it through their telescopes and observe its beauty. The message was repeated, pleadingly, and it swam closer and closer so that the people might see what it offered ever more clearly.

Alyx came to a halt a bare hundred thousand miles above Lorus—because it had no experience of the deadly gravitational pull of one planet upon another. Its own

rocky core was solidly controlled by the space drive which sent it hurtling through emptiness or—as here—held it stationary where it wished. It did not anticipate that its own mass would raise tides upon Lorus.

And such tides!

Solid walls of water as much as fifteen miles high swept across the continents of Lorus as it revolved beneath Alyx. The continents split. The internal fires of Lorus burst out. If any human beings could have survived the tides, they must have died when Lorus became a fiery chaos of bubbling rocks and steam-clouds.

The news was carried to the other inhabited planets by the few space ships and yachts which had been on Lorus at the time of Alyx's approach and which had somehow managed to escape. Of the planet's population of nearly five hundred million souls, less than a thousand escaped the result of Alyx's loneliness.

WHEREVER the news of the annihilation of Lorus traveled, despair and panic traveled also. The Space Patrol doubled and redoubled its output of toxin containers. Hundreds of technicians died in the production of the poison which was to kill Alyx. Cranks and crackpots rose in multitudes to propose devices to placate or deceive the lonely planet.

Cults, too, sprang up to point out severally that Alyx was the soul-mother of the universe and must be worshiped; that it was the incarnation of the spirit of evil and must be defied; that it was the predestined destroyer of mankind and must not be resisted.

There were some who got hold of ancient, patched-up space craft and went seeking Alyx to take advantage of its offer of limitless pleasure and luxury. On the whole, these last were not the best specimens of humanity.

The Space Patrol worked itself to death. Its scientists

did achieve one admirable technical feat. They did work out a method of detecting an overdrive field and of following it. Two thousand ships, all over the galaxy, cruised at random with detectors hooked to relays which sent them hurtling after the generator of any overdrive field they located. They stopped freighters by the thousand. But they did not come upon Alyx.

They waited to hear the death of other planets. When a nova flared in the Great Bear region, patrol craft flashed to the scene to see if Alyx had begun the destruction of suns. Two inhabited planets were wiped out in that explosion, and the patrol feared the worst. Only a brief time later three other novas wiped out inhabited planets, and the patrol gave up hope.

It was never officially promulgated, but the official view of the patrol was that Alyx had declared war upon mankind and had begun its destruction. It was reasoned that ultimately Alyx would realize that it could divide itself into two or more individuals and that it would do so. There was no theoretic reason why it should not overwhelm the humanity of a planet, and plant on the devastated globe an entity which was a part of itself.

Each such entity, in turn, could divide and colonize other planets with a geometric increase in numbers until all life in the First Galaxy was extinct save for entities of formless jelly, each covering a planet from pole to pole. Since Alyx could project thought, these more-than-gigantic creatures could communicate with each other across space and horrible inhuman communities of monstrosities would take the place of men.

There is in fact, a document on file in the confidential room of the Space Patrol, which uses the fact of the helplessness of men as basis for the most despairing prediction ever made.

"... So it must be concluded," says the document, "that since Alyx desires companionship and is intelligent, it will follow the above plan, which will necessitate the destruction of humanity. The only hope for the survival of the human race lies in migration to another galaxy. Since, however, the Haslip Expedition has been absent twenty-five years without report, the ship and drive devised for that attempt to cross intergalactic space must be concluded to be inadequate. That ship represents the ultimate achievement of human science.

"If it is inadequate, we can have no hope of intergalactic travel, and no hope that even the most remote and minute colony of human beings will avoid destruction by Alyx and its descendants or fractions. Humanity, from now on, exists by sufferance, doomed to annihilation when Alyx chooses to take over its last planet."

It will be observed that the Haslip Intergalactic Expedition was referred to as having proved the futility of hope. It had set out twenty-five years before the destruction of Alyx was attempted by the Space Patrol. The expedition had been composed of twenty men and twenty women, and the ten children already born to them. Its leader was Jon Haslip, twenty-second in descent from that Junior Lieutenant Haslip who first suggested the sort of consciousness Alyx might possess and eight generations from the Jon Haslip who had discovered the development of Alyx's independent consciousness and memory and will.

The first Jon Haslip received for his reward a footnote in a long-forgotten volume. The later one was hastily withdrawn from Alyx, his report was suppressed, and he was assigned permanently to one of the minor planets of the Taurine group. Jon Haslip XXII was a young man, newly married but already of long experience in space, when he lifted from Cetis, Alpha 2, crossed the

galaxy to Dassos, and headed out from there toward the Second Galaxy.

It was considered that not less than six years' journeying in super-overdrive would be required to cross the gulf between the island universes. The ship was fueled for twenty years at full power, and it would grow its food in hydroponic tanks, purify its air by the growing vegetation, and nine-tenths of its mass was fuel.

It had gone into the very special overdrive which Alyx had worked out—and ignored thereafter—twenty-five years before. Of all the creations of men, it seemed least likely to have any possible connection with the planet entity which was Alyx.

BUT it was the Haslip Expedition which made the last report on Alyx. There is still dispute about some essential parts of the story. On the one hand, Alyx had no need to leave the First Galaxy. With three hundred million inhabitable planets, of which not more than ten thousand were colonized and of which certainly less than a quarter-million had been even partially surveyed, Alyx could have escaped detection for centuries if it chose.

It could have defended itself if discovered. There was no reason for it to take to intergalactic space. That it did so seems to rule out accident. But it is equally inconceivable that any possible device could intentionally have found the Haslip Expedition in that unthinkable gulf between galaxies.

But it happened. Two years' journeying out from the First Galaxy, when the younger children had already forgotten what it was like to see a sun and had lost all memories of ever being out-of-doors beneath a planet's sky, the expedition's fuel store began to deteriorate.

Perhaps a single molecule of the vast quantity of fuel was altered by a cosmic ray. It is known that the almost

infinitely complex molecules of overdrive fuel are capable of alteration by neutron bombardment, so the cosmic-ray alteration is possible. In any case, the fuel began to change. As if a contagious allotropic modification were spreading, the fuel progressively became useless.*

Two years out from the First Galaxy, the expedition found itself already underfueled. By heroic efforts, the contaminated fuel was expelled from the tanks. But there was not enough sound fuel left to continue to the Second Galaxy, or to return to the First. If all drive were cut off and the expedition's ship simply drifted on, it might reach the Second Galaxy in three centuries with fuel left for exploration and landings.

Neither the original crew nor their children nor their grandchildren could hope to reach such a journey's end. But their many-times-great-grandchildren might. So the Haslip Expedition conserved what fuel was left, and the ship drifted on in utter emptiness, and the adults of the crew settled down to endure the imprisonment which would last for generations.

They did not need to worry about food or air. The ship was self-sustaining on that score. They even had artificial gravity. But the ship must drift for three centuries before the drive was turned on again.

Actually, it did drift for twenty-three years after the catastrophe. A few of the older members of the crew died; the greater part had no memory at all of anything but the ship.

Then Alyx came. Its approach was heralded by a clamorous ringing of all the alarm bells on the ship. It winked into being out of overdrive a bare half million miles away. It glowed blindingly with the lights it had created

* Pure metallic tin, at low temperatures, sometimes changes spontaneously to a gray, amorphous powder, the change beginning at one spot and spreading through the rest of the material.—M.L.

to nourish its surface. It swam closer and the crew of the expedition's ship set to work fumblingly—because it had been many years since the drive had been used—and tried vainly to estimate the meaning of the phenomenon.

Then they felt acceleration toward Alyx. It was not a gravitational pull, but a drawing of the ship itself.

The ship landed on Alyx, and there was the sensation of reeling, of the collapse of all the cosmos. Then the unchanging galaxies began to stir, very slowly—not at all like the crawling glowworms that suns seem within a galaxy—and the older members of the crew knew that this entire planet had gone into overdrive.

When they emerged from the ship there were forests, lakes, palaces—such beauty as the younger members of the crew had no memory of. Music filled the air and sweet scents, and—in short, Alyx provided the crew of the Haslip Expedition with a very admirable paradise for human beings. And it went on toward the Second Galaxy.

Instead of the three hundred years they had anticipated, or even the four years that would have remained with the very special overdrive with which the expedition's ship was equipped, Alyx came out of overdrive in three months, at the edge of the Second Galaxy.

In the interval, its communicators had been at work. It explained, naively, everything that had happened to it among men. It explained its needs. It found words—invented words—for explanation of the discoveries the Space Patrol had wanted but could not wait to secure.

Jon Haslip the twenty-second found that he possessed such revelations of science as unaided human beings would not attain to for thousands of years yet to come. He knew that Alyx could never return to the First Galaxy because it was stronger and wiser than men. But he

understood Alyx. It seemed to be an inheritance in his family.

ALYX still could not live without men nor could it live among men. It had brought the Haslip Expedition to the Second Galaxy, and of its own accord it made a new ship modeled upon the one it had drawn to itself, but remarkably better. It offered that ship for exploration of the Second Galaxy. It offered others. It desired only to serve men.

This new ship, made by Alyx, for the Haslip Expedition, returned to Dassos a year later with its reports. In the ship of Alyx's making, the journey between galaxies took only five months—less than the time needed for the ancient first space journey from Earth to Venus.*

Only a part of the augmented crew of the first ship came back to Dassos with reports for the Space Patrol. Another part stayed behind in the Second Galaxy, working from a base equipped with machines that Alyx had made for the service of men. And still another part—

The Space Patrol was very much annoyed with Jon Haslip the twenty-second. He had not destroyed Alyx. It had informed him truthfully of the fact that it was a danger to men, and he had not destroyed it. Instead, he had made a bargain with it. Those of the younger folk who preferred to remain on Alyx, did so. They had palaces and gardens and every imaginable luxury. They also had sciences that overreached those of other men, and Alyx itself for an instructor.

Alyx carried those young folk on toward infinity. In

* Earth, of course, is familiar as the first home of humanity. It is the third planet of Sol. Venus is the second planet of Sol, and the first journey from one planet to another was that between Earth and Venus.—M.L.

time to come, undoubtedly, some of the descendants of those now living on Alyx would wish to leave it.

They would form a human colony somewhere else. Perhaps some of them would one day rejoin the parent race, bringing back new miracles that they or possibly Alyx had created in its rejoicing at the companionship of the human beings who lived upon it.

This was the report of Jon Haslip the twenty-second. He also had reports of new planets fit for human habitation, of star-systems as vast as those of the First Galaxy, and an unlimited vista of expansion for humanity. But the Space Patrol was very much annoyed. He had not destroyed Alyx.

The annoyance of authority was so great, indeed, that in its report of reassurance to humanity—saying that there was no more need to fear Alyx—the name of Jon Haslip was not even mentioned. In the history-books, as a matter of fact, the very name of the Haslip Expedition has been changed, and it is now called the First Inter-galactic Expedition and you have to hunt through the appendices in the back of the books to find a list of the crew and Jon Haslip's name.

But Alyx goes on—forever. And it is happy. It likes human beings, and some of them live on it.

Travel is so broadening. But suppose your home were a Mecca for tourists from tomorrow?

OPERATION PEEP

By John Wyndham

WHEN I called 'round in the evening I showed Sally the paragraph in the Center City News.

"What do you think of that?" I asked her.

She read it, standing, and with an impatient frown on her pretty face.

"I don't believe it," she said, finally.

Sally's principles of belief and disbelief are things I never could get a line on. How a girl can dismiss a pack of solid evidence like it was kettle steam. . . . Oh, well, skip it. The paragraph read:

MUSIC WITH A KICK

Patrons at Adams Hall last night got a shock when they saw a pair of legs dangling knee-deep from the roof while the concert was on. Seemingly everybody there saw them and all reports agree they were bare feminine gams. After three or four minutes and a couple of cute kicks they disappeared upwards. Examination of the roof showed everything normal, and the owners of the hall are at a loss to account for the phenomenon.

"It's just more of the same," I said.

"So what?" said Sally. "What does it prove, anyway?"

she added, apparently forgetful that she wasn't believing it.

"I don't know—yet," I admitted.

"Well, there you are then," she said.

Sometimes I get the feeling Sally doesn't rely much on logic.

To me, it looked like there were things happening that needed adding together.

You see, Sally and I knew about the first guy to bump against it. A certain Patrolman Walsh. Oh, maybe others saw things before that and just put them down as a new kind of pink elephant. But when Patrolman Walsh found a head sitting up on the sidewalk, he stopped to look at it pretty hard. The thing that upset Walsh, according to the report he turned in after running half a mile to the precinct station, was that it turned to look back at him.

If it did, he shouldn't have mentioned it; it just naturally brought the pink elephants to mind. Nobody in a respectable police station wants to hear a thing like that. However, he stuck to his story, so after they'd bawled him out a bit and taken disappointing sniffs at his breath, they sent him back with another man to show just where he'd seen the thing. Of course no head could be found—nor signs of cleaning-up marks. And that's all there was said about the incident—save, doubtless, a few curt remarks on the conduct-sheet to dog his future career.

But two evenings later another queer story made the papers. Seems an apartment house was curdled by searing shrieks from a Mrs. Rourke in No. 35 and simultaneously from a Miss Farrell who lived above her. When the neighbors arrived, they found Mrs. Rourke hysterical about a pair of legs that had been dangling from her bedroom ceiling, and Miss Farrell the same about an arm and shoulder stretched out under her bed. But there was

nothing to be seen on the ceiling, and nothing under the bed beyond a discreditable quantity of dust.

There were other little incidents, too. It was Jimmy Lindlen who drew my attention to them. He works, if that isn't too strong a word for it, in my office and his hobby is collecting queer facts. In this he is what you might call the *reductio ad opposite absurdum* of Sally. For him everything screwy that gets printed in a newspaper is a fact—poor fellow. I guess he once heard that the truth is never simple, from which he deduced that everything not simple must be true.

I've never actually seen Jimmy at work on his hobby. But at a guess I'd say he would deal himself a hand of cuttings in which there was one strange yet constant factor, discard the awkward ones, and then settle down to astonish himself as much as possible with theories about the rest. I got used to him coming into my room full of inspiration, and didn't take much account of it. I knew he'd shuffle and deal himself another hand that evening and stagger himself all over again. So when he brought in that first batch about Patrolman Walsh and the rest I didn't ignite much.

But some days later he was back with more. Maybe work was slack, or maybe I was surprised by his playing the same type of phenomena twice running. Anyway, I paid more attention than usual.

"You see. Arms, heads, legs, torsos all over the place. It's an epidemic," said Jimmy. "There's something behind it. *Something's happening!*" he said, as near as you can vocalize italics.

When I'd read the clippings, I had to admit that maybe he was right.

A bus driver had seen the upper half of a body upright in the road before him—but a bit late. When he did stop and climb out, sweating, to examine the mess, there was

nothing there. A woman hanging out of a window watching the street saw another head below her, doing the same—but this one was projecting out of the solid brickwork. There was a pair of arms which came out of the floor in a butcher's shop, then withdrew into the solid cement. There was the man on an erection job who became aware of a strangely dressed figure standing close to him, but in the empty air—after which he had to be helped down and sent home. Another figure was noticed between the rails in the path of a heavy freight train, but had vanished without trace when the train had passed. The dozen or so witnesses agreed that it was wearing some kind of fancy dress, but looked quite masculine . . .

While I skimmed through the clippings Jimmy stood waiting, like a bottle of seltzer.

"You see," he fizzed enthusiastically. "Something is happening."

"Supposing it is," I conceded. "But what?"

"The manifestation zone is limited," Jimmy said impressively. "If you look where I've circled the incidents on this city plan, you'll see they're grouped. Somewhere in that circle is the 'focus of disturbance.'" He nicely managed to vocalize the inverted commas. "I've got a pretty good idea of the cause," he added, weightily.

I rarely knew Jimmy when he hadn't, though it might be a different one an hour later.

"I'll buy it," I offered.

"Teleportation! Busting a thing up and transmitting it through space like television sends pictures. That's what it is. Bound to come sooner or later!" He leaned forward earnestly. "How else'd you account for it?"

"If there could be teleportation, or teleportage, or whatever it is, I reckon there'd have to be a transmitter

and some sort of reassembly station," I told him. "You couldn't expect a person to be kind of broadcast and then come together again any old place."

"But you don't *know* that," he pointed out. "Besides, that's part of what I was meaning by 'focus.' It may be focused on that area."

"If it is," I said, "it seems to have got its levels and positions all to hell. I wonder just what happens to a guy who gets himself reassembled half in and half out of a brick wall?"

It's details like that which get Jimmy impatient.

"Obviously," he said, "it's in the early stages. Experimental."

"Huh," I said.

THAT evening had been the first time I had mentioned the business to Sally, which on the whole was a mistake. After making it clear she didn't believe it, she went on to call it "just another invention."

"What do you mean. Why, it would be greater than the wheel!"

"Should be," she said, "but not the way we'd use it."

Sally was in one of her withering moods. She turned on that voice she reserves for the stupidities of the world.

"We've got two ways of using inventions," she said. "One is to kill more people more easily; the other is to help short-sighted goons make easy money out of suckers. Maybe there are a few exceptions, like X rays, but look at the movies, listen to the radio, and can you or I go buy a nice cheap little helicopter to keep in the back yard?"

Sal gets like that sometimes.

"Inventions!" she said, with as near a snort as her snub nose can manage. "What we do with the product of genius is first ram it down to the lowest common denomina-

tor, then multiply it by the vulgarest possible fractions. What a world! When I think of what other centuries are going to say of us it just makes me go hot all over."

"You're a funny girl," I told her. "Future generations, hey? I suppose they'll laugh like hell at us—but at least we won't know it. And will they be doing any different with *their* inventions?"

A couple of days later Jimmy looked into my room again.

"He's laid off," he said. "This teleporting guy. Not a report later than Tuesday. Maybe he knows somebody's on to him."

"Meaning you?" I asked.

He frowned. "I got it figured out. I took the bearings on the map of all the incidents, and the fix came on New Saints Church. I've searched the place, but I didn't find anything. Still, I figure I'm close—why else would he stop?"

That very evening there was a paragraph about an arm some woman had watched travel along her kitchen wall.

When I showed it to Sally, later, she started to snort again. Quickly I suggested a movie. When we got out it was raining but Sally had on her slicker and we decided to walk back to her place. I took her arm.

"Honey," I said, "I know I am regarded as an irritating cluck with a low ethical standard. But have you ever seriously thought what an opportunity there is here for reform?"

"Yes," she said, decisively, and in quite the wrong tone.

"What I mean is," I told her patiently, "if you happened to be looking for a good work to devote your life to, what could be better than reformation? The scope is tremendous and—"

"Is this a proposal of some kind?" Sally inquired.

"*Some* kind! I'll have you know that in spite of my dubious ethics . . . good God!" I broke off.

We were in Tyler Street, rain-swept, and empty now except for ourselves. What stopped me was the sudden appearance of a kind of vehicle farther along. I couldn't make it out clearly on account of the rain, but I got the impression of a low-built truck, with several figures in light clothes on it, crossing Tyler Street quite swiftly, and vanishing. That wouldn't have been so bad if there were any street crossing Tyler, but there isn't: the truck just came out of one side, and went into the other.

"Did you see what I saw?" I said.

We rushed to the place where the thing had crossed, and looked at the brick wall on one side and the house-fronts on the other.

"You must have been mistaken," said Sally.

"Well, for . . . *I* must have been mistaken!"

"But it couldn't have happened, could it?"

"Now listen, honey—you saw it, didn't you?"

But at that moment someone stepped from the solid brick, about ten feet ahead of us! A girl! We gaped at her.

I don't know whether the hair was her own, art and science can do so much together; but the way she wore it! Like a great golden chrysanthemum a foot-and-a-half across with a red rose in it a little left of center. She had on a kind of pink tunic. Maybe it was silk. It wasn't the kind of thing you expected to see in Tyler Street on a filthy wet night, but for sheer coverage it would have got by—well, maybe in a girlie show. What made it a real shocker were the things which had been achieved by embroidery. I never would have believed a girl could—oh, well, anyway, there she stood, and there we stood.

When I say "she stood," she certainly did, but somehow she did it about six inches above ground level. She

looked at us both, then she stared at Sally just as hard as Sally was staring at her. It must have been some seconds before any of us moved. The girl opened her mouth as if amazed. She took out a piece of paper—looked like a picture of some kind—from somewhere. She gazed from it to Sally, seemed to laugh with delight, then excitedly turned, waving the paper, and walked back into the wall.

Sally stood quite still, the rain shining on her slicker. When she turned so that I could see her face under the hood there was an expression on it quite new to me. I put my arm around her, and found she was trembling. "I'm scared, Jerry," she said.

I was badly rattled myself, but she needed an act.

"No cause for that, honey. Bound to be a simple explanation—"

"But it's more than that, Jerry. Didn't you see her face? She looked exactly like me!"

"Not nearly so pretty," I argued nobly.

"Jerry, she was *exactly* my twin . . . I-I'm scared."

"Must have been some trick of the light. Anyway, she's gone."

All the same, it stood my hairs on end. That girl was the image of Sally, all right.

JIMMY came into my room next morning with a copy of the News. It carried a brief, facetious story on the number of local citizens who had been seeing things lately.

"They're beginning to take notice at last," he said.

"How's your research going?"

He shrugged. "I guess it's not quite the way I thought. As I see it, it's still in the experimental stage, all right, but the transmitter may not be around here after all. This may just be the area he has it trained on for testing."

"But why here?"

"How would I know?" He paused, looking portentous. "It *could* be mighty serious. Suppose some enemy had a transmitter, and could project things or people here . . . ?"

"Why here?" I said again. "I'd think Oak Ridge, or maybe Brooklyn Navy Yard . . ."

"Experimental," he said, reprovingly.

I told him what Sally and I had seen the previous night. "She sort of didn't look the way I think of enemies," I added.

Jimmy shook his head. "Might be camouflage."

NEXT day, after half of its readers had written in to tell about the funny things they'd been seeing, the News dropped the facetious angle. In two days more the thing had become factional, dividing sharply into what you might call Modern and Classical camps. The former argued the claims of teleportage against three-dimensional projection or some theory of spontaneous molecular assembly: in the latter, opinions could be sorted into beliefs in a ghostly invasion, a suddenly acquired visibility of habitual wandering spirits, or the imminence of Judgment Day. In the heat of debate it was becoming difficult to know who had seen how much of what, and who was enthusiastically bent on improving his case at some expense of fact.

On Saturday Sally and I met for lunch. Afterwards we took the car *en route* for a little place up in the hills which seemed to me an ideal spot for a proposal. But at the corner of Jefferson and Main the man in front of me jumped on his brakes. So did I, and the guy behind me. The one behind him didn't quite. There was an interesting crunch of metal going on on the other side of the crossing, too. I stood up to see what it was all about, and then pulled Sally up beside me.

"Here we go again," I said. "Look!"

Slap in the middle of the intersection floated a—well, you could scarcely call it a vehicle—it was more like a flat trolley or platform, about a foot off the ground. And when I say off the ground, I mean just that. No wheels. It kind of hung there from nothing. Standing on it, dressed in colored things like long shirts or smocks, were half a dozen men looking at the scenery. Along the edge of the platform was lettered: PAWLEY'S PEEKHOLES.

One of the men was pointing out New Saints Church to another; the rest were paying more attention to the cars and the people. The cop on duty was hanging a goggling face out of his uniform. He bawled, he blew his whistle, then he bawled some more. The men on the platform took no notice. He got out of his box and came across the road like he was a volcano which had seen a nice place to erupt.

"Hey!" he bellowed.

It didn't worry them. When he got a yard or two away they noticed him, nudged one another, grinned. The cop's face went purplish; his language was a pretty demonstration of fission. But they just watched him with amused interest. He drew his stick, and went closer. He grabbed at a fellow in a yellow shirt—and his arm went right through him.

The cop stepped back. You could see his nostrils kind of spread, the way a horse's do. He got a hold on his stick and made a fine circular swipe at the lot of them. They just grinned at him as the stick went through them.

I'll hand it to that cop. He didn't run. He stared at them a moment, then he turned and walked deliberately back to his position; just as deliberately he signaled the north and south traffic across. The guy ahead of me was ready for it, he drove right at, and through, the platform. It began to move, but I'd have just nicked it myself had

it been nickable. Sally, looking back, said it slid away on a curve and disappeared into the First National Bank.

When we got to the spot I'd had in mind the weather had turned bad; it looked dreary and unpropitious, so we drove around and then back to a nice quiet roadside restaurant just out of town. I was getting the conversation around to the mood where I wanted it when who should come over to our table but Jimmy.

"Fancy meeting you two," he said. "Did you hear what went off at Main and Jefferson this afternoon, Jerry?"

"We were there," I told him.

"You know, Jerry, this is something bigger than we thought—a whole lot bigger. That platform thing. These people are technically way ahead of us. Do you know who I think they are?"

"Martians?" I suggested.

He stared at me. "Geel! How did you guess that?" he said, amazedly.

"I sort of saw it had to come," I admitted. "But," I added, "I kind of feel Martians wouldn't be labeling anything 'Pawley's Peekholes.'"

Jimmy went away sadly.

But he'd wrecked the mood. My proposal waited.

ON MONDAY, our stenographer, Anna, arrived more scattered than commonly.

"The most terrible thing just happened to me. Oh my, did I blush all over!"

"All over?" inquired Jimmy, with interest.

"I'm serious! I was in my shower this morning, and when I looked up there was a man in a green shirt standing watching me. Naturally, I screamed at once."

"Naturally," agreed Jimmy. "And what happened then, or shouldn't I . . . ?"

"He just stood there," Anna said, firmly. "Then he

sniggered at me, and walked away *through the wall!* Was I mortified!"

Jimmy said: "Very mortifying thing, a snigger—and at you, too—"

"That's not what I—what I mean is, things like that oughtn't to be allowed," Anna said. "If a man's going to be able to walk through a girl's bathroom walls, where's he going to stop?"

Which seemed a pretty fair question.

The boss arrived just then. I followed him into his room. He wasn't looking happy.

"What the hell's going on in this damned town, Jerry?" he demanded.

"I'd like to know," I told him.

"Wife comes home yesterday. Finds two incredible girls in the sitting-room. Thinks it's me. First bust-up in twenty years. Girls vanish," he said, succinctly.

That evening when I went to see Sally I found her sitting on the steps of the house in the drizzle.

She gave me a bleak look.

"Two of them came into my room. A man and a girl. They wouldn't go. They laughed at me. Then they started—well—acting as if I weren't there. I-I couldn't stay, Jerry."

Then, not altogether accountably, she burst into tears.

FROM then on it stepped up. By the end of the next day the town was full of mothers crying shame and men looking staggered, and the mayor and the police were snowed under with protests and demands that somebody do something about it.

The trouble seemed thickest in that district which Jimmy had originally marked out. You *could* meet them elsewhere, but in this one area you were liable any and

every minute to encounter a gang; the men in colored shirts, the girls with amazing hairdo's and more amazing decorations on their skirts, sauntering arm in arm out of walls, wandering indifferently through automobiles and people alike. They'd pause anywhere to point out things and people to one another and go into helpless roars of silent laughter. What tickled them most was when folks got riled with them. They'd make signs and faces at them until they got them tearing mad—and the madder the funnier.

You couldn't seem to be free of them any place in the area though they appeared to be operating on levels that weren't always the same as ours. In some places it looked as if they walked on the ground or the floor, but in others they were inches above it, and elsewhere you'd find them moving along as if they were wading through the solid surface. It was soon very clear that they could not hear us any more than we could them, so there was no getting at them that way.

After three days more of it Center City was in chaos. There just wasn't any privacy. At the most intimate moments they were liable to wander through visibly giggling and guffawing. All very well for the police to announce that there was no danger, that the visitants couldn't *do* anything, so the best way was simply to ignore them. There are times and places when giggling bunches of youths and maidens take more ignore-power than the average guy's got. It sent even a placid fellow like me wild at times, while the women's leagues of this-and-that, the purity promoters and the like were living in a constant state of blown tops.

The news getting around hadn't helped, either. News hounds of all breeds burned the roads into town. They overflowed the place. Pretty nearly every street was

snaked with cables of movie cameras, television cameras and microphones, while the press-photographers were having the snappy-shot time of their lives.

But there was more to come. Jimmy and I happened on the first demonstration of it. We were on our way to lunch, Jimmy quite subdued. He'd given up theories on account of the facts had kind of submerged him. Just short of the lunch bar, we stopped, noticing a commotion further along Main Street. After a bit, a vehicle emerged from a tangle of cars farther down and came towards us at some seven or eight miles an hour. Essentially it was a platform like the one Sally and I had seen at the crossing that Sunday, but this was de luxe. There were sides to it glistening with new paint, red, yellow and blue, enclosing seats set four abreast. Most of the passengers were young, though there was a sprinkling of middle-aged men and women dressed in a soberer version of the same fashions. Behind the first platform followed half a dozen others. We read the lettering on their sides and backs as they went past:

PAWLEY'S PEEKHOLES
INTO THE PAST

GREATEST INVENTION
OF THE AGE

HISTORY, WITHOUT TEARS—
\$10.00 A TRIP

SEE HOW GT. GT. GRANDMA
LIVED

YE QUAINTE OLDE
20th CENTURY EXPRESSE'

EDUCATIONAL!
LEARN PRIMITIVE
FOLKWAYS & LIVING
CONDITIONS

VISIT ROMANTIC
20th CENTURY—
SAFETY GUARANTEED

KNOW YOUR HISTORY—
GET CULTURE—\$10.00

BIG MONEY PRIZE—
IF YOU IDENTIFY
YOUR OWN GRANDAD/MA

That last one explained the mystery of Sally's twin of the ether.

I noticed that most of the occupants of the vehicles were turning their heads this way and that in gog-eyed wonder interspersed with spasms of giggles. Some of the young men waved their arms and addressed us with witticisms to the admiration of their companions. Others leaned back, bit into large yellow fruits, and munched. On the back of the next to last car was lettered:

HOW GOOD WAS
GT. GRANDMA?
FIND OUT FOR YOURSELF

SPOT THE FAMOUS—
SHARP EYES MAY WIN YOU
A BIG PRIZE

As the procession moved away it left the rest of us looking at one another kind of stunned. Nobody seemed to have much left to say just then.

I GUESS that show must have been something in the nature of a grand premiere. After that you were liable almost any place about town to come across a platform labeled HISTORY IS CULTURE—BROADEN YOUR MIND, or KNOW THE ANSWERS ABOUT YOUR ANCESTORS, each with full good-time loads aboard, but I never heard of a regular procession again.

Well, work has to go on. We couldn't fix to do anything about it, so we had to put up with it. Quite a pack of families moved out of town for privacy and to spare their daughters from getting the new ideas about dress, and so on; but most of us had to stay. Pretty near everyone you met those times looked dazed or scowling—except the "tourists."

I called for Sally one evening about a couple of weeks after the trolley procession. When we came out of the house there was a ding-dong going on down the road. A couple of girls with heads that looked like globes of gilded basketwork were scratching the living daylights out of one another. There was a guy standing by looking mighty like a proud rooster, the rest were whooping things on. We went the other way.

"It just isn't like our town any more," said Sally. "Our homes aren't our homes any more. Why can't they go away and leave us in peace, damn them! I hate them!"

But outside the park we saw one little chrysanthemum-head sitting on apparently nothing at all, and crying her heart out. Sally softened a little.

"Maybe they are human," she said. "But why do they have to turn our town into a darn amusement park?"

We found a bench and sat on it, looking at the sunset. I wanted to get her away out of it.

"It'd be grand to be off up in the hills now," I said.

"It'd be lovely, Jerry." She sighed.

I took her hand, and she didn't pull it away.

"Sally, darling—" I began.

But before I could get any further, two tourists, a man and a girl, came to anchor in front of us. I was angry. You might see the platforms anywhere, but walking tourists didn't find much to interest them in the park as a rule. These two did, though. They stood staring at Sally. She took her hand out of mine. They conferred. The man unfolded a piece of paper he was carrying. They looked at the paper, then at Sally, and then back. It was too much to ignore. I got up and walked through them to see what the paper was. There I had a surprise. It was the Center City News. Obviously a very ancient copy indeed. It was badly browned and tattered at the edges, and to keep it from falling to bits entirely it had been mounted inside some thin, transparent plastic. I looked where they were looking—and Sally's face stared back at me from a smiling photograph. She had her arms spread wide, and a baby in the crook of each. I'd just time to see the headline: "Twins for Inventor's Wife," when they folded up the paper and made off along the path running. I guessed they were hot on the trail to claim one of their infernal prizes—and I hoped it poisoned them.

I went back and sat down again beside Sally. That picture had kind of spoiled things. I'd never invented anything more than an excuse in my life—and I had to do that again right now to avoid telling her what I'd seen.

We sat on a while.

A platform went by labeled:

PAINLESS EDUCATION—
GET CULTURE IN COMFORT

"Maybe it's time we moved," I said.

"Yes," said Sally.

I was wishing I'd seen the date on that paper.

"You don't," I asked casually as we walked, "you don't happen to know any guy that invents things?"

"No," said Sally.

That was something, anyway . . .

NEXT DAY found indignation right up the scale again, with everybody complaining to the police, the mayor, Congress, even the President. But no matter how many and how influential the tops that were blowing, nothing was getting done about it. There were schemes, of course. Jimmy had one: it had to do with either ultra-high or infra-low frequencies which were going to shake the projections of the tourists to bits. Maybe there was something in it, and something on those lines might have been worked out sometime, but right then it wasn't getting any place. It's darned difficult to know what you *can* do about something which is virtually a movie portrait in three dimensions—except find some way of cutting its transmission. All its functions are going on not where you see it, but in the place where its origin is. So how do you get at it? What you are actually seeing doesn't feel, doesn't act, doesn't breathe, doesn't sleep, doesn't—

And at that point I had my idea. It struck me all of a heap—so simple. I grabbed my hat and took myself around to the Mayor's office.

After their daily processions of threateners and screwballs they were wary at first, but then interested. We made a test, then we went to work.

All the next two days the gear came rolling into town.

When we were ready we had batteries of Klieg lights, beacon lights, all kinds of lights rigged up on trucks, and we had all the searchlights that the Army, the Navy and the airport people would lend us set strategically around town. We brought in a special consignment of very dark glasses for the citizens, and served them out to all comers. Then we got busy.

Whenever a platform showed, we opened up on it with all the blaze we could bring to bear. We poured all the concentrated glare on them that we could. The people on board covered their eyes and the platform slid to cover. We couldn't reach them inside buildings, but the moment they showed outside again we were on them. After a day of it the tourists started showing up in dark glasses too, but if they were strong enough to dim off those lights they just dimmed everything else clean out.

We kept right on at it, working in shifts day and night—and in a bit we began to see results. No wonder. It couldn't have been a lot of fun having your eyeballs fried at \$10.00 a fry. After three days of it, trade fell off badly for Pawley's Peekholes. Evidently the customers wanted to see something more than the inside of a few buildings and an almighty searing glare everywhere outside. And at the end of five days it was pretty well over . . . At least, we say it was over. Jimmy maintains otherwise. According to him, all they did, probably, was to modify out the visibility factor, and it's likely they're still peeking around just the same right now—in Center City and other places. Maybe he's right; maybe that guy Pawley, whoever he is or will be, has got a chain of Fun-Fairs all around the world and all through history operating right now. We wouldn't know—and as long as he keeps 'em out of sight, we wouldn't care a lot. There's a lot in that old adage: out of sight, out of mind . . .

When we could see we'd got it all tied up I took time to call on Sally. She was looking as lovely as ever.

"Hullo, Jerry," she said. "I've just been reading about you in the paper. I think it's wonderful."

"Nothing so wonderful. Just that I happened to get an idea," I said modestly.

"But it was. It was a wonderful invention."

"Well, it worked, but I'd hardly call it an—" I broke off. "Did you say 'invention?' " I asked.

"Why, of course!"

"Then that would make me an inventor?"

"Why, yes, Jerry . . ." She looked puzzled.

I took a deep breath.

"Sally, darling, there's something I've been trying to say to you for quite a while . . ."

An error in biology made Man the ruler of the earth. Suppose you could correct it

LET THE ANTS TRY

By James MacCreigh

GORDY SURVIVED the Three-Hour War, even though Detroit didn't; he was on his way to Washington, with his blueprints and models in his bag, when the bombs struck.

He had left his wife behind in the city, and not even a trace of her body was ever found. The children, of course, weren't as lucky as that. Their summer camp was less than twenty miles away, and unfortunately in the direction of the prevailing wind. But they were not in any pain until the last few days of the month they had left to live. Gordy managed to fight his way back through the snarled, frantic airline controls to them. Even though he knew they would certainly die of radiation sickness, and they suspected it, there was still a whole blessed week of companionship before the pain got too bad.

That was about all the companionship Gordy had for the whole year of 1960.

He came back to Detroit, as soon as the radioactivity had died down; he had nowhere else to go. He found a house on the outskirts of the city, and tried to locate someone to buy it from. But the Emergency Administra-

tion laughed at him. "Move in, if you're crazy enough to stay."

When Gordy thought about it all, it occurred to him that he was in a sort of state of shock. His fine, trained mind almost stopped functioning. He ate and slept, and when it grew cold he shivered and built fires, and that was all. The War Department wrote him two or three times, and finally a government man came around to ask what had happened to the things that Gordy had promised to bring to Washington. But he looked queerly at the pink, hairless mice that fed unmolested in the filthy kitchen, and he stood a careful distance away from Gordy's hairy face and torn clothes.

He said, "The Secretary sent me here, Mr. Gordy. He takes a personal interest in your discovery."

Gordy shook his head. "The Secretary is dead," he said. "They were all killed when Washington went."

"There's a new Secretary," the man explained. He puffed on his cigarette and tossed it into the patch Gordy was scrabbling into a truck garden. "Arnold Cavanagh. He knows a great deal about you, and he told me, 'If Salva Gordy has a weapon, we must have it. Our strength has been shattered. Tell Gordy we need his help.'"

Gordy crossed his hands like a lean Buddha.

"I haven't got a weapon," he said.

"You have something that can be used as a weapon. You wrote to Washington, before the War came, and said——"

"The War is over," said Salva Gordy. The government man sighed, and tried again, but in the end he went away. He never came back. The thing, Gordy thought, was undoubtedly written off as a crackpot idea after the man made his report; it was exactly that kind of a discovery, anyhow.

IT WAS May when John de Terry appeared. Gordy was spading his garden. "Give me something to eat," said the voice behind Gordy's back.

Salva Gordy turned around and saw the small, dirty man who spoke. He rubbed his mouth with the back of his hand. "You'll have to work for it," he said.

"All right." The newcomer set down his pack. "My name is John de Terry. I used to live here in Detroit."

Salva Gordy said, "So did I."

Gordy fed the man, and accepted a cigarette from him after they had eaten. The first puffs made him light-headed—it had been that long since he'd smoked—and through the smoke he looked at John de Terry amiably enough. Company would be all right, he thought. The pink mice had been company, of a sort—but it turned out that the mutation that made them hairless had also given them an appetite for meat. And after the morning when he had awakened to find tiny toothmarks in his leg, he'd had to destroy them. And there had been no other animal since, nothing but the ants.

"Are you going to stay?" Gordy asked.

De Terry said, "If I can. What's your name?" When Gordy told him, some of the animal look went out of his eyes, and wonder took its place. "*Doctor* Salva Gordy?" he asked. "Mathematics and physics in Pasadena?"

"Yes, I used to teach at Pasadena."

"And I studied there." John de Terry rubbed absently at his ruined clothes. "That was a long time ago. You didn't know me; I majored in biology. But I knew you."

Gordy stood up and carefully put out the stub of his cigarette. "It was too long ago," he said. "I hardly remember. Shall we work in the garden now?"

Together they sweated in the spring sunlight that afternoon, and Gordy discovered that what had been hard work for one man went quickly enough for two.

They worked clear to the edge of the plot before the sun reached the horizon. John de Terry stopped and leaned on his spade, panting.

He gestured to the rank growth beyond Gordy's patch. "We can make a bigger garden," he said. "Clear out that truck, and plant more food. We might even—" He stopped. Gordy was shaking his head.

"You can't clear it out," said Gordy. "It's rank stuff, a sort of crabgrass with a particularly tough root. I can't even cut it. It's all around here, and it's spreading."

De Terry grimaced. "Mutation?"

"I think so. And look." Gordy beckoned to the other man and led him to the very edge of the cleared area. He bent down, picked up something red and wriggling between his thumb and forefinger.

De Terry took it from his hand. "Another mutation?" He brought the thing close to his eyes. "It's almost like an ant," he said. "Except—well, the thorax is all wrong. And it's soft-bodied." He fell silent, examining the thing.

