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# **CROSSROADS IN TIME**

• Edited and with an introduction by  
**GROFF CONKLIN**

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# Introduction

Not long ago there was an article in a scientific journal describing some of the sensitive and complicated remote control devices used in atomic energy plants. In the course of the description the instruments were labeled "waldoes." This was only an affectionate nickname, of course; it bore no relation to their technical, multi-syllabic proper names. However, I understand that the label is widely used by scientists and technicians who are working with the remote control machines. They do not try to define the term; they don't need to. Most of them know that it was invented in a science fiction story by Robert A. Heinlein, back in 1942, when he dreamed up a fictional gadget for a similar (though non-radioactive) use!

In Heinlein's novelette *Waldo* the hero is a man suffering from muscular dystrophy, or nearly complete failure of the body's muscles to work. To overcome the effects of the disease, Waldo, a very rich man and an inventor of genius into the bargain, designs and has built a one-man space station where there is every luxury—and no gravity. Under conditions of no gravity, muscular dystrophy is practically unimportant, for things do not weigh anything and Waldo can move about without effort. However, he still has to control objects—start them moving when he wants to, and guide and stop them as needed: for even in gravity-less space things retain their inertia and require some effort to start into motion and to slow down or stop. To accomplish this, Waldo invents sensitive and elaborate controlling machines—"waldoes"—that make it possible for him to live practically alone on his private moon.

Devices for handling radioactive materials in atomic energy installations perform similar tasks—so naturally they are called "waldoes" too!

Other science fiction terms have been blithely appropriated to describe some of the newest and most complicated advances of modern technology. Space ships, for instance, and

space stations are concepts that have been developed almost from the very beginning in science fiction, but only now do they begin to show promise of becoming reality within the foreseeable future. Still other words have crept into our language simply because they are apt and funny. For example, a Bem (Bug-Eyed Monster) is a bogey from an alien planet, but most of us are acquainted with a Bem or two right here on Earth. Whatever the reason for the seepage of this vernacular into our speech, it is one of many signs that science fiction has taken hold of the popular imagination and is becoming an accepted part of our modern folklore.

Of course, not all science fiction is as "near to reality" as the above examples would lead one to think. While many types of highly possible science fiction do exist, and are represented in this collection, there are also varieties that are as wildly fantastic as the purest fairy story. For example, one of the tales in this book concerns a man who suddenly finds himself shedding his skin every 24 hours, and another is about what might happen if one were able to travel into the future. Both ideas are pure fantasy, as any scientist will tell you.

In this collection I have tried to present a representative cross section of the best of modern science fiction. There is endless variety among the stories, variety of subject matter, plot, background, and sheer inventiveness: for one thing can almost always be promised the reader of any good science fiction anthology—a continuously intriguing procession of new ideas, new plausibilities and new improbabilities. When one has the universe to play with and can invent new ones at will, and furthermore can play with concepts about universes and atoms that are far beyond anything recognized in the textbooks, one can have a magnificent time adventuring into new scenes and exploring new dreams.

And this is just the sort of exploring adventure that awaits you in the following pages. I hope you will have a wonderful time as you read on!

GROFF CONKLIN

# *Assumption Unjustified*

BY HAL CLEMENT

*What would we think if, as Citizens of a Galactic Empire, we were to land on a small planet of an unimportant sun and find a civilization in the process of rapid development—much behind ours, of course, but still recognizable? Our guidebook might mention the planet, but we would be surprised at the fact that its entry is already out of date because the civilization is growing so fast.*

*Well, that is what happens when Thrykar and Tes land on Earth. They visit us as tourists from an unimaginably distant star system, and also to pick up some—supplies . . . The warm brilliance with which Hal Clement has made it possible for us to look at ourselves through the friendly though inhuman eyes of these Visitors makes this one of the more unforgettable short novels in modern science fiction.*

*Hal Clement is a scientist in his own right, a teacher of biology. Once a New Englander, he now lives in Albuquerque, New Mexico. His first science fiction story appeared in 1942.*

Thrykar saw the glow that limned the broad pine trunk with radiance and sent an indefinite shadow toward the spot where he lay, and knew that extreme caution must direct his actions from then on. He had, of course, encountered living creatures as he had felt his way through the darkness down the forested mountain side; but they had been small, harmless animals that had fled precipitately as the sounds denoting his size or the odors that warned of his alienness had reached their senses. Artificial light, however, which he and Tes had seen from the mountain top and which was now just below him, meant intelligence; and intelligence meant—anything.

He felt the ridiculousness of his position. The idea of having not only to conceal his intentions, but even his existence,

Hal Clement, ASSUMPTION UNJUSTIFIED. Copyright 1946 by Street and Smith Publications, Inc. Reprinted by permission of Frederik Pohl from *Astounding Science Fiction*, October 1946.

from intelligent beings could seem only silly to a member of a culture that embraced literally thousands of physically differing races, and Thrykar did have a rising desire to stand on his feet and walk openly down the main thoroughfare of the little settlement in the valley. He resisted the temptation principally because it was not an unexpected one; the handbook had warned that such a reaction was probable—and warned in the strongest terms against yielding to it.

Instead of yielding, therefore, he resumed his crawling, working his way headforemost downhill until he had reached the tree. Hugging the rough trunk closely, he reared his eight feet of snaky body to full height behind it, tapped out the prearranged signal to Tes on the small communicator he carried, and began carefully examining the town and the ground between him and the outlying houses.

It was not a large town. About three thousand human beings lived in it, though Thrykar was not familiar enough with men to be able to judge that fact from the number of buildings. He did realize that some of the structures were probably not dwelling places; the purposes of the railway station became fairly clear as a lighted train chugged slowly into motion and snaked its way out of town to the north. Most of the lights were concentrated within a few blocks of the station, and it was only in that neighborhood that Thrykar could see the moving figures of human beings. A few lighted windows, and the rather thinly scattered street lamps, were all that betrayed the true size of the place.

There was another center of activity, however. As the sound of the train died out in the distance, a rhythmic thudding manifested itself to Thrykar's auditory organs. It seemed to come from his right, from that portion of the town nearest to the foot of the mountain. Leaning out from behind his tree, he could see nothing in that direction; but a fact which he had only subconsciously noted before was brought to prominence in his mind.