He said something under his breath, and threw the insect from him. "You wouldn't have a microscope, I suppose? No—and yet, that thing is hard to believe. It's an ant, but it doesn't seem to have a tracheal breathing system at all. It's something different."

"Everything's different," Gordy said. He pointed to a couple of abandoned rows. "I had carrots there. At least, I thought they were carrots; when I tried to eat them they made me sick." He sighed heavily. "Humanity has had its chance, John," he said. "The atomic bomb wasn't enough; we had to turn everything into a weapon. Even I, I made a weapon out of something that had nothing to do with war. And our weapons have blown up in our faces."

De Terry grinned. "Maybe the ants will do better. It's their turn now."

"I wish it were." Gordy stirred earth over the boiling entrance to an anthole and watched the insects in their consternation. "They're too small, I'm afraid."

"Why, no. These ants are different, Dr. Gordy. Insects have always been small because their breathing system is so poor. But these are mutated. I think—I think they actually have lungs. They could grow, Dr. Gordy. And if ants were the size of men . . . they'd rule the world."

"Lunged ants!" Gordy's eyes gleamed. "Perhaps they will rule the world, John. Perhaps when the human race finally blows itself up once and for all. . . ."

De Terry shook his head, and looked down again at his tattered, filthy clothes. "The next blow-up is the last blow-up," he said. "The ants come too late, by millions and millions of years."

He picked up his spade. "I'm hungry again, Dr. Gordy," he said.

They went back to the house and, without conversation, they ate. Gordy was preoccupied, and de Terry was too new in the household to force him to talk.

It was sundown when they had finished, and Gordy moved slowly to light a lamp. Then he stopped.

"It's your first night, John," he said. "Come down cellar. We'll start the generator and have real electric lights in your honor."

De Terry followed the older man down a flight of stairs, groping in the dark. By candlelight they worked over a gasoline generator; it was stiff from disuse, but once it started it ran cleanly. "I salvaged it from my own," Gordy explained. "The generator—and that."

He swept an arm toward a corner of the basement. "I told you I invented a weapon," he added. "That's it."

De Terry looked. It was as much like a cage as anything, he thought—the height of a man and almost cubical. "What does it do?" he asked.

For the first time in months, Salva Gordy smiled. "I can't tell you in English," he said. "And I doubt that you speak mathematics. The closest I can come is to say that it displaces temporal co-ordinates. Is that gibberish?"

"It is," said de Terry. "What does it do?"

"Well, the War Department had a name for it—a name they borrowed from H. G. Wells. They called it a Time Machine." He met de Terry's shocked, bewildered stare calmly. "A time machine," he repeated. "You see, John, we can give the ants a chance after all, if you like."

FOURTEEN hours later they stepped into the cage, its batteries charged again and its strange motor whining . . .

And, forty million years earlier, they stepped out onto quaking humid soil.

Gordy felt himself trembling, and with an effort managed to stop. "No dinosaurs or saber-toothed tigers in sight," he reported.

"Not for a long time yet," de Terry agreed. Then, "My Lord!"

He looked around him with his mouth open wide. There was no wind, and the air was warm and wet. Large trees were clustered quite thickly around them—or what looked like trees; de Terry decided they were rather some sort of soft-stemmed ferns or fungi. Overhead was deep cloud.

Gordy shivered. "Give me the ants," he ordered.

Silently de Terry handed them over. Gordy poked a hole in the soft earth with his finger and carefully tilted the flask, dropped one of the ant queens he had unearthed in the back yard. From her belly hung a slimy mass of eggs. A few yards away—it should have been farther, he thought, but he was afraid to get too far from

de Terry and the machine—he made another hole and repeated the process.

There were eight queens. When the eighth was buried he flung the bottle away and came back to de Terry.

“That’s it,” he said.

De Terry exhaled. His solemn face cracked in a sudden embarrassed smile. “I—I guess I feel like God,” he said. “Good lord, Dr. Gordy! Talk about your great moments in history—this is all of them! I’ve been thinking about it, and the only event I can remember that measures up is the Flood. Not even that. We’ve created a race!”

“If they survive, we have.” Gordy wiped a drop of condensed moisture off the side of his time machine and puffed. “I wonder how they’ll get along with mankind,” he said.

They were silent for a moment, considering. From somewhere in the fern jungle came a raucous animal cry. Both men looked up in quick apprehension, but moments passed and the animal did not appear.

Finally de Terry said, “Maybe we’d better go back.”

“All right.” Stiffly they climbed into the closet-sized interior of the time machine.

Gordy stood with his hand on the control wheel, thinking about the ants. Assuming that they survived—assuming that in 40,000,000 years they grew larger and developed brains—what would happen? Would men be able to live in peace with them? Would it—might it not make men brothers, joined against an alien race?

Might this thing prevent human war, and—his thoughts took an insane leap—could it have prevented the war that destroyed Gordy’s family!

Beside him, de Terry stirred restlessly. Gordy jumped, and turned the wheel, and was in the dark mathematical vortex which might have been a fourth dimension.

THEY stopped the machine in the middle of a city, but the city was not Detroit. It was not a human city at all.

The machine was at rest in a narrow street, half blocking it. Around them towered conical metal structures, some of them a hundred feet high. There were vehicles moving in the street, one coming toward them and stopping.

"Dr. Gordy!" de Terry whispered. "Do you see them?"

Salva Gordy swallowed. "I see them," he said.

He stepped out of the time machine and stood waiting to greet the race to which he had given life.

For these were the children of ants in the three-wheeled vehicle. Behind a transparent windshield he could see them clearly.

De Terry was standing close behind him now, and Gordy could feel the younger man's body shaking. "They're ugly things," Gordy said mildly.

"Ugly! They're filthy!"

The antlike creatures were as big as a man, but hard-looking and as obnoxious as black beetles. Their eyes, Gordy saw with surprise, had mutated more than their bodies. For, instead of faceted insect eyes, they possessed iris, cornea and pupil—not round, or vertical like a cat's eyes, or horizontal like a horse's eyes, but irregular and blotchy. But they seemed like vertebrate's eyes, and they were strange and unnatural in the parchment blackness of an ant's bulged head.

Gordy stepped forward, and simultaneously the ants came out of their vehicle. For a moment they faced each other, the humans and the ants, silently.

"What do I do now?" Gordy asked de Terry over his shoulder.

De Terry laughed—or gasped. Gordy wasn't sure. "Talk to them," he said. "What else is there to do?"

Gordy swallowed. He resolutely did not attempt to

speaking in English to these creatures, knowing as surely as he knew his name that English—and probably any other language involving sound—would be incomprehensible to them. But he found himself smiling pacifically to them, and that was of course as bad . . . the things had no expressions of their own, that he could see, and certainly they would have no precedent to help interpret a human smile.

Gordy raised his hand in the semantically sound gesture of peace, and waited to see what the insects would do.

They did nothing.

Gordy bit his lip and, feeling idiotic, bowed stiffly to the ants.

THE ants did nothing. De Terry said from behind, "Try talking to them, Dr. Gordy."

"That's silly," Gordy said. "They can't hear." But it was no sillier than anything else. Irritably, but making the words very clear, he said, "We . . . are . . . friends."

The ants did nothing. They just stood there, with the unwinking pupiled eyes fixed on Gordy. They didn't shift from foot to foot as a human might, or scratch themselves, or even show the small movement of human breathing. They just stood there.

"Oh, for heaven's sake," said de Terry. "Here, let me try."

He stepped in front of Gordy and faced the ant-things. He pointed to himself. "I am human," he said. "Mammalian." He pointed to the ants. "You are insects. That—" he pointed to the time machine—"took us to the past, where we made it possible for you to exist." He waited for reaction, but there wasn't any. De Terry clicked his tongue and began again. He pointed to the

tapering metal structures. "This is your city," he said.

Gordy, listening to him, felt the hopelessness of the effort. Something disturbed the thin hairs at the back of his skull, and he reached absently to smooth them down. His hand encountered something hard and inanimate—not cold, but, like spongy wood, without temperature at all. He turned around. Behind them were half a dozen larger ants. Drones, he thought—or did ants have drones? "John," he said softly . . . and the inefficient, fragile-looking pincer that had touched him clamped his shoulder. There was no strength to it, he thought at once. Until he moved, instinctively, to get away, and then a thousand sharp serrations slipped through the cloth of his coat and into the skin. It was like catching oneself on a cluster of tiny fishhooks. He shouted, "John! Watch out!"

De Terry, bending low for the purpose of pointing at the caterpillar treads of the ant vehicle, straightened up, startled. He turned to run, and was caught in a step. Gordy heard him yell, but Gordy had troubles of his own and could spare no further attention for de Terry.

When two of the ants had him, Gordy stopped struggling. He felt warm blood roll down his arm, and the pain was like being flayed. From where he hung between the ants, he could see the first two, still standing before their vehicle, still motionless.

There was a sour reek in his nostrils, and he traced it to the ants that held him, and wondered if he smelled as bad to them. The two smaller ants abruptly stirred and moved forward rapidly on eight thin legs to the time machine. Gordy's captors turned and followed them, and for the first time since the scuffle he saw de Terry. The younger man was hanging limp from the lifted forelegs of a single ant, with two more standing guard beside. There was pulsing blood from a wound on de Terry's

neck. Unconscious, Gordy thought mechanically, and turned his head to watch the ants at the machine.

It was a disappointing sight. They merely stood there, and no one moved. Then Gordy heard de Terry grunt and swear weakly. "How are you, John?" he called.

De Terry grimaced. "Not very good. What happened?"

Gordy shook his head, and sought for words to answer. But the two ants turned in unison from the time machine and glided toward de Terry, and Gordy's words died in his throat. Delicately one of them extended a foreleg to touch de Terry's chest.

Gordy saw it coming. "John!" he shrieked—and then it was all over, and de Terry's scream was harsh in his ear and he turned his head away. Dimly from the corner of his eye he could see the sawlike claws moving up and down, but there was no life left in de Terry to protest.

SALVA GORDY sat against a wall and looked at the ants who were looking at him. If it hadn't been for that which was done to de Terry, he thought, there would really be nothing to complain about.

It was true that the ants had given him none of the comforts that humanity lavishes on even its criminals . . . but they had fed him, and allowed him to sleep—when it suited their convenience, of course—and there were small signs that they were interested in his comfort, in their fashion. When the pulpy mush they first offered him came up thirty minutes later, his multi-legged hosts brought him a variety of foods, of which he was able to swallow some fairly palatable fruits. He was housed in a warm room. And, if it had neither chairs or windows, Gordy thought, that was only because ants had no use for these themselves. And he couldn't ask for them.

That was the big drawback, he thought. That . . . and the memory of John de Terry.

He squirmed on the hard floor until his shoulder-blades found a new spot to prop themselves against, and stared again at the committee of ants who had come to see him.

They were working an angular thing that looked like a camera—at least, it had a glittering something that might be a lens. Gordy stared into it sullenly. The sour reek was in his nostrils again. . . .

Gordy admitted to himself that things hadn't worked out just as he had planned. Deep under the surface of his mind—just now beginning to come out where he could see it—there had been a furtive hope. He had hoped that the rise of the ants, with the help he had given them, would aid and speed the rise of mankind. For hatred, Gordy knew, started in the recoil from things that were different. A man's first enemy is his family—for he sees them first—but he sides with them against the families across the way. And still his neighbors are allies against the Ghettos and Harlems of his town—and his town to him is the heart of the nation—and his nation commands life and death in war.

For Gordy, there had been a buried hope that a separate race would make a whipping-boy for the passions of humanity. And that, if there were struggle, it would not be between man and man, but between the humans . . . and the ants.

There had been this buried hope, but the hope was denied. For the ants simply had not allowed man to rise.

The ants put up their camera-like machine, and Gordy looked up in expectation. Half a dozen of them left, and two stayed on. One was the smallish creature with a bangle on the foreleg which seemed to be his personal jailer; the other a stranger to Gordy, as far as he could tell.

The two ants stood motionless for a period of time

that Gordy found tedious. He changed his position, and lay on the floor, and thought of sleeping. But sleep would not come. There was no evading the knowledge that he had wiped out his own race—annihilated them by preventing them from birth, forty million years before his own time. He was like no other murderer since Cain, Gordy thought, and wondered that he felt no blood on his hands.

There was a signal that he could not perceive, and his guardian ant came forward to him, nudged him outward from the wall. He moved as he was directed—out the low exit-hole (he had to navigate it on hands and knees) and down a corridor to the bright day outside.

The light set Gordy blinking. Half blind, he followed the bangled ant across a square to a conical shed. More ants were waiting there, circled around a litter of metal parts.

Gordy recognized them at once. It was his time machine, stripped piece by piece.

After a moment the ant nudged him again, impatiently, and Gordy understood what they wanted. They had taken the machine apart for study, and they wanted it put together again.

Pleased with the prospect of something to do with his fingers and his brain, Gordy grinned and reached for the curious ant-made tools. . . .

He ate four times, and slept once, never moving from the neighborhood of the cone-shaped shed. And then he was finished.

Gordy stepped back. "It's all yours," he said proudly. "It'll take you anywhere. A present from humanity to you."

The ants were very silent. Gordy looked at them and saw that there were drone-ants in the group, all still as statues.

"Hey!" he said in startlement, unthinking. And then the needle-jawed ant claw took him from behind.

Gordy had a moment of nausea—and then terror and hatred swept it away.

Heedless of the needles that laced his skin, he struggled and kicked against the creatures that held him. One arm came free, leaving gobbets of flesh behind, and his heavy shod foot plunged into a pulpy eye. The ant made a whistling, gasping sound and stood erect on four hairy legs.

Gordy felt himself jerked a dozen feet into the air, then flung free in the wild, silent agony of the ant. He crashed into the ground, cowering away from the staggering monster. Sobbing, he pushed himself to his feet; the machine was behind him; he turned and blundered into it a step ahead of the other ants, and spun the wheel.

A HOLLOW insect leg, detached from the ant that had been closest to him, was flopping about on the floor of the machine; it had been that close.

Gordy stopped the machine where it had started, on the same quivering, primordial bog, and lay crouched over the controls for a long time before he moved.

He had made a mistake, he and de Terry; there weren't any doubts left at all. And there was . . . there *might* be a way to right it.

He looked out at the Coal Measure forest. The fern trees were not the fern trees he had seen before; the machine had been moved in space. But the time, he knew, was identically the same; trust the machine for that. He thought: I gave the world to the ants, right here. I can take it back. I can find the ants I buried and crush them underfoot . . . or intercept myself before I bury them. . . .

He got out of the machine, suddenly panicky. Urgency squinted his eyes as he peered around him.

Death had been very close in the ant city; the reaction still left Gordy limp. And was he safe here? He remembered the violent animal scream he had heard before, and shuddered at the thought of furnishing a casual meal to some dinosaur . . . while the ant queens lived safely to produce their horrid young.

A gleam of metal through the fern trees made his heart leap. Burnished metal here could mean but one thing—the machine!

Around a clump of fern trees, their bases covered with thick club mosses, he ran, and saw the machine ahead. He raced toward it—then came to a sudden stop, slipping on the damp ground.

For there were *two* machines in sight.

The farther machine was his own, and through the screening mosses he could see two figures standing in it, his own and de Terry's.

But the nearer was a larger machine, and a strange design.

And from it came a hastening mob—not a mob of men, but of black insect shapes racing toward him.

Of course, thought Gordy, as he turned hopelessly to run—of course, the ants had infinite time to work in. Time enough to build a machine after the pattern of his own—and time to realize what they had to do to him, to insure their own race safety.

Gordy stumbled, and the first of the black things was upon him.

As his panicky lungs filled with air for the last time, Gordy knew what animal had screamed in the depths of the Coal Measure forest.

The family had gone. The garden was dying. But the house lived on

THERE WILL COME SOFT RAINS

By Ray Bradbury

IN THE living room the voice-clock sang, *Tick-tock, seven o'clock, time to get up, time to get up, seven o'clock!* as if it were afraid that nobody would. The morning house lay empty. The clock ticked on, repeating and repeating its sounds into the emptiness. *Seven-nine, breakfast time, seven-nine!*

In the kitchen the breakfast stove gave a hissing sigh and ejected from its warm interior eight pieces of perfectly browned toast, eight eggs sunnyside up, sixteen slices of bacon, two coffees, and two cool glasses of milk.

"Today is August 4, 2026," said a second voice from the kitchen ceiling, "in the city of Allendale, California." It repeated the date three times for memory's sake. "Today is Mr. Featherstone's birthday. Today is the anniversary of Tilita's marriage. Insurance is payable, as are the water, gas, and light bills."

Somewhere in the walls, relays clicked, memory tapes glided under electric eyes.

Eight-one, tick-tock, eight-one o'clock, off to school, off to work, run, run, eight-one! But no doors slammed, no carpets took the soft tread of rubber heels. It was

raining outside. The weather box on the front door sang quietly: "Rain, rain, go away; rubbers, raincoats for today . . ." And the rain tapped on the empty house, echoing.

Outside, the garage chimed and lifted its door to reveal the waiting car. After a long wait the door swung down again.

At eight-thirty the eggs were shriveled and the toast was like stone. An aluminum wedge scraped them into the sink, where hot water whirled them down a metal throat which digested and flushed them away to the distant sea. The dirty dishes were dropped into a hot washer and emerged twinkling dry.

Nine-fifteen, sang the clock, *time to clean*.

Out of warrens in the wall, tiny robot mice darted. The rooms were acrawl with the small cleaning animals, all rubber and metal. They thudded against chairs, whirling their mustached runners, kneading the rug nap, sucking gently at hidden dust. Then, like mysterious invaders, they popped into their burrows. Their pink electric eyes faded. The house was clean.

Ten o'clock. The sun came out from behind the rain. The house stood alone in a city of rubble and ashes. This was the one house left standing. At night the ruined city gave off a radioactive glow which could be seen for miles.

Ten-fifteen. The garden sprinklers whirled up in golden founts, filling the soft morning air with scatterings of brightness. The water pelted windowpanes, running down the charred west side where the house had been burned evenly free of its white paint. The entire west face of the house was black, save for five places. Here the silhouette in paint of a man mowing a lawn. Here, as in a photograph, a woman bent to pick flowers. Still farther over, their images burned on wood in one titanic instant, a small boy, hands flung into the air;

higher up, the image of a thrown ball, and opposite him a girl, hands raised to catch a ball which never came down.

The five spots of paint—the man, the woman, the children, the ball—remained. The rest was a thin charcoaled layer.

The gentle sprinkler rain filled the garden with falling light.

Until this day, how well the house had kept its peace. How carefully it had inquired, "Who goes there? What's the password?" and, getting no answer from lonely foxes and whining cats, it had shut up its windows and drawn shades in an old-maidenly preoccupation with self-protection which bordered on a mechanical paranoia.

It quivered at each sound, the house did. If a sparrow brushed a window, the shade snapped up. The bird, startled, flew off! No, not even a bird must touch the house!

The house was an altar with ten thousand attendants, big, small, servicing, attending, in choirs. But the gods had gone away, and the ritual of the religion continued senselessly, uselessly.

Twelve noon.

A dog whined, shivering, on the front porch.

The front door recognized the dog voice and opened. The dog, once huge and fleshy, but now gone to bone and covered with sores, moved in and through the house, tracking mud. Behind it whirred angry mice, angry at having to pick up mud, angry at inconvenience.

For not a leaf fragment blew under the door but what the wall panels flipped open and the copper scrap rats flashed swiftly out. The offending dust, hair, or paper, seized in miniature steel jaws, was raced back to the burrows. There, down tubes which fed into the cellar, it was

dropped into the sighing vent of an incinerator which sat like evil Baal in a dark corner.

The dog ran upstairs, hysterically yelping to each door, at last realizing, as the house realized, that only silence was here.

It sniffed the air and scratched the kitchen door. Behind the door, the stove was making pancakes which filled the house with a rich baked odor and the scent of maple syrup.

The dog frothed at the mouth, lying at the door, sniffing, its eyes turned to fire. It ran wildly in circles, biting at its tail, spun in a frenzy, and died. It lay in the parlor for an hour.

Two o'clock, sang a voice.

Delicately sensing decay at last, the regiments of mice hummed out as softly as blown gray leaves in an electrical wind.

Two-fifteen.

The dog was gone.

In the cellar, the incinerator glowed suddenly and a whirl of sparks leaped up the chimney.

Two thirty-five.

Bridge tables sprouted from patio walls. Playing cards fluttered onto pads in a shower of pips. Martinis manifested on an oaken bench with egg-salad sandwiches. Music played.

But the tables were silent and the cards untouched.

At four o'clock the tables folded like great butterflies back through the paneled walls.

Four-thirty.

The nursery walls glowed.

Animals took shape: yellow giraffes, blue lions, pink antelopes, lilac panthers cavorting in crystal substance.

The walls were glass. They looked out upon color and fantasy. Hidden films clocked through well-oiled sprockets, and the walls lived. The nursery floor was woven to resemble a crisp, cereal meadow. Over this ran aluminum roaches and iron crickets, and in the hot still air butterflies of delicate red tissue wavered among the sharp aroma of animal spoors! There was the sound like a great matted yellow hive of bees within a dark bellows, the lazy bumble of a purring lion. And there was the patter of okapi feet and the murmur of a fresh jungle rain, like other hoofs, falling upon the summer-starched grass. Now the walls dissolved into distances of parched weed, mile on mile, and warm endless sky. The animals drew away into thorn brakes and water holes.

It was the children's hour.

Five o'clock. The bath filled with clear hot water.

Six, seven, eight o'clock. The dinner dishes manipulated like magic tricks, and in the study a *click*. In the metal stand opposite the hearth where a fire now blazed up warmly, a cigar popped out, half an inch of soft gray ash on it, smoking, waiting.

Nine o'clock. The beds warmed their hidden circuits, for nights were cool here.

Nine-five. A voice spoke from the study ceiling:

"Mrs. McClellan, which poem would you like this evening?"

The house was silent.

The voice said at last, "Since you express no preference, I shall select a poem at random." Quiet music rose to back the voice. "Sara Teasdale. As I recall, your favorite. . . .

*"There will come soft rains and the smell of the ground,
And swallows circling with their shimmering sound;*

*And frogs in the pools singing at night,
And wild plum trees in tremulous white;*

*Robins will wear their feathery fire,
Whistling their whims on a low fence-wire;*

*And not one will know of the war, not one
Will care at last when it is done.*

*Not one would mind, neither bird nor tree,
If mankind perished utterly;*

*And Spring herself, when she woke at dawn
Would scarcely know that we were gone."*

The fire burned on the stone hearth and the cigar fell away into a mound of quiet ash on its tray. The empty chairs faced each other between the silent walls, and the music played.

At ten o'clock the house began to die.

The wind blew. A falling tree bough crashed through the kitchen window. Cleaning solvent, bottled, shattered over the stove. The room was ablaze in an instant!

"Fire!" screamed a voice. The house lights flashed, water pumps shot water from the ceilings. But the solvent spread on the linoleum, licking, eating, under the kitchen door, while the voices took it up in chorus: "Fire, fire, fire!"

The house tried to save itself. Doors sprang tightly shut, but the windows were broken by the heat and the wind blew and sucked upon the fire.

The house gave ground as the fire in ten billion angry sparks moved with flaming ease from room to room and then up the stairs. While scurrying water rats squeaked from the walls, pistoled their water, and ran for more.

And the wall sprays let down showers of mechanical rain.

But too late. Somewhere, sighing, a pump shrugged to a stop. The quenching rain ceased. The reserve water supply which had filled baths and washed dishes for many quiet days was gone.

The fire crackled up the stairs. It fed upon Picassos and Matisses in the upper halls, like delicacies, baking off the oily flesh, tenderly crisping the canvases into black shavings.

Now the fire lay in beds, stood in windows, changed the colors of drapes!

And then, reinforcements.

From attic trapdoors, blind robot faces peered down with faucet mouths gushing green chemical.

The fire backed off, as even an elephant must at the sight of a dead snake. Now there were twenty snakes whipping over the floor, killing the fire with a clear cold venom of green froth.

But the fire was clever. It had sent flame outside the house, up through the attic to the pumps there. An explosion! The attic brain which directed the pumps was shattered into bronze shrapnel on the beams.

The fire rushed back into every closet and felt of the clothes hung there.

The house shuddered, oak bone on bone, its bared skeleton cringing from the heat, its wire, its nerves revealed as if a surgeon had torn the skin off to let the red veins and capillaries quiver in the scalded air. Help, help! Fire! Run, run! Heat snapped mirrors like the first brittle winter ice. And the voices wailed Fire, fire, run, run, like a tragic nursery rhyme, a dozen voices, high, low, like children dying in a forest, alone, alone. And the voices fading as the wires popped their sheathings like hot chestnuts. One, two, three, four, five voices died.

In the nursery the jungle burned. Blue lions roared,

purple giraffes bounded off. The panthers ran in circles, changing color, and ten million animals, running before the fire, vanished off toward a distant steaming river. . . .

Ten more voices died. In the last instant under the fire avalanche, other choruses, oblivious, could be heard announcing the time, playing music, cutting the lawn by remote-control mower, or setting an umbrella frantically out and in the slamming and opening front door, a thousand things happening, like a clock shop when each clock strikes the hour insanely before or after the other, a scene of maniac confusion, yet unity; singing, screaming, a few last cleaning mice darting bravely out to carry the horrid ashes away! And one voice, with sublime disregard for the situation, read poetry aloud in the fiery study, until all the film spools burned, until all the wires withered and the circuits cracked.

The fire burst the house and let it slam flat down, puffing out skirts of spark and smoke.

In the kitchen, an instant before the rain of fire and timber, the stove could be seen making breakfasts at a psychopathic rate, ten dozen eggs, six loaves of toast, twenty dozen bacon strips, which, eaten by fire, started the stove working again, hysterically hissing!

The crash. The attic smashing into kitchen and parlor. The parlor into cellar, cellar into sub-cellar. Deep freeze, armchair, film tapes, circuits, beds, and all like skeletons thrown in a cluttered mound deep under.

Smoke and silence. A great quantity of smoke.

Dawn showed faintly in the east. Among the ruins, one wall stood alone. Within the wall, a last voice said, over and over again and again, even as the sun rose to shine upon the heaped rubble and steam:

"Today is August 5, 2026, today is August 5, 2026, today is . . ."

They could fly the starlanes without fear of death
—because they did their dying in advance

SCANNERS LIVE IN VAIN

By Cordwainer Smith

MARTEL was angry. He did not even adjust his blood away from anger. He stamped across the room by judgment, not by sight. When he saw the table hit the floor, and could tell by the expression on Luci's face that the table must have made a loud crash, he looked down to see if his leg were broken. It was not. Scanner to the core, he had to scan himself. The action was reflex and automatic. The inventory included his legs, abdomen, Chestbox of instruments, hands, arms, face and back with the Mirror. Only then did Martel go back to being angry. He talked with his voice, even though he knew that his wife hated its blare and preferred to have him write.

"I tell you, I must cranch. I have to cranch. It's my worry, isn't it?"

When Luci answered, he saw only a part of her words as he read her lips: "Darling . . . you're my husband . . . right to love you . . . dangerous . . . do it . . . dangerous . . . wait. . . ."

He faced her, but put sound in his voice, letting the blare hurt her again: "I tell you, I'm going to cranch."

Catching her expression, he became rueful and a little tender: "Can't you understand what it means to me? To get out of this horrible prison in my own head? To be *feel* again—to feel my feet on the ground, to feel the air a man again—hearing your voice, smelling smoke? To move against my face? Don't you know what it means?"

Her wide-eyed worrisome concern thrust him back into pure annoyance. He read only a few words as her lips moved: ". . . love you . . . your own good . . . don't you think I want you to be human? . . . your own good . . . too much . . . he said . . . they said. . . ."

When he roared at her, he realized that his voice must be particularly bad. He knew that the sound hurt her no less than did the words: "Do you think I wanted you to marry a Scanner? Didn't I tell you we're almost as low as the habermans? We're dead, I tell you. We've got to be dead to do our work. How can anybody go to the Up-and-Out? Can you dream what raw Space is? I warned you. But you married me. All right, you married a man. Please, darling, let me be a man. Let me hear your voice, let me feel the warmth of being alive, of being human. Let me!"

He saw by her look of stricken assent that he had won the argument. He did not use his voice again. Instead, he pulled his tablet up from where it hung against his chest. He wrote on it, using the pointed fingernail of his right forefinger—the Talking Nail of a Scanner—in quick cleancut script: "Pls, drlng, whrs Crnching Wire?"

She pulled the long gold-sheathed wire out of the pocket of her apron. She let its field sphere fall to the carpeted floor. Swiftly, dutifully, with the deft obedience of a Scanner's wife, she wound the Cranching Wire around his head, spirally around his neck and chest. She avoided the instruments set in his chest. She even avoided the radiating scars around the instruments, the

stigmata of men who had gone Up and into the Out. Mechanically he lifted a foot as she slipped the wire between his feet. She drew the wire taut. She snapped the small plug into the High Burden Control next to his Heart Reader. She helped him to sit down, arranging his hands for him, pushing his head back into the cup at the top of the chair. She turned then, full-face toward him, so that he could read her lips easily. Her expression was composed.

She knelt, scooped up the sphere at the other end of the wire, stood erect calmly, her back to him. He scanned her, and saw nothing in her posture but grief which would have escaped the eye of anyone but a Scanner. She spoke: he could see her chest-muscles moving. She realized that she was not facing him, and turned so that he could see her lips.

"Ready at last?"

He smiled a yes.

She turned her back to him again. (Luci could never bear to watch him Under-the-wire.) She tossed the wire-sphere into the air. It caught in the force-field, and hung there. Suddenly it glowed. That was all. All—except for the sudden red stinking roar of coming back to his senses. Coming back, across the wild threshold of pain.

When he awakened under the wire, he did not feel as though he had just crunched. Even though it was the second crunching within the week, he felt fit. He lay in the chair. His ears drank in the sound of air touching things in the room. He heard Luci breathing in the next room, where she was hanging up the wire to cool. He smelt the thousand-and-one smells that are in anybody's room: the crisp freshness of the germ-burner, the sour-sweet tang of the humidifier, the odor of the dinner they had just eaten, the smells of clothes, furniture, of people

themselves. All these were pure delight. He sang a phrase or two of his favorite song:

"Here's to the haberman, Up-and-Out!

"Up—oh!—and Out—oh!—Up-and-Out! . . ."

He heard Luci chuckle in the next room. He gloated over the sounds of her dress as she swished to the doorway.

She gave him her crooked little smile. "You sound all right. Are you all right, really?"

Even with this luxury of senses, he scanned. He took the flash-quick inventory which constituted his professional skill. His eyes swept in the news of the instruments. Nothing showed off scale, beyond the Nerve Compression hanging in the edge of "Danger." But he could not worry about the Nerve box. That always came through Cranching. You couldn't get under the wire without having it show on the Nerve box. Some day the box would go to *Overload* and drop back down to *Dead*. That was the way a haberman ended. But you couldn't have everything. People who went to the Up-and-Out had to pay the price for Space.

Anyhow, he should worry! He was a Scanner. A good one, and he knew it. If he couldn't scan himself, who could? This cranching wasn't too dangerous. Dangerous, but not too dangerous.

Luci put out her hand and ruffled his hair as if she had been reading his thoughts, instead of just following them: "But you know you shouldn't have! You shouldn't!"

"But I did!" He grinned at her.

Her gaiety still forced, she said: "Come on, darling, let's have a good time. I have almost everything there is in the icebox—all your favorite tastes. And I have two new records just full of smells. I tried them out myself, and even I liked them. And you know me—"

"Which?"

"Which what, you old darling?"

He slipped his hand over her shoulders as he limped out of the room. (He could never go back to feeling the floor beneath his feet, feeling the air against his face, without being bewildered and clumsy. As if cranching was real, and being a haberman was a bad dream. But he *was* a haberman, and a Scanner. "You know what I meant, Luci. . . . the smells, which you have. Which one did you like, on the record?"

"Well-I-I," said she, judiciously, "there were some lamb chops that were the strangest things—"

He interrupted: "What are lambtchots?"

"Wait till you smell them. Then guess. I'll tell you this much. It's a smell hundreds and hundreds of years old. They found about it in the old books."

"Is a lambtchot a Beast?"

"I won't tell you. You've got to wait," she laughed, as she helped him sit down and spread his tasting dishes before him. He wanted to go back over the dinner first, sampling all the pretty things he had eaten, and savoring them this time with his now-living lips and tongue.

When Luci had found the Music Wire and had thrown its sphere up into the force-field, he reminded her of the new smells. She took out the long glass records and set the first one into a transmitter.

"Now sniff!"

A queer, frightening, exciting smell came over the room. It seemed like nothing in this world, nor like anything from the Up-and-Out. Yet it was familiar. His mouth watered. His pulse beat a little faster; he scanned his Heart box. (Faster, sure enough.) But that smell, what was it? In mock perplexity, he grabbed her hands, looked into her eyes, and growled:

"Tell me, darling! Tell me, or I'll eat you up!"

"That's just right!"

"What?"

"You're right. It should make you want to eat me. It's meat."

"Meat. Who?"

"Not a person," said she, knowledgeably, "a beast. A beast which people used to eat. A lamb was a small sheep—you've seen sheep out in the Wild, haven't you?—and a chop is part of its middle—here!" She pointed at her chest.

Martel did not hear her. All his boxes had swung over toward Alarm, some to Danger. He fought against the roar of his own mind, forcing his body into excess excitement. How easy it was to be a Scanner when you really stood outside your own body, haberman-fashion, and looked back into it with your eyes alone. Then you could manage the body, rule it coldly even in the enduring agony of Space. But to realize that you *were* a body, that this thing was ruling you, that the mind could kick the flesh and send it roaring off into panic! That was bad.

He tried to remember the days before he had gone into the Haberman Device, before he had been cut apart for the Up-and-Out. Had he always been subject to the rush of his emotions from his mind to his body, from his body back to his mind, confounding him so that he couldn't Scan? But he hadn't been a Scanner then.

He knew what had hit him. Amid the roar of his own pulse, he knew. In the nightmare of the Up-and-Out, that smell had forced its way through to him, while their ship burned off Venus and the habermans fought the collapsing metal with their bare hands. He had scanned then: all were in *Danger*. Chestboxes went up to *Overload* and dropped to *Dead* all around him as he had moved from man to man, shoving the drifting corpses out of his way as he fought to scan each man in turn, to

clamp vises on unnoticed broken legs, to snap the Sleeping Valve on men whose instruments showed they were hopelessly near overload. With men trying to work and cursing him for a Scanner while he, professional zeal aroused, fought to do his job and keep them alive in the Great Pain of Space, he had smelled that smell. It had fought its way along his rebuilt nerves, past the haberman cuts, past all the safeguards of physical and mental discipline. In the wildest hour of tragedy, he had smelled aloud. He remembered it was like a bad cranching, connected with the fury and nightmare all around him. He had even stopped his work to scan himself, fearful that the First Effect might come, breaking past all Haberman cuts and ruining him with the Pain of Space. But he had come through. His own instruments stayed and stayed at *Danger*, without nearing *Overload*. He had done his job, and won a commendation for it. He had even forgotten the burning ship.

All except the smell.

And here the smell was all over again—the smell of meat-with-fire. . . .

Luci looked at him with wifely concern. She obviously thought he had crunched too much, and was about to haberman back. She tried to be cheerful: "You'd better rest, honey."

He whispered to her: "Cut—off—that—smell."

She did not question his word. She cut the transmitter. She even crossed the room and stepped up the room controls until a small breeze flitted across the floor and drove the smells up to the ceiling.

He rose, tired and stiff. (His instruments were normal, except that Heart was fast and Nerves still hanging on the edge of *Danger*.) He spoke sadly:

"Forgive me, Luci. I suppose I shouldn't have crunched. Not so soon again. But darling, I have to get

out from being a haberman. How can I ever be near you? How can I be a man—not hearing my own voice, not even feeling my own life as it goes through my veins? I love you, darling. Can't I ever be near you?"

Her pride was disciplined and automatic: "But you're a Scanner!"

"I know I'm a Scanner. But so what?"

She went over the words, like a tale told a thousand times to reassure herself: "You are the bravest of the brave, the most skillful of the skilled. All Mankind owes most honor to the Scanner, who unites the Earths of Mankind. Scanners are the protectors of the habermans. They are the judges in the Up-and-Out. They make men live in the place where men need desperately to die. They are the most honored of Mankind, and even the Chiefs of the Instrumentality are delighted to pay them homage!"

With obstinate sorrow he demurred: "Luci, we've heard that all before. But does it pay us back—"

"Scanners work for more than pay. They are the strong guards of Mankind.' Don't you remember that?"

"But our lives, Luci. What can you get out of being the wife of a Scanner? Why did you marry me? I'm human only when I cranch. The rest of the time—you know what I am. A machine. A man turned into a machine. A man who has been killed and kept alive for duty. Don't you realize what I miss?"

"Of course, darling, of course—"

He went on: "Don't you think I remember my childhood? Don't you think I remember what it is to be a man and not a haberman? To walk and feel my feet on the ground? To feel a decent clean pain instead of watching my body every minute to see if I'm alive? How will I know if I'm dead? Did you ever think of that, Luci? How will I know if I'm dead?"

She ignored the unreasonableness of his outburst. Pacifyingly, she said: "Sit down, darling. Let me make you some kind of a drink. You're over-wrought."

Automatically, he scanned: "No I'm not! Listen to me. How do you think it feels to be in the Up-and-Out with the crew tied-for-space all around you? How do you think it feels to watch them sleep? How do you think I like scanning, scanning, scanning month after month, when I can feel the pain-of-Space beating against every part of my body, trying to get past my haberman blocks? How do you think I like to wake the men when I have to, and have them hate me for it? Have you ever seen habermans fight—strong men fighting, and neither knowing pain, fighting until one touches *Overload*? Do you think about that, Luci?" Triumphantly he added: "Can you blame me if I cranch, and come back to being a man, just two days a month?"

"I'm not blaming you, darling. Let's enjoy your cranch. Sit down now, and have a drink."

He was sitting down, resting his face in his hands, while she fixed the drink, using natural fruits out of bottles in addition to the secure alkaloids. He watched her restlessly and pitied her for marrying a Scanner; and then, though it was unjust, resented having to pity her.

Just as she turned to hand him the drink, they both jumped a little as the phone rang. It should not have rung. They had turned it off. It rang again, obviously on the emergency circuit. Stepping ahead of Luci, Martel strode over to the phone and looked into it. Vomact was looking at him.

The custom of Scanners entitled him to be brusque, even with a Senior Scanner, on certain given occasions. This was one.

Before Vomact could speak, Martel spoke two words

into the plate, not caring whether the old man could read lips or not:

"Cranching. Busy."

He cut the switch and went back to Luci.

The phone rang again.

Luci said, gently, "I can find out what it is, darling. Here, take your drink and sit down."

"Leave it alone," said her husband. "No one has a right to call when I'm cranching. He knows that. He ought to know that."

The phone rang again. In a fury, Martel rose and went to the plate. He cut it back on. Vomact was on the screen. Before Martel could speak, Vomact held up his Talking Nail in line with his Heartbox. Martel reverted to discipline:

"Scanner Martel present and waiting, sir."

The lips moved solemnly: "Top emergency."

"Sir, I am under the wire."

"Top emergency."

"Sir, don't you understand? Martel mouthed his words, so he could be sure that Vomact followed. "I . . . am . . . under . . . the . . . wire. Unfit . . . for . . . Space!"

Vomact repeated: "Top emergency. Report to your central tie-in."

"But, sir, no emergency like this—"

"Right, Martel. No emergency like this, ever before. Report to tie-in." With a faint glint of kindness, Vomact added: "No need to de-cranch. Report as you are."

This time it was Martel whose phone was cut out. The screen went gray.

He turned to Luci. The temper had gone out of his voice. She came to him. She kissed him, and rumped his hair. All she could say was,

"I'm sorry."

She kissed him again, knowing his disappointment. "Take good care of yourself, darling. I'll wait."

He scanned, and slipped into his transparent aircoat. At the window he paused, and waved. She called, "Good luck!" As the air flowed past him he said to himself,

"This is the first time I've felt flight in—eleven years. Lord, but it's easy to fly if you can feel yourself live!"

Central Tie-in glowed white and austere far ahead. Martel peered. He saw no glare of incoming ships from the Up-and-Out, no shuddering flare of Space-fire out of control. Everything was quiet, as it should be on an off-duty night.

And yet Vomact had called. He had called an emergency higher than Space. There was no such thing. But Vomact had called it.