Only a few yards below him, the mountainside fell away abruptly in a sheer cliff which seemed, in the darkness, to extend for some distance to either side of Thrykar's position. The undergrowth which covered the slope continued to the very edge of this cliff; so the alien dropped once more to the prone position and wormed his way downhill until he could look over. He hadn't improved matters much, as the darkness was impenetrable to his eyes, but the sounds were a little clearer. They were quite definitely coming from the right and

below; and after a moment's hesitation, Thrykar began crawling along the cliff edge in that direction. The bushes, which grew thicker here, hampered him somewhat; for the flexibility of his body, which was no thicker than a man's, was offset by the great, triangular, finlike appendages which extended more than two feet outward on each side. These, too, were fairly flexible, however, ribbed as they were with cartilage; and he managed to accommodate himself to the somewhat uncomfortable mode of travel.

He had gone less than a hundred yards when he found the cliff edge to be curving outward and down, as though it were the lip of a somewhat irregular vertical shaft cut into the mountain. This impression was strengthened when the curve led back to the left, away from the source of sound that Thrykar wished to investigate; but he continued to follow the edge, and eventually reached its lowest point, which must have been almost directly beneath the place at which he had first looked over. At this point things became interesting.

On Thrykar's left—that is, within the shaft—the dripping of water became audible; and at the same time the bushes and irregular rocks disappeared, and he found himself on what could be nothing but a badly kept road. He did not realize its condition at first; but within a few feet he found a rivulet flowing across it, in a fairly deep gully which it had cut in the hard earth. Investigating this flow of water, he found that its source was the shaftlike excavation, which was apparently full of water almost to the level of the road. With growing enthusiasm, Thrykar found that the hole was fully a hundred and fifty yards in the dimension running parallel to the face of the mountain; and he had learned during his descent that it had fully half that measure in the other direction. If it were only deep enough—he was on the point of entering the water to investigate, when he remembered the communicator, which might suffer damage if wet, and from which he had promised Tes not to separate himself. Instead of investigating the pit, therefore, he turned back, following the road toward the sounds which had first roused his curiosity.

His progress, on the legs which were so ridiculously short for his height, was not rapid. In fifteen minutes he had passed two more of the water-filled pits and was approaching a third. This he was able to examine in more detail than the others, though he could not approach it so closely; for the road at this point, and the water near it, were illuminated by the first of



the town's outlying street lamps. A few yards farther, on the side of the road away from the pits, house lights began to be visible; and, seeing them, Thrykar paused to consider.

The sound was evidently coming from farther inside the town. If he went any further in his investigations, he not only sacrificed the shelter of darkness, but could also expect a heavier concentration of human beings. On the other hand, his skin was dark in color, the lights were by no means numerous, he was very curious about the sounds which had continued without interruption since he had first heard them, and it would be necessary to confront a human being eventually, in any case—though, if all went well, the human being would never know it. Thrykar finally elected to proceed, with increased caution.

He chose the side of the road away from the pits, as it was somewhat darker at first, and offered some concealment in the form of hedges and fences in front of the houses, which now began to be more numerous. He walked, with his mincing gait, close beside these, standing at his full height and letting the great, independent eyes set on either side of his neckless, rigidly set head rove constantly around the full circle of his vision. One more pit was passed in this fashion; but a hundred yards further down the road, on the right side, a wall began which effectually cut off the sight of any more, if they existed. It was a fence of boards, solidly built, and its top was fully two feet above Thrykar's head. The sounds appeared to be coming from a point behind this barrier, but somewhat further down the road.

Having come so far, the alien was human enough to dislike the idea of having wasted his efforts. He crossed the road at a point midway between two street lamps. Between the pits, the brush-covered slope of the hill came down almost to the thoroughfare; so he dropped flat once more to take advantage of this cover as he approached the near end of the wall. He had hoped to find access to the hinder side of the barrier, but he found that, instead of beginning where it was first visible, the portion along the road was merely a continuation of a similar structure that came down the hillside; and Thrykar considered it a waste of time to circumambulate the inclosure on the chance of finding an opening.

Instead, he rose once more to his full height, and looked carefully about him. The neighborhood still seemed deserted. Pressing close against the boards, he reached up and let the

tips of his four wiry tentacles curl over the top of the fence. The appendages, even at the roots, were not much thicker than a human thumb, for they were, anatomically, detached portions of the great side fins rather than legs and feet modified for prehensile use; unless they could be wound completely around an object, they could not approach the gripping or pulling strength of the human hand and arm. Thrykar, however, let his supple body sag in an S-curve, and straightened suddenly, leaping upward; and at the same instant exerted all the strength of which the slender limbs were capable. The effort proved sufficient to get the upper portion of his body across the top of the fence, and during the few seconds he was able to maintain the position he saw enough to satisfy him.

There were two more of the pits inside the fence, dimly lighted by electric bulbs. They contained practically no water, and were enormously deep—the nearer, whose bottom was visible to Thrykar, was over two hundred feet from the edge to the loose blocks of stone that lay about in the depths. The pits were quarries, quite evidently. The stone blocks and tools, as well as the innumerable nearly flat faces on the granite walls, showed that fact clearly. The noises that had aroused the alien's curiosity came from machines located at the bottom of the nearer pit; and the existence of certain large pipes running up from them, as well as the almost complete absence of water, assured him that they were pumps.

There was a further deduction to be drawn from the absence of water. These human beings were strictly air-breathers—the handbook had told Thrykar and Tes that much; and it followed that the pits farther along the mountain side, which had been allowed to fill with water, must no longer be in use. If they were as deep as these, there was an ideal hiding place for the ship.

At that thought, Thrykar let himself slip down once more outside the fence. He flexed his body once or twice to ease the ache where the edges of the boards had cut into his flesh, and started to stretch his tentacles for the same purpose; but suddenly he froze to rigidity. Behind him, on the road down which he had come, appeared a glow of yellow that brightened swiftly—so swiftly that before he could move, its source had swept into sight around the last shallow curve in the route and he was pinned against the fence by the beams from the twin headlights of an automobile.

As the vehicle reached the straight portion of the street the

direct beams left him; but he knew he must have been glaringly visible during the second or so in which they had dazzled his eyes. He held his breath as the car approached; and the instant it passed he plunged up the hillside for twenty or thirty yards, wriggled his way under some dense bushes, and lay as motionless as was physically possible for him. He listened intently as the sound of the engine faded and died evenly away in the distance, and finally gave a deep exhalation of relief. Evidently, hard as it was to believe, the occupant or occupants of the vehicle had not seen him.