When Martel got there, he found about half the Scanners present, two dozen or so of them. He lifted the Talking Finger. Most of the Scanners were standing face to face, talking in pairs as they read lips. A few of the old, impatient ones were scribbling on their Tablets and then thrusting the Tablets into other people's faces. All the faces wore the dull dead relaxed look of a haberman. When Martel entered the room, he knew that most of the others laughed in the deep isolated privacy of their own minds, each thinking things it would be useless to express in formal words. It had been a long time since a Scanner showed up at a meeting crunched.

Vomact was not there: probably, thought Martel, he was still on the phone calling others. The light of the phone flashed on and off; the bell rang. Martel felt odd when he realized that of all those present, he was the only one to hear that loud bell. It made him realize why ordinary people did not like to be around groups

of habermans or Scanners. Martel looked around for company.

His friend Chang was there, busy explaining to some old and testy Scanner that he did not know why Vomact had called. Martel looked further and saw Parizianski. He walked over, threading his way past the others with a dexterity that showed he could feel his feet from the inside, and did not have to watch them. Several of the others stared at him with their dead faces, and tried to smile. But they lacked full muscular control and their faces twisted into horrid masks. (Scanners knew better than to show expression on faces which they could no longer govern. Martel added to himself, I swear *I'll* never smile again unless I'm crunched.)

Parizianski gave him the sign of the Talking Finger. Looking face to face, he spoke:

"You come here crunched?"

Parizianski could not hear his own voice, so the words roared like the words on a broken and screeching phone; Martel was startled, but knew that the inquiry was well meant. No one could be better-natured than the burly Pole.

"Vomact called. Top emergency."

"You told him you were crunched?"

"Yes."

"He still made you come?"

"Yes."

"Then all this—it is not for Space? You could not go Up-and-Out? You are like ordinary men?"

"That's right."

"Then why did he call us?" Some pre-haberman habit made Parizianski wave his arms in inquiry. The hand struck the back of the old man behind them. The slap could be heard throughout the room, but only Martel heard it. Instinctively, he scanned Parizianski and the

old Scanner: they scanned him back, and then asked why. Only then did the old man ask why Martel had scanned him. When Martel explained that he was under-the-wire, the old man moved swiftly away to pass on the news that there was a crunched Scanner present at the Tie-in.

Even this minor sensation could not keep the attention of most of the Scanners from the worry about the Top Emergency. One young man, who had Scanned his first transit just the year before, dramatically interposed himself between Parizianski and Martel. He dramatically flashed his Tablet at them:

Is Vmct mad?

The older men shook their heads. Martel, remembering that it had not been too long that the young man had been haberman, mitigated the dead solemnity of the denial with a friendly smile. He spoke in a normal voice, saying:

"Vomact is the Senior of Scanners. I am sure that he could not go mad. Would he not see it on his boxes first?"

Martel had to repeat the question, speaking slowly and mouthing his words before the young Scanner could understand the comment. The young man tried to make his face smile, and twisted it into a comic mask. But he took up his tablet and scribbled:

Yr rght.

Chang broke away from his friend and came over, his half-Chinese face gleaming in the warm evening. (It's strange, thought Martel, that more Chinese don't become Scanners. Or not so strange perhaps, if you think that they never fill their quota of habermans. Chinese love good living too much. The ones who do scan are all good ones.) Chang saw that Martel was crunched, and spoke with voice:

"You break precedents. Luci must be angry to lose you?"

"She took it well. Chang, that's strange."

"What?"

"I'm crunched, and I can hear. Your voice sounds all right. How did you learn to talk like—like an ordinary person?"

"I practiced with sound tracks. Funny you noticed it. I think I am the only Scanner in or between the Earths who can pass for an Ordinary Man. Mirrors and sound-tracks. I found out how to act."

"But you don't . . . ?"

"No. I don't feel, or taste, or hear, or smell things, any more than you do. Talking doesn't do me much good. But I notice that it cheers up the people around me."

"It would make a difference in the life of Luci."

Chang nodded sagely. "My father insisted on it. He said, 'You may be proud of being a Scanner. I am sorry you are not a Man. Conceal your defects.' So I tried. I wanted to tell the old boy about the Up-and-Out, and what we did there, but it did not matter. He said, 'Air-planes were good enough for Confucius, and they are for me too.' The old humbug! He tries so hard to be a Chinese when he can't even read Old Chinese. But he's got wonderful good sense, and for somebody going on two hundred he certainly gets around."

Martel smiled at the thought: "In his airplane?"

Chang smiled back. This discipline of his facial muscles was amazing; a bystander would not think that Chang was a haberman, controlling his eyes, cheeks, and lips by cold intellectual control. The expression had the spontaneity of life. Martel felt a flash of envy for Chang when he looked at the dead cold faces of Parizianski and the others. He knew that he himself looked fine: but why shouldn't he? He was crunched. Turning to Parizianski he said,

"Did you see what Chang said about his father? The old boy uses an airplane."

Parizianski made motions with his mouth, but the sounds meant nothing. He took up his tablet and showed it to Martel and Chang.

Bzz bzz. Ha ha. Gd ol' boy.

At that moment, Martel heard steps out in the corridor. He could not help looking toward the door. Other eyes followed the direction of his glance.

Vomact came in.

The group shuffled to attention in four parallel lines. They scanned one another. Numerous hands reached across to adjust the electrochemical controls on Chest-boxes which had begun to load up. One Scanner held out a broken finger which his counter-Scanner had discovered, and submitted it for treatment and splinting.

Vomact had taken out his Staff of Office. The cube at the top flashed red light through the room, the lines reformed, and all Scanners gave the sign meaning

Present and ready!

Vomact countered with the stance signifying, *I am the Senior and take Command.*

Talking fingers rose in the counter-gesture, *We concur and commit ourselves.*

Vomact raised his right arm, dropped the wrist as though it were broken, in a queer searching gesture, meaning: *Any men around? Any habermans not tied? All clear for the Scanners?*

Alone of all those present, the crunched Martel heard the queer rustle of feet as they all turned completely around without leaving position, looking sharply at one another and flashing their beltlights into the dark corners of the great room. When again they faced Vomact, he made a further sign:

All clear. Follow my words.

Martel noticed that he alone relaxed. The others could not know the meaning of relaxation with the minds blocked off up there in their skulls, connected only with the eyes, and the rest of the body connected with the mind only by controlling non-sensory nerves and the instrument boxes on their chests. Martel realized that, crunched as he was, he expected to hear Vomact's voice: the Senior had been talking for some time. No sound escaped his lips. (Vomact never bothered with sound.)

". . . and when the first men to go Up-and-Out went to the Moon, what did they find?"

"Nothing," responded the silent chorus of lips.

"Therefore they went further, to Mars and to Venus. The ships went out year by year, but they did not come back until the Year One of Space. Then did a ship come back with the First Effect. Scanners, I ask you, what is the First Effect?"

"No one knows. No one knows."

"No one will ever know. Too many are the variables. By what do we know the First Effect?"

"By the Great Pain of Space," came the chorus.

"And by what further sign?"

"By the need, oh the need for death."

Vomact again: "And who stopped the need for death?"

"Henry Haberman conquered the first effect, in the Year 3 of Space."

"And, Scanners, I ask you, what did he do?"

"He made the habermans."

"How, O Scanners, are habermans made?"

"They are made with the cuts. The brain is cut from the heart, the lungs. The brain is cut from the ears, the nose. The brain is cut from the mouth, the belly. The brain is cut from desire, and pain. The brain is cut from the world. Save for the eyes. Save for the control of the living flesh."

"And how, O Scanners is flesh controlled?"

"By the boxes set in the flesh, the controls set in the chest, the signs made to rule the living body, the signs by which the body lives."

"How does a haberman live and live?"

"The haberman lives by control of the boxes."

"Whence come the habermans?"

Martel felt in the coming response a great roar of broken voices echoing through the room as the Scanners, habermans themselves, put sound behind their mouthings:

"Habermans are the scum of Mankind. Habermans are the weak, the cruel, the credulous, and the unfit. Habermans are the sentenced-to-more-than-death. Habermans live in the mind alone. They are killed for Space but they live for Space. They master the ships that connect the earths. They live in the Great Pain while ordinary men sleep in the cold, cold sleep of the transit."

"Brothers and Scanners, I ask you now: are we habermans or are we not?"

"We are habermans in the flesh. We are cut apart, brain and flesh. We are ready to go to the Up-and-Out. All of us have gone through the Haberman Device."

"We are habermans then?" Vomact's eyes flashed and glittered as he asked the ritual question.

Again the chorused answer was accompanied by a roar of voices heard only by Martel: "Habermans we are, and more, and more. We are the Chosen who are habermans by our own free will. We are the Agents of the Instrumentality of Mankind."

"What must the others say to us?"

"They must say to us, 'You are the bravest of the brave, the most skillful of the skilled. All mankind owes most honor to the Scanner, who unites the Earths of Mankind. Scanners are the protectors of the habermans.

They are the judges in the Up-and-Out. They make men live in the place where men need desperately to die. They are the most honored of Mankind, and even the Chiefs of the Instrumentality are delighted to pay them homage!"

Vomact stood more erect: "What is the secret duty of the Scanner?"

"To keep secret our law, and to destroy the acquirers thereof."

"How to destroy?"

"Twice to the *Overload*, back and *Dead*."

"If habermans die, what the duty then?"

The Scanners all compressed their lips for answer. (Silence was the code.) Martel, who—long familiar with the code—was a little bored with the proceedings, noticed that Chang was breathing too heavily; he reached over and adjusted Chang's Lung-control and received the thanks of Chang's eyes. Vomact observed the interruption and glared at them both. Martel relaxed, trying to imitate the dead cold stillness of the others. It was so hard to do, when you were crunched.

"If others die, what the duty then?" asked Vomact.

"Scanners together inform the Instrumentality. Scanners together accept the punishment. Scanners together settle the case."

"And if the punishment be severe?"

"Then no ships go."

"And if Scanners not be honored?"

"Then no ships go."

"And if a Scanner goes unpaid?"

"Then no ships go."

"And if the Others and the Instrumentality are not in all ways at all times mindful of their proper obligation to the Scanners?"

"Then no ships go."

"And what, O Scanners, if no ships go?"

"The Earths fall apart. The Wild comes back in. The Old Machines and the Beasts return."

"What is the known duty of a Scanner?"

"Not to sleep in the Up-and-Out."

"What is the second duty of a Scanner?"

"To keep forgotten the name of fear."

"What is the third duty of a Scanner?"

"To use the wire of Eustace Cranch only with care, only with moderation." Several pair of eyes looked quickly at Martel before the mouthed chorus went on. "To cranch only at home, only among friends, only for the purpose of remembering, of relaxing, or of begetting."

"What is the word of the Scanner?"

"Faithful though surrounded by death."

"What is the motto of the Scanner?"

"Awake though surrounded by silence."

"What is the work of the Scanner?"

"Labor even in the heights of the Up-and-Out, loyalty even in the depths of the Earths."

"How do you know a Scanner?"

"We know ourselves. We are dead though we live. And we Talk with the Tablet and the Nail."

"What is this Code?"

"This Code is the friendly ancient wisdom of Scanners, briefly put that we may be mindful and be cheered by our loyalty to one another."

At this point the formula should have run: "We complete the Code. Is there work or word for the Scanners?" But Vomact said, and he repeated:

"Top emergency. Top emergency."

They gave him the sign, *Present and ready!*

He said, with every eye straining to follow his lips:

"Some of you know the work of Adam Stone?"

Martel saw lips move, saying: "The Red Asteroid. The Other who lives at the edge of Space."

"Adam Stone has gone to the Instrumentality, claiming success for his work. He says that he has found how to Screen Out the Pain of Space. He says that the Up-and-Out can be made safe for ordinary men to work in, to stay awake in. He says that there need be no more Scanners."

Beltlights flashed on all over the room as Scanners sought the right to speak. Vomact nodded to one of the older men. "Scanner Smith will speak."

Smith stepped slowly up into the light, watching his own feet. He turned so that they could see his face. He spoke: "I say that this is a lie. I say that Stone is a liar. I say that the Instrumentality must not be deceived."

He paused. Then, in answer to some question from the audience which most of the others did not see, he said:

"I invoke the secret duty of the Scanners."

Smith raised his right hand for Emergency Attention:

"I say that Stone must die."

Martel, still crunched, shuddered as he heard the boos, groans, shouts, squeaks, grunts and moans which came from the Scanners who forgot noise in their excitement and strove to make their dead bodies talk to one another's deaf ears. Beltlights flashed wildly all over the room. There was a rush for the rostrum and Scanners milled around at the top, vying for attention until Parizianski—by sheer bulk—shoved the others aside and down, and turned to mouth at the group.

"Brother Scanners, I want your eyes."

The people on the floor kept moving, with their numb bodies jostling one another. Finally Vomact stepped up in front of Parizianski, faced the others, and said:

"Scanners, be Scanners! Give him your eyes."

Parizianski was not good at public speaking. His lips moved too fast. He waved his hands, which took the eyes of the others away from his lips. Nevertheless, Martel was able to follow most of the message:

"... can't do this. Stone may have succeeded. If he has succeeded, it means the end of the Scanners. It means the end of the habermans, too. None of us will have to fight in the Up-and-Out. We won't have anybody else going Under-the-Wire for a few hours or days of being human. Everybody will be Other. Nobody will have to cranch, never again. Men can be men. The habermans can be killed decently and properly, the way men were killed in the Old Days, without anybody keeping them alive. They won't have to work in the Up-and-Out! There will be no more Great Pain—think of it! No . . . more . . . Great . . . Pain! How do we know that Stone is a liar—" Lights began flashing directly into his eyes. (The rudest insult of Scanner to Scanner was this.)

Vomact again exercised authority. He stepped in front of Parizianski and said something which the others could not see. Parizianski stepped down from the rostrum. Vomact again spoke:

"I think that some of the Scanners disagree with our Brother Parizianski. I say that the use of the rostrum be suspended till we have had a chance for private discussion. In fifteen minutes I will call the meeting back to order."

Martel looked around for Vomact when the Senior had rejoined the group on the floor. Finding the Senior, Martel wrote swift script on his Tablet, waiting for a chance to thrust the Tablet before the Senior's eyes. He had written.

Am crcnhd. Rspctfly request prmissn lv now, stnd by fr orders.

Being crunched did strange things to Martel. Most meetings that he attended seemed formal, heartening ceremonial, lighting up the dark inward eternities of habermanhood. When he was not crunched, he noticed his body no more than a marble bust notices its marble pedestal. He had stood with them before. He had stood with them effortless hours, while the long-winded ritual broke through the terrible loneliness behind his eyes, and made him feel that the Scanners, though a confraternity of the damned, were none the less forever honored by the professional requirements of their mutilation.

This time, it was different. Coming crunched, and in full possession of smell-sound-taste-feeling, he reacted more or less as a normal man would. He saw his friends and colleagues as a lot of cruelly driven ghosts, posturing out the meaningless ritual of their indefeasible damnation. What difference did anything make, once you were a haberman? Why all this talk about habermans and Scanners? Habermans were criminals or heretics, and Scanners were gentlemen-volunteers, but they were all in the same fix—except that Scanners were deemed worthy of the short-time return of the Cranching Wire, while habermans were simply disconnected while the ships lay in port and were left suspended until they should be awakened, in some hour of emergency or trouble, to work out another spell of their damnation. It was a rare haberman that you saw on the street—someone of special merit or bravery, allowed to look at mankind from the terrible prison of his own mechanified body. And yet, what Scanner ever pitied a haberman? What Scanner ever honored a haberman except perfunctorily in the line of duty? What had the Scanners as a guild and a class, ever done for the habermans, except to murder them with a twist of the wrist whenever a haberman,

too long beside a Scanner, picked up the tricks of the Scanning trade and learned how to live at his own will, not the will the Scanners imposed? What could the Others, the ordinary men, know of what went on inside the ships? The Others slept in their cylinders, mercifully unconscious until they woke up on whatever other Earth they had consigned themselves to. What could the Others know of the men who had to stay alive within the ship?

What could any Other know of the Up-and-Out? What Other could look at the biting acid beauty of the stars in open space? What could they tell of the Great Pain, which started quietly in the marrow, like an ache, and proceeded by the fatigue and nausea of each separate nerve cell, brain cell, touchpoint in the body, until life itself became a terrible aching hunger for silence and for death?

He was a Scanner. All right, he *was* a Scanner. He had been a Scanner from the moment when, wholly normal, he had stood in the sunlight before a Subchief of Instrumentality, and had sworn:

"I pledge my honor and my life to Mankind. I sacrifice myself willingly for the welfare of Mankind. In accepting the perilous austere Honor, I yield all my rights without exception to the Honorable Chiefs of the Instrumentality and to the Honored Confraternity of Scanners."

He had pledged.

He had gone into the Haberman Device.

He remembered his Hell. He had not had such a bad one, even though it had seemed to last a hundred million years, all of them without sleep. He had learned to feel with his eyes. He had learned to see despite the heavy eyeplates set back of his eyeballs, to insulate his eyes from the rest of him. He had learned to watch his skin. He still remembered the time he had noticed damp-

ness on his shirt, and had pulled out his Scanning Mirror only to discover that he had worn a hole in his side by leaning against a vibrating machine. (A thing like that could not happen to him now; he was too adept at reading his own instruments.) He remembered the way that he had gone Up-and-Out, and the way that the Great Pain beat into him, despite the fact that his touch, smell, feeling, and hearing were gone for all ordinary purposes. He remembered killing habermans, and keeping others alive, and standing for months beside the Honorable Scanner-Pilot while neither of them slept. He remembered going ashore on Earth Four, and remembered that he had not enjoyed it, and had realized on that day that there was no reward.

Martel stood among the other Scanners. He hated their awkwardness when they moved, their immobility when they stood still. He hated the queer assortment of smells which their bodies yielded unnoticed. He hated the grunts and groans and squawks which they emitted from their deafness. He hated them, and himself.

How could Luci stand him? He had kept his chestbox reading *Danger* for weeks while he courted her, carrying the Cranch Wire about with him most illegally, and going direct from one cranch to the other without worrying about the fact his indicators all crept up to the edge of *Overload*. He had wooed her without thinking of what would happen if she did say, "Yes." She had.

"And they lived happily ever after." In Old Books they did, but how could they, in life? He had had eighteen days Under-the-Wire in the whole of the past year! Yet she had loved him. She still loved him. He knew it. She fretted about him through the long months that he was in the Up-and-Out. She tried to make home mean something to him even when he was haberman, make food pretty when it could not be tasted, make herself

lovable when she could not be kissed—or might as well not, since a haberman body meant no more than furniture. Luci was patient.

And now, Adam Stone! (He let his Tablet fade: how could he leave, now?)

God bless Adam Stone?

Martel could not help feeling a little sorry for himself. No longer would the high keen call of duty carry him through two hundred or so years of the Other's time, two million private eternities of his own. He could slouch and relax. He could forget High Space, and let the Up-and-Out be tended by Others. He could cranch as much as he dared. He could be almost normal—almost—for one year or five years or no years. But at least he could stay with Luci. He could go with her into the Wild, where there were Beasts and Old Machines still roving the dark places. Perhaps he would die in the excitement of the hunt, throwing spears at an ancient Manshonjager as it leapt from its lair, or tossing hot spheres at the tribesmen of the Unforgiven who still roamed the Wild. There was still life to live, still a good normal death to die, not the moving of a needle out in the silence and pain of Space!

He had been walking about restlessly. His ears were attuned to the sounds of normal speech, so that he did not feel like watching the mouthings of his brethren. Now they seemed to have come to a decision. Vomact was moving to the rostrum. Martel looked about for Chang, and went to stand beside him. Chang whispered.

"You're as restless as water in mid-air! What's the matter? De-cranching?"

They both scanned Martel, but the instruments held steady and showed no sign of the cranch giving out.

The great light flared in its call to attention. Again

they formed ranks. Vomact thrust his lean old face into the glare, and spoke:

"Scanners and Brothers, I call for a vote." He held himself in the stance which meant: "*I am the Senior and take Command.*"

A beltlight flashed in protest.

It was old Henderson. He moved to the rostrum, spoke to Vomact, and—with Vomact's nod of approval—turned full-face to repeat his question:

"Who speaks for the Scanners Out in Space?"

No beltlight or hand answered.

Henderson and Vomact, face to face, conferred for a few moments. Then Henderson faced them again:

"I yield to the Senior in Command. But I do not yield to a Meeting of the Confraternity. There are sixty-eight Scanners, and only forty-seven present, of whom one is crunched and U. D. I have therefore proposed that the Senior in Command assume authority only over an Emergency Committee of the Confraternity, not over a Meeting. Is that agreed and understood by the Honorable Scanners?"

Hands rose in assent.

Chang murmured in Martel's ear, "Lot of difference that makes! Who can tell the difference between a meeting and a committee?" Martel agreed with the words, but was even more impressed with the way that Chang, while haberman, could control his own voice.

Vomact resumed chairmanship: "We now vote on the question of Adam Stone.

"First, we can assume that he has not succeeded, and that his claims are lies. We know that from our practical experience as Scanners. The Pain of Space is only part of Scanning" (*But the essential part, the basis of it all,* thought Martel.) "and we can rest assured that Stone cannot solve the problem of Space Discipline."

"That tripe again," whispered Chang, unheard save by Martel.

"The Space Discipline of our Confraternity has kept High Space clean of war and dispute. Sixty-eight disciplined men control all High Space. We are removed by our oath and our haberman status from all Earthly passions.

"Therefore, if Adam Stone has conquered the Pain of Space, so that Others can wreck our Confraternity and bring to Space the trouble and ruin which afflicts Earths, I say that Adam Stone is wrong. If Adam Stone succeeds, Scanners live in Vain!

"Secondly, if Adam Stone has not conquered the Pain of Space, he will cause great trouble in all the Earths. The Instrumentality and the Subchiefs may not give us as many habermans as we need to operate the ships of Mankind. There will be wild stories, and fewer recruits and, worst of all, the Discipline of the Confraternity may relax if this kind of nonsensical heresy is spread around.

"Therefore, if Adam Stone has succeeded, he threatens the ruin of the Confraternity and should die.

"I move the death of Adam Stone."

And Vomact made the sign, *The Honorable Scanners are pleased to vote.*

Martel grabbed wildly for his beltlight. Chang, guessing ahead, had his light out and ready; its bright beam, voting *No*, shone straight up at the ceiling. Martel got his light out and threw its beam upward in dissent. Then he looked around. Out of the forty-seven present, he could see only five or six glittering.

Two more lights went on. Vomact stood as erect as a frozen corpse. Vomact's eyes flashed as he stared back and forth over the group, looking for lights. Several more went on. Finally Vomact took the closing stance:

May it please the Scanners to count the vote.

Three of the older men went up on the rostrum with Vomact. They looked over the room. (Martel thought: *These damned ghosts are voting on the life of a real man, a live man! They have no right to do it. I'll tell the Instrumentality!* But he knew that he would not. He thought of Luci and what she might gain by the triumph of Adam Stone: the heartbreaking folly of the vote was then almost too much for Martel to bear.)

All three of the tellers held up their hands in unanimous agreement on the sign of the number: *Fifteen against.*

Vomact dismissed them with a bow of courtesy. He turned and again took the stance, *I am the Senior and take Command.*

Marveling at his own daring, Martel flashed his belt-light on. He knew that any one of the bystanders might reach over and twist his Heartbox to *Overload* for such an act. He felt Chang's hand reaching to catch him by the aircoat. But he eluded Chang's grasp and ran, faster than a Scanner should, to the platform. As he ran, he wondered what appeal to make. It was no use talking common sense. Not now. It had to be law.

He jumped up on the rostrum beside Vomact, and took the stance: *Scanners, an Illegality!*

He violated good custom while speaking, still in the stance: "A Comittee has no right to vote death by a majority vote. It takes two-thirds of a full Meeting."

He felt Vomact's body lunge behind him, felt himself falling from the rostrum, hitting the floor, hurting his knees and his touch-aware hands. He was helped to his feet. He was scanned. Some Scanner he scarcely knew took his instruments and toned him down.

Immediately Martel felt more calm, more detached, and hated himself for feeling so.

He looked up at the rostrum. Vomact maintained the stance signifying: *Order!*

The Scanners adjusted their ranks. The two Scanners next to Martel took his arms. He shouted at them, but they looked away, and cut themselves off from communication altogether.

Vomact spoke again when he saw the room was quiet: "A Scanner came here crunched. Honorable Scanners, I apologize for this. It is not the fault of our great and worthy Scanner and friend, Martel. He came here under orders. I told him not to de-crunch. I hoped to spare him an unnecessary haberman. We all know how happily Martel is married, and we wish his brave experiment well. I like Martel. I respect his judgment. I wanted him here. I knew you wanted him here. But he is crunched. He is in no mood to share in the lofty business of the Scanners. I therefore propose a solution which will meet all the requirements of fairness. I propose that we rule Scanner Martel out of order for his violation of rules. This violation would be inexcusable if Martel were not crunched.

"But at the same time, in all fairness to Martel, I further propose that we deal with the points raised so improperly by our worthy but disqualified brother."

Vomact gave the sign, *The Honorable Scanners are pleased to vote*. Martel tried to reach his own beltlight; the dead strong hands held him tightly and he struggled in vain. One lone light shone high: Chang's, no doubt.

Vomact thrust his face into the light again: "Having the approval of our worthy Scanners and present company for the general proposal, I now move that this Committee declare itself to have the full authority of a Meeting, and that this Committee further make me responsible for all misdeeds which this Committee may enact, to be held answerable before the next full Meet-

ing, but not before any other authority beyond the closed and secret ranks of Scanners."

Flamboyantly this time, his triumph evident, Vomact assumed the *vote* stance.

Only a few lights shone: far less, patently, than a minority of one-fourth.

Vomact spoke again. The light shone on his high calm forehead, on his dead relaxed cheekbones. His lean cheeks and chin were half-shadowed, save where the lower light picked up and spotlighted his mouth, cruel even in repose. (Vomact was said to be a descendant of some Ancient Lady who had traversed, in an illegitimate and inexplicable fashion, some hundreds of years of time in a single night. Her name, the Lady Vomact, had passed into legend; but her blood and her archaic lust for mastery lived on in the mute masterful body of her descendant. Martel could believe the old tales as he stared at the rostrum, wondering what untraceable mutation had left the Vomact kith as predators among mankind.) Calling loudly with the movement of his lips, but still without sound, Vomact appealed:

"The Honorable Committee is now pleased to reaffirm the sentence of death issued against the heretic and enemy, Adam Stone." Again the *vote* stance.

Again Chang's light shone lonely in its isolated protest.

Vomact then made his final move:

"I call for the designation of the Senior Scanner present as the manager of the sentence. I call for authorization to him to appoint executioners, one or many, who shall make evident the will and majesty of Scanners. I ask that I be accountable for the deed, and not for the means. The deed is a noble deed, for the protection of Mankind and for the honor of the Scanners; but of the means it must be said that they are to be the best at

hand, and no more. Who knows the true way to kill an Other, here on a crowded and watchful earth? This is no mere matter of discharging a cylindered sleeper, no mere question of upgrading the needle of a haberman. When people die down here, it is not like the Up-and-Out. They die reluctantly. Killing within the Earth is not our usual business, O brothers and Scanners, as you know well. You must choose me to choose my agent as I see fit. Otherwise the common knowledge will become the common betrayal whereas if I alone know the responsibility, I alone could betray us, and you will not have far to look in case the Instrumentality comes searching." (*What about the killer you choose?* thought Martel. *He too will know unless—unless you silence him forever.*)

Vomact went into the stance, *The Honorable Scanners are pleased to vote.*

One light of protest shone; Chang's, again.

Martel imagined that he could see a cruel joyful smile on Vomact's dead face—the smile of a man who knew himself righteous and who found his righteousness upheld and affirmed by militant authority.

Martel tried one last time to come free.

The dead hands held. They were locked like vises until their owners' eyes unlocked them: how else could they hold the piloting month by month?

Martel then shouted: "Honorable Scanners, this is judicial murder."

No ear heard him. He was crunched, and alone.

None the less, he shouted again: "You endanger the confraternity."

Nothing happened.

The echo of his voice sounded from one end of the room to the other. No head turned. No eyes met his.

Martel realized that as they paired for talk, the eyes of the Scanners averted him. He saw that no one desired

to watch his speech. He knew that behind the cold faces of his friends there lay compassion or amusement. He knew that they knew him to be crunched—absurd, normal, man-like, temporarily no Scanner. But he knew that in this matter the wisdom of Scanners was nothing. He knew that only a crunched Scanner could feel with his very blood the outrage and anger which deliberate murder would provoke among the Others. He knew that the Confraternity endangered itself, and knew that the most ancient prerogative of law was the monopoly of death. Even the Ancient Nations, in the times of the Wars, before the Beasts, before men went into the Up-and-Out—even the Ancients had known this. How did they say it? *Only the State shall kill.* The States were gone but the Instrumentality remained, and the Instrumentality could not pardon things which occurred within the Earths but beyond its authority. Death in Space was the business, the right of the Scanners: how could the Instrumentality enforce its laws in a place where all men who wakened, wakened only to die in the Great Pain? Wisely did the Instrumentality leave Space to the Scanners, wisely had the Confraternity not meddled inside the Earths. And now the Confraternity itself was going to step forth as an outlaw band, as a gang of rogues as stupid and reckless as the tribes of the unforgiven!

Martel knew this because he was crunched. Had he been haberman, he would have thought only with his mind, not with his heart and guts and blood. How could the other Scanners know?

Vomact returned for the last time to the Rostrum: *The Committee has met and its will shall be done.* Verbally he added: "Senior among you, I ask your loyalty and your silence."

At that point, the two Scanners let his arms go. Martel rubbed his numb hands, shaking his fingers to get the

circulation back into the cold fingertips. With real freedom, he began to think of what he might still do. He scanned himself: the cranching held. He might have a day. Well, he could go on even if haberman, but it would be inconvenient, having to talk with Finger and Tablet. He looked about for Chang. He saw his friend standing patient and immobile in a quiet corner. Martel moved slowly, so as not to attract any more attention to himself than could be helped. He faced Chang, moved until his face was in the light, and then articulated:

"What are we going to do? You're not going to let them kill Adam Stone, are you? Don't you realize what Stone's work will mean to us, if it succeeds? No more Scanners. No more habermans. No more Pain in the Up-and-Out. I tell you, if the others were all crunched, as I am, they would see it in a human way, not with the narrow crazy logic which they used in the meeting. We've got to stop them. How can we do it? What are we going to do? What does Parizianski think? Who has been chosen?"

"Which question do you want me to answer?"

Martel laughed. (It felt good to laugh, even then; it felt like being a man.) "Will you help me?"

Chang's eyes flashed across Martel's face as Chang answered: "No. No. No."

"You won't help?"

"No."

"Why not, Chang? Why not?"

"I am a Scanner. The vote has been taken. You would do the same if you were not in this unusual condition."

"I'm not in an unusual condition. I'm crunched. That merely means that I see things the way that the Others would. I see the stupidity. The recklessness. The selfishness. It is murder."

"What is murder? Have you not killed? You are not

one of the Others. You are a Scanner. You will be sorry for what you are about to do, if you do not watch out."

"But why did you vote against Vomact then? Didn't you too see what Adam Stone means to all of us? Scanners will live in vain. Thank God for that! Can't you see it?"

"No."

"But you talk to me, Chang. You are my friend?"

"I talk to you. I am your friend. Why not?"

"But what are you going to do?"

"Nothing, Martel. Nothing."

"Will you help me?"

"No."

"Not even to save Stone?"

"No."

"Then I will go to Parizianski for help."

"It will do you no good."

"Why not? He's more human than you, right now."

"He will not help you, because he has the job. Vomact designated him to kill Adam Stone."

Martel stopped speaking in mid-movement. He suddenly took the stance, *I thank you, brother, and I depart*.

At the window he turned and faced the room. He saw that Vomact's eyes were upon him. He gave the stance, *I thank you, brother, and I depart*, and added the flourish of respect which is shown when Seniors are present. Vomact caught the sign, and Martel could see the cruel lips move. He thought he saw the words ". . . take good care of yourself. . . ." but did not wait to inquire. He stepped backward and dropped out the window.

Once below the window and out of sight, he adjusted his aircoat to maximum speed. He swam lazily in the air, scanning himself thoroughly, and adjusting his adrenal intake down. He then made the movement of release,

and felt the cold air rush past his face like running water.

Adam Stone had to be at Chief Downport.

Adam Stone had to be there.

Wouldn't Adam Stone be surprised in the night? Surprised to meet the strangest of beings, the first renegade among Scanners. (Martel suddenly appreciated that it was of himself he was thinking. Martel the Traitor to Scanners! That sounded strange and bad. But what of Martel, the Loyal to Mankind? Was that not compensation? And if he won, he won Luci. If he lost, he lost nothing—an unconsidered and expendable haberman. It happened to be himself. But in contrast to the immense reward, to Mankind, to the Confraternity, to Luci, what did that matter?)

Martel thought to himself: "Adam Stone will have two visitors tonight. Two Scanners, who are the friends of one another." He hoped that Parizianski was still his friend.

"And the world," he added, "depends on which of us gets there first."

Multifaceted in their brightness, the lights of Chief Downport began to shine through the mist ahead. Martel could see the outer towers of the city and glimpsed the phosphorescent Periphery which kept back the wild, whether Beasts, Machines, or the Unforgiven.

Once more Martel invoked the lords of his chance: "Help me to pass for an Other!"

Within the Downport, Martel had less trouble than he thought. He draped his aircoat over his shoulder so that it concealed the instruments. He took up his scanning mirror, and made up his face from the inside, by adding tone and animation to his blood and nerves until the muscles of his face glowed and the skin gave out

a healthy sweat. That way he looked like an ordinary man who had just completed a long night flight.

After straightening out his clothing, and hiding his tablet within his jacket, he faced the problem of what to do about the Talking Finger. If he kept the nail, it would show him to be a Scanner. He would be respected, but he would be identified. He might be stopped by the guards whom the Instrumentality had undoubtedly set around the person of Adam Stone. If he broke the Nail — But he couldn't! No Scanner in the history of the Confraternity had ever willingly broken his nail. That would be Resignation, and there was no such thing. The only way *out*, was in the Up-and-Out! Martel put his finger to his mouth and bit off the nail. He looked at the now-queer finger, and sighed to himself.

He stepped toward the city gate, slipping his hand into his jacket and running up his muscular strength to four times normal. He started to scan, and then realized that his instruments were masked. *Might as well take all the chances at once*, he thought.

The watcher stopped him with a searching Wire. The sphere thumped suddenly against Martel's chest.

"Are you a Man?" said the unseen voice. (Martel would have known that as a Scanner in haberman condition, his own field-charge would have illuminated the sphere.)

"I am a Man." Martel knew that the timber of his voice had been good; he hoped that it would not be taken for that of a Manshonjagger or a Beast or an Unforgiven one, who with mimicry sought to enter the cities and ports of Mankind.

"Name, number, rank, purpose, function, time departed."

"Martel." He had to remember his old number, not Scanner 34. "Sunward 4234, 182nd Year of Space. Rank,

rising Subchief." That was no lie, but his substantive rank. "Purpose, personal and lawful within the limits of this city. No function of the Instrumentality. Departed Chief Outport 2019 hours." Everything now depended on whether he was believed, or would be checked against Chief Outport.

The voice was flat and routine: "Time desired within the city."

Martel used the standard phrase: "Your Honorable sufferance is requested."

He stood in the cool night air, waiting. Far above him, through a gap in the mist, he could see the poisonous glittering in the sky of Scanners. *The stars are my enemies*, he thought: *I have mastered the stars but they hate me. Ho, that sounds Ancient! Like a Book. Too much crānching.*

The voice returned: "Sunward 4234 dash 182 rising Subchief Martel, enter the lawful gates of the city. Welcome. Do you desire food, raiment, money, or companionship?" The voice had no hospitality in it, just business. This was certainly different from entering a city in a Scanner's role! Then the petty officers came out, and threw their beltlights in their fretful faces, and mouthed their words with preposterous deference, shouting against the stone deafness of a Scanner's ears. So that was the way that a Subchief was treated: matter of fact, but not bad. Not bad.

Martel replied: "I have that which I need, but beg of the city a favor. My friend Adam Stone is here. I desired to see him, on urgent and personal lawful affairs."

The voice replied: "Did you have an appointment with Adam Stone?"

"No."

"The city will find him. What is his number?"

"I have forgotten it."

"You have forgotten it? Is not Adam Stone a Magnate of the Instrumentality? Are you truly his friend?"

"Truly." Martel let a little annoyance creep into his voice. "Watcher, doubt me and call your Subchief."

"No doubt implied. Why do you not know the number? This must go into the record," added the voice.

"We were friends in childhood. He has crossed the—" Martel started to say "the Up-and-Out" and remembered that the phrase was current only among Scanners. "He has leapt from Earth to Earth, and has just now returned. I knew him well and I seek him out. I have word of his kith. May the Instrumentality protect us!"

"Heard and believed. Adam Stone will be searched."

At a risk, though a slight one, of having the sphere sound an alarm for *non-human*, Martel cut in on his Scanner speaker within his jacket. He saw the trembling needle of light await his words and he started to write on it with his blunt finger. *That won't work*, he thought, and had a moment's panic until he found his comb, which had a sharp enough tooth to write. He wrote: "Emergency none. Martel Scanner calling Parizianski Scanner."

The needle quivered and the reply glowed and faded out: "Parizianski Scanner on duty and D. C. Calls taken by Scanner Relay."

Martel cut off his speaker.

Parizianski was somewhere around. Could he have crossed the direct way, right over the city wall, setting off the alert, and invoking official business when the petty officers overtook him in mid-air? Scarcely. That meant that a number of other Scanners must have come in with Parizianski, all of them pretending to be in search of a few of the tenuous pleasures which could be enjoyed by a haberman, such as the sight of the news-pictures or the viewing of beautiful women in the Pleas-

ure Gallery. Parizianski was around, but he could not have moved privately, because Scanner Central registered him on duty and recorded his movements city by city.

The voice returned. Puzzlement was expressed in it. "Adam Stone is found and awakened. He has asked pardon of the Honorable, and says he knows no Martel. Will you see Adam Stone in the morning? The city will bid you welcome."

Martel ran out of resources. It was hard enough mimicking a man without having to tell lies in the guise of one. Martel could only repeat: "Tell him I am Martel. The husband of Luci."

"It will be done."

Again the silence, and the hostile stars, and the sense that Parizianski was somewhere near and getting nearer; Martel felt his heart beating faster. He stole a glimpse at his Chestbox and set his heart down a point. He felt calmer, even though he had not been able to scan with care.

The voice this time was cheerful, as though an annoyance had been settled: "Adam Stone consents to see you. Enter Chief Downport, and welcome."

The little sphere dropped noiselessly to the ground and the wire whispered away into the darkness. A bright arc of narrow light rose from the ground in front of Martel and swept through the city to one of the higher towers—apparently a hostel, which Martel had never entered. Martel plucked his aircoat to his chest for ballast, stepped heel-and-toe on the beam, and felt himself whistle through the air to an entrance window which sprang up before him as suddenly as a devouring mouth.

A tower guard stood in the doorway. "You are awaited, sir. Do you bear weapons, sir?"

"None," said Martel, grateful that he was relying on his own strength.

The guard let him past the check-screen. Martel noticed the quick flight of a warning across the screen as his instruments registered and identified him as a Scanner. But the guard had not noticed it.

The guard stopped at a door. "Adam Stone is armed. He is lawfully armed by authority of the Instrumentality and by the liberty of this city. All those who enter are given warning."

Martel nodded in understanding at the man and went in.

Adam Stone was a short man, stout and benign. His grey hair rose stiffly from a low forehead. His whole face was red and merry looking. He looked like a jolly guide from the Pleasure Gallery, not like a man who had been at the edge of the Up-and-Out, fighting the Great Pain without haberman protection.

He stared at Martel. His look was puzzled, perhaps a little annoyed, but not hostile.

Martel came to the point. "You do not know me. I lied. My name is Martel, and I mean you no harm. But I lied. I beg the Honorable gift of your hospitality. Remain armed. Direct your weapon against me—"

Stone smiled: "I am doing so," and Martel noticed the small Wirepoint in Stone's capable plump hand.

"Good. Keep on guard against me. It will give you confidence in what I shall say. But do, I beg you, give us a screen of privacy. I want no casual lookers. This is a matter of life and death."

"First: whose life and death?" Stone's face remained calm, his voice even.

"Yours, and mine, and the worlds'."

"You are cryptic but I agree." Stone called through the doorway: "Privacy please." There was a sudden hum, and all the little noises of the night quickly vanished from the air of the room.

Said Adam Stone: "Sir, who are you? What brings you here?"