It did not occur to Thrykar that, even if the driver had noticed the weird form looming in his headlights beams, stopping to investigate might be the farthest thing in the universe from his resultant pattern of action. Thrykar himself, and every one of his acquaintances—which were by no means confined to members of his own race—would have looked into the matter without a second thought about the safety or general advisability of the procedure.

He was a little shaken by the narrow shave. He should have foreseen it, of course—it was little short of stupid to have climbed the wall so close to the road; but what would be self-evident to a professional soldier, detective, or house-breaker did not come within the sphere of everyday life to a research chemist on a honeymoon. If Thrykar had known anything about Earth before starting his journey, he wouldn't have come near the planet. He had simply noted that there was a refresher station near the direct route to the world which he and Tes had planned to visit on a vacation; and not until he had cut his drive near the beacon on Mercury had he bothered to read up on its details. They had been somewhat dismayed at what they found, but the most practicable detour would have consumed almost the entire vacation period in flight; and, as Tes had said, what others had evidently done he could do. Thrykar suspected that his wife might possibly have an exaggerated idea of his abilities, but he had no objection to that. They had stayed.

The car did have one good effect on Thrykar; he became much more cautious. Having satisfied his curiosity about the sounds, he began to retrace his way to the ship and Tes; but this time he stayed well off the road, traveling parallel to it, until the abandoned quarries prevented further progress on that line. Even then he left the woods and went downhill only far enough to permit him to enter the water without splashing.

He swam rapidly across, holding the communicator out of the water with one tentacle, and emerged to continue his trip on the other side. He had wasted as little time as possible, as the pit he had just crossed was the one so comparatively well illuminated by the street lamp.

At the next one, however, he spent more time. Instead of carrying the communicator with him, he cached it under a bush near the road and disappeared entirely under water. It was utterly black below the surface, and he had to trust entirely to his sense of touch; and remembering what he had seen of the walls of the empty quarries, he dared not swim too rapidly for fear of braining himself against an outcrop of granite. In consequence, it took him over half an hour to get a good idea of the pit's qualifications as a hiding place. The verdict was not too good, but possible. Thrykar finally emerged, collected his communicator, and proceeded to the next quarry.

He spent several hours in examining the great shafts. There were seven altogether; two were in use, and inclosed by the fence he had found, one was rendered unusable by the embarrassing presence of the street lamp; so the remaining four claimed all his attention. The one he had found first was the last, and farthest from the town; but it was the adjacent one which finally proved the most suitable. Not only was it the only one at all set back from the road—a drive about twenty yards in length led down to the water—but it was deeply undercut about thirty-five feet below the surface, on the side toward the mountain. The hollow thus made was not large enough to hide the hull of the ship altogether, but it would be a great help. Thrykar felt quite satisfied as he emerged from the water after his second examination of this recess. Recovering the small case of the communicator from its last hiding place, he tapped out the signal he had agreed on with Tes to announce his return. Then he held it up toward the mountain, moving it slowly from side to side and up and down until a small hexagonal plate set in the case suddenly glowed a faint red. Satisfied that he could find his ship when close enough, the alien began his climb.

Just before entering the dense woods above the quarries, he looked back at the town. Practically all the house lights were extinguished now; but the station was still illuminated and the street lamps glowed. The quarry pumps were still throbbing, as well; and, satisfied that he had created no seri-

ous disturbance by his presence, Thrykar resumed his climb.

It took his short legs a surprisingly long time to propel him from the foot of the valley to the hollow near the mountain top where the ship still lay. He had hoped and expected to complete the job of concealing the craft before the night was over; but long before he reached it he had given up the plan. After all, it was invisible until the searcher actually reached the edge of the hollow; and he was practically certain that no human beings would visit the spot—though the handbook had mentioned that they still hunted wild animals both for food and sport. He and Tes could alternate watches in any case, and if a hunter or hiker did approach—steps could be taken.

Twice during the climb he made use of the communicator, each time wondering why it was taking so long to get back. The third time, however, the plate glowed much more brightly, and he began to follow the indicated direction more carefully instead of merely climbing. It took him another half hour to find the vessel; but at last he reached the edge of the small declivity and saw the dim radiance escaping from behind the partly closed outer door of the air lock. He slipped and stumbled down the slope, scrambled up the cleated metal ramp that had been let down from the lock, and pushed his way into the chamber.

Tes met him at the inner door, anxiety gradually disappearing from her expression.

"What have you been doing?" she asked. "I got your return signal, and began broadcasting for your finder; but that was hours ago, and I was getting worried. You had no weapon, and we don't *know* that all Earth animals would fear to attack us."

"Every creature I met, fled," replied her husband. "Of course, I don't know whether any of them would have attacked an Earth being of my size. They may all have been herbivorous, or something; but in any case, you know we could get into awful trouble by carrying arms on a low-culture planet."

"However, I've found an excellent place for the ship, very close to the town. If I weren't so tired, we could take it down there now; but I guess we can wait until tomorrow night. The whole business is going to take us several of this planet's days, anyway."

"Did you see any of the intelligent race?" asked Tes.

"Not exactly," replied Thrykar. He told her of the encounter with the automobile, while she prepared food for him; and between mouthfuls he described the underwater hollow where he planned to conceal the ship and from which they could easily make the necessary sorties. Tes was enthusiastic, though she was still not entirely clear as to the method Thrykar planned to employ in obtaining what he wanted from a human being without the latter's becoming aware of the alien presence. Her husband smiled at her difficulty.

"As you said, it's been done before," he told her. "I'm going to sleep now; I haven't been so tired for years. I'll tell you all about it tomorrow." He rose, tossed the eating utensils into the washer, and went back to the sleeping room. The tanks were already full; he slid into his without a splash, and was asleep almost before the water closed over him. Tes followed his example.

He had not exaggerated his fatigue; he slept long after his wife had risen and eaten. She was in the library when he finally appeared, reading once again the few chapters the handbook devoted to Earth and its inhabitants. One of her eyes rolled upward toward him as Thrykar entered.

"It seems that these men are primitive enough to have a marked tendency toward superstition—ascribing things they don't understand to supernatural intervention. Are you going to try to pass off our present activities in that way?"

"I'm not making any effort in that specific direction," he replied, "though the reaction you mention may well occur. They will realize that *something* out of the ordinary is happening; I don't see how that can be avoided, unless we are extremely lucky and happen on an individual whose way of life is such that he won't be missed by his fellows for a day or so. I'm sure, however, that a judicious use of anaesthetics will prevent their acquiring enough data to reach undesirable conclusions. If you will let me have that book for a while, I'll try to find out what is likely to affect their systems."