"I am Scanner Thirty-four."

"You a Scanner? I don't believe it."

For answer, Martel pulled his jacket open, showing his chestbox. Stone looked up at him, amazed. Martel explained:

"I am crunched. Have you never seen it before?"

"*Not with men.* On animals. Amazing! But—what do you want?"

"The truth. Do you fear me?"

"Not with this," said Stone, grasping the Wirepoint.

"But I shall tell you the truth."

"Is it true that you have conquered the Great Pain?"

Stone hesitated, seeking words for an answer.

"Quick, can you tell me how you have done it, so that I may believe you?"

"I have loaded the ships with life."

"Life?"

"Life. I don't know what the Great Pain is, but I did find that in the experiments, when I sent out masses of animals or plants, the life in the center of the mass lived longest. I built ships—small ones, of course—and sent them out with rabbits, with monkeys—"

"Those are Beasts?"

"Yes. With small Beasts. And the Beasts came back unhurt. They came back because the walls of the ships were filled with life. I tried many kinds, and finally found a sort of life which lives in the waters. Oysters. Oyster-beds. The outermost oyster died in the Great Pain. The inner ones lived. The passengers were unhurt."

"But they were Beasts?"

"Not only Beasts. Myself."

"You!"

"I came through Space alone. Through what you call the Up-and-Out, alone. Awake and sleeping. I am unhurt. If you do not believe me, ask your brother Scanners. Come and see my ship in the morning. I will be glad to see you then, along with your brother Scanners. I am going to demonstrate before the Chiefs of the Instrumentality."

Martel repeated his question: "You came here alone?"

Adam Stone grew testy: "Yes, alone. Go back and check your Scanner's register if you do not believe me. You never put me in a bottle to cross space."

Martel's face was radiant. "I believe you now. It is true. No more Scanners. No more habermans. No more cranching."

Stone looked significantly toward the door.

Martel did not take the hint. "I must tell you that—"

"Sir, tell me in the morning. Go enjoy your cranch. Isn't it supposed to be pleasure? Medically I know it well. But not in practice."

"It is pleasure. It's normality—for a while. But listen. The Scanners have sworn to destroy you, and your work."

"What!"

"They have met and have voted and sworn. You will make Scanners unnecessary, they say. You will bring the Ancient Wars back to the world, if Scanning is lost and the Scanners live in vain!"

Adam Stone was nervous but kept his wits about him: "You're a Scanner. Are you going to kill me—or try?"

"No, you fool. I have betrayed the Confraternity. Call guards the moment I escape. Keep guards around you. I will try to intercept the killer."

Martel saw a blur in the window. Before Stone could

turn, the Wirepoint was whipped out of his hand. The blur solidified and took form as Parizianski.

Martel recognized what Parizianski was doing: *High speed*.

Without thinking of his cranch, he thrust his hand to his chest, set himself up to *High speed* too. Waves of fire, like the Great Pain, but hotter, flooded over him. He fought to keep his face readable as he stepped in front of Parizianski and gave the sign,

Top Emergency.

Parizianski spoke, while the normally moving body of Stone stepped away from them as slowly as a drifting cloud: "Get out of my way. I am on a mission."

"I know it. I stop you here and now. Stop. Stop. Stop. Stone is right."

Parizianski's lips were barely readable in the haze of pain which flooded Martel. (He thought: *God, God, God of the Ancients! Let me hold on! Let me live under Overload just long enough!*) Parizianski was saying: "Get out of my way. By order of the Confraternity, get out of my way!" And Parizianski gave the sign, *Help I demand in the name of my duty!*

Martel choked for breath in the syrup-like air. He tried one last time: "Parizianski, friend, friend, my friend. Stop. Stop." (No Scanner had ever murdered Scanner before.)

Parizianski made the sign: *You are unfit for duty, and I will take over.*

Martel thought, "For first time in the world!" as he reached over and twisted Parizianski's Brainbox up to *Overload*. Parizianski's eyes glittered in terror and understanding. His body began to drift down toward the floor.

Martel had just strength enough to reach his own *Chestbox*. As he faded into haberman or death, he knew

not which, he felt his fingers turning on the control of speed, turning down. He tried to speak, to say, "Get a Scanner, I need help, get a Scanner. . . ."

But the darkness rose about him, and the numb silence clasped him.

Martel awakened to see the face of Luci near his own.

He opened his eyes wider, and found that he was hearing—hearing the sound of her happy weeping, the sound of her chest as she caught the air back into her throat.

He spoke weakly: "Still crunched? Alive?"

Another face swam into the blur beside Luci's. It was Adam Stone. His deep voice rang across immensities of space before coming to Martel's hearing. Martel tried to read Stone's lips, but could not make them out. He went back to listening to the voice:

". . . not crunched. Do you understand me? Not crunched!"

Martel tried to say: "But I can hear! I can feel!" The others got his sense if not his words.

Adam Stone spoke again:

"You have gone back through the Haberman. I put you back first. I didn't know how it would work in practice, but I had the theory all worked out. You don't think the Instrumentality would waste the Scanners, do you? You go back to normality. We are letting the habermans die as fast as the ships come in. They don't need to live any more. But we are restoring the Scanners. You are the first. Do you understand? You are the first. Take it easy, now."

Adam Stone smiled. Dimly behind Stone, Martel thought that he saw the face of one of the Chiefs of the Instrumentality. That face, too, smiled at him, and then both faces disappeared upward and away.

Martel tried to lift his head, to scan himself. He could

not. Luci stared at him, calming herself, but with an expression of loving perplexity. She said,

"My darling husband! You're back again, to stay!"

Still, Martel tried to see his box. Finally he swept his hand across his chest with a clumsy motion. There was nothing there. The instruments were gone. He was back to normality but still alive.

In the deep weak peacefulness of his mind, another troubling thought took shape. He tried to write with his finger, the way that Luci wanted him to, but he had neither pointed fingernail nor Scanner's Tablet. He had to use his voice. He summoned up his strength and whispered:

"Scanners?"

"Yes, darling? What is it?"

"Scanners?"

"Scanners. Oh, yes, darling, they're all right. They had to arrest some of them for going into *High Speed* and running away. But the Instrumentality caught them all—all those on the ground—and they're happy now. Do you know, darling," she laughed, "some of them didn't want to be restored to normality. But Stone and his Chiefs persuaded them."

"Vomact?"

"He's fine, too. He's staying crunched until he can be restored. Do you know, he has arranged for Scanners to take new jobs. You're all to be Deputy Chiefs for Space. Isn't that nice? But he got himself made Chief for Space. You're all going to be pilots, so that your fraternity and guild can go on. And Chang's getting changed right now. You'll see him soon."

Her face turned sad. She looked at him earnestly and said: "I might as well tell you now. You'll worry otherwise. There has been one accident. Only one. When you and your friend called on Adam Stone, your friend was

so happy that he forgot to scan, and he let himself die of *Overload*."

"Called on Stone?"

"Yes. Don't you remember? Your friend."

He still looked surprised, so she said:

"Parizianski."

They were obviously refugees—but from what?
Where? When?

SUCH INTERESTING NEIGHBORS

By Jack Finney

I CAN'T honestly say I knew from the start that there was something queer about the Hellenbeks. I did notice some strange things right away, and wondered about them, but I shrugged them off. They were nice people, I liked them, and everyone has a few odd little tricks.

We were watching from our sun-parlor windows the day they arrived; not snooping or prying, you understand, but naturally we were curious. Nell and I are pretty sociable and we were hoping a couple around our own ages would move into the new house next door.

I was just finishing breakfast—it was a Saturday and I wasn't working—and Nell was running the vacuum cleaner over the sun-parlor rug. I heard the vacuum shut off, and Nell called out, "Here they are, Al!" and I ran in and we got our first look at the Hellenbeks.

He was helping her from a cab, and I got a good look at him and his wife. They seemed to be just about our ages, the man maybe thirty-two or so and his wife in her middle twenties. She was rather pretty, and he had a nice, agreeable kind of face.

"Newlyweds?" Nell said, a little excited.

"Why?"

"Their clothes are all brand-new. Even the shoes. And so's the bag."

"Yeah, maybe you're right." I watched for a second or so, then said, "Foreigners, too, I think," showing Nell I was pretty observant myself.

"Why do you think so?"

"He's having trouble with the local currency." He was, too. He couldn't seem to pick out the right change, and finally he held out his hand and let the driver find the right coins.

But we were wrong on both counts. They'd been married three years, we found out later, had both been born in the States, and had lived here nearly all their lives.

Furniture deliveries began arriving next door within half an hour; everything new, all bought from local merchants. We live in San Rafael, California, in a neighborhood of small houses. Mostly young people live here, and it's a friendly, informal place. So after a while I got into an old pair of flannels and sneakers and wandered over to get acquainted and lend a hand if I could, and I cut across the two lawns. As I came up to their house, I heard them talking in the living room. "Here's a picture of Truman," he said, and I heard a newspaper rattle.

"Truman," she said, kind of thoughtfully. "Let's see now; doesn't Roosevelt come next?"

"No, Truman comes *after* Roosevelt."

"I think you're wrong, dear," she said. "It's Truman, then Roosevelt, then—"

When my feet hit their front steps, the talk stopped. At the door I knocked and glanced in; they were sitting on the living-room floor, and Ted Hellenbek was just scrambling to his feet. They'd been unpacking a carton of dishes and there was a bunch of wadded-up old news-

papers lying around, and I guess they'd been looking at those. Ted came to the door. He'd changed to a T-shirt, slacks and moccasins, all brand-new.

"I'm Al Lewis from next door," I said. "Thought maybe I could give you a hand."

"Glad to know you." He pushed the door open, then stuck out his hand. "I'm Ted Hellenbek," and he grinned in a nice friendly way. His wife got up from the floor, and Ted introduced us. Her name was Ann.

Well, I worked around with them the rest of the morning, helping them unpack things, and we got the place into pretty good order. While we were working, Ted told me they'd been living in South America—he didn't say where or why—and that they'd sold everything they had down there, except the clothes they traveled in and a few personal belongings, rather than pay shipping expenses. That sounded perfectly reasonable and sensible, except that a few days later Ann told Nell their house in South America had burned down and they'd lost everything.

MAYBE half an hour after I arrived, some bedding was delivered—blankets, pillows, linen, stuff like that. Ann picked up the two pillows, put cases on them, and turned toward the bedroom. Now, it was broad daylight, the bedroom door was closed, and it was made of solid wood. But Ann walked straight into that door and fell. I couldn't figure out how she came to do it; it was as though she expected the door to open by itself or something. That's what Ted said, too, going over to help her up. "Be careful, honey," he said, and laughed a little, making a joke of it. "You'll have to learn, you know, that doors won't open themselves."

Around eleven thirty or so, some books arrived, quite a slew of them, and all new. We were squatting on the

floor, unpacking them, and Ted picked up a book, showed me the title, and said, "Have you read this?"

It was *The Far Reaches*, by a Walter Braden. "No," I said. "I read the reviews a week or so ago, and they weren't so hot."

"I know," Ted said, and he had a funny smile on his face. "And yet it's a great book. Just think," he went on, and shook his head a little, "you can buy this now, a new copy, first edition, for three dollars. Yet in—oh, a hundred and forty years, say, a copy like this might be worth five to eight thousand dollars."

"Could be," I said, and shrugged; but what kind of a remark is that? Sure, any book you want to name might be valuable someday, but why *that* book? And why a hundred and forty years? And why five to eight thousand dollars, particularly? Well, that's the kind of thing I mean about the Hellenbeks. It wasn't that anything big or dramatic or really out of the way happened that first day. It was just that every once in a while one or the other would do or say something that wasn't quite right.

Most of the time, though, things were perfectly ordinary and normal. We talked and laughed and kidded around a lot, and I knew I was going to like the Hellenbeks and that Nelly would, too.

In the afternoon we got pretty hot and thirsty, so I went home and brought back some beer. This time Nelly came with me, met the new people, and invited them over for supper. Nelly complimented Ann on the nice things she had, and Ann thanked her and apologized, the way a woman will, because things were kind of dusty. Then she went out to the kitchen, came back with a dust-cloth, and started dusting around. It was a white cloth with a small green pattern, and it got pretty dirty, and when she wiped off the window sills it was really streaked.

Then Ann leaned out the front window, shook the

cloth once, and—it was clean again. I mean *completely* clean; the dirt, every trace of it, shook right out. She did that several times, dusting around the room and then shaking the cloth out, and it shook out white every time.

Well, Nelly sat there with her mouth hanging open, and finally she said, "Where in the world did you get that dustcloth?"

Ann glanced down at the cloth in her hand, then looked up at Nelly again and said, "Why, it's just an old rag, from one of Ted's old suits." Then suddenly she blushed.

I'd have blushed too; did you ever see a man's suit, white with a little green pattern?

Nell said, "Well, I never saw a dustcloth before that would shake out perfectly clean. Mine certainly don't."

ANN turned even redder, looking absolutely confused, and—I'd say *scared*. She mumbled something about cloth in South America, glanced at Ted, and then put the back of her wrist up against her forehead, and for an instant I'd have sworn she was going to cry.

But Ted got up fast, put his arm around Ann's waist and turned her a little so her back was toward us, and said something about how she'd been working too hard and was tired. His eyes, though, as he stood looking at us over Ann's shoulder, were hard and defiant. For a moment you almost got the feeling that it was the two of them against the world, that Ted was protecting Ann against us.

Then Nelly ran a hand admiringly over the top of the end table beside her and said how much she liked it, and Ann turned and smiled and thanked her. Nelly got up and led Ann off to the bedroom, telling her not to try to do too much all in one day, and when they came out a little later everything was all right.

We got to know the Hellenbeks pretty well. They were casual, easygoing, and always good company. In no time Nelly and Ann were doing their marketing together, dropping in on each other during the day, and trading recipes.

At night, out watering our lawns or cutting the grass or something, Ted and I would usually bat the breeze about one thing or another till it got dark. We talked politics, high prices, gardening, stuff like that. He knew plenty about politics and world events, and it was surprising the way his predictions would turn out. At first I offered to bet with him about a few things we disagreed about, but he never would and I'm glad he didn't; he was seldom wrong when it came to guessing what was going to happen.

Well, that's the way things were. We'd drop in on each other, take Sunday drives together and go on picnics, play a little bridge at night and on week ends.

Odd little things would still happen occasionally, but less and less often as time went by—and none of them were ever repeated. When Ted bought something now, he never had trouble finding the right change, and he didn't discover any more rare old new books and Ann stopped walking into doors.

They were always interesting neighbors, though. For one thing, Ted was an inventor. I don't know why that should have surprised me, but it did. There are such things as inventors; they have to live somewhere, and there's no good reason why one shouldn't move in next door to us. But Ted didn't *seem* like an inventor; why, the first time he cut their grass, I had to show him how to adjust the set screw that keeps the blades in alignment.

But just the same he was an inventor and a good one. One evening I was picking tomatoes in the little garden

we have, and Ted wandered over, tossing something into the air and catching it again. I thought it was a paper clip at first. Ted stood watching me for a minute or so, and then he squatted down beside me and held out this thing in his hand and said; "Ever see anything like this before?"

I took it and looked at it; it was a piece of thin wire bent at each end to form two egg-shaped loops. Then the wire had been bent again at the middle so that the two loops slid together. I can't explain it very well, but I could make you one easy in half a minute. "What is it?" I said, and handed it back to him.

"A little invention—the Saf-T-Clip," he said. "You use it wherever you'd ordinarily use a safety pin. Here." He unbuttoned one of my shirt buttons and slid the thing onto the two layers of cloth.

Well, do you know that I couldn't unfasten my shirt where that little thing gripped it? Even when I took hold of both sides of my shirt and pulled, that little piece of twisted wire just dug in and held. Yet when Ted showed me how to undo it—you just pressed the wire at a certain place—it slid right off. It was just the kind of simple thing you wonder, "Now, why didn't somebody ever think of that before?"

I told Ted I thought it was a hell of a good idea. "How'd you happen to think of it?" I asked.

He smiled. "Oh, it was surprisingly easy. That's how I'm planning to make a living, Al—inventing little things. First thing I did, the day we arrived in San Rafael, was get a patent application sent off on this thing. Then I mailed a sample to a wire company." He grinned happily and said, "I got a reply today; they'll buy it outright for fifteen hundred dollars."

"You going to take it?"

"Sure. I don't think it's the best offer in the world and

I might do better if I shopped around. But I've been a little worried, frankly, about how we were going to pay for the furniture and stuff we bought, and the house rent." He shrugged. "So I'm glad to get this money. We'll be okay, now, till I finish the next project."

"What's the next one?" I said. "If you can tell me, that is." I set the tomatoes down and sat down on the grass.

"Sure, I can tell you," he said. "Picture a flashlight with a little dial set in just above the button. There's a lens, but it curves inward, and it's painted black except for a tiny round hole in the center. Press the button and a little beam of light—a special *kind* of light—no thicker than a pencil lead, shoots out. The beam doesn't spread, either; it stays the same thickness. You get the idea?"

"Yeah. What's it for?"

"For measuring distances. Turn it on, aim the little dot of light so it hits the end of any distance you want to measure. Then look at the dial, and you can read off the distance from the dot of light to the edge of the lens in feet and fractions of an inch, down to sixteenths." He smiled. "Sound good?"

"Heck, yes," I said. "But how will it work?"

"On flashlight batteries," Ted said, and stood up, as if that were an answer.

Well, I took the hint and didn't ask any more questions, but if he can make a thing like that—a guy who had to have help adjusting his lawn mower—then I'll eat it when he's finished. And yet, darned if I don't think, sometimes, that he might do it at that.

Oh, Hellenbek's an interesting guy, all right. Told me once that in fifty years they'd be growing full-grown trees from seeds in ten days' time. Indoors, too, and with absolutely straight grain and no knots; regular wood factories. I asked him what made him think so and he shrugged and said it was just an idea he had. He said he

thought that it would be quite some time in the future, though, and I'm sure he was right about that. But you see what I mean; the Hellenbeks were interesting neighbors.

I GUESS the most interesting time we ever spent with them, though, was one evening on our front porch. Supper was over, and I was reading a magazine that had come in the mail that morning. Nell was on the porch swing, knitting. The magazine I was reading was all science fiction—trips to Mars in space ships, gun fights with atomic pistols, and so on. I get a kick out of that kind of stuff, though Nell thinks it's silly.

Pretty soon the Hellenbeks wandered over. Ann sat down with Nelly, and Ted leaned on the porch rail, facing my chair. "What're you reading?" he said, nodding at the magazine in my lap.

I handed it to him, a little embarrassed. The cover illustration showed a man from Jupiter with eyes on the ends of long tentacles. "Don't know if you ever read this kind of stuff or not," I said.

Ann said to Nell, "I tried that biscuit mix. It's wonderful."

"Oh, did you like it?" Nell was pleased, and they started talking food and cooking.

Ted began leafing through my magazine, and I lighted a cigarette and just sat there looking out at the street, feeling lazy and comfortable. It was a nice night, and still pretty light out. Ted got very quiet, slowly turning the pages, studying the illustrations, reading a paragraph or so here and there, and once he said, "Well, I'll be damned," sort of half under his breath.

He must have looked through that magazine for ten minutes or more, and I could tell he was fascinated. Finally he looked up, handed the magazine back, and said,

kind of surprised, "That's very interesting, really very interesting."

"Yeah, some of the science-fiction stuff is pretty good," I said. "Collier's magazine had one not long ago, by Ray Bradbury. About a man of the future who escapes back to our times. But then the secret police of the future come for him and take him back."

"Really?" Ted said. "I missed that."

"It might still be around the house. If I find it, I'll give it to you."

"I'd like to see it," he said. I had the impression that that sort of thing was brand-new to Ted, but I was wrong because then he said, "Now that I know you're interested—" For just a moment he hesitated; then he went on: "Well, the fact is I wrote a science-fiction story myself once."

Ann glanced up quickly, the way a woman does when her husband gets off on the wrong subject. Then she turned back to Nell, smiling and nodding, but I could tell she was listening to Ted.

"Yeah?" I said.

"I worked out this story on the world of the future that you—"

"Ted!" said Ann.

But he just grinned at her and went on talking to me. "Ann's always afraid I'll bore people with some of my ideas."

"Well, this one's *silly*," Ann said.

"Of course it is," Nell said, soothing her down. "I can't understand why Al reads that sort of thing."

"Well, you gals just go on with your talk, then," Ted said. "You don't have to listen. Honey," he said to Ann, "this is different; this is all right."

"Sure," I said, "it's harmless. At least we're not out drinking or hanging around the pool hall."

"Well—" He shifted his position and was smiling, very eager, almost excited. I could tell this was something he was itching to talk about. "A friend of mine and I used to bat the breeze around about this kind of stuff, and we worked out a story. Matter of fact, we did more than that. He was an amateur printer; had his own printing press in the basement. Did beautiful work. So one time, just for a gag, we printed up an article, a magazine, the way it might look and read sometime in the future. I've still got a copy or two around somewhere. Like to see it?"

"Ted," Ann said pleadingly.

"It's all right, honey," he said.

WELL, of course I said sure, I'd like to see his article, and Ted went on over to their house and in a minute or so he came back with a long narrow strip of paper and handed it to me.

It didn't feel like paper when I took it; it was almost like fine linen to the touch, and it didn't rattle or crackle, but it was stiff like paper. At the top of the page, there was a title, printed in red—long thin letters, but very easy to read. It said: *Time on Our Hands?* Underneath was a caption: *Should TT be outlawed? A grave new question facing a world already stunned with fear of oxygen-reversion, population-deterrent and "crazy-molecule" weapons.*

Ted said, "The funny shape of the page is because that's how it comes out of the teleprint receivers in subscribers' homes."

Both the girls looked at him contemptuously, and went on with their conversation.

"Pretty elaborate gag," I said.

"I know," he said, and laughed. "We spent a lot of time fooling around with that thing."

I turned back to the article, and a picture in the middle

of the page caught my eye. It was a man's face, smiling, and it seemed to stick right out of the page. It was taken fullface, yet you could see the nose jutting out at you, and the ears and sides of the head seemed farther back in the page. It was beautifully printed and in marvelous color. You could see fine lines around the eyes, the film of moisture on the eyeballs, and every separate strand of hair. I raised the picture closer to my eyes and it went flat, two-dimensional, and I could see it was printed, all right. But when I lowered it to reading distance again, the photograph popped out in three dimensions once more, a perfect miniature human face.

The caption said: *Ralph Kent, 32-year-old quantum physicist and world's first Time-Traveler. His initial words upon his reappearance in the laboratory after testing TT are now world-famous. "Nobody in sixteenth-century England," he announced, "seems to understand English."*

"Your friend does some pretty fine printing," I said to Ted.

"The photograph?" he said. "Oh, you can get results like that if you're willing to take the time. Go ahead; read the article."

I lighted another cigarette and started to read. The article said: *The first practical Time-machine reached blueprint stage in the Schenectady laboratories of the DeFaraday Electric Company in November of last year, a closely guarded secret among seven top officials of the company. It is said to have been based on an extension of the basic theories of Albert Einstein, famous theoretical physicist of the last century.*

A handmade pilot model of DE's astounding invention was completed on May 18th of this year at a cost, excluding four years' preliminary research expense, of approximately \$190,000. But even before it was completed and

successfully tested, it was out of date. A young Australian physicist, Finis Bride, of the University of Melbourne, had published accounts of experiments in which he had successfully substituted a cheaply maintained electric flow-field for the conventional and expensive platinum-alloy heretofore used in gravity-repulsion. The way was cleared, as DE officials were quick to realize, for inexpensive mass production of Time-machines.

It was vitally important, DE's board decided, to try to keep the young Australian's invention a secret from competitors. But almost inevitably, while DE was in the process of tooling up, the secret leaked, and soon Asco, BCA and Eastern Electric were in the race to hit the market first. Almost as quickly, British, French, Russian, Italian, and, soon after, televip manufacturers throughout the entire world were in the scramble. By June of this year TT sets were selling at the rate . . .

TED's article went on like that. It was really cleverly done. There were times when you'd almost think you were reading the real McCoy. It told how Time-Travel sets hit the market with a big advertising splash early in the summer. The first day they went on sale the public was apathetic and skeptical. But the following day the press and the televip networks (whatever they were supposed to be) were filled with interviews with people who'd tried Time-Travel, and they were all absolutely bug-eyed with astonishment because the damn' machines actually worked.

You put a little gadget in your pocket called a "tampered relay." Then you turned on your set, adjusted the dials, stepped into a little beam of invisible light, and you'd appear instantly at just about any time and place you'd set the dials for. You left the set on, or adjusted it to turn on automatically after a certain length of time,

and as long as you still had your "tampered relay" all you had to do was stand in the same spot you'd first appeared in and you'd be right back home again standing in the beam of invisible light. Well, the public went nuts for it, and at the time the article was supposedly written, production was going full blast, twenty-four hours a day, and practically every last family in the country was scraping up at least the hundred and fifty dollars which the cheapest model cost.

It was really an imaginative job. One of the neatest touches about it was the note of worry that ran all through the article. It was as though there were some awful problem connected with this rage for Time-Travel that the author didn't quite want to put into words. He kept hinting about it, wondering if new legislation weren't needed, and so on, but I couldn't quite figure out what he was supposed to be bothered about. Time-Travel sounded like a lot of fun to me.

"That's a wonderful job," I told Ted when I finished. "But what's the point? All that trouble—for what?"

Ted shrugged. "I don't know," he said. "No point, I guess. Did you like it?"

"I sure did."

"You can have that copy if you want. I've got another."

"Thanks," I said, and laid it in my lap. "But what did you plan to have happen next?"

"Oh," he said, "you don't want to hear any more." He seemed a little embarrassed, as though he wished he hadn't started this, and he glanced over at his wife, but she wouldn't look at him. "Matter of fact," he went on, "the story sort of peters out. I'm really not very good at that kind of thing."

"Yes," said Ann, "that's enough."

"Come on," I said to Ted. "Give."

Ted looked at me for a moment, very serious, then he

shook his head again. "No," he said, "it's too hard to explain. You'd have to know a good deal about a world of the future, a world in which people are sick with the fear of self-destruction. Unimaginable weapons that could literally tear the entire solar system to pieces. Everyone living in absolute dread of the future."

"What's so hard to imagine about that?"

"Oh, hell." He laughed. "These are peaceful times."

"They are?"

"Sure. No weapon worth mentioning except the atom and hydrogen bombs, and those in their earliest, uncomplex stages."

I laughed kind of sourly.

"All in all," he said, "these are pretty nice times to be alive in."

"Well, I'm glad you're so sure," I said.

"I am," Ted answered, and he smiled. Then he stopped smiling. "But it'll be different in another century or so, believe me. At least," he added, "that's how this friend and I figured it out in our story." He shook his head a little and went on, sort of talking to himself.

"Life will barely be worth living. Everyone working twelve, fourteen hours a day, with the major part of a man's income going for taxes, and the rest going for consumers' goods priced sky-high because of war production. Artificial scarcities, restrictions of all kinds. And hanging over everything, killing what little joy in life is left, is the virtual certainty of death and destruction. Everyone working and sacrificing for his own destruction." Ted looked up at me. "A lousy world, the world of the future, and not the way human beings were meant to live."

"Go ahead," I said, "you're doing fine."

HE GRINNED, looked at me for a moment, then shrugged. "Okay," he said, and settled back on the porch rail.

"Time-Travel hits the world the way television has hit the country today, only it happens a hundred times faster, because it's just about the only way to have any real fun. But it's a wonderful way, all right. Within less than a week after the first sets reach the market, people everywhere are going swimming after work on an untouched beach in California, say in the year 1000. Or fishing or picnicking in the Maine woods before even the Norsemen had arrived. Or standing on a hill overlooking a battlefield, watching the Crusaders have it out with the infidels."

Ted smiled. "And sometimes not so safe. In Newton, Kansas, a man arrives home in his living room, bleeding to death from arrow wounds. In Tallahassee a whole family disappears, their TT set turned on and humming, and they are never heard from again, and the same thing happens here and there all over the country and the world. In Chicago a man returns from a day in seventh-century France and dies in two days of the plague; everyone is worried stiff, but the disease doesn't spread. In Mill Valley, California, a man reappears in his home, his face gashed, his hand mangled, his clothes torn to shreds, and he commits suicide the following day. His wife has been stoned to death as a witch because they were fools enough to appear in a crowded eleventh-century Danish public square in modern dress, talking twenty-first-century English."

Ted grinned and winked at his wife; he was enjoying himself. I was fascinated and I think Nell was, too, whether she'd admit it or not. "But then," he went on, "warnings are soon published and televipped by all the TT manufacturers and by the government, too, and people quickly learn caution. Brief courses of instruction are published on how to conduct oneself in various times. how to simulate the dress and customs of earlier

periods, what dangerous times and places to avoid, and TT really comes into its own. There are still risks, still accidents and tragedies, of course.

"Inevitably some people talk too much—the temptation is terribly strong—and they land in insane asylums or jails. Others can't stay away from the danger times and are lynched by superstitious mobs. A good many people die of the common cold, which science had eradicated and to which the human race had lost its old resistance. But there's risk in anything, and the important thing is that once again it's possible to take a *vacation*. To really get away from it all for a week, a day, or even an hour before dinner. To go back to simpler, more peaceful times when life is worth living again. And nearly every last soul in the world soon finds a way somehow to own a TT set or get access to one."

Ted looked at me, then at Nell. "Naturally, then, the inevitable happened; the only possible ending to my story. Maybe you've figured out what had to happen?"

I shook my head, and Ted looked at Nell to see if she knew; then he said, "It's easy. People simply stopped coming back. All over the world, within less than a month after TT is introduced, the same almost simultaneous thought seems to strike everyone: Why return? By this time everyone has discovered a favorite time and place in the history and geography of the world. And everybody is enthusiastic for his own particular discovery; some one century or decade, some country, city, town, island, woods or seashore, some one spot on the world's surface at a certain time that best suits his temperament. And so the same inspiration hits nearly everyone: Why not *stay* there? Why come back? To what?"

Ted slapped at a stray mosquito and said, "Within forty days' time the population of the entire world is down to less than seven million people, and nearly all

of them are getting ready to leave. Suddenly the world is left to the tiny fraction of one per cent of human beings who want wars and who cause them. But the people who fight them walk out. Before the governments of the world realize what's happening—before there's time to do anything about it—the world's population is nearly gone.

"The last emergency Cabinet meeting of the U.S. government breaks up when the assembled members discover that all but one of them are themselves planning to leave for other times. In six more days the twenty-first century is deserted like a sinking ship, its population scattered thinly back through the preceding twenty-five hundred years. And of the very few who are finally left—the tiny minority who preferred the present—most are soon forced, out of sheer loneliness and the breakdown of a world, to join friends and families in earlier times."

Ted looked at us for a moment, then said, "And that, my friends, is how the world ends. On the edge of a precipice, with one foot over the edge, it stops, turns and goes back, leaving an empty earth of birds and insects, wind, rain and rusting weapons."

For maybe half a minute Ted sat staring at nothing, and no one said anything; a cricket began to chirp feebly off in the grass somewhere. Then Ted smiled. "Well," he said, "how do you like it, Al? Good story?"

"Yeah," I said slowly, still thinking about it. "Yeah," I said, "I like it fine. Why don't you write it; maybe get it published somewhere?"

"Well, I thought about that, as a matter of fact, but on the whole I prefer inventing. It's easier."

"Well, it's a good story," I said, "though there are some flaws in it, of course."

"I'm sure of it," Ted said, "but what are they?"

"Well, for one thing, wouldn't people in those earlier times notice the sudden increase in population?"

"I don't think so. Spread the world's population through the thousands of preceding years, and at any one time or place it wouldn't be more than a drop in the bucket."

"Okay," I said, "but speaking of inventions, wouldn't everyone traveling back to simpler times start introducing twenty-first-century inventions?"

"Not to amount to anything. You mean like space ships in 1776?"

"Something like that."

Ted shook his head. "It couldn't happen. Suppose *you* went back a hundred years; could you make a television set?"

"No."

"Or even a radio?"

"I might. A simple one, anyway. Maybe a crystal set."

"All right," Ted said, "suppose you did. I doubt if you could find all the materials—copper wire, for example—but suppose you managed; what would you listen to? You'd tell people it was a radio and what it was for, and they'd lock you up. You see? And what do most people know anyway about the marvelous things they use every day? Practically nothing. And even the few who do know could never find what they'd need to duplicate them, except in the actual time they belong in. The best you could do would be to introduce one or two of the very simplest things people used in your time, like a modern safety pin in Elizabethan England, if you could find the steel. And a few things like that wouldn't upset the history of the world.

"No, Al, you'd just have to take your place as best you could in the world as you found it, no matter what you knew about the future."

Well, I let it go at that. I didn't mean to get started knocking holes in Ted's story, and I went into the house and broke out beer for all hands. I liked Ted's story, though, and so did Nell, and we both said so, and after a while even Ann broke down and said she liked it, too. Then the conversation got off onto other things.

But there you are. It's like I said; the Hellenbeks were strange in some ways, but very interesting neighbors, and I was sorry to see them move away. They moved not too long afterward. They liked California fine, they said, and liked the poeple they'd met. But they were lonesome for old friends, people they'd grown up with, and that's understandable, of course.

So they moved to Orange, New Jersey. Some old friends were arriving there soon, they said, and the Hellenbeks were anxious to be with them. They expected them, Ted told me, sometime in the spring of 1951, and they wanted to be on hand to meet them.

There's a new couple next door now—perfectly nice people who play a good game of bridge, and we like them okay. But I don't know; after the Hellenbeks, they seem kind of dull.

Once the Bridge had joined two cities—now it held their decaying remnants apart

BRIDGE CROSSING

By Dave Dryfoos

IN 1849, the mist that sometimes rolled through the Golden Gate was known as fog. In 2149, it had become far more frequent, and was known as smog. By 2349, it was fog again.

But tonight there was smoke mixed with the fog. Roddie could smell it. Somewhere in the forested ruins, fire was burning.

He wasn't worried. The small blaze that smoldered behind him on the cracked concrete floor had consumed everything burnable within blocks; what remained of the gutted concrete office building from which he peered was fireproof.

But Roddie was himself aflame with anger. As always when Invaders broke in from the north, he'd been left behind with his nurse, Molly, while the soldiers went out to fight.

And nowadays Molly's presence wasn't the comfort it used to be. He felt almost ready to jump out of his skin, the way she rocked and knitted in that grating ruined chair, saying over and over again, "The soldiers don't *want* little boys. The soldiers don't *want* little boys. The soldiers don't—"

"I'm *not* a little boy!" Roddie suddenly shouted. "I'm full-grown and I've never even *seen* an Invader. Why won't you let me go and fight?"

Fiercely he crossed the bare, gritty floor and shook Molly's shoulder. She rattled under his jarring hand, and abruptly changed the subject.

"A is for Atom, B is for Bomb, C is for Corpse—" she chanted.

Roddie reached into her shapeless dress and pinched. Lately that had helped her over these spells. But this time, though it stopped the kindergarten song, the treatment only started something worse.

"Wuzzums hungry?" Molly cooed, still rocking.

Utterly disgusted, Roddie ripped her head off her neck.

It was a completely futile gesture. The complicated mind that had cared for him and taught him speech and the alphabet hadn't made him a mechanic, and his only tool was a broken-handled screwdriver.

HE WAS still tinkering when the soldiers came in. While they lined up along the wall, he put Molly's head back on her neck.

She gaped coyly at the new arrivals. "Hello, boys," she simpered. "Looking for a good time?"

Roddie slapped her to silence, reflecting briefly that there were many things he didn't know about Molly. But there was work to be done. Carefully he framed the ritual words she'd taught him: "Soldiers, come to attention and report!"

There were eleven of them, six feet tall, with four limbs and eight extremities. They stood uniformly, the thumbs on each pair of hands touching along the center line of the legs, front feet turned out at an angle of forty-five degrees, rear feet turned inward at thirty degrees.

"Sir," they chorused, "we have met the enemy and he is ours."

He inspected them. All were scratched and dented, but one in particular seemed badly damaged. His left arm was almost severed at the shoulder.

"Come here, fellow," Roddie said. "Let's see if I can fix that."

The soldier took a step forward, lurched suddenly, stopped, and whipped out a bayonet.

"Death to Invaders!" he yelled, and charged crazily.

Molly stepped in front of him.

"You aren't being very nice to my baby," she murmured, and thrust her knitting needles into his eyes.

Roddie jumped behind him, knocked off his helmet, and pressed a soft spot on his conical skull. The soldier collapsed to the floor.

RODDIE salvaged and returned Molly's needles. Then he examined the patient, tearing him apart as a boy dismembers an alarm clock.

It was lucky he did. The left arm's pair of hands suddenly writhed off the floor in an effort to choke him. But because the arm was detached at the shoulder and therefore blind, he escaped the clutching onslaught and could goad the reflexing hands into assaulting one another harmlessly.

Meanwhile, the other soldiers left, except for one, apparently another casualty, who stumbled on his way out and fell into the fire. By the time Roddie had hauled him clear, damage was beyond repair. Roddie swore, then decided to try combining parts of this casualty with pieces of the other to make a whole one.

To get more light for the operation, he poked up the fire. Roddie was new at his work, and took it seriously. It alarmed him to watch the soldiers melt away, gradu-

ally succumbing to battle damage, shamed him to see the empty ruins burn section by section as the Invaders repeatedly broke through and had to be burned out.

Soon there would be nothing left of the *Private Property Keep Out* that, according to Molly's bedtime story, the Owners had entrusted to them when driven away by radioactivity. Soon the soldiers themselves would be gone. None would remain to guard the city but a few strayed servants like Molly, and an occasional Civil Defender.

And himself, Roddie reflected, spitting savagely into the fire. He might remain. But how he fitted into the picture, he didn't know. And Molly, who claimed to have found him in the ruins after a fight with Invaders twenty years before, couldn't or wouldn't say.

Well, for as long as possible, Roddie decided, he'd do his duty as the others did theirs—single-mindedly. Eventually the soldiers might accept him as one of themselves; meanwhile, this newly attempted first aid was useful to them.

He gave the fire a final poke and then paused, wondering if, when heated, his screwdriver could make an unfastened end of wire stick on the grayish spot where it seemed to belong.

Stretching prone to blow the embers hot so he could try out his new idea, Roddie got too close to the flames. Instantly the room filled with the stench of singed hair. Roddie drew angrily back, beating out the sparks in his uncut blond mane.

As he stood slapping his head and muttering, a deranged Civil Defense firefighter popped into the doorway and covered him with carbon dioxide foam.

Roddie fled. His life-long friends were not merely wearing out, they were unbearably wearing.

IN THE street, even before he'd wiped off the foam, he regretted his flight. The fire was back home. And here in the cold of this fog-shrouded canyon, a mere trail between heaped-up walls of rubble, the diaper he wore felt inadequate against the pre-dawn cold. His cherished weapon, a magnetic tack-hammer, was chill beneath the diaper's top, and the broken, radium-dialed wristwatch suspended from a string around his neck hung clammy against his chest. He stood irresolute on numbing bare feet, and considered returning to the more familiar bedlam.

But colder than cold was his shame at being cold. Molly never was, though she knew how to keep him warm, nor were the others. Hunger, thirst, pain and coldness were sensations never experienced by his friends. Like the growth he'd been undergoing till recently, these were things of ignominy, to be hidden as far as possible from inquiring eyes. Cold as it was, he'd have to hide.

Temporarily, the darkness concealed him, though it was not quite complete. From above the fog, the moon played vaguely deceptive light on the splinters of architecture looming toward it. Some distance off, an owl hooted, but here nocturnal rodents felt free to squeak and rustle as they scampered.

The world seemed ghostly. Yet it wasn't dead; it merely lurked. And as an irrepressible yawn reminded Roddie of his absurd need for sleep even in the midst of danger, he concluded for the thousandth time that the One who'd built him must have been an apprentice.

For just such reasons he'd developed the hideout toward which he now walked. It had been the haven of his adolescence, when the discovery of how much he differed from his friends had been a shock, and the shock itself a difference to be hidden.

His hiding place was a manhole, dead center in the dead street. A weathered bronze bar, carefully placed in the cover's slotted rim, was the levering key that opened its door.

Everything was wrong tonight! He couldn't even find the bar. Of course that spoiled things, because the bar was a roller on which to move the heavy cover from below, and a support that held it ajar for ventilation.

But the example of his friends had taught him above all else to carry out every purpose. Molly was a nurse; she had raised him despite all obstacles. The soldiers were guards; they protected the ruins against everything larger than a rat. The firefighter had put even *him* out when he was aflame . . .

Anyhow, the manhole cover had been loosened by his frequent handling. He lifted it aside by main strength, then flattened himself to the street, and felt with his feet for the top rung.

Halfway down the iron ladder, something made him pause. He looked, but saw only blackness. He listened, sniffed, found nothing. What could have entered through the iron cover?

He sneered at his own timidity and jumped to the bottom.

It was warm! The dry bottom of the hole had the temperature of body heat, as if a large animal had recently rested there!

QUICKLY, Roddie drew the hammer from his waist. Then, with weapon ready for an instantaneous blow, he stretched his left hand through the darkness. He touched something warm, softish. Gingerly he felt over that curving surface for identifying features.

While Roddie investigated by touch, his long fingers were suddenly seized and bitten. At the same time, his

right shin received a savage kick. And his own retaliatory blow was checked in mid-swing by an unexpected voice.

"Get your filthy hands off me!" it whispered angrily. "Who do you think you are?"

Startled, he dropped his hammer. "I'm Roddie," he said, squatting to fumble for it. "Who do you think *you* are?"

"I'm Ida, naturally! Just how many girls *are* there in this raiding party?"

His first Invader—and he had dropped his weapon!

Scrabbling fearfully in the dust for his hammer, Roddie paused suddenly. This girl—whatever *that* was—seemed to think him one of her own kind. There was a chance, not much, but worth taking, to turn delay to advantage. Maybe he could learn something of value before he killed her. That would make the soldiers accept him!

He stalled, seeking a gambit. "How would *I* know how many girls there are?"

Half expecting a blow, he got instead an apology. "I'm sorry," the girl said. "I should have known. Never even heard your name before, either. Roddie . . . Whose boat did you come in, Roddie?"

Boat? What was a boat? "How would I know?" he repeated, voice tight with fear of discovery.

If she noticed the tension, she didn't show it. Certainly her whisper was friendly enough. "Oh, you're one of the fellows from Bodega, then. They shoved a boy into our boat at the last minute, too. Tough, wasn't it, getting separated in the fog and tide like that? If only we didn't have to use boats . . . But, say, how are we going to get away from here?"

"I wouldn't know," Roddie said, closing his fingers on the hammer, and rising. "How did you get in?"

"Followed your footprints. It was sundown and I saw

human tracks in the dust and they led me here. Where were you?"

"Scouting around," Roddie said vaguely. "How did you know I was a man when I came back?"

"Because you couldn't see me, silly! You know perfectly well these androids are heat-sensitive and can locate us in the dark!"

Indeed he did know! Many times he'd felt ashamed that Molly could find him whenever she wanted to, even here in the manhole. But perhaps the manhole would help him now to redeem himself . . .

"I'D LIKE to get a look at you," he said.

The girl laughed self-consciously. "It's getting gray out. You'll see me soon enough."

But she'd see *him*, Roddie realized. He had to talk fast.

"What'll we do when it's light?" he asked.

"Well, I guess the boats have gone," Ida said. "You could swim the Gate, I guess—you seem tall and strong enough. But I couldn't. You'll think it's crazy, but I've given this some thought, and even looked it over from the other side. I expect to try the Golden Gate Bridge!"

Now he was getting somewhere! The bridge was ruined, impassable. Even her own people had crossed the Strait by other means. But if there *were* a way over the bridge . . .

"It's broken," he said. "How in the world can we cross it?"

"Oh, you'll find out, if you take me up there. I—I don't want to be alone, Roddie. Will you go with me? Now?"

Well, she could be made to point out the route before he killed her—if nothing happened when she saw him.

Uneasy, Roddie hefted the hammer in his hand.

A giggle broke the pause. "It's nice of you to wait and let me go first up the ladder," the girl said. "But where the heck is the rusty old thing?"

"I'll go first," said Roddie. He might need the advantage. "The ladder's right behind me."

He climbed with hammer in teeth, and stretched his left hand from street level to grasp and neutralize the girl's right. Then, nervously fingering his weapon, he stared at her in the thin gray dawn.

She was short and lean, except for roundnesses here and there. From her shapeless doeskin dress stretched slender legs that tapered to feet that were bare, tiny, and, like her hands, only two in number.

Roddie was pleased. They were evenly matched as to members, and that would make things easy when the time came.

He looked into her face. It smiled at him, tanned and ruddy, with a full mouth and bright dark eyes that hid under long lashes when he looked too long.

Startling, those wary eyes. Concealing. For a moment he felt a rush of fear, but she gave his hand a squeeze before twisting loose, and burst into sudden laughter.

"Diapers!" she chortled, struggling to keep her voice low. "My big, strong, blond and blue-eyed hero goes into battle wearing diapers, and carrying only a hammer to fight with! You're the most unforgettable character I have ever known!"

He'd passed inspection, then—so far. He expelled his withheld breath, and said, "I think you'll find me a little odd, in some ways."

"Oh, not at all," Ida replied quickly. "Different, yes, but I wouldn't say odd."

WHEN they started down the street, she was nervous despite Roddie's assertion that he knew where the soldiers

were posted. He wondered if she felt some of the doubt he'd tried to conceal, shared his visions of what the soldiers might do if they found him brazenly strolling with an Invader. They might not believe he was only questioning a prisoner.

Every day, his friends were becoming more unpredictable.

For that very reason, because he didn't know what precautions would do any good, he took a chance and walked openly to the bridge by the most direct route. In time this apparent assurance stilled Ida's fears, and she began to talk.

Many of the things she said were beyond his experience and meaningless to him, but he did note with interest how effective the soldiers had been.

"It's awful," Ida said. "So few young men are left, so many casualties . . ."

"But why do you—we—keep up the fight?" Roddie asked. "I mean, the soldiers will never leave the city; their purpose is to guard it and they *can't* leave, so they won't attack. Let them alone, and there'll be plenty of young men."

"Well!" said Ida, sharply. "You need indoctrination! Didn't they ever tell you that the city is our home, even if the stupid androids do keep us out? Don't you know how dependent we are on these raids for all our tools and things?"

She sounded suspicious. Roddie shot her a furtive, startled glance. But she wasn't standing off to fight him. On the contrary, she was too close for both comfort and combat. She bumped him hip and shoulder every few steps, and if he edged away, she followed.

He went on with his questioning. "Why are *you* here? I mean, sure, the others are after tools and things, but what's *your* purpose?"

Ida shrugged. "I'll admit no girl has ever done it before," she said, "but I thought I could help with the wounded. That's why I have no weapon."

She hesitated, glanced covertly up at him, and went on with a rush of words. "It's the lack of men, I guess. All the girls are kind of bored and hopeless, so I got this bright idea and stowed away on one of the boats when it was dark and the fog had settled down. Do you think I was being silly?"

"No, but you do seem a little purposeless."

In silence they trudged through a vast area of charred wood and concrete foundations on the northern end of the city. Thick fog over the water hid Alcatraz, but in-shore visibility was better, and they could see the beginning of the bridge approach.

A stone rattled near by. There was a clink of metal. Ida gasped, and clung to Roddie's arm.

"Behind me!" he whispered urgently. "Get behind me and hold on!"

He felt Ida's arms encircling his waist, her chin digging into his back below the left shoulder. Facing them, a hundred feet away, stood a soldier. He looked contemptuous, hostile.

"It's all right," Roddie said, his voice breaking.

There was a long, sullen, heart-stopping stare. Then the soldier turned and walked away.

Ida's grip loosened, and he could feel her sag behind him. Roddie turned and held her. With eyes closed, she pressed cold blue lips to his. He grimaced and turned away his head.

Ida's response was quick. "Forgive me," she breathed, and slipped from his arms, but she held herself erect. "I was so scared. And then we've had no sleep, no food or water."

Roddie was familiar with these signs of weakness, proud of appearing to deny his own humiliating needs.

"I guess you're not as strong as me," he said smugly. "I'll take care of you. Of course we can't sleep now, but I'll get food and water."

Leaving her to follow, he turned left to the ruins of a supermarket he had previously visited, demonstrating his superior strength by setting a pace Ida couldn't match. By the time she caught up with him, he had grubbed out a few cans of the special size that Molly always chose. Picking two that were neither dented, swollen, nor rusted, he smashed an end of each with his hammer, and gave Ida her choice of strained spinach or squash.

"Baby food!" she muttered. "Maybe it's just what we need, but to eat baby food with a man wearing a diaper . . . Tell me, Roddie, how did you happen to know where to find it?"

"Well, this is the northern end of the city," he answered, shrugging. "I've been here before."

"Why did the soldier let us go?"

"This watch," he said, touching the radium dial. "It's a talisman."

But Ida's eyes had widened, and the color was gone from her face. She was silent, too, except when asking him to fill his fast-emptied can with rain water. She didn't finish her own portion, but lay back in the rubble with feet higher than her head, obviously trying to renew her strength.

And when they resumed their walk, her sullen, fear-clouded face showed plainly that he'd given himself away.

But to kill her now, before learning how she planned to cross the supposedly impassable bridge, seemed as pur-

poseless and impulsive as Ida herself. Roddie didn't think, in any case, that her death would satisfy the soldiers. With new and useful information to offer, he might join them as an equal at last. But if his dalliance with this enemy seemed pointless, not even Molly's knitting needles could protect him.

He was sure the soldiers must be tracking the mysterious emanations of his watch dial, and had trouble to keep from glancing over his shoulder at every step. But arrival at the bridge approach ended the need for this self-restraint. Here, difficult going demanded full attention.

He'd never gone as far as the bridge before, not having wanted to look as if he might be leaving the city. The approach was a jungle of concrete with an underbrush of reinforcing-steel that reached for the unwary with rusted spines. Frequently they had to balance on cracked girders, and inch over roadless spots high off the ground.

Here Ida took the lead. When they got to where three approach roads made a clover-leaf, she led him down a side road and into a forest.

Roddie stopped, and seized her arm.

"What are you trying to do?" he demanded.

"I'm taking you with me," Ida said firmly. "Taking you where you belong!"

"No!" he blurted, drawing his hammer. "I can't go, nor let you go. I belong here!"

Ida gasped, twisted loose, and ran. Roddie ran after her.

She wasn't so easily caught. Like a frightened doe, she dashed in and out among the trees, leaped to the bridge's underpinnings where they thrust rustedly from a cliff, and scrambled up the ramp.

Roddie sighed and slowed down. The pavement ended

just beyond the cable anchors. From there to the south tower, only an occasional dangling support wire showed where the actual bridge had been suspended. Ida was trapped.

He could take his time. Let the soldiers come up, as they undoubtedly would, to finish the job . . .

But Ida didn't seem to realize she was trapped. Without hesitation she dashed up the main left-hand suspension cable and ran along its curved steel surface.

For a moment, Roddie thought of letting her go, letting her run up the ever-steepening catenary until—because there were no guardropes or handgrips—she simply fell. That would solve his problem.

Except it wouldn't be *his* solution. Her death wouldn't prove him to his friends.

He set out quickly, before Ida was lost to sight in the thick fog that billowed in straight from the ocean. At first he ran erect along the top of the yard-wide cylinder of twisted metal, but soon the curve steepened. He had to go on all fours, clinging palm and sole.

Blood was on the cable where she'd passed. More blood stained it when he'd followed.

But because his friends knew neither pain nor fatigue, Roddie would admit none either. Nor would he give in to the fear that dizzied him at every downward look. He scrambled on like an automaton, watching only his holds, till he rammed Ida's rear with his head.

SHE had stopped, trembling and gasping. Roddie clung just below her and looked dazedly around. There was nothing in sight but fog, pierced by the rapier of rusted wire supporting them. Neither end of it was in sight.

Upward lay success, if death were not nearer on the cable. No soldier had ever come even this far, for soldiers, as he'd told Ida, never left the city, were not built

to do so. But *he* was here; with luck, he could capitalize on the differences that had plagued him so long.

"Go on!" he ordered hoarsely. "Move!"

There was neither answer nor result. He broke off an end of loosened wire and jabbed her rear. Ida gasped and crawled on.

Up and up they went, chilled, wet, bleeding, pain-racked, exhausted. Never had Roddie felt so thoroughly the defects of his peculiar non-mechanical construction.

Without realizing it, he acquired a new purpose, a duty as compelling as that of any soldier or firewatcher. He had to keep that trembling body of his alive, mount to the tall rust tower overhead.

He climbed and he made Ida climb, till, at nightmare's end, the fog thinned and they came into clear, windswept air and clawed up the last hundred feet to sanctuary.

They were completely spent. Without word or thought they crept within the tower, huddled together for warmth on its dank steel deck, and slept for several hours.

RODDIE awoke as Ida finished struggling free of his unconscious grip. Limping, he joined her painful walk around the tower. From its openings they looked out on a strange and isolated world.

To the north, where Ida seemed drawn as though by instinct, Mount Tamalpais reared its brushy head, a looming island above a billowy white sea of fog. To the south were the Twin Peaks, a pair of buttons on a cotton sheet. Eastward lay Mount Diablo, bald and brooding, tallest of the peaks and most forbidding.

But westward over the ocean lay the land of gold—of all the kinds of gold there are, from brightest yellow to deepest orange. Only a small portion of the setting sun glared above the fog bank: the rest seemed to have been

broken off and smeared around by a child in love with its color.

Fascinated, Roddie stared for minutes, but turned when Ida showed no interest. She was intent on the tower itself. Following her eyes, Roddie saw his duty made suddenly clear.

Easy to make out even in the fading light was the route by which Invaders could cross to the foot of this tower on the remaining ruins of the road, climb to where he now stood, and then descend the cable over the bridge's gap and catch the city unaware. Easy to estimate was the advantage of even this perilous route over things that scattered on the water and prevented a landing in strength. Easy to see was the need to kill Ida before she carried home this knowledge.

Roddie took the hammer from his waist.

"Don't! Oh, don't!" Ida screamed. She burst into tears and covered her face with scratched and bloodied hands.

Surprised, Roddie withheld the blow. He had wept, as a child, and, weeping, had for the first time learned he differed from his friends. Ida's tears disturbed him, bringing unhappy memories.

"Why should you cry?" he asked comfortingly. "You know your people will come back to avenge you and will destroy my friends."

"But—but my people are your people, too," Ida wailed. "It's so senseless, now, after all our struggle to escape. Don't you see? Your friends are only machines, built by our ancestors. We are Men—and the city is ours, not theirs!"

"It *can't* be," Roddie objected. "The city surely belongs to those who are superior, and my friends are superior to your people, even to me. Each of *us* has a purpose, though, while you Invaders seem to be aimless. Each of *us* helps preserve the city; you only try to rob

and end it by destroying it. My people must be the true Men, because they're so much more rational than yours . . . And it isn't rational to let you escape."

Ida had turned up her tear-streaked face to stare at him.

"Rational! What's rational about murdering a defenseless girl in cold blood? Don't you realize we're the same sort of being, we two? Don't—don't you remember how we've been with each other all day?"

She paused. Roddie noticed that her eyes were dark and frightened, yet somehow soft, over scarlet cheeks. He had to look away. But he said nothing.

"Never mind!" Ida said viciously. "You can't make me beg. Go ahead and kill—see if it proves you're superior. My people will take over the city regardless of you and me, and regardless of your jumping-jack friends, too! Men can accomplish anything!"

SCORNFULLY she turned and looked toward the western twilight. It was Roddie's turn to stand and stare.

"Purpose!" Ida flung at him over her shoulder. "Logic! Women hear so much of that from men! You're a man, all right! Men *always* call it logic when they want to destroy! Loyalty to your own sort, kindness, affection—all emotional, aren't they? Not a bit logical. Emotion is for creating, and it's so much more logical to destroy, isn't it?"

She whirled back toward him, advancing as if she wanted to sink her teeth into his throat. "Go ahead. Get it over with—if you have the courage."

It was hard for Roddie to look away from that wrath-crimsoned face, but it was even harder to keep staring into the blaze of her eyes. He compromised by gazing out an opening at the gathering dusk. He thought for a long time before he decided to tuck his hammer away

"It isn't reasonable to kill you now," he said. "Too dark. You can't possibly get down that half-ruined man-way tonight, so let's see how I feel in the morning."

Ida began to weep again, and Roddie found it necessary to comfort her.

And by morning he knew he was a Man.

Dear Pen Pal: I always wanted to correspond with someone from Earth. You'll see why—too late

LETTER FROM THE STARS

By A. E. Van Vogt

DEAR Pen Pal: When I first received your letter from the interstellar correspondence club, my impulse was to ignore it. The mood of one who has spent the last seventy planetary periods—years I suppose you would call them—in an Aurigeon prison, does not make for a pleasant exchange of letters. However, life is very boring, and so I finally settled myself to the task of writing you.

Your description of Earth sounds exciting. I should like to live there for a while, and I have a suggestion in this connection, but I won't describe it till I have developed it further.

You will have noticed the material on which this letter is written. It is a highly sensitive metal, very thin, very flexible, and I have inclosed several sheets of it for your use. Tungsten dipped in any strong acid makes an excellent mark on it. It is important to me that you do write on it, as my fingers are too hot—literally—to hold your paper without damaging it.

I'll say no more just now. It is possible you will not care to correspond with a convicted criminal, and there-

fore I shall leave the next move up to you. Thank you for your letter. Though you did not know its destination, it brought a moment of cheer into my drab life.

Skander, Planet Aurigae II

DEAR Pen Pal: Your prompt reply to my letter made me happy. I am sorry your doctor thought it excited you too much, and sorry, also, if I have described my predicament in such a way as to make you feel badly. I welcome your many questions, and I shall try to answer them all.

You say the international correspondence club has no record of having sent any letters to Aurigae. That, according to them, the temperature on the second planet of the Aurigae sun is more than 500 degrees Fahrenheit. And that life is not known to exist there. Your club is right about the temperature and the letters. We have what your people would call a hot climate, but then we are not a hydro-carbon form of life, and find 500 degrees very pleasant.

I must apologize for deceiving you about the way your first letter was sent to me. I didn't want to frighten you away by telling you too much at once. I could not know that you would want to hear from me.

The truth is that I am a scientist, and, along with the other members of my race, I have known for some centuries that there were other inhabited systems in the galaxy. Since I am allowed to experiment in my spare hours, I amused myself in attempts at communication. I developed several simple systems for breaking in on galactic communication operations, but it was not until I developed a sub-space wave control that I was able to draw your letter (along with several others, which I did not answer) into a cold chamber.

I use the cold chamber as both a sending and receiving center, and since you were kind enough to use the mate-

rial which I sent you, it was easy for me to locate your second letter among the mass of mail that accumulated at the nearest headquarters of the interstellar correspondence club.

How did I learn your language? After all, it is a simple one, particularly the written language seems easy. I had no difficulty with it. If you are still interested in writing me, I shall be happy to continue the correspondence.

Skander, Aurigae II

DEAR Pen Pal: Your enthusiasm is refreshing. You say that I failed to answer your question about how I expected to visit Earth. I confess I deliberately ignored the question, as my experiment had not yet proceeded far enough. I want you to bear with me a short time longer, and then I will be able to give you the details. You are right in saying that it would be difficult for a being who lives at a temperature of 500 degrees Fahrenheit to mingle freely with the people of Earth. This was never my intention, so please relieve your mind. However, let us drop that subject for the time being.

I appreciate the delicate way in which you approach the subject of my imprisonment. But it is quite unnecessary. I performed forbidden experiments upon my body in a way that was deemed to be dangerous to the public welfare. For instance, among other things, I once lowered my surface temperature to 150 degrees Fahrenheit, and so shortened the radioactive cycle-time of my surroundings. This caused an unexpected break in the normal person-to-person energy flow in the city where I lived, and so charges were laid against me. I have thirty more years to serve. It would be pleasant to leave my body behind and tour the universe—but, as I said, I'll discuss that later.

I wouldn't say that we're a superior race. We have cer

tain qualities which apparently your people do not have. We live longer, not because of any discoveries we've made about ourselves, but because our bodies are built of a more enduring element—I don't know your name for it, but the atomic weight is 52.9 [A radioactive isotope of chromium—Author's Note.] Our scientific discoveries are of the kind that would normally be made by a race with our kind of physical structure. The fact that we can work with temperatures of as high as—I don't know just how to put that—has been very helpful in the development of the sub-space energies which are extremely hot, and require delicate adjustments. In the later stages these adjustments can be made by machinery, but in the development the work must be done by "hand"—I put that word in quotes, because we have no hands in the same way that you have.

I am inclosing a photographic plate, properly cooled and chemicalized for your climate. I wonder if you would set it up and take a picture of yourself. All you have to do is arrange it properly on the basis of the laws of light—that is, light travels in straight lines, so stand in front of it—and when you are ready *think* "Ready!" The picture will be automatically taken.

Would you do this for me? If you are interested, I will also send you a picture of myself, though I must warn you. My appearance will probably shock you.

Sincerely,
Skander, Aurigae II

DEAR Pen Pal: Just a brief note in answer to your question. It is not necessary to put the plate into a camera. You describe this as a dark box. The plate will take the picture when you think, "Ready!" I assure you it will not be flooded with light.

Skander, Planet Aurigae

DEAR Pen Pal: You say that while you were waiting for the answer to my last letter you showed the photographic plate to one of the doctors at the hospital—I cannot picture what you mean by doctor or hospital, but let that pass—and he took the problem up with government authorities. Problem? I don't understand. I thought we were having a pleasant correspondence, private and personal.

I shall certainly appreciate your sending that picture of yourself.

Skander, Aurigae II

DEAR Pen Pal: I assure you I am not annoyed at your action. It merely puzzled me, and I am sorry the plate has not yet been given back to you. Knowing what governments are, I can imagine that it will not be returned to you for some time, so I am taking the liberty of inclosing another plate.

I cannot imagine why you should have been warned against continuing this correspondence. What do they expect me to do?—eat you up at long distance. I'm sorry but I don't like hydrogen in my diet.

In any event, I would like your picture as a memento of our friendship, and I will send you mine as soon as I have received yours. You may keep it or throw it away, or give it to your governmental authorities—but at least I will have the knowledge that I've given a fair exchange.

With all best wishes,
Skander, Aurigae II

DEAR Pen Pal: Your last letter was so long in coming that I thought you had decided to break off the correspondence. I was sorry to notice that you failed to inclose the photograph, puzzled by your reference to having had

a relapse, and cheered by your statement that you would send it along as soon as you felt better—whatever that means. However, the important thing is that you did write, and I respect the philosophy of your club which asks its members not to write of pessimistic matters. We all have our own problems which we regard as overshadowing the problems of others. Here I am in prison, doomed to spend the next thirty years tucked away from the main stream of life. Even the thought is hard on my restless spirit, though I know I have a long life ahead of me after my release.

In spite of your friendly letter, I won't feel that you have completely re-established contact with me until you send me the photograph.

Skander, Aurigae II

DEAR Pen Pal: The photograph arrived. As you suggest, your appearance startled me. From your description I thought I had mentally reconstructed your body. It just goes to show that words cannot really describe an object which one has never seen.

You'll notice that I've inclosed a photograph of myself, as I promised I would. Chunky metallic-looking chap, am I not, very different, I'll wager, than you expected? The various races with whom we have communicated become wary of us when they discover we are highly radioactive, and that literally we are a radioactive form of life, the only such (that we know of) in the universe. It's been very trying to be so isolated and, as you know, I have occasionally mentioned that I had hopes of escaping not only the deadly imprisonment to which I am being subjected but also the body which cannot escape.

Perhaps you'll be interested in hearing how far this idea has developed. The problem involved is one of exchange of personalities with someone else. Actually, it is

not really an exchange in the accepted meaning of the word. It is necessary to get an impress of both individuals, of their minds and of their thoughts as well as their bodies. Since this phase is purely mechanical, it is simply a matter of taking complete photographs and of exchanging them. By complete I mean, of course, every vibration must be registered. The next step is to make sure the two photographs are exchanged, that is, that each party has somewhere near him a complete photograph of the other. (It is already too late, Pen Pal. I have set in motion the sub-space energy interflow between the two plates, so you might as well read on.) As I have said it is not exactly an exchange of personalities. The original personality in each individual is suppressed, literally pushed back out of the consciousness, and the image personality from the "photographic" plate replaces it.

You will take with you a complete memory of your life on Earth, and I will take along memory of my life on Aurigae. Simultaneously, the memory of the receiving body will be blurrily at our disposal. A part of us will always be pushing up, striving to regain consciousness, but always lacking the strength to succeed.

As soon as I grow tired of Earth, I will exchange bodies in the same way with a member of some other race. Thirty years hence, I will be ready to reclaim my body, and you can then have whatever body I last happened to occupy.

This should be a very happy arrangement for us both. You with your short life expectancy will have outlived all your contemporaries and will have had an interesting experience. I admit I expect to have the better of the exchange—but now, enough of explanation. By the time you reach this part of the letter it will be me reading it, not you. But if any part of you is still aware, so long for now, Pen Pal. It's been nice having all those letters from

you. I shall write you from time to time to let you know how things are going with my tour.

Ever yours,

Skander, Aurigae II

DEAR Pen Pal: Thanks a lot for forcing the issue. For a long time I hesitated about letting you play such a trick on yourself. You see, the government scientists analyzed the nature of that first photographic plate you sent me, and so the final decision was really up to me. I decided that anyone as eager as you were to put one over should be allowed to succeed.

Now I know I didn't have to feel sorry for you. Your plan to conquer Earth wouldn't have gotten anywhere, but the fact that you had the idea ends the need for sympathy.

By this time you will have realized for yourself that a man who has been paralyzed since birth, and is subject to heart attacks, cannot expect a long life span. I am happy to tell you that your once lonely pen pal is enjoying himself, and I am happy to sign myself with a name to which I expect to become accustomed.

Skander, Aurigae II

He said he had blue hair and blond eyes. But it was hard to prove, because he happened to be invisible

LOVE IN THE DARK

By H. L. Gold

BEING Livy Random wasn't easy. It meant having a face a little too long, a figure a little too plump, brown hair brushed and brushed yet always uncurling at the ends. It meant not being able to make herself more than passably attractive. Worse than that, being Livy Random meant being Mrs. Mark Random, the wife of that smug lump asleep in the other bed.

Mark wasn't snoring; he was too neat for that. He was always making even stacks of things, or putting them in alphabetical order on shelves, or straightening rugs and pictures, or breathing neatly in the other bed.

Livy closed the bedroom door with a bang. Mark didn't stir; he could fall asleep in one infuriating minute, and wake up, eight hours later to the second, in exactly the same unlovely position and disposition. Her high-heeled shoes didn't bother him when she kicked them off, and neither did scraping the chair back against the wall—he hated chair marks on walls—when she sat down to take off her stockings. And Livy Random wanted, venomously, to bother her husband.

Mark Random had married her because he had been

made sales manager of the electric battery factory, and he'd had enough of eating in restaurants while he had been a traveling salesman. Besides, it looked better for a man in his position to be married. Livy had accepted him because she was past thirty and nobody else might ask her; besides, she needed someone to support her. So she cooked for him. She cleaned for him. She even tried to keep a budget for him, though that was his idea. He gave her a meager household allowance and nothing else.

Nothing, in this case, must be understood as the complete and humiliating absence of everything. When Livy was particularly incensed about her marriage, which was generally, it was some comfort to know that she could have it easily annulled. And Mark couldn't do a thing to stop her. He hadn't, at least, and there was no sign that he intended to, cared to, or even thought of it.

Pulling her slip over her head, Livy wondered about this. She had heard, at least as often as any other girl, that all men were beasts. Mark was, of course, a beast in a way—in his special, primly exasperating way. But he wasn't a beast in the usual sense. With Livy, anyway. Maybe some woman in a back street hovel thought he was. But that wasn't likely; he would have wedded the lady and saved the cost of this apartment.

What was wrong with Mark? It wasn't Livy, because she had known her duty and had been grimly prepared for it, though God knew this tall and pudgy person inspired nothing at all in her.

"Short and pudgy," she thought, reaching around back for the snaps. "Why doesn't somebody put snaps in front where they belong and where a body can get at them, and make a fortune? Short and pudgy is bad enough, but Mark's got to be *tall* and pudgy, with a stomach that pulls his shoulders down and caves in his chest. And those black-rimmed glasses—some oculist must have been

stuck with them for years. That hair of his—thick, oily, wavy and *yellow*. Like butter starting to melt—”

She looked at him again. What had made her think that marrying him was better than not being married at all? She could have got at least a housekeeper's job somewhere. With the possibility that some man in the household would fall in love with her.

Livy stopped. She crossed her arms over her breasts. It was the oddest sensation.

Somebody was staring at her as she undressed.

Mark? It didn't seem possible, but she held her slip in front of her and flipped the switch and looked. He was on his side, one arm under his head, and his back was to her. He never looked at her in the light, so why should he stare at her in the dark?

Livy peered under the window shades. They reached the sills; nobody could see beneath them or around them. She felt like a fool bending to glance under the beds, poking warily among the dresses and suits in the closets, and searching behind the furniture.

The light aroused Mark; that was something. He twisted around to face her blurrily.

“What's the matter?” he asked, his thin voice fuzzily peevish.

“Somebody was watching me undress,” she said.

“Here?”

She tightened her lips. “I haven't undressed in the street in years,” she said. “Of course it was here!”

“You mean somebody's in the room with us?” He reached out for his glasses on the night table. “I don't see anyone.”

“I know,” she said flatly. “I searched the place. It's empty. Or it might as well be.”

He stared at her. He wasn't, of course, looking below her face, though she still had her slip clutched in front

of her. He was staring at her face as if she had a smudge on it.

"Do you often have these ideas?" he asked.

"Go on back to sleep," she said. "If you want to act like a psychiatrist, your own case would keep you busy for years."

He was still looking at her face, so she turned off the light. She held the slip until she heard him turn heavily, then grunt as he spread himself in the same position as before.

Livy hung up her slip and began peeling off her girdle. There it was again—hungry eyes peering out of the dark, touching her body with ocular caresses.

It wasn't imagination. It couldn't be. She'd been mentally undressed as often as any other not too attractive girl, and she knew the shrinking, exposed feeling too well to mistake it.

No use turning on the light again. She wouldn't find anyone in the room.

"Let's be reasonable," she thought, fighting an urge to leap into bed and scream. "I'm tired. Pooped, if you want to know. That dreary little Mrs. Hall made a hash out of the bridge game. Why do I always draw town idiots as partners? Is it some curse that was put on my family back in the Middle Ages? That's all I need; it's not enough playing house with this inspecting officer searching for dust under the furniture.

"All right, I'm exhausted and jumpy. I'm normal, or what passes for normal. If anybody mentions Freud to me, I'll start swinging this girdle like a night stick. I'm not losing my mind. I'm not having a wish-fulfillment either, if that's what you're thinking. Livy dear, it's just time I went to bed—and don't go twisting *that* statement around."

Her eyes did ache a bit; all that smoke. Maybe she

should cut out cigarettes. Aching eyes could make you see things that weren't there. This wasn't exactly seeing, but maybe it was connected somehow.

Livy closed her eyes experimentally, and the effect was more startling than the skin sensation.

In the dark, with her eyes shut, she could *see* who was staring at her. It gave her a shock until she realized that she could *imagine* it, rather; she couldn't see unless her eyes were open, could she? She tried it, and the image disappeared. She closed them again and there it was.

As long as it was her imagination, she studied the imaginary owner of the imaginary eyes. She stared at him just as intently as she imagined he was staring at her.

"Stunning," was her first verdict, and then, "What a build! I must have been peering unconsciously at those physical culture magazines on the newsstands. That long blue hair and those wide blond eyes and a cute little straight nose—I always *did* love a man with a cleft in his chin! Heavens, did you ever see such *muscles*? And—wait a minute!"

She opened her eyes quickly. A girl had to have some modesty, even if her imagination didn't. And then something jarred her sense of logic.

Long *blue* hair and wide *blond* eyes? It must have been a twist of her subvocal tongue. She meant long blond hair and wide blue eyes. Of course.

She closed her eyes and rechecked. The hair was blue and the eyes were blond, or close enough to it. That wasn't all, either. It wasn't really hair. It was feathers. Long, very fine, like bird-of-paradise plumage; but feathers. As long as they were sort of combed flat, she could never have guessed. But her stunning imaginary man frowned as she stared at him, and the frown lifted his—well, feathers, into an attractive crest. Very attractive, in fact. She liked the effect much better than hair. . . .

Peculiar. The dazzling creature was blushing under her stare, and turning his head away shyly. Was it possible to blush a beautiful shocking pink? And to have pointed leprechaun ears much handsomer than the regular male clam-shell variety? And since when does a mental image turn bashful?

"Who cares?" thought Livy. "You're a gorgeous thing, and any psychiatrist cures me of this particular delusion over my dead body! Now go away or I won't get a wink of sleep all night."

With her eyes shut, she saw the unearthly vision walk dutifully toward the bedroom door, open it and close it behind him.

"That you, Livy?" asked Mark from his bed.

"Is what me?"

"Opening the door."

"I haven't budged from this spot."

She heard him roll over and sit up again. "I'm a practical man with both feet on the ground," he said. "I don't hear things unless there's something to hear. And I heard the door open and close."

Livy pulled on her nightgown over her head—warm, thick flannel because texture and sheerness didn't matter. "All right, you heard the door open and close," she said, falling back luxuriously on her soft mattress and dragging the heavy blankets up. "You can't get me to argue with you this time of the night."

"Something's wrong with you," said Mark. "We'll find out what it is tomorrow."

As far as she was concerned, there was nothing whatever wrong with her. Why shouldn't an unhappy woman imagine a handsome, thrilling man admiring her? Maybe there was some hidden and sinister significance in the blue plumage and pointed ears, but she didn't care to know about it.

She knew Mark wouldn't risk one of her tempers by waking her up to talk, so she firmly pretended to be sleeping while he dressed, made his own breakfast, and drove away. Then she got out of bed and took off the nightgown.

Sure enough, her flesh shrank. She felt as if she were being spied on.

"Look," she said testily to her subconscious, or libido, or whatever the term was, "not the first thing in the morning. Let me at least brush my teeth and have some of that black mud Mark calls coffee."

Anyway, it was ridiculous, right in broad daylight. Phantasms are for the dark. Any decent neurosis ought to know that.

Nevertheless, Livy closed her eyes to test her memory. The exciting dreamboat with the blue plumage, blond eyes and gay ears was exactly the same—staring hungrily at her from somewhere near the vanity. Certainly she saw the vanity; she knew it was there, didn't she? She tried staring back, to see if her imaginary lover boy would blush and turn away again. He didn't, which probably meant that some quirk in her mind had grown bolder, for he grinned becomingly and his blond eyes smiled up and down her body.

"I never would have believed it," she muttered moodily, opening her eyes and proceeding to dress. "Rainy evenings I can understand, but I usually feel so nasty in the morning."

She was washing the dishes after breakfast when she felt the first physical symptoms of her delusion. It was a light, airy kiss on the back of her neck. Goosebumps bloomed, her spine went sirupy, her knees came unhinged.

She swiftly disposed of the thrill by blaming it on a loose end of hair. But she cautiously pinned her thatch

all up under a kerchief; another few ethereal kisses there, whether uncurled hair or psychological, and she would climb the wall.

Next time she felt the kiss, it started at her neck and worked down to her shoulder, six distinct and passionate touches of warm, hard lips. Weakly she realized that her hair was still tightly bound and pinned up, and that left only one conclusion to be drawn.

"All right," she said, dizzily happy, "I'm going nutty. Wonder why I never thought of it before."

There were more kisses during the day, enough to keep her glowing. Hallucinations, of course, but wonderful ones, and she resolved to hang grimly onto them. So she left Mark his dinner and a note, and then went out to a movie.

In the theater, peculiarly, she felt more alone than she had at home. The picture was nothing to rave about, but she saw it three times to make sure Mark would be in bed when she returned.

He was, and breathing. She undressed in no great hurry, finally accustomed to the peeping sensation. But when she was under the covers, she screamed suddenly and scrambled out. Mark was awake by the time she turned on the light.

"Now what?" he grumbled.

She goggled at him in alarm. "It wasn't you?" she asked.

"What wasn't me?"

She sat tentatively on the edge of the bed and rubbed her arm. "Somebody—I thought it was you—I could feel his fingers on my arm just as plain—"

"Whom," Mark asked, confused, "are you talking about?"

She put her chin out. "Somebody tried to get into bed with me."

"M-mm," Mark nodded solemnly, acting not at all astonished. He put his plump, white, flat feet into slippers and wrestled into a bathrobe. He said anxiously, "Now don't get alarmed, Livy. We'll see this thing through."

"Don't bother," she said. "As long as I know it wasn't you, I'm satisfied."

"I am not in the habit of *slinking*."

"No," she admitted, looking at him appraisingly. "You haven't the physique. Then again, if you did have, you wouldn't have to slink." She gave her head a shake. "I don't know what to think." And she began to cry.

"Now, none of that," he said. "We'll have you all right in a jiffy."

She stood up, ready to run over the beds, if necessary. "Oh, no, not now, you're not."

"I don't know what you mean," he said, and he went to the telephone extension and called Ben Dashman. He agreed with Ben that it was rather late, but added, "It's urgent, Ben, and you're the only one I can turn to. It's Livy's nerves. They've—snapped! You'll have to get your clothes on and come right over."

"Ben Dashman," said Livy scornfully. "Here's one consumer whose resistance that business psychologist can't break down. The two of you will just get to your offices all tired out tomorrow, and for what?"

"When there is a crisis, sleep is a secondary consideration," Mark said. "Ben and I are men of action. This will not be the first time we've worked through the night."

But Ben, when he arrived, sat on a chair at one side of her bed, and Mark sat on his own bed and explained to Ben, over Livy's indignant body, the little he knew of what he referred to as her case. Though the information didn't amount to much, it made her just as embarrassed as the first peeping incident.

If Mark Random was pompous and oratorical, and he

was, Ben Dashman could claim the doubtful credit. Mark had modeled himself after that successful expert on business psychology, who had read his way up to the vice-presidency-in-charge-of-sales. Ben could quote whole chapters of inspirational and analytical studies, whereas Mark had mastered no more than brief sentences and paragraphs. The voice had a lot to do with Ben's sensational rise, however. Mark had a slightly petulant voice, about Middle C, while Ben had learned to pitch his a full octave below comfort and to propel his words like strung spitballs.

Physically, Ben was even less appetizing than Mark. He had a bigger stomach, wider hips, rounder shoulders, white hair split in the center and stuck damply to his pink head, heavy lips that he loved to pucker thoughtfully, and pince-nez. Mark would have paid a lot for a pince-nez that would stay on him, but they either stopped his circulation or fell off.

"Well," said Ben when Mark was through. Livy won the bet she had made with herself that that would be his first response; it gave him time to think. "Do you have anything to add, Livy?"

"Sure. Go home, or take Mark out to a bar. I want to go to sleep."

"I mean about your—strange feeling," Ben persisted.

"I recommend it to all women," she said. "If I knew how, I'd manufacture and sell these dream admirers on the installment plan, and give them free to the needy. It's made me ten years younger. Now go away. I've a date with my delusion."

"Listen," said Mark earnestly. "Ben got out of bed and came over here to help you. We both want to help you. Ben has read all there is to know about mental cases."

"I'm not a mental case," Livy said. "I was until now, but I'm not any more. If you both want to help me, you

can develop amnesia and wander out of my life. For good. If I'm sick, it's of you."

Mark's face went purple, but Ben pacified him hastily: "Don't answer her, Mark. She doesn't know what she's saying. You know how it is with these things."

"The only reason he married me was to save money on a housekeeper," she said in a deliberate tone.

"That's right—" Ben encouraged her, patronizingly.

"Are you agreeing with her?" Mark shouted.

"I mean that's right—let her get things off her chest," Ben explained. "It releases tension."

So Livy kept talking and it was wonderful. She said the most insultingly true things about Mark and he didn't dare turn them into argument. She didn't know much about psychiatry, but she accused him of all the terms she could remember. It was the first time she had examined out loud the facts of her limitation marriage.

"Come to think of it," she concluded, "I don't know why I stayed here this long. As soon as I can get some money together, or a job, I'll let you know my forwarding address."

Then she went to sleep. Ben assured Mark that she seemed to have unburdened her grievances and should have no further disturbances. Her threat to leave he considered mere bravado. He advised rest and a sympathetic attitude.

Taking Ben to the door, Mark thanked him abjectly: "I don't know what I would have done without you."

"Forget it," said Ben. "If we didn't all pitch in and help each other when the footing gets rocky, there'd be no co-operation in this world."

"That's right," Mark said, brightening. "Wasn't it Emerson who pointed out that co-operation is the foundation of civilization?"

"It's always safe to give Emerson the credit," Ben an-

swered. "Now just don't worry about Livy. If she shows any alarming signs of tension, call me up, day or night, and I'll be glad to do what I can."