"But I didn't think we had much in the way of drugs, to say nothing of anaesthetics, aboard," exclaimed Tes.

"We haven't; but we have a fair supply of the commoner chemicals and reagents. Remember your husband's occupation, my dear!" He took the book, smiling, and settled into a sling. He read silently for about ten minutes, leafing rapidly back and forth in a way that suggested he knew what he

was looking for, but which made it very difficult for his wife to read over his shoulder. She kept on trying.

Eventually Thrykar spent several consecutive minutes on one page; then he looked up and said, "It looks as though this stuff would do it. I'll have to see whether we have the wherewithal to make it. Do you want to watch a chemist at work, my beloved musician?"

She followed him, of course, and watched with an absorption that almost equalled his own as he inventoried their small stock of chemicals, measured, mixed, heated and froze, distilled and collected; she had only the most general knowledge of any of the physical sciences, but in watching she could appreciate that her husband, in his own occupation, was as much of an artist as she herself. It was this understanding, shared by very few, of this side of his character that had led her to marry an individual who was considered by most of his acquaintances to be a rather stodgy and narrow-minded, if brilliant, scientist.

Thrykar connected the exhaust tube of his last distillation to a small rotary pump, confining the resultant gas in a cylinder light enough to carry easily. Even Tes could appreciate the meaning of that.

"If it's a gas, how do you plan to administer it?" she asked. "Judging from their pictures, these human beings are much more powerful than we. You can't very well hold a mask over their faces, and even I know it's not practical to shoot a jet of gas any distance. Why don't you use a liquid or soluble solid that can be carried by a small dart, for example?"

"The less solid equipment we carry and risk losing, the better for all concerned," replied Thrykar. "If the air is fairly still and there is no rain, I can make them absorb a lungful of this stuff quite easily. It has been done before, and on this planet—you should pay more attention to what you read." He rolled an eye back at his wife. "Did you ever blow a bubble?"

Tes stood motionless for a moment, thinking. Then she brightened. "Of course. I remember what you mean now. Passing to another phase of the problem, how and where do you find a human being alone?"

"We attack that matter after moving the ship. We'll have to watch them for a day or two, to learn something about their habits in this neighborhood—the book is not very helpful. If a lone hunter or traveler gets near enough, the problem will solve itself; but we can't count on that. I've done all I can

here, my dear. We'll have to wait till dark, now, to move the ship."

"All right," replied Tes. "I'm going outside for a while; our only daylight view of this planet was from high altitude. Even if we can't get close to any small animals, there may be plants or rocks or just plain scenery that will be worth looking at. Won't you come along?"

Thrykar acquiesced, with the proviso that neither of them should wander far from the hollow in which the ship was located. He was perfectly aware of his limitations in an uncivilized environment, and knew that it wouldn't take a very skillful stalker to approach them without their knowing it. In the open, that could be dangerous; with the ship and its equipment at hand, countermeasures could always be taken.

They went out together, leaving the outer air lock door open—it could have been locked and reopened electrically; but Thrykar had once read of an individual in a position similar to theirs who had returned to his ship to find the power cut off by a burned-out relay, leaving him in a very embarrassing position. The weather was overcast, as it had been ever since their arrival, but there were signs that the sun might soon break through. The woods were dripping wet, which made them if anything more unpleasant for the aliens. The temperature was, from their point of view, cool but not uncomfortable.

There was plenty of animal life. Although none of the small creatures permitted them to approach at all closely, the two were able to examine them in considerable detail; retinal cells rather smaller than those in the human eye and eyeballs more than three times as large permitted them to distinguish clearly objects for which a human being would have needed a fair-sized opera glass. The bird life was of particular interest to Tes; no such creatures had ever evolved on their watery home planet, and she made quite a collection of castoff feathers.

The largest animal they saw was a deer. It saw them at the same moment, standing at the edge of the hollow at a point where very few trees grew; it stared at them for fully half a minute trying to digest a new factor in its existence. Then as Tes made a slight motion toward the creature, it turned and bounded off, disappearing at once below the edge of the cup. They hastened toward the spot where it had stood, hoping to catch a final glimpse, but they were far too slow, and noth-



ing was visible among the trees when they got there. Tes turned to her partner.

"Why isn't it possible to use an animal like that? It's easily large enough to take no harm, and must be at least as similar to us as these human beings." Thrykar rippled a fin negatively.

"I'm a chemist, not a biologist, and I don't know the whole story. It has something to do with the degree of development of the donor's nervous system. It may seem odd that that should affect its blood, but it seems to—remember, every cell of a creature's body has the chromosomes and genes and whatever else the biologists know about in that line, which make it theoretically possible to grow a new animal of the same sort from any of the cells. I don't believe it's been done yet," he added with a touch of humor, "but who am I to say it can't be?"

Tes interrupted him with a gesture.

"Tell me, Thrykar, is that throbbing noise I hear now the one produced by those pumps? I'm surprised that it should be audible at this distance. Listen." He did so, wondering for a moment, then gave once more a sign of negation.

"It's a machine of some kind, but I can't say just what. It doesn't seem to be down there in the town—we'd be hearing it more definitely from that direction. It might be almost anywhere among these mountains—not too far away, of course—with echoes confusing us as to its point of origin. It can't be an aircraft, because it's too loud and look out! *Don't move, Tes!*" He froze as he spoke, and his wife followed his example. As the last words left his mouth, the pulsing drone increased to a howling roar which, at last, had a definite direction. The eyes of the aliens rolled upward to follow the silvery, winged shape that fled across their field of vision scarcely five hundred feet above them.

The pilot of the A-26 saw neither the aliens nor their ship. He passed directly above the latter, so that it was out of his direct vision; and although Thrykar and Tes felt horribly conspicuous in the almost clear area where they were standing, the speed of the machine and the pilot's preoccupation with the task of navigating combined to prevent untimely revelations.

As the roar faded once more to a drone, Thrykar galvanized into action. He plunged into the hollow toward his ship; and Tes, after a moment's startled immobility, followed.

"What's the matter?" she called after him. "I don't think he saw us, and anyway it's too late to do anything about it."