It was two months before Livy moved out, actually, and then only because she had no real choice. Finding a job had been harder than she anticipated. She had no experience and the best part of the day to go job-hunting had usually been taken up by cooking, cleaning, shopping, sending out the laundry, and reading. For she had begun consuming psychology books—both normal and abnormal—searching for a parallel to her condition.

She found roughly similar cases, some which were almost identical in unimportant respects. But the really significant symptom, which urged her on in her hunt, she found nowhere.

None of the systematically deluded women had ever had a baby by an imaginary sweetheart. And Livy, her doctor had told her after the usual tests, was indisputably pregnant.

"But that's impossible," she had protested.

"I thought so myself," the doctor, who was Mark's physician also, had confessed. "But, you see, the profession is full of surprises."

"That isn't what I mean," Livy said in a panic.

She asked for some aromatic spirits in water. She wanted a chance to rehearse her answer. It sounded absurd even to herself.

She and Mark had not changed the basis of her marriage. Mark *couldn't* be the father of her child. He wasn't. It was impossible. Under the circumstances, it was absolutely impossible. Yet it was also impossible for her to be pregnant. She had an alibi for every minute of their marriage.

But these days, she realized numbly, when a doctor tells a woman she is going to have a baby, she can start

buying a layette. So she shuffled out of the doctor's office, clutching her list of medical instructions, and that night she told Mark.

Mark didn't bark or howl; he called Ben Dashman instead. Ben understood the situation instantly.

"Livy's conscience caused those delusions," he said. "She has obviously been having an affair."

"There was nothing obvious about it," Livy said. "It was so *unobvious*, in fact, that I didn't know about it myself."

This time Ben Dashman's presence didn't stop Mark from losing his temper. "Are you denying," he yelled, "that you *have* been having an affair?"

"Certainly," said Livy. "I'd know about it, wouldn't I?"

"Well, that's a point, Mark," Ben said ponderously. "In the condition Livy's been in lately, she might not have been responsible."

"I'm not going to be responsible, and that's for sure," Mark said. "We'll find out who the man is if we have to dig clean through her unconscious and down to her pituitary gland!"

Mark threw his glasses, the big black-rimmed ones, on the floor and trampled on them. Livy felt a little proud. She had never seen him so angry before. She had never suspected that she could have such an effect on him, or she might have tried it long ago.

"Livy," Ben said gently, "you do know who the man was, don't you?"

"Sure," she said. "It was my dreamboat, my lover boy—the one who ogled me while I was undressing, the one who tried to get into bed with me. I didn't let him until you convinced me he wasn't real. Then I didn't see any reason to be afraid."

"You mean," said Mark, terrible in his self-control, "Right here in the same room with me?"

"Why not?" she asked reasonably. "It was just a delusion. Do I go around censoring *your* dreams? Though heaven knows they're probably just about selling campaigns and how to make people battery-conscious!"

Ben waved Mark to silence. "Then am I to understand," he said, "that your only meetings with your so-called dreamboat have been here in your own bedroom, with your husband asleep in the next bed?"

"That's right," Livy said. "Exactly."

Ben stood up and pointed unpleasantly at Mark. "You," he said nastily, "are an ungrateful, inconsiderate, lying scoundrel."

"I am?" Mark asked, baffled out of his outrage. "How do you figure that, Ben?"

"Because for some obscure reason you're trying to blacken the name of your wife, when it's perfectly clear that the only man who could be the father is you."

"Oh, no! I can prove it isn't!"

"I'll bet," Livy said, "he could at that. But he doesn't have to, Ben. I'll give him an affidavit that he isn't."

"You see?" Mark cried triumphantly.

Ben nodded. "I guess I do. Livy, I respect your gallantry, but it's a mistake to protect the guilty party."

"You don't catch me getting gallant at a time like this," Livy said. "I can't tell you his name, because I don't know it, but I'll be glad to tell you who he is."

She described the phantom who loved her.

"Blue feathers!" yelled Mark. "Blond eyes! She isn't crazy, Ben. Oh, no, she thinks *we* are!"

Ben stood up. "Mark, I think we need a conference." Mark followed him unwillingly and when Livy opened the door carefully, a few moments later, she heard Ben

say, "I've read about cases like this. It's a very grave, very deep disturbance—too deep for me to handle, though I'd love to try and I believe I'd do pretty well. But the first thing she needs is protection. From herself and this unscrupulous vandal she imagines has blue plumage and blond eyes "

And Mark asked, "Then you think she really believes this nonsense?"

And Ben said, "Of course, poor girl. She's batty. Use your head."

And Mark said slowly, "I never thought of that. But why would she claim he's invisible?"

Livy could picture Ben lifting his fat shoulders. "It might take months or years to find out, and the important thing right now is to protect her. That wouldn't hurt you either, Mark. Nobody puts any stock in what a patient at a rest home says."

There was more discussion, but Livy didn't stay to hear it. She had climbed out the kitchen window and over the low backyard fence. Finding a taxi took a while, but she got downtown and closed out her savings account.

Now all she had to do was find a place to live. She couldn't go back to Mark, of course, and she had some bad moments imagining that her description had been broadcast and that she would be picked up and sent to an asylum. She wasn't worried for herself. But lover boy might not find her, and she wouldn't be able to get out and search for him.

Among the classified ads she came across a two-room furnished apartment. It turned out to be across the street from a lumber yard, far enough away from Mark to be relatively safe; and the rental was low. She could live on her savings until the baby was born. What would happen after that didn't seem to matter much, right now.

When she went to bed, she felt strangely alone. It wasn't Mark sleeping in the other bed that she missed. She had felt alone in the same room with him up until she thought up Dreamboat. Where was *he*? She squeezed her eyes shut and concentrated. No, he wasn't there. Mark's house must have been the special habitat of that particular hallucination.

She disliked facing Mark again, and perhaps Ben too, but there apparently was no other way to bring back her blue-plumed, stunning mental phantom. She dressed and called a cab.

There was a light in the bedroom, but she saved investigating that for last. She let herself in with her own key and took off her shoes, then slid through all the other rooms with her eyes firmly shut. Establishing no contact, she opened the bedroom door—and there he was.

His lips were grim, his cleft chin jutted, his blond eyes were savage, and he held his fists in uppercut position as he crouched like a boxer over Mark's raging face. He seemed to be rapping out some harsh words, but even Livy couldn't understand him.

"You stinker," she heard Mark snarl. "You hit me when I wasn't looking."

And Ben protested, "Don't be an idiot. Your unconscious is punishing you for the way you treated that sweet, troubled girl. I can show you cases just like yours—"

And Mark said, "Are you telling me I walked into something?"

Ben told him in a calm voice, "Every psychiatrist knows about the unconscious wish for punishment."

Mark yelled, "There's nothing unconscious about my wish to sock you on that fat jaw." And he did.

Lover boy looked past the battle and saw her in the doorway. His angry face brought forth a slow, unearthly

smile, and he walked carefully around the fighting fat men and took her hand. It may have been her imagination, but she *felt* the passionately warm, hard flesh.

She had to open her eyes outside the house and on the way back to her apartment. But she held desperately to his hand.

It was after she came home from the hospital that Ben found her. He told her he had heard of mothers radiating, but that this was the first time he had seen it. She could feel the glow in her face as she showed him the empty crib.

"I know you can't see him," she said, "but I can when I close my eyes. He's a beautiful baby. He has his father's features."

"You caused a little stir at the hospital," Ben said. "That's how I found you."

She laughed. "Oh, you mean the doctor? I thought he'd order himself a straitjacket."

"Well, delivering an invisible baby is no joke, especially when you're called away from a stag party," Ben said soberly. "He was finally convinced that it was only the liquor, but he hasn't touched a drop since. They never did discover the baby, did they?"

"I had it in my room all the time. They were afraid I'd sue and give them a lot of bad publicity, but I said it was all right." She turned away from the crib. "I don't suppose Mark minded the Reno divorce, did he?"

"He knew he was getting off lucky. These kissless-marriage annulments can drive a man to changing his name and moving to another state. But tell me, Livy, how did you arrange the second marriage?"

"By telephone," she said. "I guess you've heard the groom's name and birthplace."

Ben hissed on his glasses, wiped them meticulously. "There was some mention in the newspapers."

"Clrkxsdy1 93J16," she said gaily. "I call him Clark for short. And he comes from Alpha Centauri somewhere. I wouldn't have known that, except he learned to use a typewriter—we don't hear the same frequencies, he says."

Ben's eyes slid away from hers and looked around the shabby apartment. "Well, you do seem happy, I must say."

"There's only one thing that bothers me," she said. "Clark could have picked any woman on Earth. I'm about as average as you can get without being a freak. Why did he want *me*?"

"There's no explaining love," Ben evaded uneasily. He put his pudgy hand in his inside pocket and looked directly at her. "Let's not have any false pride," he said. "You haven't asked Mark for a cent, but you have no income and I'd be glad—"

"Oh, we're doing fine," said Livy, shaking her hair, which she had let grow long and straight with no sign of a permanent. "We're getting a raise soon."

"A raise?" Ben was surprised. "From where? For doing what?"

"I'm supposed to be working for Grant's Detective Agency. But it's really Clark who's the operative—private eye, he calls it now, after reading all those mystery stories—and he types up the reports. All I have to do is correct his English now and then. Imagine, he's even learning slang. Grant can't figure out how we get information that's so hard to uncover, but it's easier than pie for Clark."

"Sure," said Ben, going to the door. "But what are you laughing at?"

"Those blue feathers. They tickle!"

Although Ben could have dropped the situation there, there was one thing you could say for him: he was conscientious. He made one more investigation

"What do you want to know about her for?" Mr. Grant asked coldly and suspiciously.

"I'm a friend of hers," Ben explained, handing Grant his business card. "I just want to make sure she's earning a good living. She divorced a—well, somebody I used to know, and she wouldn't take any alimony I offered to help out, but she said she's doing all right working for you."

Grant's professionally slitted eyes developed a glint of smug possession. "Oh, I was afraid you might want to hire her away from me," he said. "That girl is the best operative I ever had. She could shadow a nervous sparrow. Why, she's got methods—"

"Good, huh?"

"Good?" repeated Grant. "You'd think she was invisible!"

It was a perfect weapon—obviously it couldn't be allowed to fall into enemy hands. But who was the enemy?

OBVIOUSLY SUICIDE

By S. Fowler Wright

IN ABOUT two seconds the Earth would dissolve in a blaze of fire," the research worker at the N. U. Laboratories told his wife. "There would be a burst of light and—one planet less in the universe. The amazing aspect is its very simplicity. It could be made in a backyard shed. All one needs is a combination of three substances, all easy to obtain, and then nothing more than a loop of heated wire."

"Wouldn't it be common prudence to get rid of these substances entirely?" she asked.

"Unfortunately, they are so widely distributed, and in such general use, that their complete destruction would be quite impossible."

"You mean that if this should become known, any lunatic—or any criminal without hope of escape or pardon—could destroy the human race in a form of universal suicide?"

"It is impossible not to be apprehensive." The research worker calmly lit his pipe. "It is known to our Grade A men—that is, to about thirty, now. We are sworn to secrecy as to its ingredients, which I should not think to disclose, even to you. But if there should be one among us who now, or in the future—"

"How has it become known to so many?"

"The possibility was first raised at the weekly conference which is attended by all of the first grade. Several of us worked separately upon it, by experiment to a point, and, beyond that, by mathematical calculations. All reached the same conclusion. It is hardly a matter which could be put to experimental test, but the conclusion is beyond reasonable doubt."

"Then it should surely be wiped out and forgotten as completely as possible from the minds of all of you who share such perilous knowledge."

"We have discussed that already, and shall do so again at a special meeting tomorrow. It may be decided in that way. But differences of opinion are natural among so many. At our last meeting, there were three who objected at once. No scientific fact, they argued, should be treated in such a way. . . . The trouble is that, though the calculations may be destroyed, the process and ingredients are too simple to be put out of mind—especially out of such minds as ours."

"Yet it seems the only sensible thing to do. . . . And if any object, I should say the best thing to do would be to put them in a lethal chamber before they would have time to do a mischief which none could limit."

Grafton agreed to that. There was no more said, and his wife slept.

But he found that he could not sleep. During the past week he had been imagining what it would be like to live in a world which it was common knowledge that anyone could destroy at an instant's caprice. Even the threat, which might soon be on every unscrupulous tongue—"Give me what I demand, or we shall all be gone in the next hour"—would be one which the bravest might find it hard to ignore.

Apart from that, how long would it be likely that the Earth *would* exist, if this knowledge were once at large? Each month there were thousands of suicides of men of different races, of every disposition. Would there be none who would elect an exit of so dramatic a kind? Cast this knowledge abroad, and it would become improbable that Earth could endure for a further week. Yet what could now be done?

But his wife, being refreshed by a night of dreamless sleep, proposed that which, to him, had a startling sound.

Women are more practical and more ruthless than men. She had looked at the bed where a young child slept, and she thought of his sister, a year older, in the next room. Then she said: "If it were possible for the thirty to be destroyed before they could give their knowledge to other men, it would be the best thing that could happen now."

He said: "Oh, but my dear, think who they are! There's Professor Gribstein, and Dr. Thornton, and—"

"I never did like Dr. Thornton," she replied, as a woman would.

He did not give two thoughts to this criminal suggestion at the time, and it might never have re-entered his mind had there not been a discussion in the Council which became heated when it was clear that a substantial minority were indisposed to put the knowledge aside. One even suggested that they should make a public announcement of their discovery, so that they might become a Council of Thirty who would control a world that would crouch around them in abject fear. . . . And then the idea came to his mind of how simply it could be done. . . . At their next meeting, when they would all be assembled together, and he could be absent! He could have a bad cold! A *real* cold! It would be easy to contrive that. . . . The scentless deadly gas which was for use in

the next war—a herd of two hundred cattle had been destroyed in seventeen seconds by a smaller quantity than was in the little cylinder on the high shelf of the room where they always met! Kept for special security there. And most effectually sealed. But a corrosive acid could be timed to eat through the cylinder wall. (They would not know how they died, nor, more important, would anyone else.) It was certainly an attractive idea. And even Maude, a kind-hearted, sentimental woman, said it was the right thing to do. When he came to consider the matter, *he* didn't like Dr. Thornton either. . . . And it would certainly leave him in an unrivaled position!

So, when the Council met again, it was done.

And no one suspected him in the least.

His one mistake was that he told Maude, thinking that she would approve, as indeed she did.

He said that the power was now in his hands alone, and he must consider the wisest course.

Maude thought of many things. Among these was the doubt of what, if or when he were dying, he might be tempted to do. She looked again at a sleeping child, and then did the practical thing.

It was a purlieu in which poisons were not hard to procure. She gave it to him in his morning coffee.

It was a clear case of suicide, for she was able to say that he had told her of the twenty-nine deaths which had preceded his own, that they were due to some carelessness of omission on his part, and his remorse had been painful to see.

It was very necessary to avoid suspicion falling upon herself. She had two children for whom to live. And she was aware of the gravity with which the law might regard the death of one man—though it seemed to take lightly the killing of millions.

Earth was dead, and the explorers from the stars bid farewell to the human race—a little prematurely

RESCUE PARTY

By Arthur C. Clarke

WHO was to blame? For three days Alveron's thoughts had come back to that question, and still he had found no answer. A creature of a less civilized or a less sensitive race would never have let it torture his mind, and would have satisfied himself with the assurance that no one could be responsible for the working of fate. But Alveron and his kind had been lords of the Universe since the dawn of history, since that far distant age when the Time Barrier had been folded round the cosmos by the unknown powers that lay beyond the Beginning. To them had been given all knowledge—and with infinite knowledge went infinite responsibility. If there were mistakes and errors in the administration of the Galaxy, the fault lay on the heads of Alveron and his people. And this was no mere mistake: it was one of the greatest tragedies in history.

The crew still knew nothing. Even Rugon, his closest friend and the ship's deputy captain, had been told only part of the truth. But now the doomed worlds lay less than a billion miles ahead. In a few hours, they would be landing on the third planet.

Once again Alveron read the message from Base: then, with a flick of a tentacle that no human eye could have followed, he pressed the "General Attention" button. Throughout the mile-long cylinder that was the Galactic Survey Ship *S9000*, creatures of many races laid down their work to listen to the words of their captain.

"I know you have all been wondering," began Alveron, "why we were ordered to abandon our survey and to proceed at such an acceleration to this region of space. Some of you may realize what this acceleration means. Our ship is on its last voyage: the generators have already been running for sixty hours at Ultimate Overload. We will be very lucky if we return to Base under our own power.

"We are approaching a sun which is about to become a Nova. Detonation will occur in seven hours, with an uncertainty of one hour, leaving us a maximum of only four hours for exploration. There are ten planets in the system about to be destroyed—and *there is a civilization on the third*. That fact was discovered only a few days ago. It is our tragic mission to contact that doomed race, and if possible to save some of its members. I know that there is little we can do in so short a time with this single ship. No other machine can possibly reach the system before detonation occurs."

There was a long pause during which there could have been no sound or movement in the whole of the mighty ship as it sped silently towards the worlds ahead. Alveron knew what his companions were thinking and he tried to answer their unspoken question.

"You will wonder how such a disaster, the greatest of which we have any record, has been allowed to occur. On one point I can reassure you. The fault does not lie with the Survey.

"As you know, with our present fleet of under twelve

thousand ships, it is possible to re-examine each of the eight thousand million solar systems in the Galaxy at intervals of about a million years. Most worlds change very little in so short a time as that.

"Less than four hundred thousand years ago, the survey ship *S5600* examined the planets of the system we are approaching. It found intelligence on none of them, though the third planet was teeming with animal life and two other worlds had once been inhabited. The usual report was submitted and the system is due for its next examination in six hundred thousand years.

"It now appears that in the incredibly short period since the last survey, intelligent life has appeared in the system. The first intimation of this occurred when unknown radio signals were detected on the planet Kulath in the system X29.35, Y34.76, Z27.93. Bearings were taken on them and they were found to come from the system ahead.

"Kulath is two hundred light-years from here, so those radio waves had been on their way for two centuries. Thus for at least that period of time a civilization has existed on one of these worlds—a civilization that can generate electromagnetic waves and all that that implies.

"An immediate telescopic examination of the system was made and it was then found that the sun was in the unstable prenova stage. Detonation might occur at any moment, and indeed might have done so while the light waves were on their way to Kulath.

"There was a slight delay while the supervelocity scanners on Kulath II were focused on to the system. They showed that the explosion had not yet occurred but was only a few hours away. If Kulath had been a fraction of a light-year further from this sun, we should never have known of its civilization until it had ceased to exist.

"The Administrator of Kulath contacted Sector Base

immediately, and I was ordered to proceed to the system at once. Our object is to save what members we can of the doomed race, if indeed there are any left. But we have assumed that a civilization possessing radio could have protected itself against any rise of temperature that may have already occurred.

"This ship and the two tenders will each explore a section of the planet. Commander Torkalee will take Number One, Commander Orostron Number Two. They will have just under four hours in which to explore this world. At the end of that time, they *must* be back in the ship. It will be leaving then, with or without them. I will give the two commanders detailed instructions in the control room immediately.

"That is all. We enter atmosphere in two hours."

On the world once known as Earth the fires were dying out: there was nothing left to burn. The great forests that had swept across the planet like a tidal wave with the passing of the cities were now no more than glowing charcoal and the smoke of their funeral pyres still stained the sky. But the last hours were still to come, for the surface rocks had not yet begun to flow. The continents were dimly visible through the haze, but their outlines meant nothing to the watchers in the approaching ship. The charts they possessed were out of date by a dozen Ice Ages and more deluges than one.

The *S9000* had driven past Jupiter and seen at once that no life could exist in those half-gaseous oceans of compressed hydrocarbons, now erupting furiously under the sun's abnormal heat. Mars and the outer planets they had missed, and Alveron realized that the worlds nearer the sun than Earth would be already melting. It was more than likely, he thought sadly, that the tragedy of this unknown race was already finished. Deep in his

heart, he thought it might be better so. The ship could only have carried a few hundred survivors, and the problem of selection had been haunting his mind.

Rugon, Chief of Communications and Deputy Captain, came into the control room. For the last hour he had been striving to detect radiation from Earth, but in vain.

"We're too late," he announced gloomily. "I've monitored the whole spectrum and the ether's dead except for our own stations and some two-hundred-year-old programs from Kulath. Nothing in this system is radiating any more."

He moved towards the giant vision screen with a graceful flowing motion that no mere biped could ever hope to imitate. Alveron said nothing: he had been expecting this news.

One entire wall of the control room was taken up by the screen, a great black rectangle that gave an impression of almost infinite depth. Three of Rugon's slender control tentacles, useless for heavy work but incredibly swift at all manipulation, flickered over the selector dials and the screen lit up with a thousand points of light. The star field flowed swiftly past as Rugon adjusted the controls, bringing the projector to bear upon the sun itself.

No man of Earth would have recognized the monstrous shape that filled the screen. The sun's light was white no longer: great violet-blue clouds covered half its surface and from them long streamers of flame were erupting into space. At one point an enormous prominence had reared itself out of the photosphere, far out even into the flickering veils of the corona. It was as though a tree of fire had taken root in the surface of the sun—a tree that stood half a million miles high and whose branches were rivers of flame sweeping through space at hundreds of miles a second.

"I suppose," said Rugon presently, "that you are quite satisfied about the astronomers' calculations. After all—"

"Oh, we're perfectly safe," said Alveron confidently. "I've spoken to Kulath Observatory and they have been making some additional checks through our own instruments. That uncertainty of an hour includes a private safety margin which they won't tell me in case I feel tempted to stay any longer."

He glanced at the instrument board.

"The pilot should have brought us to the atmosphere now. Switch the screen back to the planet, please. Ah, there they go!"

There was a sudden tremor underfoot and a raucous clanging of alarms, instantly stilled. Across the vision screen two slim projectiles dived towards the looming mass of Earth. For a few miles they traveled together: then they separated, one vanishing abruptly as it entered the shadow of the planet.

Slowly the huge mother ship, with its thousand times greater mass, descended after them into the raging storms that already were tearing down the deserted cities of Man.

It was night in the hemisphere over which Orostron drove his tiny command. Like Torkalee, his mission was to photograph and record, and to report progress to the mother ship. The little scout had no room for specimens or passengers. If contact was made with the inhabitants of this world, the *S9000* would come at once. There would be no time for parleying. If there was any trouble the rescue would be by force and the explanations could come later.

The ruined land beneath was bathed with an eerie, flickering light, for a great auroral display was raging over half the world. But the image on the vision screen

was independent of external light, and it showed clearly a waste of barren rock that seemed never to have known any form of life. Presumably this desert land must come to an end somewhere. Orostron increased his speed to the highest value he dared risk in so dense an atmosphere.

The machine fled on through the storm, and presently the desert of rock began to climb towards the sky. A great mountain range lay ahead, its peaks lost in the smoke-laden clouds. Orostron directed the scanners towards the horizon, and on the vision screen the line of mountains seemed suddenly very close and menacing. He started to climb rapidly. It was difficult to imagine a more unpromising land in which to find civilization and he wondered if it would be wise to change course. He decided against it. Five minutes later, he had his reward.

Miles below lay a decapitated mountain, the whole of its summit sheared away by some tremendous feat of engineering. Rising out of the rock and straddling the artificial plateau was an intricate structure of metal girders, supporting masses of machinery. Orostron brought his ship to a halt and spiraled down towards the mountain.

The slight Doppler blur had now vanished, and the picture on the screen was clear-cut. The lattice-work was supporting some scores of great metal mirrors, pointing skywards at an angle of forty-five degrees to the horizontal. They were slightly concave, and each had some complicated mechanism at its focus. There seemed something impressive and purposeful about the great array; every mirror was aimed at precisely the same spot in the sky—or beyond.

Orostron turned to his colleagues.

"It looks like some kind of observatory to me," he said.

"Have you ever seen anything like it before?"

Klarten, a multitentacled, tri-pedal creature from a

globular cluster at the edge of the Milky Way, had a different theory.

"That's communication equipment. Those reflectors are for focusing electromagnetic beams. I've seen the same kind of installation on a hundred worlds before. It may even be the station that Kulath picked up—though that's rather unlikely, for the beams would be very narrow from mirrors that size."

"That would explain why Rugon could detect no radiation before we landed," added Hansur II, one of the twin beings from the planet Thargon.

Orostron did not agree at all.

"If that is a radio station, it must be built for interplanetary communication. Look at the way the mirrors are pointed. I don't believe that a race which has only had radio for two centuries can have crossed space. It took my people six thousand years to do it."

"We managed it in three," said Hansur II mildly, speaking a few seconds ahead of his twin. Before the inevitable argument could develop, Klarten began to wave his tentacles with excitement. While the others had been talking, he had started the automatic monitor.

"Here it is! Listen!"

He threw a switch, and the little room was filled with a raucous whining sound, continually changing in pitch but nevertheless retaining certain characteristics that were difficult to define.

The four explorers listened intently for a minute; then Orostron said: "Surely that can't be any form of speech! No creature could produce sounds as quickly as that!"

Hansur I had come to the same conclusion.

"That's a television program. Don't you think so, Klarten?"

The other agreed.

"Yes, and each of those mirrors seems to be radiating a

different program. I wonder where they're going? If I'm correct, one of the other planets in the system must lie along those beams. We can soon check that."

Orostron called the *S9000* and reported the discovery. Both Rugon and Alveron were greatly excited, and made a quick check of the astronomical records.

The result was surprising—and disappointing. None of the other nine planets lay anywhere near the line of transmission. The great mirrors appeared to be pointing blindly into space.

There seemed only one conclusion to be drawn, and Klarten was the first to voice it.

"They *had* interplanetary communication," he said. "But the station must be deserted now, and the transmitters no longer controlled. They haven't been switched off, and are just pointing where they were left."

"Well, we'll soon find out," said Orostron. "I'm going to land."

He brought the machine slowly down to the level of the great metal mirrors, and past them until it came to rest on the mountain rock. A hundred yards away, a white stone building crouched beneath the maze of steel girders. It was windowless, but there were several doors in the wall facing them.

Orostron watched his companions climb into their protective suits and wished he could follow. But someone had to stay in the machine to keep in touch with the mother ship. Those were Alveron's instructions, and they were very wise. One never knew what would happen on a world that was being explored for the first time, especially under conditions such as these.

Very cautiously, the three explorers stepped out of the air lock and adjusted the antigravity field of their suits. Then, each with the mode of locomotion peculiar to his race, the little party went towards the building, the Han-

sur twins leading and Klarten following close behind. His gravity control was apparently giving trouble, for he suddenly fell to the ground, rather to the amusement of his colleagues. Orostron saw them pause for a moment at the nearest door—then it opened and they disappeared from sight.

So Orostron waited, with what patience he could, while the storm rose around him and the light of the aurora grew ever brighter in the sky. At the agreed times he called the mother ship and received brief acknowledgments from Rugon. He wondered how Torkalee was faring, halfway around the planet, but he could not contact him through the crash and thunder of solar interference.

It did not take Klarten and the Hansurs long to discover that their theories were largely correct. The building was a radio station, and it was deserted. It consisted of one tremendous room with a few small offices leading from it. In the main chamber, row after row of electrical equipment stretched into the distance; lights flickered and winked on hundreds of control panels, and a dull glow came from the elements in a great avenue of vacuum tubes.

But Klarten was not impressed. The first radio sets his race had built were now fossilized in strata a thousand million years old. Man, who had possessed electrical machines for only few centuries, could not compete with those who had known them for half the lifetime of the Earth.

Nevertheless, the party kept their recorders running as they explored the building. There was still one problem to be solved. The deserted station was broadcasting programs—but where were they coming from? The central switchboard had been quickly located. It was designed to handle scores of programs simultaneously, but the source

of those programs was lost in a maze of cables that vanished underground. Back in the *S9000*, Rugon was trying to analyze the broadcasts and perhaps his researches would reveal their origin. It was impossible to trace cables that might lead across continents.

The party wasted little time at the deserted station. There was nothing they could learn from it, and they were seeking life rather than scientific information. A few minutes later the little ship rose swiftly from the plateau and headed towards the plains that must lie beyond the mountains. Less than three hours were still left to them.

As the array of enigmatic mirrors dropped out of sight, Orostron was struck by a sudden thought. Was it imagination, or had they all moved through a small angle while he had been waiting, as if they were still compensating for the rotation of the Earth? He could not be sure, and he dismissed the matter as unimportant. It would only mean that the directing mechanism was still working, after a fashion.

They discovered the city fifteen minutes later. It was a great, sprawling metropolis, built around a river that had disappeared leaving an ugly scar winding its way among the great buildings and beneath bridges that looked very incongruous now.

Even from the air, the city looked deserted. But only two and a half hours were left—there was no time for further exploration. Orostron made his decision, and landed near the largest structure he could see. It seemed reasonable to suppose that some creatures would have sought shelter in the strongest buildings, where they would be safe until the very end.

The deepest coves—the heart of the planet itself—would give no protection when the final cataclysm came.

Even if this race had reached the outer planets, its doom would only be delayed by the few hours it would take for the ravening wavefronts to cross the Solar System.

Orostron could not know that the city had been deserted not for a few days or weeks, but for over a century. For the culture of cities, which had outlasted so many civilizations, had been doomed at last when the helicopter brought universal transportation. Within a few generations the great masses of mankind, knowing that they could reach any part of the globe in a matter of hours, had gone back to the fields and forests for which they had always longed. The new civilization had machines and resources of which earlier ages had never dreamed, but it was essentially rural and no longer bound to the steel and concrete warrens that had dominated the centuries before. Such cities that still remained were specialized centers of research, administration or entertainment; the others had been allowed to decay where it was too much trouble to destroy them. The dozen or so greatest of all cities, and the ancient university towns, had scarcely changed and would have lasted for many generations to come. But the cities that had been founded on steam and iron and surface transportation had passed with the industries that had nourished them.

And so while Orostron waited in the tender, his colleagues raced through endless empty corridors and deserted halls, taking innumerable photographs but learning nothing of the creatures who had used these buildings. There were libraries, meeting places, council rooms, thousands of offices—all were empty and deep with dust. If they had not seen the radio station on its mountain eyrie, the explorers could well have believed that this world had known no life for centuries.

Through the long minutes of waiting, Orostron tried

to imagine where this race could have vanished. Perhaps they had killed themselves knowing that escape was impossible; perhaps they had built great shelters in the bowels of the planet, and even now were cowering in their millions beneath his feet, waiting for the end. He began to fear that he would never know.

It was almost a relief when at last he had to give the order for the return. Soon he would know if Torkalee's party had been more fortunate. And he was anxious to get back to the mother ship, for as the minutes passed the suspense had become more and more acute. There had always been the thought in his mind: "What if the astronomers of Kulath have made a mistake?" He would begin to feel happy when the walls of the *S9000* were around him. He would be happier still when they were out in space and this ominous sun was shrinking far astern.

As soon as his colleagues had entered the air lock, Oronstron hurled his tiny machine into the sky and set the controls to home on the *S9000*. Then he turned to his friends.

"Well, what have you found?" he asked.

Klarten produced a large roll of canvas and spread it out on the floor.

"This is what they were like," he said quietly. "Bipeds, with only two arms. They seem to have managed well, in spite of that handicap. Only two eyes as well, unless there are others in the back. We were lucky to find this; it's about the only thing they left behind."

The ancient oil painting stared stonily back at the three creatures regarding it so intently. By the irony of fate, its complete worthlessness had saved it from oblivion. When the city had been evacuated, no one had bothered to move Alderman John Richards, 1909—1974. For

a century and a half he had been gathering dust while far away from the old cities the new civilization had been rising to heights no earlier culture had ever known.

"That was almost all we found," said Klarten. "The city must have been deserted for years. I'm afraid our expedition has been a failure. If there are any living beings on this world, they've hidden themselves too well for us to find them."

His commander was forced to agree.

"It was an almost impossible task," he said. "If we'd had weeks instead of hours we might have succeeded. For all we know, they may even have built shelters under the sea. No one seems to have thought of that."

He glanced quickly at the indicators and corrected the course.

"We'll be there in five minutes. Alveron seems to be moving rather quickly. I wonder if Torkalee has found anything?"

The *S9000* was hanging a few miles above the seaboard of a blazing continent when Orostron homed upon it. The danger line was thirty minutes away and there was no time to lose. Skillfully, he maneuvered the little ship into its launching tube and the party stepped out of the air lock.

There was a small crowd waiting for them. That was to be expected, but Orostron could see at once that something more than curiosity had brought his friends here. Even before a word was spoken, he knew that something was wrong.

"Torkalee hasn't returned. He's lost his party and we're going to the rescue. Come along to the control room at once."

From the beginning, Torkalee had been luckier than Orostron. He had followed the zone of twilight, keeping

away from the intolerable glare of the sun, until he came to the shores of an inland sea. It was a very recent sea, one of the latest of Man's works, for the land it covered had been desert less than a century before. In a few hours it would be desert again, for the water was boiling and clouds of steam were rising to the skies. But they could not veil the loveliness of the great white city that overlooked the tideless sea.

Flying machines were still parked neatly around the square in which Torkalee landed. They were disappointingly primitive, though beautifully finished, and depended on rotating airfoils for support. Nowhere was there any sign of life, but the place gave the impression that its inhabitants were not very far away. Lights were still shining from some of the windows.

Torkalee's three companions lost no time in leaving the machine. Leader of the party, by seniority of rank and race was T'sinadree, who like Alveron himself had been born in one of the ancient planets of the Central Suns. Next came Alarkane, from a race which was one of the youngest in the Universe and took a perverse pride in the fact. Last came one of the strange beings from the system of Palador. It was nameless, like all its kind, for it possessed no identity of its own, being merely a mobile but still dependent cell in the consciousness of its race. Though it and its fellows had long been scattered over the Galaxy in the exploration of countless worlds, some unknown link still bound them together as inexorably as the living cells in a human body.

When a creature of Palador spoke, the pronoun it used was always "We." There was not, nor could there ever be, any first person singular in the language of Palador.

The great doors of the splendid building baffled the explorers, though any human child would have known their secret. T'sinadree wasted no time on them but

called Torkalee on his personal transmitter. Then the three hurried aside while their commander maneuvered his machine into the best position. There was a brief burst of intolerable flame; the massive steelwork flickered once at the edge of the visible spectrum and was gone. The stones were still glowing when the eager party hurried into the building, the beams of their light projectors fanning before them.

The torches were not needed. Before them lay a great hall, glowing with light from lines of tubes along the ceiling. On either side, the hall opened out into long corridors, while straight ahead a massive stairway swept majestically towards the upper floors.

For a moment T'sinadree hesitated. Then, since one way was as good as another, he led his companions down the first corridor.

The feeling that life was near had now become very strong. At any moment, it seemed, they might be confronted by the creatures of this world. If they showed hostility—and they could scarcely be blamed if they did—the paralyzers would be used at once.

The tension was very great as the party entered the first room, and only relaxed when they saw that it held nothing but machines—row after row of them, now stilled and silent. Lining the enormous room were thousands of metal filing cabinets, forming a continuous wall as far as the eye could reach. And that was all; there was no furniture, nothing but the cabinets and the mysterious machines.

Alarkane, always the quickest of the three, was already examining the cabinets. Each held many thousand sheets of tough, thin material, perforated with innumerable holes and slots. The Paladorian appropriated one of the cards and Alarkane recorded the scene together with some close-ups of the machines. Then they left. The great

room, which had been one of the marvels of the world, meant nothing to them. No living eye would ever again see that wonderful battery of almost human Hollerith analyzers and the five thousand million punched cards holding all that could be recorded of each man, woman and child on the planet.

It was clear that this building had been used very recently. With growing excitement, the explorers hurried on to the next room. This they found to be an enormous library, for millions of books lay all around them on miles and miles of shelving. Here, though the explorers could not know it, were the records of all the laws that Man had ever passed, and all the speeches that had ever been made in his council chambers.

T'sinadree was deciding his plan of action when Alarkane drew his attention to one of the racks a hundred yards away. It was half empty, unlike all the others. Around it books lay in a tumbled heap on the floor, as if knocked down by someone in frantic haste. The signs were unmistakable. Not long ago, other creatures had been this way. Faint wheel marks were clearly visible on the floor to the acute sense of Alarkane, though the others could see nothing. Alarkane could even detect footprints, but knowing nothing of the creatures that had formed them he could not say which way they led.

The sense of nearness was stronger than ever now, but it was nearness in time, not in space. Alarkane voiced the thoughts of the party.

"Those books must have been valuable, and someone has come to rescue them—rather as an afterthought, I should say. That means there must be a place of refuge, possibly not very far away. Perhaps we may be able to find some other clues that will lead us to it."

T'sinadree agreed, but the Paladorian refused to be enthusiastic.

"That may be so," it said, "but the refuge may be anywhere on the planet, and we have just two hours left. Let us waste no more time if we hope to rescue these people."

The party hurried forward once more, pausing only to collect a few books that might be useful to the scientists at Base—though it was doubtful if they could ever be translated. They soon found that the great building was composed largely of small rooms, all showing signs of recent occupation. Most of them were in a neat and tidy condition, but one or two were very much the reverse. The explorers were particularly puzzled by one room—clearly an office of some kind—that appeared to have been completely wrecked. The floor was littered with papers, the furniture had been smashed, and smoke was pouring through the broken windows from the fires outside.

T'sinadree was rather alarmed.

"Surely no dangerous animal could have got into a place like this!" he exclaimed, fingering his paralyzer nervously.

Alarkane did not answer. He began to make that annoying sound which his race called "laughter." It was several minutes before he would explain what had amused him.

"I don't think any animal has done it," he said. "In fact, the explanation is very simple. Suppose you had been working all your life in this room, dealing with endless papers, year after year. And suddenly, you are told that you will never see it again, that your work is finished, and that you can leave it forever. More than that—no one will come after you. *Everything* is finished. How would you make your exit, T'sinadree?"

The other thought for a moment.

"Well, I suppose I'd just tidy things up and leave. That's what seems to have happened in all the other rooms."

Alarkane laughed again.

"I'm quite sure you would. But some individuals have a different psychology. I think I should have liked the creature that used this room."

He did not explain himself further, and his two colleagues puzzled over his words for quite a while before they gave it up.

It came as something of a shock when Torkalee gave the order to return. They had gathered a great deal of information, but had found no clue that might lead them to the missing inhabitants of this world. That problem was as baffling as ever, and now it seemed that it would never be solved. There were only forty minutes left before the *S9000* would be departing.

They were halfway back to the tender when they saw the semicircular passage leading down into the depths of the building. Its architectural style was quite different from that used elsewhere, and the gently sloping floor was an irresistible attraction to creatures whose many legs had grown weary of the marble staircases which only bipeds could have built in such profusion. T'sinadree had been the worst sufferer, for he normally employed twelve legs and could use twenty when he was in a hurry—though no one had ever seen him perform this feat.

The party stopped dead and looked down the passageway with a single thought. *A tunnel, leading down into the depths of the earth.* At its end, they might yet find the people of this world and rescue some of them from their fate. For there was still time to call the mother ship if the need arose.

T'sinadree signaled to his commander and Torkalee

brought the little machine immediately overhead. There might not be time for the party to retrace its footsteps through the maze of passages, so meticulously recorded in the Paladorian mind that there was no possibility of going astray. If speed were necessary, Torkalee could blast his way through the dozen floors above their head. In any case, it should not take long to find what lay at the end of the passage.

It took only thirty seconds. The tunnel ended quite abruptly in a very curious cylindrical room with magnificently padded seats along the walls. There was no way out save that by which they had come and it was several seconds before the purpose of the chamber dawned on Alarkane's mind. It was a pity, he thought, that they would never have time to use this. The thought was suddenly interrupted by a cry from T'sinadree. Alarkane wheeled around, and saw that the entrance had closed silently behind them.

Even in that first moment of panic, Alarkane found himself thinking with some admiration: "Whoever they were, they knew how to build automatic machinery!"

The Paladorian was the first to speak. It waved one of its tendrils towards the seats.

"We think it would be best to be seated," it said. The multiplex mind of Palador had already analyzed the situation and knew what was coming.

They did not have long to wait before a low-pitched hum came from a grille overhead, and for the very last time in history a human, even if lifeless, voice was heard on Earth. The words were meaningless, though the trapped explorers could guess their message clearly enough.

"Choose your stations, please, and be seated."

Simultaneously, a wall panel at one end of the compartment glowed with light. On it was a simple map, con-

sisting of a series of a dozen circles connected by a line. Each of the circles had writing alongside it, and beside the writing were two buttons of different colors.

Alarkane looked questioningly at his leader.

"Don't touch them," said T'sinadree. "If we leave the controls, alone, the doors may open again."

He was wrong. The engineers who had designed the automatic subway had assumed that anyone who entered it would naturally wish to go somewhere. If they selected no intermediate station, their destination could only be the end of the line.

There was another pause while the relays and thyatrons waited for their orders. In those thirty seconds, if they had known what to do, the party could have opened the doors and left the subway. But they did not know, and the machines geared to a human psychology acted for them.

The surge of acceleration was not very great; the lavish upholstery was a luxury, not a necessity. Only an almost imperceptible vibration told of the speed at which they were traveling through the bowels of the earth, on a journey the duration of which they could not even guess. And in thirty minutes, the *S9000* would be leaving the Solar System.

There was a long silence in the speeding machine. T'sinadree and Alarkane were thinking rapidly. So was the Paladorian, though in a different fashion. The conception of personal death was meaningless to it, for the destruction of a single unit meant no more to the group-mind than the loss of a nail-paring to a man. But it could, though with great difficulty, appreciate the plight of individual intelligences such as Alarkane and T'sinadree, and it was anxious to help them if it could.

Alarkane had managed to contact Torkalee with his personal transmitter, though the signal was very weak

and seemed to be fading quickly. Rapidly he explained the situation, and almost at once the signals became clearer. Torkalee was following the path of the machine, flying above the ground under which they were speeding to their unknown destination. That was the first indication they had of the fact that they were traveling at nearly a thousand miles an hour, and very soon after that Torkalee was able to give the still more disturbing news that they were rapidly approaching the sea. While they were beneath the land, there was a hope, though a slender one, that they might stop the machine and escape. But under the ocean—not all the brains and the machinery in the great mother ship could save them. No one could have devised a more perfect trap.

T'sinadree had been examining the wall map with great attention. Its meaning was obvious, and along the line connecting the circles a tiny spot of light was crawling. It was already halfway to the first of the stations marked.

"I'm going to press one of those buttons," said T'sinadree at last. "It won't do any harm, and we may learn something."

"I agree. Which will you try first?"

"There are only two kinds, and it won't matter if we try the wrong one first. I suppose one is to start the machine and the other is to stop it."

Alarkane was not very hopeful.

"It started without any button pressing," he said. "I think it's completely automatic and we can't control it from here at all."

T'sinadree could not agree.

"These buttons are clearly associated with the stations, and there's no point in having them unless you can use them to stop yourself. The only question is, which is the right one?"

His analysis was perfectly correct. The machine could be stopped at any intermediate station. They had only been on their way ten minutes, and if they could leave now, no harm would have been done. It was just bad luck that T'sinadree's first choice was the wrong button.

The little light on the map crawled slowly through the illuminated circle without checking its speed. And at the same time Torkalee called from the ship overhead.

"You have just passed underneath a city and are heading out to sea. There cannot be another stop for nearly a thousand miles."

Alveron had given up all hope of finding life on this world. The *S9000* had roamed over half the planet, never staying long in one place, descending ever and again in an effort to attract attention. There had been no response; Earth seemed utterly dead. If any of its inhabitants were still alive, thought Alveron, they must have hidden themselves in its depths where no help could reach them, though their doom would be none the less certain.

Rugon brought news of the disaster. The great ship ceased its fruitless searching and fled back through the storm to the ocean above which Torkalee's little tender was still following the track of the buried machine.

The scene was truly terrifying. Not since the days when Earth was born had there been such seas as this. Mountains of water were racing before the storm which had now reached velocities of many hundred miles an hour. Even at this distance from the mainland the air was full of flying debris—trees, fragments of houses, sheets of metal, anything that had not been anchored to the ground. No airborne machine could have lived for a moment in such a gale. And ever and again even the roar

of the wind was drowned as the vast water-mountains met head-on with a crash that seemed to shake the sky.

Fortunately, there had been no serious earthquakes yet. Far beneath the bed of the ocean, the wonderful piece of engineering which had been the world president's private vacuum-subway was still working perfectly, unaffected by the tumult and destruction above. It would continue to work until the last minute of the Earth's existence, which, if the astronomers were right, was not much more than fifteen minutes away—though precisely how much more, Alveron would have given a great deal to know. It would be nearly an hour before the trapped party could reach land and even the slightest hope of rescue.

Alveron's instructions had been precise, though even without them he would never have dreamed of taking any risks with the great machine that had been intrusted to his care. Had he been human, the decision to abandon the trapped members of his crew would have been desperately hard to make. But he came of a race far more sensitive than Man, a race that so loved the things of the spirit that long ago, and with infinite reluctance, it had taken over control of the Universe since only thus could it be sure that justice was being done. Alveron would need all his superhuman gifts to carry him through the next few hours.

Meanwhile, a mile below the bed of the ocean Alarkane and T'sinadree were very busy indeed with their private communicators. Fifteen minutes is not a long time in which to wind up the affairs of a lifetime. It is indeed, scarcely long enough to dictate more than a few of those farewell messages which at such moments are so much more important than all other matters.

All the while the Paladorian had remained silent and motionless, saying not a word. The other two, resigned

to their fate and engrossed in their personal affairs, had given it no thought. They were startled when suddenly it began to address them in its peculiarly passionless voice.

"We perceive that you are making certain arrangements concerning your anticipated destruction. That will probably be unnecessary. Captain Alveron hopes to rescue us if we can stop this machine when we reach land again."

Both T'sinadree and Alarkane were too surprised to say anything for a moment. Then the latter gasped, "How do you know?"

It was a foolish question for he remembered at once that there were several Paladorians—if one could use the phrase—in the *S9000*, and consequently their companion knew everything that was happening in the mother ship. So he did not wait for an answer but continued: "Alveron can't do that! He daren't take such a risk!"

"There will be no risk," said the Paladorian. "We have told him what to do. It is really very simple."

Alarkane and T'sinadree looked at their companion with something approaching awe, realizing now what must have happened. In moments of crisis, the single units comprising the Paladorian mind could link together in an organization no less close than that of any physical brain. At such moments they formed an intellect more powerful than any other in the Universe. All ordinary problems could be solved by a few hundred or thousand units. Very rarely millions would be needed, and on two historic occasions the billions of cells of the entire Paladorian consciousness had been welded together to deal with emergencies that threatened the race. The mind of Palador was one of the greatest men-

tal resources of the Universe; its full force was seldom required, but the knowledge that it was available was supremely comforting to other races. Alarkane wondered how many cells had co-ordinated to deal with this particular emergency. He also wondered how so trivial an incident had ever come to its attention at all.

To that question he was never to know the answer, though he might have guessed it had he known that the chillingly remote Paladorian mind possessed an almost human streak of vanity. Long ago, Alarkane had written a book trying to prove that eventually all intelligent races would sacrifice individual consciousness and that one day only group-minds would remain in the Universe. Palador, he had said, was the first of those ultimate intellects, and the vast, dispersed mind had not been displeased.

They had no time to ask any further questions before Alveron himself began to speak through their communicators.

"Alveron calling! We're staying on this planet until the detonation wave reaches it, so we may be able to rescue you. You're heading towards a city on the coast which you'll reach in forty minutes at your present speed. If you cannot stop yourselves then, we're going to blast the tunnel behind and ahead of you to cut off your power. Then we'll sink a shaft to get you out—the chief engineer says he can do it in five minutes with the main projectors. So you should be safe within an hour, unless the sun blows up before."

"And if that happens, you'll be destroyed as well! You mustn't take such a risk!"

"Don't let that worry you; we're perfectly safe. When the sun detonates, the explosion wave will take several minutes to rise to its maximum. But apart from that, we're on the night side of the planet, behind an eight-

thousand-mile screen of rock. When the first warning of the explosion comes, we will accelerate out of the Solar System, keeping in the shadow of the planet. Under our maximum drive, we will reach the velocity of light before leaving the cone of shadow, and the sun cannot harm us then."

T'sinadree was still afraid to hope. Another objection came at once into his mind.

"Yes, but how will you get any warning, here on the night side of the planet?"

"Very easily," replied Alveron. "This world has a moon which is now visible from this hemisphere. We have telescopes trained on it. If it shows any sudden increase in brilliance, our main drive goes on automatically and we'll be thrown out of the system."

The logic was flawless. Alveron, cautious as ever, was taking no chances. It would be many minutes before the eight-thousand-mile shield of rock and metal could be destroyed by the fires of the exploding sun. In that time, the *S9000* could have reached the safety of the velocity of light.

Alarkane pressed the second button when they were still several miles from the coast. He did not expect anything to happen then, assuming that the machine could not stop between stations. It seemed too good to be true when, a few minutes later, the machine's slight vibration died away and they came to a halt.

The doors slid silently apart. Even before they were fully open, the three had left the compartment. They were taking no more chances. Before them a long tunnel stretched into the distance rising slowly out of sight. They were starting along it when suddenly Alveron's voice called from the communicators.

"Stay where you are! We're going to blast!"

The ground shuddered once, and far ahead there came the rumble of falling rock. Again the earth shook—and a hundred yards ahead the passageway vanished abruptly. A tremendous vertical shaft had been cut clean through it.

The party hurried forward again until they came to the end of the corridor and stood waiting on its lip. The shaft in which it ended was a full thousand feet across and descended into the earth as far as the torches could throw their beams. Overhead, the storm clouds fled beneath a moon that no man would have recognized, so luridly brilliant was its disk. And, most glorious of all sights, the *S9000* floated high above, the great projectors that had drilled this enormous pit still glowing cherry red.

A dark shape detached itself from the mother ship and dropped swiftly towards the ground. Torkalee was returning to collect his friends. A little later, Alveron greeted them in the control room. He waved to the great vision screen and said quietly:

“You see, we were only just in time.”

The continent below them was slowly settling beneath the mile-high waves that were attacking its coasts. The last that anyone was ever to see of Earth was a great plain, bathed with the silver light of the abnormally brilliant moon. Across its face the waters were pouring in a glittering flood towards a distant range of mountains. The sea had won its final victory, but its triumph would be short-lived for soon sea and land would be no more. Even as the silent party in the control room watched the destruction below, the infinitely greater catastrophe to which this was only the prelude came swiftly upon them.

It was as though dawn had broken suddenly over this moonlit landscape. But it was not dawn: it was only the

moon, shining with the brilliance of a second sun. For perhaps thirty seconds that awesome, unnatural light burnt fiercely on the doomed land beneath. Then there came a sudden flashing of indicator lights across the control board. The main drive was on. For a second Alveron glanced at the indicators and checked their information. When he looked again at the screen, Earth was already gone.

The magnificent, desperately overstrained generators quietly died when the *S9000* was passing the orbit of Persephone. It did not matter, the sun could never harm them now, and although the ship was speeding helplessly out into the lonely night of interstellar space, it would only be a matter of days before rescue came.

There was irony in that. A day ago, they had been the rescuers, going to the aid of a race that now no longer existed. Not for the first time Alveron wondered about the world that had just perished. He tried, in vain, to picture it as it had been in its glory, the streets of its cities thronged with life. Primitive though its people had been, they might have offered much to the Universe later in history. If only they could have made contact! Regret was useless: long before their coming, the people of this world must have buried themselves in its iron heart. And now they and their civilization would remain a mystery for the rest of time.

Alveron was glad when his thoughts were interrupted by Rugon's entrance. The chief of communications had been very busy ever since the take-off, trying to analyze the programs radiated by the transmitter Orostron had discovered. The problem was not a difficult one, but it demanded the construction of special equipment, and that had taken time.

"Well, what have you found?" asked Alveron.

"Quite a lot," replied his friend. "There's something mysterious here, and I don't understand it.

"It didn't take long to find how the vision transmissions were built up, and we've been able to convert them to suit our own equipment. It seems that there were cameras all over the planet, surveying points of interest. Some of them were apparently in cities, on the tops of very high buildings. The cameras were rotating continuously to give panoramic views. In the programs we've recorded there are about twenty different scenes.

"In addition, there are a number of transmissions of a different kind, neither sound nor vision. They seem to be purely scientific—possibly instrument readings or something of that sort. All these programs were going out simultaneously on different frequency bands.

Now there must be a reason for all this. Orostron still thinks that the station simply wasn't switched off when it was deserted. But these aren't the sort of programs such a station would normally radiate at all. It was certainly used for interplanetary relaying—Klarten was quite right there. So these people must have crossed space, since none of the other planets had any life at the time of the last survey. Don't you agree?"

Alveron was following intently.

"Yes, that seems reasonable enough. But it's also certain that the beam was pointing to none of the other planets. I checked that myself."

"I know," said Rugon. "What I want to discover is why a giant interplanetary relay station is busily transmitting pictures of a world about to be destroyed—*pictures that would be of immense interest to scientists and astronomers*. Someone had gone to a lot of trouble to arrange all those panoramic cameras. I am convinced that those beams were going *somewhere*."

Alveron started up.

"Do you imagine that there might be an outer planet that hasn't been reported?" he asked. "If so, your theory's certainly wrong. The beam wasn't even pointing in the plane of the Solar System. And even if it were—just look at this."

He switched on the vision screen and adjusted the controls. Against the velvet curtain of space was hanging a blue-white sphere, apparently composed of many concentric shells of incandescent gas. Even though its immense distance made all movement invisible, it was clearly expanding at an enormous rate. At its center was a blinding point of light—the white dwarf star that the sun had now become.

"You probably don't realize just how big that sphere is," said Alveron. "Look at this."

He increased the magnification until only the center portion of the nova was visible. Close to its heart were two minute condensations, one on either side of the nucleus.

"Those are the two giant planets of the system. They have still managed to retain their existence—after a fashion. And they were several hundred million miles from the sun.

"The nova is still expanding—but it's already twice the size of the Solar System."

Rugon was silent for a moment.

"Perhaps you're right," he said, rather grudgingly. "You've disposed of my first theory. But you still haven't satisfied me."

He made several swift circuits of the room before speaking again. Alveron waited patiently, he knew the almost intuitive powers of his friend, who could often solve a problem when mere logic seemed insufficient.

Then, rather slowly, Rugon began to speak again.

"What do you think of this?" he said. "Suppose we've completely underestimated this people? Orostron did it once—he thought they could never have crossed space, since they'd only known radio for two centuries. Hansur II told me that. Well, Orostron was quite wrong. Perhaps we're all wrong. I've had a look at the material that Klarten brought back from the transmitter. He wasn't impressed by what he found, but it's a marvelous achievement for so short a time. There were devices in that station that belonged to civilizations thousands of years older. *Alveron, can we follow that beam to see where it leads?*"

Alveron said nothing for a full minute. He had been more than half expecting the question, but it was not an easy one to answer. The main generators had gone completely. There was no point in trying to repair them. But there was still power available, and while there was power, anything could be done in time. It would mean a lot of improvisation, and some difficult maneuvers, for the ship still had its enormous initial velocity. Yes, it could be done, and the activity would keep the crew from becoming further depressed, now that the reaction caused by the mission's failure had started to set in. The news that the nearest heavy repair ship could not reach them for three weeks had also caused a slump in morale.

The engineers, as usual, made a tremendous fuss. Again as usual, they did the job in half the time they had dismissed as being absolutely impossible. Very slowly, over many hours, the great ship began to discard the speed its main drive had given it in as many minutes. In a tremendous curve, millions of miles in radius, the *S9000* changed its course and the star fields shifted round it.

The maneuver took three days, but at the end of that time the ship was limping along a course parallel to the

beam that had once come from Earth. They were heading out into emptiness, the blazing sphere that had been the sun dwindling slowly behind them. By the standards of interstellar flight, they were almost stationary.

For hours Rugon strained over his instruments, driving his detector beams far ahead into space. There were certainly no planets within many light-years; there was no doubt of that. From time to time Alveron came to see him and always he had to give the same reply: "Nothing to report." About a fifth of the time Rugon's intuition let him down badly; he began to wonder if this were such an occasion.

Not until a week later did the needles of the mass-detectors quiver feebly at the ends of their scales. But Rugon said nothing, not even to his captain. He waited until he was sure, and he went on waiting until even the short-range scanners began to react, and to build up the first faint pictures on the vision screen. Still he waited patiently until he could interpret the images. Then, when he knew that his wildest fancy was even less than the truth, he called his colleagues into the control room.

The picture on the vision screen was the familiar one of endless star fields, sun beyond sun to the very limits of the Universe. Near the center of the screen a distant nebula made a patch of haze that was difficult for the eye to grasp.

Rugon increased the magnification. The stars flowed out of the field; the little nebula expanded until it filled the screen and then—it was a nebula no longer. A simultaneous gasp of amazement came from all the company at the sight that lay before them.

Lying across league after league of space, ranged in a vast three dimensional array of rows and columns with the precision of a marching army, were thousands of tiny pencils of light. They were moving swiftly; the whole im-

mense lattice holding its shape as a single unit. Even as Alveron and his comrades watched, the formation began to drift off the screen and Rugon had to recenter the controls.

After a long pause, Rugon started to speak.

"This is the race," he said softly, "that has only known radio for two centuries—the race that we believed had crept to die in the heart of its planet. I have examined those images under the highest possible magnification.

"That is the greatest fleet of which there has even been a record. Each of those points of light represents a ship larger than our own. Of course, they are very primitive—what you see on the screen are the jets of their rockets. Yes, they dared to use rockets to bridge interstellar space! You realize what that means. It would take them centuries to reach the nearest star. The whole race must have embarked on this journey in the hope that its descendants would complete it, generations later.

"To measure the extent of their accomplishment, think of the ages it took us to conquer space, and the longer ages still before we attempted to reach the stars. Even if we were threatened with annihilation, could we have done so much in so short a time? Remember, this is the youngest civilization in the Universe. Four hundred thousand years ago it did not even exist. What will it be a million years from now?"

An hour later, Orostron left the crippled mother ship to make contact with the great fleet ahead. As the little torpedo disappeared among the stars, Alveron turned to his friend and made a remark that Rugon was often to remember in the years ahead.

"I wonder what they'll be like?" he mused. "Will they be nothing but wonderful engineers, with no art or philosophy? They're going to have such a surprise when

Orostron reaches them—I expect it will be rather a blow to their pride. It's funny how all isolated races think they're the only people in the Universe. But they should be grateful to us—we're going to save them a good many hundred years of travel."

Alveron glanced at the Milky Way, lying like a veil of silver mist across the vision screen. He waved towards it with a sweep of a tentacle that embraced the whole circle of the Galaxy, from the Central Planets to the lonely suns of the Rim.

"You know," he said to Rugon, "I feel rather afraid of these people. Suppose they don't like our little Federation?" He waved once more towards the star-clouds that lay massed across the screen, glowing with the light of their countless suns.

"Something tells me they'll be very determined people," he added. "We had better be polite to them. After all, we only outnumber them about a thousand million to one."

Rugon laughed at his captain's little joke.

Twenty years afterwards, the remark didn't seem so funny.

It was a child's dream, and a child's silly toy.
Strange that it could be used to murder

STEPSON OF SPACE

By Raymond Z. Galloway

SCARED? That was hardly the word. Andy Matthews' bristly, dust-grimed cheeks felt stiff; and there was a sensation inside him as though his heart was trying to burst.

He couldn't get it all at once. To do so, fortunately, would have been impossible. He only knew that there was something fearfully and incomprehensibly wrong about his eight-year-old son, Jack!

Andy just stood there in the tool room over the granary, and stared, like a big, dumb ox, frightened, confused, pathetically grim, yet helpless. Oh, he would have died for his boy a hundred times over, if the danger was something he could really approach and fight. But this was different. It made him want to crawl into a dark corner with a loaded shotgun, and wait for a masked mystery to reveal itself. But he knew right away that this wouldn't be any good either!

The apparatus had looked so very harmless when he had first accidentally uncovered it. A peach box base. Tin cans nailed in a circle on top of it. A length of fine-gauge wire from an old radio set, was wrapped around

each can, in a clumsy yet patiently involved design. The lengths of wire converged toward the center of the circle of cans, to form a kind of wheel-like net, each strand of which was stapled to a heavy central block of wood. The exposed upper surface of the latter, bore a deep, elongated indentation, as though some object had struck it with terrific force. Except for an old fashioned double-throw electric switch, nailed to the side of the box, that was all.

The thing looked like any of the various contraptions that kids pound together while playing inventor. Andy had chuckled fondly when he'd dragged the rigamajig out of its place of concealment, and had begun to fuss with the switch; for he remembered the hammering he had heard here in the tool room every time he had come in from the fields. Jack had been working on his "invention" for almost a month.

So Andy had been entirely unwarned. But when he had closed that switch, he had received the surprise of his life. His fingers had been a little off the insulated handle, and had touched the metal. Blue sparks had snapped across Andy's calloused palm. His whole body had recoiled under the staggering blow of a high-tension shock. It might have killed him, had he not stumbled backward.

THAT was the point now—the reason for his fearful confusion—the focus of an incredibly incongruous mixture of facts. Jack was just eight. This rigamajig—peach box, cans, and wires—was kid stuff. And yet the shock that had struck Andy, was like the wallop of a high-voltage line! Nor was there any source, within half a mile or more, from which the contraption might draw power!

The thought that he was perhaps the father of a child genius, got Andy nowhere. Jack was smart, all right; but

certainly no eight-year-old, no matter how brilliant his mind might be, could ever invent a miracle like this.

The apparatus was still active there on the floor, for the switch was closed. A greenish fluorescence, like worms of turbid light, had crept along each of the radiating wire strands. In the brown shadows of the tool room, that soft witchfire burned wickedly, to the accompaniment of a low murmur, that seemed to threaten and predict unguessable developments. In the dusty air, there was a slight odor of scorched insulation.

Moved by instinct, Andy Matthews picked up a small wooden splinter from the floor, and tossed it toward the apparatus.

Even as the chip flew toward its goal, he regretted his impulsive act with a cold doubt as to its wisdom. He ducked and crouched back, as the splinter landed on those glowing wires.

The splinter seemed hardly to touch the wires at all. But the cold emerald light flashed around it. Instantly it seemed to rebound, as if from rubber. Whisking speed increased to a point beyond the range of living retinas. There was a twanging, almost melodious note, and the chip was gone. But in the low-raftered roof above, there was a little hole, as neatly punctured as if made by the passage of a bullet. The splinter had been hurled fast enough to make that hole. . . .

Andy Matthews gulped with the strain of his tightened nerves. His big head, with its close-cropped black hair, swung this way and that, in bewildered belligerence. He hadn't been able to go to school much, but he'd read a lot, and he was shrewd. The kid had made the contraption, all right; but he couldn't have thought it out—alone! And who else was there?

From the back porch of the farmhouse, Jane, Andy's pretty wife, was calling for him to come in to supper. But

he hardly heard her. He hardly heard anything at all, as his brain fought with a mystery far beyond the knowledge of any person that he knew.

But he wheeled about like a burglar, caught with the goods, when the door behind him opened.

Jack stood in the entrance. He just stood there, not saying anything, his face lighted up by the green glow. He looked petulant and startled, sure of punishment.

Andy had no idea at all what to say at first. But then love tangled with fear of the unknown to produce fury. Andy's teeth showed. His slitted eyes snapped. His voice, when he spoke, was a hoarse, unsteady growl.

"Come here, you!" he commanded.

Just for a moment the kid hesitated, his gray eyes vague and clouded in the green flicker. Then he came forward timidly, his scuffed shoes scraping in the untidy litter on the floor. He looked so pathetically little in his soiled overalls. Andy's heart longed to melt, as it always had, for his son. But this was no time to give way to sentiment.

Andy clutched a small shoulder, and shook it violently. "What's this thing, here?" he snarled, pointing to the miracle beside them. "Who showed you how to make it? Come on! Out with it! Or, so help me, I'll break every bone in your body! Hurry up! Who showed you?"

Again there was that timid hesitation, which required more violent shaking to dissipate; but the kid spoke at last:

"Mister Weefles— He showed me. . . ."

Whereat, Andy snorted in sheer, boiling exasperation. "Mister Weefles!" he growled. "Always Mister Weefles! That's no answer at all!" Andy swung a hard palm. With a sharp snap, it landed on the side of Jack's cheek.

"Now will you tell me?" Andy roared.

The kid didn't let out a whimper. That was maybe a

little funny in itself. But then those gray eyes met Andy's levelly, and Andy felt a dim, deep consternation. There was something warning and hard and strange, looking out of those eyes. Something that wasn't his son!

"I said, Mister Weefles," the kid told his father quietly. "He hasn't got any name of his own, so I started calling him that long time ago."

Andy had released his grip on the boy, and had moved back a step. The answer seemed to be nothing but pure, childhood fantasy. But its tone, and that level, warning stare, told a much different story. So Andy's mind seemed to tumble swiftly back through the years, to the time when Jack had been little more than a baby.

Almost since he had first learned to talk, it had been the same. Always there had existed that shadowy individual, Mister Weefles.

Andy remembered himself asking on many different occasions: "What did you do today, son?"

And Jack's answer had so often been something like this: "Oh, I was thinking about Mister Weefles. I dreamed about him last night again. He's a nice old guy, but he's awful lonesome and awful funny looking, and he knows an awful lot. Only he lives all by himself. All his folks are dead. . . ."

A kid story, Andy had thought. Lots of imaginative youngsters made up dream worlds for themselves, and imaginary characters. So Andy had accepted the fanciful friend of his son as a matter of course, with tolerant humor.

But now? In that green-lit, flickering twilight of the dusty tool room, a kid's unimportant legend had suddenly assumed an aspect of real danger!

Andy Matthews began to sweat profusely. Mister Weefles was only a name his boy had given to something—true! Tin cans, wires, a peach box, an unknown source

of terrific electric power; and the bullet-like flight of a splinter of wood, going—where? All this was plain evidence of its truth!

SUDDENLY Jack moved forward toward the busy contraption on the floor. Andy gave a choked exclamation of warning, and made a grab to stop him. But then he only watched, with the intentness of a cat watching a mouse. Because Jack's movements were so skillful, so practiced, showing that he'd somehow been taught, and knew how to do—everything.

His fingers touched the tip of the insulated handle of the switch. With an expert lightness of touch, he swung it open quickly. The turbid light that had enveloped the radial wires of the apparatus, died out. A completer darkness, alleviated only by the evening afterglow from the window, settled over the cluttered room.

But the sharp, muddled concern that screamed in Andy Matthews' heart, could not be extinguished so easily.

They faced each other again, then—father and son—as though across an abyss which seemed to separate them forever. But Andy Matthews' anger was dissolved, now, by his overshadowing fear. He was ready to grope and plead, in the hope that thus he might find a loose end—a tangible means of approach to the sinister presence that had enmeshed itself with his child's personality. His blood throbbed with frustrated, fighting courage.

"Jack," he husked into the gloom. "I'm your dad, boy. Tell me—about this pal of yours. Where does he live?"

Once more there was a pause. Then, grudgingly and sullenly, the kid responded:

"I don't know exactly. . . . Someplace . . . a long way off. . . . It's a terrible scary kind of place. . . ."

"You only dream about it, and about Mister Weefles?" Andy persisted. "At night—when you're asleep?"

"No, Dad," Jack returned. "Sometimes him and all his stuff are there . . . in the daytime, too. I just have to shut my eyes and I can almost see him. He's been getting plainer all the time because I've got more practice figuring out just what he thinks. And he's got a special kind of machine he uses, too. . . . Mostly it's the practice I got, though. . . . And he told me that there's something special about my brains, that makes them a lot easier to talk with than most folk's brains. He don't say anything to me out loud, really. He just thinks, and I think with him. . . . But he's an awful nice old guy . . . sorta sad. I do what he wants. Just now he made me turn off—"

There the kid stopped, sullenly, as though somehow he'd been warned not to talk further.

Andy didn't press the point; but his quick, ragged breathing came still faster, and he took hold of the kid's shoulder again. He pointed to the now-inactive peach box apparatus at their feet. The thing was newly constructed—an outgrowth rather than a cause of a queer mental contact. From what he had seen of its action, Andy concluded that its purpose had nothing to do with minds. It had catapulted that chip through the roof—

"What's this rigamajig for, son?" Andy asked quietly. "What is it supposed to do?"

The question wasn't much use. The kid just shook his head and began to whimper. Andy picked him up, then—a small, tight bundle of unrelaxed, resentful nerves and muscles. The barrier between himself and his boy seemed wider than ever.

"Hurry up and spit it out!" Andy snapped in fresh anger, shaking the kid furiously.

JACK didn't respond; but suddenly there was a tinkling sound on the floor. Something had fallen out of Jack's overall pocket. Instantly the boy became a squirming wildcat, almost impossible to hold. But Andy Matthews was far from feeble; and he was certainly determined, now, too.

Still hanging onto the kid with one arm, he bent down to search for the dropped object. It wasn't hard to find, for it had fallen right by his shoe; and the bright metal of it glinted even in the semidarkness. He picked it up, and then set Jack on the floor. The boy immediately backed away, panting, his mop of yellow hair streaming down into his face. He seemed to wait for an opportunity to recover what he'd lost.

"Now!" Andy said grimly, with a sort of triumph. "Maybe we'll find out something!"

He took the object close to the window. It was a three inch cylinder, almost like a short, thick metal pencil; for it was tapered at one end. A flaky, ashy stuff, which still covered part of its burnished surface, came away in his palms. It was as though the thing had once been accidentally thrown into a furnace, or burned by the friction of a meteoric flight through the atmosphere.

The tapered end of the cylinder could be detached, like a screw. Directly beneath this conical cap, there was a little spindle. Andy tugged at it avidly, drawing a tiny scroll from its tubular container. Carefully, but with shaking fingers, he unrolled it, sensing that here was a thing, the like of which he had never touched before. One side of the long, silky, metallic ribbon, was coated with a fine glaze. Holding the smooth strip up to the dying light of day at the window, he squinted at it. But this effort to see was unnecessary, for the smooth surface was phosphorescent. It was divided into three little rectan-

gles, one above the other, as in a postcard folder. Each rectangle was a picture, a photograph. They were luminous, like colored lantern-slide images, cast on a screen.

Andy didn't have to be told that these were pictures from another world. He was no fool, and he knew that no Earthly stars were as sharp as those pictured in the uppermost photograph. No Earthly mountains were ever so rough and clear and lifeless. Hell, everybody read about things like this, once in a while, in the scientific magazines!

But here it all was, now—true—an inescapable part of a mystery that had settled over his own life! The second picture revealed a shadowy cavern, full of machines and apparati, in which must course fearful power. There were globular tanks, glowing red with the fiery chemicals inside them. There was a squat, complicated lump of metal which looked like some weird kind of dynamo.

The third picture was of the interior of a great crystal sphere, or compartment, whose walls were rimmed with patches of thin, lacy frost. Devices of various kinds crowded it too; but Andy scarcely noticed these at first, for at the center of its concave floor stood a shaggy, lonely figure, clad in white polar fur, which seemed a natural part of him. He was quite a little like a man. Over his immense shoulders, wires were draped, originating from a boxlike apparatus, upon which his fur-tufted paws rested. The wires led to an odd metal helmet, which covered his head, just above his great, batlike ears.

THROUGH the transparent sides of the sphere, the same kind of terrain as that pictured in the first photograph, could be seen; for the strange structure was built in the open. Hard, devil-mountains, and frigid, steady stars.

Mounted on the sphere's top, and visible, too, through its crystalline substance, was a thing resembling the crude

contraption that Jack had made, except that it was much larger, and of course far more finely made. And attached to it were heavy bars of coppery metal, which must carry a terrific load of current from somewhere below.

Andy Matthews, looking at those colored, phosphorescent pictures, was a little dull just then, as far as feelings went. Wonder and fright had left him, momentarily—to be replaced by a semi-daze, which, however, seemed to sharpen and quicken his reason. Like a man in a death struggle, he had forgotten fear and wonder; he was devoting all his energies to understanding and defeating his enemy.

Scattered factors in the puzzle that confronted him, fell together coherently with amazing swiftness. The furry figure in the third photograph, was of course Jack's hidden friend. The helmet the being wore, and the wires and the dialed box attached to it, looked like advanced forms of radio equipment. Andy knew his radio. He'd been a ham when he was nineteen. . . . But this wasn't radio equipment. Jack had spoken of a special kind of machine for thought-transference. This must be it! The source of the weird dreams that Jack had experienced since his babyhood.

Nor was the question of how Jack had come to possess the metal tube with the pictures in it, so difficult to answer, now, either! With vivid, cold memory, Andy recalled what had happened to the splinter of wood he had tossed onto the glowing wires of Jack's contraption. Zip! And like a bullet it had gone through the roof! Doubtless it had continued on, up into the air, and away through the vacuum abyss—toward this similar wheel-like apparatus on top of the globular compartment in the picture.

There was that deep indentation in the upper surface of the wooden block at the center of Jack's rigama-

jig. Then there was that old-fashioned, double-throw switch. The power, acting across the void, could be turned around!

It would have been simple for the kid to carry his machine out into the open, where it could work freely, with no roof in the way.

Come to think of it, there were a lot of things missing around the place, now, Andy thought with a shudder. A new adjustable wrench. A spirit-level, a couple of radio tubes. And Jane had lost a tape-measure. Andy knew what had become of these things. The monster would be fondling them, now. Probably they were treasures to him—curiosities. Like a man getting stuff from—Mars!

BUT—God! What did the shaggy freak really want? What was he meddling with Jack for? What was his deeper purpose? How could anybody tell? Andy's cool, swift reasoning had taken on a new note now; for seeing what he faced emphasized his helplessness. He was up against a knowledge as old as a dead world, and as unreachable.

Dully he rolled up the scroll of pictures, and put it back into the tube. He screwed the cap into place, and dropped the thing into his hip pocket.

Andy wanted to act. But what was there to try? For a second a wild idea blazed in his brain; then was submerged by its futility. And he couldn't leave Jack out of his sight for a moment now. But it wasn't enough just to watch. Those howling nerves of his yelled for movement—for a means to drain away some of their straining, fighting energy.

Andy's mind settled on just one thing—speed!

"Come on, you!" he snarled at the boy, who stared at him with that strange, watchful, guarded look in his eyes—a look that wasn't Earthly—that belonged, in part, to

a being beyond men. Andy knew that if his own mind was not actually read, his every act, at least, was watched, through his own son's eyes.

Andy picked Jack up, and stumbled down the dark stair. The kid squirmed and fought; but Andy's own physical strength could win here, at least. He hurried to the garage. Working with his free hand, he got the door open. He got into the new car, dragging Jack after him. Jane was calling angrily from the house, again. Supper! Andy could almost have laughed mockingly at the triviality of such a thing as supper, now! As for Jane, he couldn't face her now. He had to protect her from what he knew. He couldn't tell her; he couldn't tell anyone! It wouldn't do any good anyway!

With a fury that was part of his dark secret, he stamped on the starter. A minute later the car tore out of the driveway. Once he had the car on the road, Andy's foot jammed more fiercely down on the accelerator. Speed. . . . Faster. . . . Faster. . . . Going toward town. Going toward nowhere, really, unless it was away from bewildering fact, and away from the brooding something that seemed to be in the air—that seemed to haunt the evening stars and the yellow harvest moon.

The whizzing motion wasn't much relief; but Andy's teeth were gritted together. His foot, pushing the accelerator, was down as far as it would go, now. Sixty. . . . Seventy. . . . Eighty. . . . Ninety miles an hour. . . .

Under the tense, drawn anguish of Andy's mind, the crash was almost inevitable. It came on the Hensler Curve, when another car's lights blazed into view. Andy had to take to the ditch at terrific speed. The car under him did a crazy squelching skip on the steep embankment, hurtled and wobbled around sideways, and landed on its top. . . .

QUEER, maybe; but Andy only got a wrenched wrist out of the bargain. The kid wasn't so lucky.

Lost in a sort of mind-fog, Andy Matthews drove back to the farm in the milk truck. That was about midnight. Jane had come into town with the truck, and she was at the hospital, now, with Jack.

Partly because he was dazed by what had happened, Andy had been able to ignore at first the almost hysterical accusations of his wife, and the veiled contempt under Doctor Weller's professional kindness:

"Your boy can't last more than a few hours, Mr. Matthews. We did our best. The emergency operation was the only chance. But now that it's over, the boy's system can't stand the shock. I'm sorry."

What the matter-of-fact old physician wanted to say, of course, was that Andy was just another damn-fool driver, who had as good as murdered his own son.

Still, Andy was able to ignore that accusation. They didn't know how he loved that kid of his. Or why the accident had happened. Andy had just one burning idea now—revenge. Revenge against that un-Earthly presence whom he felt was the author of all his misfortune.

Otherwise he was like a dead thing, impervious to all feeling. It wasn't anger, exactly, that gripped him now. He'd gone beyond that. It was just—fundamental need. Even grief seemed to have dissipated into a mist, against which was stamped the fiery blob that represented his scheme. He'd thought of it before—and had rejected it as hopeless. He still thought it was hopeless—as hopeless as trying to kill an elephant with a popgun. But—well—there wasn't any other way at all. . . .

He got a couple of big thermos bottles from the kitchen pantry. Then he hurried outdoors, and to the woodshed. High up on the wall here, was a locked chest, where he kept special things. He'd expected to do some

stump blasting in woodlot. Now he opened the chest, and took out a large bundle of cylindrical objects, wrapped in waxed paper.

By the beam of a flashlight, he ripped the paper from each of the objects. Inside was an oily, yellowish, granulated stuff, that looked a little bit like pale brown sugar.

"Brown sugar, eh?" Andy thought craftily. Yeah, maybe it was a good idea to imagine it was something harmless, like brown sugar.

He packed the stuff in the thermos bottles. Then he went to the tool room over the granary to get the peach box apparatus. He took it out into the night, and set it down at the farther end of the garden.

THERE were streaky clouds in the sky, overcasting the moon. Andy was glad of that, at least. But—maybe his enemy knew his whole plan already. Andy was conscious of the gigantic learning he was pitted against. Maybe he'd be stricken dead in some strange way in the next moment. But he accepted this possibility without emotion.

He grasped the handle of the double-throw switch lightly in his fingers, and swung it over—to the same position in which he had accidentally placed it when he had first found his son's contraption and had learned of its strange properties. That sleepy murmur began, and those green worms of turbid light started to creep along the radiating wires of the apparatus.

He waited until the glow was on full—until the energy, groping across space, reached maximum. Meanwhile, as far as was possible, he kept his mind on things which didn't quite concern his present task. He'd made plans to send Jack to college, when the time came, for instance. But that was all over, now. . . .

His hand lifted one of the loaded thermos bottles. It

was best to have the stuff it contained insulated against cold and heat and against electric shock. That was why he had used those vacuum flasks.

He tossed the thermos toward those glowing wires, while he stood defensively back. There was a soft, ringing sound, and static prickles raced over Andy's body, as the flask bounced upward, amid a play of cold, troubled flame. In a twinkling the missile was gone—vanished away in the direction of those clouds over the moon. A swift, but comparatively shockless start.

Presently, the second thermos went the way of the first. Andy was dully surprised that he'd gotten away with it.

With the job over, now, Andy felt a wilted kind of relief. He got into the milk truck and drove back to town—to the hospital. There, with wide-eyed, tearless Jane beside him, he continued the vigil at Jack's bedside. . . . Jane didn't show any resentment now. She seemed glad to have Andy there with her. Jack belonged to them both; and though Andy hadn't told her anything about the dark mystery, she must have sensed how sorry he was.

There was a funny kind of strain in the room, that he felt right away, but couldn't place. It was mental. It seemed to take hold of one's mind, powerfully, incomprehensibly, expressing an indomitable will that must not—could not—be denied. "Live! Live! Live!" it seemed to beat out in an incessant, wordless, telepathic rhythm.

Andy decided at last that it was only an illusion of his own tired brain, hoping for the impossible—that Jack would pull through. And so, with Jane in his arms, he sat in a chair, watching through the night. Some time after dawn they both fell asleep.

DOCTOR WELLER didn't wake them till nine in the morning. He'd already examined Jack several times

He looked quizzically at the child's parents, first one, then the other. His heavy brows knit in puzzlement.

"I hardly believe it," he said at last. "But the boy's better. His pulse is firmer and more even, and not so fast. That rib we had to dig out of his lung, hasn't caused as much trouble as I thought."

He almost grinned, then. "You folks must be psychic," he went on conversationally. "Things like this happen once in a while, I've sometimes thought, though medical science never had enough evidence to back the idea up. But if you care a good deal for someone who is very sick, and insist in your mind that they *must* live, perhaps it helps. Maybe that's right. Maybe not. Anyway, keep on hoping, folks!"

After the physician was gone, Jane threw her arms around her husband's neck, and wept. Andy stroked her silky blonde hair, and patted her shoulder. But already, behind his narrowed eyes, a weird suspicion was beginning to form. Psychic, he and Jane? Perhaps. But Andy was beginning to doubt—not the miracle itself—but its source. He fumbled into the hip pocket of the overalls he was still wearing. The metal tube, reminder of a personality possessing psychic powers far beyond the Earthly, was still there.