"That's not the trouble," replied Thrykar as he flung himself up the ramp into the ship. "You should have spotted that yourself. You mentioned something this morning about the tendency of man toward superstition. If he's in that stage of social development, he shouldn't have more than the rudiments of any of the physical sciences. The book said as much, as I recall; and I want to check up on that, right now!" He snatched up the volume, which fell open at the already well thumbed section dealing with Earth, and began to read. Tes, with an effort, forbore to interrupt; but she was not kept waiting long. Her husband looked up presently, and spoke.

"It's as I thought. According to this thing, mankind has as one of its most advanced mechanisms the steam-powered locomotive. I saw one last night, you may recall. I assumed without really giving the matter much thought that the quarry pumps were also steam-driven. It says here that animals are even used for hauling or carrying loads over short distances. That all ties in with a culture still influenced by superstition. The book does *not* mention aircraft—and that machine wasn't steam-powered. Those were internal-combustion engines. I think now that the pumps in the quarries had similar power plants; and if men can make them at once light and powerful enough to drive aircraft, they know more of molecular physics and chemistry than they should."

"But why should that be a man-made ship?" asked Tes. "After all, we are here; why shouldn't another spaceship have come in at the same time? After all, Earth is a refresher station."

"For a variety of reasons," replied Thrykar. "First, anyone coming here for refreshing would keep out of sight, as we are doing; and that ship flew in plain sight of the town below here, and made racket enough to be heard for miles. Second, that wasn't a spaceship—you must have seen that it was driven by rotating airfoils and supported by fixed ones. Why should anyone from off the planet go to the trouble of bringing and assembling such a craft here, when they must have infinitely better transportation in the form of their spaceship? No, Tes, that thing was man-made, and there's something very wrong with the handbook. It's the latest revision on this sector, too—the Earth material is only sixty or seventy years old. I hope it isn't so badly off on the biology and physiology end; we certainly don't want to cause injury to any man."

"But what can you do, if the book can't be trusted?"

"Feel my way carefully, and go on the evidence already at hand. We can't very well leave now—you're safe, as you aren't of age yet, but I might be in rather bad shape by the time we reached another refresher station. We'll carry on as planned for the present, and move the ship down to the quarry tonight. I just hope the human race isn't so far advanced in electronics as they seem to be elsewhere; if they are, we are wide open to detection. I wonder how in blazes the individual who reported on this planet could have come to do such a slipshod job. Failure to measure their chemical or biological advancement is forgivable; those wouldn't be so obvious; but missing aircraft, and electric lights, and internal-combustion engines in general is a little too much. However," he left the vexing question, "that is insoluble for the present. The other point that arises, Tes, is the one you mentioned. I'm afraid they *won't* bear a superstitious attitude toward our activities, if they become aware of them; and we'll have to be correspondingly more careful. If you can think of anything that will help between now and nightfall, it will be appreciated."

Neither of them did.

Bringing the little craft down the mountain side in the dark was rather more difficult than Thrykar had anticipated. He was afraid to use micro-wave viewers because of the new-born fear of the scientific ability of the human race; it was necessary to drift downhill at treetop level, straining his eyes through the forward ports, until the slope flattened out. The lights of the town had been visible during the descent, and he had kept well to their left; now he backed fifty feet up the hill, turned on the reflection altimeter—whose tight, vertical beam he hoped would not scatter enough to cause a reaction in any nearby receivers—and crawled along the contour in the general direction of the lights.

He had allowed more leeway than was strictly necessary, and was some distance to the north of the quarries; but at last the dial of the altimeter gave a sudden jump, and two aliens looked carefully out of the ports as Thrykar let the ship descend, a foot at a time. At last the hull touched something—and sank in; they were at the first quarry. The ship lifted again, a little higher this time for safety as its course slanted in once more toward the mountain. Again a flicker of the needle; again the cautious descent; but this time it was permitted to sink on down after the hull made contact.

The ship stopped sinking when it was about three-fourths

submerged, and Thrykar guided it carefully to the side of the great pit where he had located the undercut. While the nose continued to bump gently against the granite, he let water into compartment after compartment until the hull was completely under water—he could have used the drive, but preferred to have the ship stable in its hiding place. He did use power to ease into the hollow, which he located by use of an echo-sounder; its impulses would not be detectable out of the body of water in which they were used.

Leaving Tes to hold the ship in position temporarily, Thrykar plunged out through the air lock and made fast, using metal cables clipped to rings in the hull and extending to bars set into cracks already in the rock. He could have drilled holes specifically for the purpose, but not silently; and the existing facilities were adequate. The work completed, he tapped on the hull to signal Tes. She cut off all power, let the ship settle into stability, and joined Thrykar in the water. It was the first swim she had had since they had started the trip, and they spent the next hour enjoying it.

A little more time was spent exploring the ground around the quarry and out to the road; then, on the chance that the next day might be more hectic than those preceding, they sought the sleeping tanks. Thrykar, before sliding into the cold water, set an alarm to awaken him shortly before sunrise.

Before the sun was very high, therefore, he and Tes were at work. They explored once more, this time by daylight, the environs of the pit; and among the bushes, heaps of crushed rock, and broken blocks of granite they found a number of good hiding places.

None was ideal; they wanted two, more or less visible from each other, commanding views along at least a short stretch of the road passing the quarry. One was very satisfactory in this respect, but unfortunately it was situated on the side away from the town and covered that segment of road which they planned to watch more to insure safety than in expectation of results. On the other side, a space under several blocks was found from which it was possible to view the other hiding place and the quarry itself, but to see the road it was necessary to crawl some twenty yards. As the crawl could be made entirely under fair cover, Thrykar finally selected this space, and stored the gas cylinders and auxiliary equipment therein.

From the point where he could see the road, Tes' hiding

place was invisible; and after a moment's indecision he called to her. He was sure no human beings were as yet in the neighborhood, but he made his words brief. Then he crawled back to the edge of the quarry. As his station was some distance up the hillside, he was fully sixty feet above the water; but he launched himself over the lip of granite without hesitation, and clove the surface with no more sound than a small stone would have made from the same height.

He entered the submerged ship, inclosed two of the small communicators such as he had used on the first night in watertight cases, and brought them to the surface. Climbing painfully to where Tes was watching, he gave her one; then he returned to his own place, crossing above the quarry.

He settled down to his vigil, reasonably sure that the tiny sets were not powerful enough to be picked up outside the immediate vicinity, and relieved of the worry that Tes might see something without being able to warn him.

They did not have long to wait. Tes was first to signal that something was visible; before Thrykar could move to ask for details, he himself heard the engine of the car. It sped on down the road and into town—an ancient, rickety jalopy, though the aliens had no standard with which to compare it. Two more passed, going in the same direction, during the next fifteen minutes. Each held a single human being—hired men from the farms up the valley, going to town on various errands for their employers, though the watchers had no means of knowing this. After they had passed, nothing happened for nearly an hour.

At about eight o'clock, however, Tes signaled again; and this time she tapped out the code they had agreed upon to indicate a solitary pedestrian. Thrykar acknowledged the message, but made no move. Again the traveler proved not to be alone; within the next five minutes more than a dozen others passed, both singly and in small groups. They were the first human beings either of the aliens had seen at all clearly, and they were at a considerable distance, though the eyesight of the watchers did much to overcome this handicap. Practically all of them were carrying small parcels and books. They varied in height from about half that of Thrykar to nearly three quarters as tall, though, as individuals of a given size tended to form groups to the exclusion of others, this was not at once obvious to the watching pair.

And that was all. After those few chattering human beings had passed out of sight and hearing into the town, the road

remained deserted. Once only, shortly before noon, one of the automobiles clattered back along it; Thrykar suspected it to be one of those he had seen earlier, but had no proof, as he was not familiar enough with either vehicles or drivers to discern individual differences. As before, there was only one occupant, who was not clearly visible from outside and up. For some seven hours he was the only native of Earth to disrupt the solitude.

Tes, younger and less patient than her husband, was the first to grow weary in the vigil. Some time after the passage of the lone car, she began tapping out on the communicator, in the general code which he had insisted on her learning in the conformity of the law, a rather irritated question about the expected duration of the watch. Thrykar had been expecting such an outbreak for hours, and was pleasantly surprised at the patience his wife had displayed, so he replied, "One of us should remain on guard until dark, at least; but there is no reason why you shouldn't go down to the ship for food and rest, if you wish. You might bring me something to eat, also, when you've finished."

He crawled back to the point from which he could see Tes' hiding place, and watched her move to the edge of the quarry, poise, and dive; then he returned to his sentry duty.

His wife had eaten, rested, brought up food for him, and been back at her place for some time before anything else happened. Then it was Thrykar who saw the newcomer; and in the instant of perception he not only informed Tes, but formed a hypothesis which would account for the observed motions of the human beings and implied the possibility of productive action in a very short time.

The present passer turned out not to be alone; there were two individuals, once more carrying books. Thrykar watched them pass, mulling over his idea; and when they were out of sight he signaled Tes to come over to his hiding place. She came, working her way carefully among the bushes above the quarry, and asked what he wanted.

"I think I know what is going on now," he said. "These people we have seen pass apparently live somewhere up the road, and are required for some reason to spend much of the day in town. It is therefore reasonable to assume that they will all be returning the way they went, some time before dark. I am quite sure that the two who just passed were among those who went the other way this morning."

"Therefore, I want you to watch here, while I work my way down to the place where the little road from this quarry joins the other. You will signal me when more of these people approach; and I, concealed at the roadside, will be able to get a first specimen if and when a solitary human being passes. If others approach while I am at work, you can warn me; but it should take only a few seconds, and the creature need not be unconscious much longer than that. Even if others are following closely, I can arrange matters to seem as though it had a fall or some similar accident. I am assuming that no one will come from the other direction; it's a chance we have to take, but the amount of traffic so far today seems to justify it."

"All right," replied Tes. "I stay here and watch. I hope it doesn't take long; I'm getting mortally weary of waiting for something interesting or useful to happen."

Thrykar made a gesture of agreement, and gathered his equipment for the move.

Jackie Wade would have sympathized with Tes, had he dreamt of her existence. He, too, was thoroughly bored. Yesterday hadn't been so bad—the first day of school at least has the element of interest inherent in new classes, possible new teachers, and—stretching a point—even new books; but the second day was just school. Five years of education had not taught Jackie to like it; at the beginning of the sixth, it was simply one of life's less pleasant necessities.

He looked, for the hundredth time, at the clock placed by intent at the back of the room. It lacked two minutes of dismissal time; and he began stealthily to gather the few books he planned to take home for appearance's sake. He had just succeeded in buckling the leather strap about them when the bell rang. He knew better than to make a dash for the door; he waited until the teacher herself had risen, looked over the class, and given verbal permission to depart. Fifteen seconds later he was in front of the school building.

His brother James, senior to him by two years and taller by nearly a head, joined him a moment later. They started walking slowly toward the country road, and within a minute or two the other dozen or so boys from the valley farms had caught up with them. When the last of these had arrived, Jackie started to increase his pace; but his brother held him back. He looked up in surprise.

"What's the matter?" he asked. "You getting rheumatism?" Jimmy gestured toward small figures, some distance in front.

"Fatty and Alice. Let 'em get good and far ahead. We're going swimming, and Fatty's a tattler if there ever was one."

Jack nodded understandingly, and the group dawdled on. The shortest way to the quarries would have taken them past the still active pits and—more to the point—past the houses lying farthest out on the road. The adult inhabitants of one or two of these dwellings had made themselves unpopular with the boys by interfering with the swimming parties; so before the country road was reached, the group turned north on a street which ran parallel to the desired route. This they followed until it degenerated into a rutted country lane; then they turned left again and proceeded to cross the fields and through a small wood—the straggling edge of the growth that covered the mountain—until the road was reached. It was approached with caution, the boys making an Indian stalk of the business.

There was no sign of anyone, according to the "scouts"; the two girls had presumably passed already. The party hastily crossed the road, and ran down the drive that led to the most secluded of the quarries. Thrykar was not the first to appreciate this quality. Thirteen boys, from seven years of age to about twice that, dived into convenient bushes, shed garments with more haste than neatness, and a moment later were splashing about in the appallingly deep water.

They were all good swimmers; the parents of town and valley had long since given up hope of keeping their offspring out of the quarries all the time, and most of them had taken pains to do the next best thing. Jackie and Jimmie Wade were among the best.

Thrykar, whose journey down to the road had been interrupted by the boisterous arrival of the gang, didn't think too much of their swimming abilities; but he was fair-minded enough to realize their deficiencies in that respect were probably for anatomical reasons. His first emotion at the sight of them had been a fear that they would discover the hiding place where the gas cylinders and Tes were concealed, and he had returned thereto in a manner as expeditious as was consistent with careful concealment. The fear remained as he and Tes carefully watched from the edge of the pit; but there was nothing they could do to prevent such a discovery. On dry land they could not move nearly so fast as they had seen the boys run; and there were too many eyes about to risk a drop over the edge into the water.