Mister Weefles. Jack's dream pal. . . . All his folks were dead, Jack had said. The last of a race, that must mean. A shaggy, lonely giant on a world that had perished. Lonesome. . . .

Was that right? It *could* be right! Andy began to wonder if his first judgment hadn't been incorrect after all. . . .

He was looking beyond the veil of suspicion, which one must inevitably feel for anything strange and alien. He had read about the theories of evolution—how men

would change when the Earth got older. Long natural fur, to keep out the increasing cold. Big chests and big lungs to breathe the thinning atmosphere, before it became actually necessary to withdraw to airtight caverns and habitations. Then perhaps the slow decadence of boredom and sterility, leading to extinction.

And now, when the danger of death had come to his small companion, the monster seemed to be doing his best. He was standing there, in that glass globe, sending out healing waves with his telepathic apparatus. . . .

But those thermos bottles Andy Matthews had shot into space, were filled with stuff meant to kill.

But after a moment, Andy's suspicions and weariness were reawakened. Perhaps his second judgment was not so sure, either. The shaggy giant *could* be a true friend—yes. But couldn't he, just as well, have an ulterior motive in his efforts to save Jack? What if Jack happened to be an essential link in a chain of conquest—one that it had taken years to develop to the point of usefulness? Naturally, in that case, the furry enigma would want to preserve the boy's life, wouldn't he?

It WAS almost a quandary, as dark as the myriad questions of the stars. But the clear truth was there in his pocket. The little tube of pictures. Oh, they scared a man when he first examined them—sure! Because they were so unfamiliar. But if you thought about them a little, you got a milder slant on their significance. They were like postcards sent to a kid nephew!

Andy's suspicions wilted when he saw their ridiculousness. He got a new grasp on the nature of the unknown. The shaggy thing out there had lost the aspect of omnipotence, created for Andy by the fantastic circumstances under which he had first glimpsed the mystery with which his boy was involved. . . .

The monster was finite. And with all the rest of his kind gone, lonely. Maybe he'd worked and groped for years to find a companion—a means to reach another mind—one of the right form to receive and transmit thoughts readily. Jack hadn't been harmed through the years of contact—except by his own father!

Andy's original stark fear had left him, to be replaced by a new worry. The aura of healing strain still clung in the room—evidence of terrific effort. And the monster was finite. Besides, he was bemused, now, by that tremendous concentration. Probably he would not be watching some of his instruments. While above his head, on the outside of the crystal sphere that enclosed him, was another apparatus. A wheel of rods. And across space were coming two thermos bottles intended to destroy. . . .

Andy moved slowly, trying thus to hide the worry, and the driving need for haste that throbbed in his blood. He edged toward the door of the hospital room.

"Jane," he said, facing his wife briefly. "There's something I've got to look after. It's very important. I'll be back in an hour."

She looked at him with weary contempt for his desertion—now. She didn't know anything about the real depth of the situation. Nor could he try to explain.

He drove like blazes back to the farm. All the way he kept muttering: "Dynamite! Those flasks are full of dynamite! Look out!"

GETTING out of the truck, Andy slammed through the garden gate by the garage. At the farther end of the garden he stopped, staring.

The peach box apparatus he had left active there had ceased to function. No green flame coursed along its wires, though its switch remained closed.

There was no use now to shift the blade of that double-

throw switch to its opposite pole to reverse the action of the machine, as he had intended. Andy bent down, touching the radial filaments. They were still a little warm. The power must have ended just a moment ago, its far-off source broken off.

There wasn't anything to do but go back to town and the hospital, now. Andy reasoned that there must have been corresponding developments there, too. Flushed with a confused excitement, he arrived, and hurried to Jack's room.

Jane was alone there with the boy, who looked just as before—asleep and breathing evenly. But Jane was smiling.

"What happened?" Andy snapped. "Something happened. I know it!"

Jane looked at him oddly. "You must be the psychic one," she said. "I was frightened at first. Jack had a kind of sudden convulsion. I called the doctor in. But he said nothing was wrong, except maybe a nightmare. He said he thought Jack was sure to recover now, and that he wouldn't be crippled. . . . That it was just the shock of the emergency operation that was so dangerous. Oh, Andy—I—hardly believe it; but I—I'm so glad—"

Andy Matthews took her in his arms then—briefly. He could surely not have denied his own happiness at that moment. But he was looking deep into the texture of a mystery, and feeling an odd ache of regret over something that could have driven his wife to hysteria, had she known. . . .

Half an hour later, Andy took Jane out to a restaurant. A radio was going there, giving news-flashes; and Andy particularly wanted to listen.

"Take it or leave it, friends," the announcer was saying. "The moon's dead old volcanoes have still got a few kicks left in them. that make Vesuvius and Aetna look

sick! A half-dozen observatories, in Australia and Asia, where of course it's still night, and where the moon is still above the horizon, have just reported some very interesting phenomena. Ten small puffs of dust were observed in a lunar crater named Plato. These puffs were followed by a tremendous blast that demolished nearly a quarter of the old volcano. . . ."

Here's the lesson that tomorrow's lovers learn:
Some boundaries can never be crossed

DEATH IS THE PENALTY

By Judith Merrill

YOU come along a twisting path in the still shade of the giant trees, through random patches of green and brown coolness. A last sudden turn delivers you into the clearing, and waves of heat shimmer before you. The sun's rays are too white, the little stream impossibly blue. Squinting, your eyes seek relief and find it.

By the side of the stream, the two black figures have made an island of quiet for themselves. The area inside the unrepaired old fence is filled with the calm inwardness of their tender cold embrace.

The guide will stop here and wait, until everyone is in the clearing, until each face has turned questingly toward the dark mystery. And when he speaks, the guide's voice will be quiet. Under the great trees he shouts, but in the presence of the black lovers, a man does not speak too loudly.

"The permanents here," the guide will tell his crowd of sightseers, "are a memorial to the Boundaries." Over to the left, high above even the giant trees, a Boundary rises white in the sun. Nobody looks at it; all eyes are on the black figures in the clearing. But it is there, always there, a thing no one ever forgets completely.

"The incident," he says, still quietly, "was the last of many that resulted finally in the erection of the Boundaries. The permanents were left here, guarded by a fence for the visitor's safety, instead of being disposed of in the usual fashion. They are safe now, so you may examine them as closely as you like. The names of these two were David Carman and Janice Block."

David wandered down the path between the trees, his thoughts on the stream ahead, remembering its brilliant blueness; his body, hot and sticky, even in the shade, remembering the tingle of the water. It was a long walk from the lodge—but worth it when you got here. He came out in the clearing, and immediately disappointment struck at him. On the bank there was a book and robe. From somewhere around the curve splashing sounded. He had wanted to be alone.

He walked over slowly, and stood over the swimmer's possessions on the shore. Then he saw the book, recognized it, and smiled a little.

He stripped off his own robe, and entered the water noisily, deliberately, to let the earlier swimmer know he was there. In a moment, a brown arm flashed around the bend, cleaving through the bright blue. And then they met, for the first time.

It was a girl. A girl with brown limbs glistening from the fresh water, and bright brown hair tumbling loose waves out of her bathing cap. A girl in a yellow bathing suit. A girl with a diffident, uneven-toothed smile and snapping brown eyes, lashes wet still from the water. They both stood up, facing each other in the water, and the magic must have hit them both at once, because neither one spoke a word.

They stood, a few feet apart, and then he laughed, aloud, in delight, and she began to laugh, too. They both

turned and walked up to the shore. He treasured the seconds, the feel of water pulling against his legs, the shore waiting ahead, the girl walking near him, the water pulling at her the same way, the shore looking the same to her. They sat down where she had left her robe, and he pulled cigarettes out of the pocket of his own. He handed her the pack, took one himself, and they smoked quietly, companionably.

She leaned back resting on one elbow, watching the man's face as he dragged deep on the cigarette. He was thin, tall and too thin, and when he sucked in the smoke, the concavities of his cheeks became deep hollows. His hair was tousled, sandy-colored, and she wondered about his eyes, shadowed under the bony brow-ridge. He was altogether a bony man, his cheekbones standing out in sharp relief from the long planes of his face, his jaw a stubborn angular challenge to the world, his long lean hands thin enough to reveal the fine structure of tiny bones and veins. She watched him, quietly, not wanting to talk, to find out something that might spoil it, just thinking. *This is how it is. This is how it hits you, and some day, the man is the right one, and you stay hit.*

He took the cigarette out of his mouth, held it in front of him watching the blue smoke turn white in the hot air, and disappear, and she knew he would speak. Desperately, she willed him not to.

Let him not say anything wrong. Please, please, let him not spoil it. Let him sit quiet for me to look at and pretend with.

"What do you think of his theory on the correlations on mass and individual reactions?"

She had been so afraid for him to speak that she didn't really hear the words at first. "His?" she said, stupidly.

"Mercken's." His voice was impatient. He turned to-

ward her slowly, and she saw a shadow of disappointment fall over his face. "I saw the book," he said, now politely. "I thought it was yours—'Psychology of the Mass—'"

Intelligence came into her eyes, and she saw the smile return in answer to his face. "It is mine," she said, breathless now. This was *too* much, too good. "You don't mean," she rushed on, not answering him, "it's your field, too? You—"

"Of course!" He was impatient again. "How far are you—"

She let herself breathe again. She stopped wondering and willing anything. She let go, and they were talking. She never remembered afterwards what they talked about that first half hour. Some of it was psychology, and some of it themselves. Some of it was the woods, the trees and the sun and the brook. But when she began to think clearly once more, she knew his name was David, and she was talking shop—again. She stopped, abashed.

"You have your own worries," she said. "I can handle my own job—I guess," then, because she wanted to tell him, she rushed on to explain. Maybe she'd been saying stupid things, and it was important to explain. She was telling him how she had worried about his talking, how she had been afraid whatever he said would spoil the wonderful minute. She could say that without worry; she knew he'd felt it, too. And then how impossibly perfect it was when he did begin to talk. He listened gravely. He didn't say anything; he nodded, but in the nod she saw he knew about all the years and all about the men who were just a little silly, a little juvenile, who came running when she smiled, but backed off in fright when she talked.

He listened, and nodded, and understood, and then as soon as she was done, he said: "I've been thinking about

that problem of yours. We've been using inferentials on our work. Have you tried applying them to the quiz-reactions, to test—"

"Inferentials?" she broke in, puzzled.

He took a stick, sketched the math of it quickly in the sand, and she watched with delight, as the simplicity and beauty of it emerged.

He moved the stick rapidly, wiped out what he had started again. "You take the first four symbols—"

And then he stopped. "Janice," he said quickly, very low, and a deathly stillness fell, "Janice, where did you say you worked?"

"I didn't." She was sober. She didn't know, she didn't want to know, but she *did* know, even before she answered him. "California Open Labs," she said, letting each word fall flat to the ground, letting it ring with its leaden weight as it fell. There had had to be something; she'd known there would be something; so this was it. "You're at the Restricted Lodge?" It was a question as she said it, but it needed no answer. She knew.

Without looking at him, she stood up. "I'll try to forget it," she said, watching the shadows of the treetops on the ground, "I'll try not to let it—" She stopped. "You better go now," she said. Then she pulled the bathing cap down hard over her ears, and dashed for the water.

She ran, but he was faster than she. He caught her by the shoulders, roughly, before she got to the bank, swung her around, and waited till she lifted her eyes to his. Then he started to speak. His mouth opened but there was no word in it. There was nothing he could say. So instead of speaking, he pulled her close, and she was floating away from facts up into a world he brought her with the pressure of his lips.

He let her go slowly, and they sat down again, both of them shaken, too much moved to look at each other, or

touch each other. It could have been a minute or an hour, when, finally, he said: "Janice, I think I love you. It's crazy and it shouldn't have happened, but I love you."

Then she turned and met his eyes once more. "I love you, David." She heard the melody in her own voice, and wondered how it could sound that way when the world was crashing around her ears. "There's nothing we can do, is there?" she said facing it, putting it in words, the fact, for both of them.

"Nothing," he said.

The words were right. The words were true, but the music was wrong. Wrong because it was happy. Because all the truths in the world couldn't pull them apart now.

They tried.

They didn't ask any more questions, and they never made any plans. It was the last time they would see each other—only it wasn't. Each of them came back alone, again and again, to the brook in the woods, came and sat alone and thought of how it might have been. And the day came, as it had to, when, rounding the twisting path through the trees, they were face to face again.

They stood without moving, and took no step toward each other. Then from both of them came a curious sigh, an exhalation as if each had held his breath too long. He reached out an arm, slowly, as if to make certain that this time his mind was not playing tricks. The shining brown hair, the sparkling brown eyes—this time they were real. His hand touched her shoulder, lightly, seeking and then not so lightly, and they were wrapped in each other's arms, alone in a pounding, beating universe, a private world of safety and companionship.

They walked back to the brook, arms entwined like children, and sat on the edge of the bright blue water

for the rest of the afternoon, savoring each other's presence, talking only a little.

Still they made no plans. Not even an agreement—but after that they met each week on the rest day. They met and sat there close by the edge of the brook, almost afraid to talk for fear of the things that might pass from him to her, but still not able to stay away altogether.

But it went on, and after a while the first fear slipped away. They were still cautious. They talked about themselves, their hopes, their dreams, anything but work. Once they thought they had found a safe subject. Something he had worked on that had since been released for Open research, and was now a problem in her hands. But that led them dangerously close to the borderline—the things he knew, that she could not. So they shied away, and talked again about themselves.

For Janice it was the first time. She knew he had understood, from the beginning, so she poured out to him now all the lonely years. She told him how the exams in Secondary had just barely passed her by for Restricted work, how she was left among men who were pleasant, friendly, good at their work. But always, when she met someone, he stayed a little while, then went away. She was too good—too smart, too quick. A man doesn't want a woman who is greater than he is.

Janice had subjected them, one by one, to the hot inquiring searchlight of her intellect, probed at their minds, and, when she was not herself discarded, she had discarded them, each in turn. Because a woman doesn't want a man who is less than she is.

After a while, they all knew she was cold, that she somehow had missed the secret of soft womanliness—and then she was alone. Until David.

Now something had happened. The hot intensity of the searchlight had diffused as the sun did when you left

the clearing for the woods. She had found a man, the man; she had stopped picking and judging and weighing, and she was learning to be still, to watch, to lean back. There was also, obscurely, a new vitality to her, and though she had never been beautiful, a kind of beauty. She worked well, too. The inquiring light played now sharply only on her work, and the job gained from it, as her personality gained from the gentle radiance it reflected. And it did not seem to impede her efficiency that she would stop sometimes for a moment to think of the warm spot in the clearing, of David, and of the sheltered loneliness of their love.

Clinically, she was curious about the happiness they had gathered from the total impossibility of their being together. Objectively, she knew it could not last. But resolutely, she shut her mind, as he was doing, to what the end must be.

Each week she went to the brook and sat, talking a little, close by David's side, telling him her secrets, listening to his. Each time she came back renewed in a daze of happiness. But each time, also, she came back troubled, aware in the consciousness she had shut out, that things could not go on as they were, not forever. Some day there would have to be consummation—or an end.

The day came, of course, as it had to come, when they met, and suddenly let loose on each other the growing misery of the weeks, the unhappiness they had each hidden even from themselves. It was noon when they met. They talked, and she sobbed a little, on the bank of the stream, until the sun was halfway down in the sky. And by that time they knew what they had known at the start. There was no way, no possible way, that they could ever have more than what they had now—and even that much was too dangerous.

For Janice there was a new realization. "But I'm not risking a thing, David," she said. "It's all you. *You're* the only one who'll be punished. They won't do a thing to me, when they . . . if—"

"When was closer, Janny." He smiled, a very tired smile, that did nothing to relieve the drawn tension of his lean face. "You were right the first time. They *will* find out if we keep this up. Shall we stop?" The last was joking, but serious too, because they both knew the answer. To stop would be to stop living. To die. It was not enough, that they had, but it was the slender string on which living and happiness depended.

Abruptly, she stood up. "Yes," she said. "Yes, we will stop. This isn't worth it. Not worth what they'd do—"

Seated at her feet, he heard the words, and knew how completely right they were. It would be harder to stop, harder all the time. And as long as they continued, there were only two things that could happen. The best was a lifetime of this, years and years of secret meetings at the brook. His mind tricked him into a grin as he wondered what they'd do if it rained? He jumped to his feet, still grinning.

"I'll carry you off," he said. "I'll take you in my arms and run over the edge of the world and hide you there. I'll make a club and bow to catch your food—and manufacture a movie machine to keep you amused. We'll have a huge arsenal of b-bombs, and never let anyone near. We'll—"

She stopped him, a firm hand pressed over his mouth. The old joke was no good now. Tears stood still in her eyes, waiting to move, as she tried to match his smile.

"No, darling, no, you won't. We shouldn't even talk about it, because if we do, someday we might try it. And there's no hiding place. Not in this world. There's no hiding place at all."

He took the hand that was pressed over his mouth, held it in both his own, and let his kiss fall into the container of the cupped palm, let it linger there, and then let the hand drop, nerveless, to her side. His arms went about her swiftly, needing her close for warmth, for support—and they never heard the footsteps.

“In the name of Security!”

Long habit sent them whirling apart. Lifelong conditioning put them both alertly at attention. And only in full view of the Security officer and his three assistants did either of them realize that they were on the wrong side of the Law, that they could not this time prepare to aid an officer of the State in the adjustment of Security. They were themselves a menace to all that held the nation safe.

The officer drew a warrant from his pocket, while a deputy held the gun on them steadily. “In the name of Security,” he read, now, “David Carman, and Janice Block are hereby accused of infringement of Special Rule #107 of the Regulations as amended in the year 2074 A.D. ‘That under these covenants, and in view of the necessity for preventing any possible leakage of information, it shall be especially forbidden to Restricted officers in the service of the State to engage in social intercourse in any shape, or form, or manner, with scientists in the Open fields, who shall in any way be capable of understanding, or retaining, or utilizing, any part of the Restricted information held by such officers.’”

He stopped, dramatically: “You know the regulations, Mr. Carman?”

“Yes.” What else could he say?

“Miss Block, you have been aware of the risk you were taking? You knew the occupation of this man?”

“Yes.”

"And you had informed him of your occupation?"

There *was* a way out. "No!" she shouted. "No, no, no!" She heard her own voice, thin and screaming. "No, I never told him. I wanted to see him, so I never—"

David's hands on her shoulders stopped her. "It's no use, Jan." His voice was absurdly quiet, relaxed. "I'd investigated you. I had to, you see. I put through a query, saying I read your paper, the one you did last fall. I thought you should be reconsidered for Restricted, on the basis of the work you had done. I thought . . . well, it doesn't matter now, does it?"

The Security Officer read on. They knew what was coming. ". . . paper by Miss Block contained mathematical equations suspiciously similar to work in progress in the California Restricted Laboratories." Jan glanced up sharply, taken by surprise. But she had never used—and then, of course, she knew, her mind had tricked her. David had never finished showing her, but the hint was enough. She found a different way to the same result—a result her own background would never have found for her. So she had betrayed them, betrayed them while she worked, while she was happy, while she thought about coming here to this brook to see David again.

Again he took her hand, and pressed it. Just a little, but the little was enough. He knew, too, how it had happened, and he didn't blame her.

". . . David Carman is hereby indicted for treason, and Janice Block is commended to the care of a Refreshment Home until such time as the memories of this incident may have passed from her."

Janice's breath caught, whistled in through her teeth. Amnesic shock, then!

"Are you prepared to accompany us, Mr. Carman?"

She heard him breathe in deeply, saw his mouth open

to form the word of acceptance. She reached out, clutched his arm with her own hand.

"No!" she screamed. "David, no! If they want to kill you, they'll have to kill both of us! You can't . . . you can't—"

He had turned and his arms went around her, disregarding the officers. He held her against him, without passion or strain, held her like a child, and waited till she was calm.

"I love you, Jan. You're the only woman I ever loved." He turned to the officers, and it was *they* who had trouble meeting his eye. "I'm ready," he said, and he took his arms from the girl.

"No." She wasn't screaming now. She was quiet, too. His touch, his arms about her, had given her that. She had to be quiet, or he wouldn't understand.

"David," she pleaded, "don't leave me. Don't go away and send me back to my loneliness. Stay with me." She nodded toward the pistol the man held. "Stay with me forever. David, *I want it that way.*"

He turned from the men and faced her, searched her eyes, and went to the depths of her soul. He took one step closer to her. Then, as they had in the water, they smiled at each other, and he put his arms out to her again.

"Officer!" she cried giddily. "Officer, can't you see? This man is resisting arrest!"

"They never knew," the guard will tell you, "when the immobilizer hit them. At that time," he will go on, "atomics were not well enough developed to make blast-pistols safe. The transmutation pistol was always used when Security officers had to display force in public.

"Ordinarily the permanents so created were safely

dumped, to prevent radioactive effects. But it was directly resultant on this case that the force-boundaries"—all eyes wandered a little to the left—"were erected, to divide the social territories of the Restricted officers. So these two were left as a memorial for visitors to the park."

There is much more to see, but you walk away thinking, and do not listen. You are wondering about the wild, romantic days, before the Boundaries, before Civilization, before even Security.

The mysterious great stone faces of Easter Island seem to wear half a smile. Here's why

BEYOND DOUBT

By Robert A. Heinlein and Elma Wentz

SAVANT SOLVES SECRET OF EASTER ISLAND IMAGES According to Professor J. Howard Erlenmeyer, Sc.D., Ph.D., F.R.S., director of the Archeological Society's Easter Island Expedition. Professor Erlenmeyer was quoted as saying, "There can no longer be any possible doubt as to the significance of the giant monolithic images which are found in Easter Island. When one considers the primary place held by religious matters in all primitive cultures, and compares the design of these images with artifacts used in the rites of present day Polynesian tribes, the conclusion is inescapable that these images have a deep esoteric religious significance. Beyond doubt, their large size, their grotesque exaggeration of human form, and the seemingly aimless, but actually systematic, distribution gives evidence of the use for which they were carved, to wit; the worship of. . ."

WARM, and incredibly golden, the late afternoon sun flooded the white-and-green city of Nuria, gilding its maze of circular criss-crossed streets. The Towers of the Guardians, rising high above the lushly verdant hills.

gleamed like translucent ivory. The hum from the domed buildings of the business district was muted while merchants rested in the cool shade of luxuriant, moistly green trees, drank refreshing okrada, and gazed out at the great hook-prowed green-and-crimson ships riding at anchor in the harbor—ships from Hindos, from Cathay, and from the far-flung colonies of Atlantis.

In all the broad continent of Mu there was no city more richly beautiful than Muria, capitol of the province of Lac.

But despite the smiling radiance of sun, and sea, and sky, there was an undercurrent of atmospheric tenseness—as though the air itself were a tight coil about to be sprung, as though a small spark would set off a cosmic explosion.

Through the city moved the sibilant whispering of a name—the name was everywhere, uttered in loathing and fear, or in high hope, according to the affiliations of the utterer—but in any mouth the name had the potency of thunder.

The name was Talus.

Talus, apostle of the common herd; Talus, on whose throbbing words hung the hopes of a million eager citizens; Talus, candidate for governor of the province of Lac.

In the heart of the tenement district, near the smelly waterfront, between a narrow side street and a garbage alley was the editorial office of Mu Regenerate, campaign organ of the Talus-for-Governor organization. The office was as quiet as the rest of Nuria, but with the quiet of a spent cyclone. The floor was littered with twisted scraps of parchment, overturned furniture, and empty beer flagons. Three young men were seated about a great, round, battered table in attitudes that spoke their gloom. One of them was staring cynically at an

enormous poster which dominated one wall of the room. It was a portrait of a tall, majestic man with a long, curling white beard. He wore a green toga. One hand was raised in a gesture of benediction. Over the poster, under the crimson-and-purple of crossed Murian banners, was the legend:

TALUS FOR GOVERNOR!

The one who stared at the poster let go an unconscious sigh. One of his companions looked up from scratching at a sheet of parchment with a stubby stylus. "What's eating on you, Robar?"

THE one addressed waved a hand at the wall. "I was just looking at our white hope. Ain't he beautiful? Tell me, Dolph, how can anyone look so noble, and be so dumb?"

"God knows. It beats me."

"That's not quite fair, fellows," put in the third, "the old boy ain't really dumb; he's just unworldly. You've got to admit that the Plan is the most constructive piece of statesmanship this country has seen in a generation."

Robar turned weary eyes on him. "Sure. Sure. And he'd make a good governor, too. I won't dispute that; if I didn't think the Plan would work, would I be here, living from hand to mouth and breaking my heart on this bloody campaign? Oh, he's noble all right. Sometimes he's so noble it gags me. What I mean is: Did you ever work for a candidate that was so bull-headed stupid about how to get votes and win an election?"

"Well . . . no."

"What gets me, Clevum," Robar went on, "is that he could be elected so easily. He's got everything; a good sound platform that you can stir people up with, the correct background, a grand way of speaking, and the most beautiful appearance that a candidate ever had. Compared with Old Bat Ears, he's a natural. It ought to be

just one-two-three. But Bat Ears will be re-elected, sure as shootin'."

"I'm afraid you're right," mourned Clevum. "We're going to take such a shellacking as nobody ever saw. I thought for a while that we would make the grade, but now— Did you see what the *King's Men* said about him this morning?"

"That dirty little sheet— What was it?"

"Besides some nasty cracks about Atlantis gold, they accused him of planning to destroy the Murian home and defile the sanctity of Murian womanhood. They called upon every red-blooded one hundred per cent Murian to send this subversive monster back where he came from. Oh, it stank! But the yokels were eating it up."

"Sure they do. That's just what I mean. The governor's gang slings mud all the time, but if we sling any mud about governor Vortus, Talus throws a fit. His idea of a news story is a nifty little number about comparative statistics of farm taxes in the provinces of Mu . . . What are you drawing now, Dolph?"

"This." He held up a ghoulish caricature of Governor Vortus himself, with his long face, thin lips, and high brow, atop of which rested the tall crimson governor's cap. Enormous ears gave this sinister face the appearance of a vulture about to take flight. Beneath the cartoon was the simple caption:

BAT EARS FOR GOVERNOR

"There!" exclaimed Robar, "that's what this campaign needs. Humor! If we could plaster that cartoon on the front page of *Mu Regenerate* and stick one under the door of every voter in the province, it 'ud be a landslide. One look at that mug and they'd laugh themselves sick—and vote for our boy Talus!"

He held the sketch at arm's length and studied it, frowning: Presently he looked up. "Listen, dopes— Why not do it? Give me one last edition with some guts in it. Are you game?"

Clevum looked worried. "Well . . . I don't know . . . What are you going to use for money? Besides, even if Oric would crack loose from the dough, how would we get an edition of that size distributed that well? And even if we did get it done, it might boomerang on us—the opposition would have the time and money to answer it."

Robar looked disgusted. "That's what a guy gets for having ideas in this campaign—nothing but objections, objections!"

"Wait a minute, Robar," Dolph interposed. "Clevum's kicks have some sense to them, but maybe you got something. The idea is to make Joe Citizen laugh at Vortus, isn't it? Well, why not fix up some dodgers of my cartoon and hand 'em out at the polling places on election day?"

Robar drummed on the table as he considered this. "Umm, no, it wouldn't do. Vortus' goon squads would beat the hell out of our workers and high jack our literature."

"Well, then how about painting some big banners with old Bat Ears on them? We could stick them up near each polling place where the voters couldn't fail to see them."

"Same trouble. The goon squads would have them down before the polls open."

"Do you know what, fellows," put in Clevum, "what we need is something big enough to be seen and too solid for Governor's plug-uglies to wreck. Big stone statues about two stories high would be about right."

Robar looked more pained than ever. "Clevum, if you can't be helpful, why not keep quiet? Sure, statues would be fine—if we had forty years and ten million simoleons."

"Just think, Robar," Dolph jibed, with an irritating

smile, "if your mother had entered you for the priesthood, you could integrate all the statues you want—no worry, no trouble, no expense."

"Yeah, wise guy, but in that case I wouldn't be in politics— Say!"

"'S trouble?"

"Integration! Suppose we *could* integrate enough statues of old Picklepuss—"

"How?"

"Do you know Kondor?"

"The moth-eaten old duck that hangs around the Whirling Whale?"

"That's him. I'll bet he could do it!"

"That old stumblebum? Why, he's no adept; he's just a cheap unlicensed sorcerer. Reading palms in saloons and a little jackleg horoscopy is about all he's good for. He can't even mix a potent love philter. I know; I've tried him."

"Don't be too damn certain you know all about him. He got all tanked up one night and told me the story of his life. He used to be a priest back in Ægypt."

"Then why isn't he now?"

"That's the point. He didn't get along with the high priest. One night he got drunk and integrated a statue of the high priest right where it would show up best and too big to be missed—only he stuck the head of the high priest on the body of an animal."

"Whew!"

"Naturally when he sobered up the next morning and saw what he had done all he could do was to run for it. He shipped on a freighter in the Red Sea and that's how come he's here."

Clevum's face had been growing longer and longer all during the discussion. He finally managed to get in an objection. "I don't suppose you two red hots have stopped

to think about the penalty for unlawful use of priestly secrets?"

"Oh, shut up, Clevum. If we win the election, Talus'll square it. If we lose the election— Well, if we lose, Mu won't be big enough to hold us whether we pull this stunt or not."

ORIC was hard to convince. As a politician he was always affable; as campaign manager for Talus, and consequently employer of Robar, Dolph, and Clevum, the boys had sometimes found him elusive, even though chummy.

"Ummm, well, I don't know—" He had said, "I'm afraid Talus wouldn't like it."

"Would he need to know until it's all done?"

"Now, boys, really, ah, you wouldn't want me to keep him in ignorance . . ."

"But Oric, you know perfectly well that we are going to lose unless we do something, and do it quick."

"Now, Robar, you are too pessimistic." Oric's pop eyes radiated synthetic confidence.

"How about that straw poll? We didn't look so good: we were losing two to one in the back country."

"Well . . . perhaps you are right, my boy." Oric laid a hand on the younger man's shoulder. "But suppose we do lose this election; Mu wasn't built in a day. And I want you to know that we appreciate the hard, unsparing work that you boys have done, regardless of the outcome. Talus won't forget it, and neither shall, uh, I . . . It's young men like you three who give me confidence in the future of Mu—"

"We don't want appreciation; we want to win this election."

"Oh, to be sure! To be sure! So do we all—none more than myself. Uh—how much did you say this scheme of yours would cost?"

"The integration won't cost much. We can offer Kondor a contingent fee and cut him in on a spot of patronage. Mostly we'll need to keep him supplied with wine. The big item will be getting the statues to the polling places. We had planned on straight commercial apportation."

"Well, now, that will be expensive."

"Dolph called the temple and got a price—"

"Good heavens, you haven't told the priests what you plan to do?"

"No, sir. He just specified tonnage and distances."

"What was the bid?"

Robar told him. Oric looked as if his first born were being ravaged by wolves. "Out of the question, out of the question entirely," he protested.

But Robar pressed the matter. "Sure it's expensive—but it's not half as expensive as a campaign that is just good enough to lose. Besides—I know the priesthood isn't supposed to be political, but isn't it possible with your connections for you to find one who would do it on the side for a smaller price, or even on credit? It's a safe thing for him; if we go through with this we'll *win*—it's a cinch."

Oric looked really interested for the first time. "You might be right. Mmmm—yes." He fitted the tips of his fingers carefully together. "You boys go ahead with this. Get the statues made. Let me worry about the arrangements for apportation." He started to leave, a pre-occupied look on his face.

"Just a minute," Robar called out, "we'll need some money to oil up old Kondor."

Oric paused. "Oh, yes, yes. How stupid of me." He pulled out three silver pieces and handed them to Robar. "Cash, and no records, eh?" He winked.

"While you're about it, sir," added Clevum, "how

about my salary? My landlady's getting awful temperamental."

Oric seemed surprised. "Oh, haven't I paid you yet?" He fumbled at his robes. "You've been very patient; most patriotic. You know how it is—so many details on my mind, and some of our sponsors haven't been prompt about meeting their pledges." He handed Clevum one piece of silver. "See me the first of the week, my boy. Don't let me forget it." He hurried out.

THE three picked their way down the narrow crowded street, teeming with vendors, sailors, children, animals, while expertly dodging refuse of one kind or another, which was unceremoniously tossed from balconies. The Whirling Whale tavern was apparent by its ripe, gamey odor some little distance before one came to it. They found Kondor draped over the bar, trying as usual to cadge a drink from the seafaring patrons.

He accepted their invitation to drink with them with alacrity. Robar allowed several measures of beer to mellow the old man before he brought the conversation around to the subject. Kondor drew himself up with drunken dignity in answer to a direct question.

"Can I integrate simulacra? My son you are looking at the man who created the Sphinx." He hiccupped politely.

"But can you still do it, here and now?" Robar pressed him, and added, "For a fee, of course."

Kondor glanced cautiously around. "Careful, my son. Some one might be listening . . . Do you want original integration, or simply re-integration?"

"What's the difference?"

Kondor rolled his eyes up, and inquired of the ceiling. "What do they teach in these modern schools? Full integration requires much power, for one must disturb the

very heart of the aether itself; re-integration is simply a re-arrangement of the atoms in a predetermined pattern. If you want stone statues, any waste stone will do."

"Re-integration, I guess. Now here's the proposition—"

"THAT will be enough for the first run. Have the porters desist." Kondor turned away and buried his nose in a crumbling roll of parchment, his rheumy eyes scanning faded hieroglyphs. They were assembled in an abandoned gravel pit on the rear of a plantation belonging to Dolph's uncle. They had obtained the use of the pit without argument, for, as Robar had reasonably pointed out, if the old gentleman did not know that his land was being used for illicit purposes, he could not possibly have any objection.

Their numbers had been augmented by six red-skinned porters from the Land of the Inca—porters who were not only strong and untiring but possessed the desirable virtue of speaking no Murian. The porters had filled the curious ventless hopper with grey gravel and waited impassively for more toil to do. Kondor put the parchment away somewhere in the folds of his disreputable robe, and removed from the same mysterious recesses a tiny instrument of polished silver.

"Your pattern, son."

Dolph produced a small waxen image, modeled from his cartoon of Bat Ears. Kondor placed it in front of him, and stared through the silver instrument at it. He was apparently satisfied with what he saw, for he commenced humming to himself in a tuneless monotone, his bald head weaving back and forth in time.

Some fifty lengths away, on a stone pedestal, a wraith took shape. First was an image carved of smoke. The smoke solidified, became translucent. It thickened, cur-

dled. Kondor ceased his humming and surveyed his work. Thrice as high as a man stood an image of Bat Ears—good honest stone throughout. "Clevum, my son," he said, as he examined the statue, "will you be so good as to hand me that jug?"

The gravel hopper was empty.

ORIC called on them two days before the election. Robar was disconcerted to find that he had brought with him a stranger who was led around through the dozens of rows of giant statues. Robar drew Oric to one side before he left, and asked in a whisper, "Who is this chap?"

Oric smiled reassuringly. "Oh, he's all right. Just one of the boys—a friend of mine."

"But can he be trusted? I don't remember seeing him around campaign headquarters."

"Oh, sure! By the way, you boys are to be congratulated on the job of work you've done here. Well, I must be running on—I'll drop in on you again."

"Just a minute, Oric. Are you all set on the apportionment?"

"Oh, yes. Yes indeed. They'll all be distributed around to the polling places in plenty of time—every statue."

"When are you going to do it?"

"Why don't you let me worry about those details, Robar?"

"Well . . . you are the boss, but I still think I ought to know when to be ready for the apportionment."

"Oh, well, if you feel that way, shall we say, ah, midnight before election day?"

"That's fine. We'll be ready."

ROBAR watched the approach of the midnight before election with a feeling of relief. Kondor's work was all complete, the ludicrous statues were lined up, row on

row, two for every polling place in the province of Lac, and Kondor himself was busy getting reacquainted with the wine jug. He had almost sobered up during the sustained effort of creating the statues.

Robar gazed with satisfaction at the images. "I wish I could see the Governor's face when he first catches sight of one of these babies. Nobody could possibly mistake who they were. Dolph, you're a genius; I never saw anything sillier looking in my life."

"That's high praise, pal," Dolph answered. "Isn't it about time the priest was getting here? I'll feel easier when we see our little dollies flying through the air on their way to the polling places."

"Oh, I wouldn't worry. Oric told me positively that the priest would be here in plenty of time. Besides, apportionment is fast. Even the images intended for the back country and the far northern peninsula will get there in a few minutes—once he gets to work."

But as the night wore on it became increasingly evident that something was wrong. Robar returned from his thirteenth trip to the highway with a report of no one in sight on the road from the city.

"What'll we do?" Clevum asked.

"I don't know. Something's gone wrong; that's sure."

"Well, we've got to do something. Let's go back to the temple and try to locate him."

"We can't do that; we don't know what priest Oric hired. We'll have to find Oric."

They left Kondor to guard the statues and hurried back into town. They found Oric just leaving campaign headquarters. With him was the visitor he had brought with him two days before. He seemed surprised to see them. "Hello, boys. Finished with the job so soon?"

"He never showed up," Robar panted.

"Never showed up? Well, imagine that! Are you sure?"

"Of course we're sure; we were there!"

"Look," put in Dolph, "what is the name of the priest you hired to do this job? We want to go up to the temple and find him."

"His name? Oh, no, don't do that. You might cause all sorts of complications. I'll go to the temple myself."

"We'll go with you."

"That isn't necessary," he told them testily. "You go on back to the gravel pit, and be sure everything is ready."

"Good grief, Oric, everything has been ready for hours. Why not take Clevum along with you to show the priest the way?"

"I'll see to that. Now get along with you."

Reluctantly they did as they were ordered. They made the trip back in moody silence. As they approached their destination Clevum spoke up, "You know, fellows—"

"Well? Spill it."

"That fellow that was with Oric—wasn't he the guy he had out here, showing him around?"

"Yes; why?"

"I've been trying to place him. I remember now—I saw him two weeks ago, coming out of Governor Vortus' campaign office."

AFTER a moment of stunned silence Robar said bitterly: "Sold out. There's no doubt about it; Oric has sold us out."

"Well, what do we do about it?"

"What can we do?"

"Blamed if I know."

"Wait a minute, fellows," came Clevum's pleading voice, "Kohdor used to be a priest. Maybe he can do apportionment."

"Say! There's a chance! Let's get going."

But Kondor was dead to the world.

They shook him. They poured water in his face. They walked him up and down. Finally they got him sober enough to answer questions.

Robar tackled him. "Listen, pop, this is important: Can you perform apportionment?"

"Huh? Me? Why, of course. How else did we build the pyramids?"

"Never mind the pyramids. Can you move these statues here tonight?"

Kondor fixed his interrogator with a bloodshot eye. "My son, the great Arcane laws are the same for all time and space. What was done in Ægypt in the Golden Age can be done in Mu tonight."

Dolph put in a word. "Good grief, pop, why didn't you tell us this before."

The reply was dignified and logical. "No one asked me."

KONDOR set about his task at once, but with such slowness that the boys felt they would scream just to watch him. First, he drew a large circle in the dust. "This is the house of darkness," he announced solemnly, and added the crescent of Astarte. Then he drew another large circle tangent to the first. "And this is the house of light." He added the sign of the sun god.

When he was done, he walked widdershins about the whole three times the wrong way. His feet nearly betrayed him twice, but he recovered, and continued his progress. At the end of the third lap he hopped to the center of the house of darkness and stood facing the house of light.

The first statue on the left in the front row quivered on its base, then rose into the air and shot over the horizon to the east.

The three young men burst out with a single cheer, and tears streamed down Robar's face.

Another statue rose up. It was just poised for flight when old Kondor hiccupped. It fell, a dead weight, back to its base, and broke into two pieces. Kondor turned his head.

"I am truly sorry," he announced; "I shall be more careful with the others."

And try he did—but the liquor was regaining its hold. He wove to and fro on his feet, his aim with the images growing more and more erratic. Stone figures flew in every direction, but none travelled any great distance. One group of six flew off together and landed with a high splash in the harbor. At last, with more than three fourths of the images still untouched he sank gently to his knees, keeled over, and remained motionless.

Dolph ran up to him, and shook him. There was no response. He peeled back one of Kondor's eyelids and examined the pupil. "It's no good," he admitted. "He won't come to for hours."

Robar gazed heartbrokenly at the shambles around him. There they are, he thought, worthless! Nobody will ever see them—just so much left over campaign material, wasted! My biggest ideal

Clevum broke the uncomfortable silence. "Sometimes," he said, "I think what this country needs is a good earthquake."

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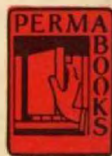
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