Two or three of the boys did climb the sides of the quarry



some distance, to dive back down; but Thrykar, after seeing the splashes they made on entry, decided they were not likely to come much higher. He wondered how long they were likely to stay; it was obvious that they had no motive but pleasure. He also wondered if they would all leave together; and as that thought struck him, he glanced at the gas cylinders behind him.

The boys might have remained longer, but the local geography influenced them to some extent. The quarry was on the east side of the mountain, it was mid-afternoon, and most of the water had been in shadow at the time of their arrival. As the sun sank lower, depriving them of the direct heat that was necessary to make their swimming costume comfortable in mid-September, their enthusiasm began to decline. The youngest one present remembered that he lived farther up the valley than any of them, and presently withdrew, to return fully clothed and exhorting one or two of his nearest neighbors to accompany him.

Jackie Wade looked at the boy in surprise as he heard his request.

"Why go so soon? Afraid of something?" he jeered.

"No," denied the seven-year-old stoutly, "but it's getting late. Look at the sun."

"Go on home if you want, *little boy*," laughed Jack, plunging back into the water. He lived only a short distance out on the road, and was no less self-centered than any other child of ten. Two or three of the others, however, appreciated the force of the argument the youngster had implied, rather than the one he had voiced; and several more disappeared into the bushes where the clothes had been left. One of these was James, who had foresight enough to realize that the distance home was not sufficient to permit his hair to dry. After all, they *weren't* supposed to swim in the quarry, and there was no point in asking for trouble.

This action on the part of one of the oldest of the group produced results; when Jackie clambered out of the water again, none of the others was visible. He called his brother.

"Come on and dress, fathead!" was the answer of that youth. Jackie made a face. "Why so soon?" he called back. "It can't even be four o'clock yet. I'm going to swim a while longer." He suited action to the word, climbing up the heaped blocks of granite at the side of the quarry and diving from a point higher than had any of the others that day.

"You're yellow, Jim!" he called, as his head once more broke the surface. "Bet you won't go off from there!" His brother reappeared at the water's edge, dressed except for the undershirt he had used as a towel—which would be redonned, dry or otherwise, before he reached home.

"You bet I won't," he replied as Jackie clambered out beside him, "and you won't either, not today. I'm going home, and you know what Dad will do if you go swimming alone and he hears about it. Come on and get dressed. Here's your clothes." He tossed them onto a block of stone near the water.

A voice from some distance up the road called, "Jim! Jackie! come on!" and Jim answered with a wordless yell.

"I'm going," he said to his brother. "Hurry up and follow us." He turned his back, and disappeared toward the road. Jackie made a face at his departing back.

In a mood of rebellion against the authority conferred by age, he climbed back up to the rock from which he had just dived, forcing Thrykar, who was making his best speed down the hill with a load of equipment in his tentacles, to drop behind the nearest cover. Jackie thought better of his intended action, however; the dangers of swimming alone had been well drilled into him at an early age, and there was a stratum of common sense underlying his youthful impetuosity. He clambered back down the rocks, sat down on the still warm surface of the block where his clothes lay, and began to dry himself. Thrykar resumed his silent progress downhill.

As he went, he considered the situation. The human being was sitting on the stone block and facing the water; at the moment, Thrykar was directly to his left, and still somewhat above him. Tes was more nearly in front, and still further above. If there was any wind at all, it was insufficient to ripple the water; and Thrykar had recourse to a method that was the equivalent of the moistened finger. He found that there was a very faint breeze blowing approximately from the east—from the rear of the seated figure. Thrykar felt thankful for that, though the circumstance was natural enough. With his skin still wet, Jackie felt the current of air quite sharply, and had turned his back to it without thought.

It was necessary for Thrykar to get behind him. This entailed some rather roundabout travel through the bushes and among the blocks of stone; and by the time the alien had reached a position that satisfied him, the boy had succeeded in turning his shorts right side out and donning them, and was

working on the lace of one of his shoes—he had kicked them off without bothering to untie them.

Thrykar, watching him sedulously with one eye, set the tiny cylinders on the ground, carefully checked the single nozzle for dirt, and began to adjust the tiny valves. Satisfied at last, he held the jet well away from his body and toward Jackie, and pressed a triggerlike release on the nozzle itself. Watching carefully, he was able to see faintly the almost invisible bubble that appeared and grew at the jet orifice.

It was composed of an oily compound with high surface tension and very low vapor pressure; it could, under the proper conditions, remain intact for a long time. It was being filled with a mixture composed partly of the anaesthetic that Thrykar had compounded, and partly of hydrogen gas—the mixture had been carefully computed beforehand by Thrykar to be just enough lighter than air to maintain a bubble a yard in diameter in equilibrium.

He watched its growth carefully, releasing the trigger when it seemed to have attained the proper size. Two other tiny controls extruded an extra jet of the bubble fluid, and released another chemical that coagulated it sufficiently in the region near the nozzle to permit its being detached without rupture; and the almost invisible thing was floating across the open space toward Jackie's seat.

Thrykar would not have been surprised had the first one missed; but luck and care combined to a happier result. The boy undoubtedly felt the touch of the bubble film, for he twisted one arm behind his back as though to brush away a cobweb; but he never completed the gesture. At the first touch on his skin, the delicate film burst, releasing its contents; and Jackie absorbed a lungful of the potent mixture with his next breath. For once, the book appeared to be right.

Thrykar had been able, with difficulty, to keep the bubble under observation; and as it vanished, he emerged from behind the concealing stone and dashed toward his subject. Jackie, seated as he was with feet clear of the ground, collapsed backwards across the block of granite; and by some miracle Thrykar managed to reach him and cushion the fall before his head struck the stone. The alien had not foreseen this danger until after the release of the bubble.

He eased the small body down on its back, and carefully examined the exposed chest and throat. A pulse was visible

on the latter, and he gave a mutter of approval. Once more the handbook had proved correct.

Thrykar opened the small, waterproof case that had been with the equipment, and extracted a small bottle of liquid and a very Earth-appearing hypodermic syringe. Bending over the limp form on the rock, he opened the bottle and sniffed as the odor of alcohol permeated the air. With a swab that was attached to the stopper, he lightly applied some of the fluid to an area covering the visible pulse; then, with extreme care, he inserted the fine needle at the same point until he felt it penetrate the tough wall of the blood vessel, and very slowly retracted the plunger. The transparent barrel of the instrument filled slowly with a column of crimson.

The hypodermic filled, Thrykar carefully withdrew it, applied a tiny dab of a collodionlike substance to the puncture, sealed the needle with more of the same material, and replaced the apparatus in the case. The whole procedure, from the time of the boy's collapse, had taken less than two minutes.

Thrykar examined the body once more, made sure that the chest was still rising and falling with even breaths and the pulse throbbing as before. The creature seemed unharmed—it seemed unlikely that the loss of less than ten cubic centimeters of blood could injure a being of that size in any case; and knowing that the effects of the anaesthetic would disappear in a very few minutes, Thrykar made haste to gather up his equipment and return to the place where Tes was waiting.

"That puts the first waterfall behind us," he said as he rejoined her. "I'll have to take this stuff down to the ship to work on it—and the sooner it's done, the better. Coming?"

"I think I'll watch until it recovers," she said. "It shouldn't take long, and—I'd like to be sure we haven't done anything irreparable. Thrykar, why do we have to come here, and go to all this deceitful mummery to *steal* blood from a race that doesn't know what it's all about, when there are any number of intelligent creatures who would donate willingly? That creature down there looks so helpless that I pity it rather in spite of its ugliness."

"I understand how you feel," said Thrykar mildly, following the direction of her gaze and deducing that of her thoughts. "Strictly speaking, a world such as this is an emergency station. You know I tried to get a later vacation period, so that I'd come up for refreshment before we left; but I couldn't manage

it. If we'd waited at home until I was finished, we might as well have stayed there—there wouldn't have been time enough left to see anything of Blahn after we got there. There was nothing to do but stop en route, and this was the only place for that. If we'd taken a mainliner, instead of our own machine, we could have reached Blahn in time for treatment, or even received it on board; but I didn't want that any more than you did. I know this business isn't too pleasant for a civilized being, but I assure you that they are not harmed by it. Look!"

He pointed downwards. Jackie was sitting up again, wearing a puzzled expression which, of course, was lost on the witnesses. He was a healthy and extremely active youngster, so it was not the first time in his life he had fallen asleep during the daytime; but he had never before done so with a block of stone under him. He didn't puzzle over it long; he was feeling cold, and the other boys must be some distance ahead of him by now—he dressed hastily, looked for and finally found the books which Jimmy had neglected to bring with his clothes, and ran off up the road.

Tes watched him go with a feeling of relief for which she was unable to account. As soon as he was out of sight, Thrykar picked up the gas cylinders and equipment case, made sure the latter was sealed water-tight, and began once more to struggle down the hill with the load. He refused Tes' assistance, so she, unburdened, saved herself the climb by slipping over the edge of the pit. She was in the tiny galley preparing food by the time Thrykar came aboard; she brought him some within a few minutes and remained in the laboratory to watch what he was doing.

He had transferred the sample of blood to a small, narrow-necked flask, which was surrounded by a heating pad set for what the book claimed to be the human blood temperature. The liquid showed no sign of clotting; evidently some inhibiting chemical had been in the hypodermic when the specimen was obtained. Tes watched with interest as Thrykar bent over the flask and permitted a thin stream of his own blood, flowing from a valve in the great vein of his tongue, to mingle with that of the human being. The valve, and the tiny muscles controlling it, were a product of surgery; the biologists of Thrykar's race had not yet succeeded in tampering with their genes sufficiently to produce such a mechanism in the course of normal development. The delicate operation was per-

formed at the same time the individual received his first "refreshment," and was the most unpleasant part of the entire process. Tes, not yet of age, was not looking forward to the change with pleasure.

The flask filled, Thrykar straightened up. His wife looked at the container with interest. "Their blood doesn't look any different from ours," she remarked. "Why this mixing outside?"

"There are differences sufficient to detect either chemically or by microscope. It is necessary, of course, that there be *some* difference; otherwise there would be no reaction on the part of my own blood. However, when the blood is from two different species, it is best to let the initial reaction take place outside the body. That would be superfluous if my donor was a member of our own race, with merely a differing blood type. If you weren't the same as I, it would have saved us a lot of trouble."

"Why is it that two people who have been treated, like you, are not particularly helpful to each other if they wish to use each other's blood?"

"In an untreated blood stream, there are leucocytes—little, colorless, amoeboid cells which act as scavengers and defenders against invading organisms. The treatment destroys those, or rather, so modifies them that they cease to be independent entities—I speak loosely; of course they are never really independent—and form a single, giant cell whose ramifications extend throughout the body of the owner, and which is in some obscure fashion tied in with, or at least sensitive to, his nervous system. As you know, a treated individual can stop voluntarily the bleeding from a wound, overcome disease and the chemical changes incident to advancing age—in fact, have a control over the bodily functions usually called "involuntary" to a degree which renders him immune to all the more common causes of organic death." One of his tentacles reached out in a caress. "In a year or two you will be old enough for the treatment, and we need no longer fear—separation."

"But to return to your question. The giant leucocyte, after a few months, tends to break up into the original, uncontrollable type; and about half the time, if that process is permitted to reach completion, the new cells no longer act even as inefficient defenders; they attack, instead, and the victim dies of leukemia. The addition to the blood stream of white cells from another type of blood usually halts the breakdown—it's as though the great cell were intelligent, and realized it had

to remain united to keep its place from being usurped; and in the few cases where this fails, at least the leukemia is always prevented."

"I knew most of that," replied Tes, "but not the leukemia danger. I suppose that slight risk is acceptable, in view of the added longevity. How long does that blood mixture of yours have to stand, before you can use it?"

"About four hours is best, I understand, though the precise time is not too important. I'll take this shot before we go to bed, let it react in me overnight, and tomorrow we'll catch another human being, get a full donation, and—then we can start enjoying our vacation."

Jackie Wade ran up the road, still hoping to catch up with his brother. He knew he had fallen asleep, but was sure it had been for only a moment; Jim couldn't be more than five minutes ahead of him. He had not the slightest suspicion of what had happened during that brief doze; he had lost as much blood before, in the minor accidents that form a normal part of an active boy's existence. His throat did itch slightly, but he was hardened to the activities of the mosquito family and its relatives, and his only reaction to the sensation was mild annoyance.

As he had hoped, he caught the others before they reached his home, though the margin was narrow enough. Jim looked back as he heard his brother's running footsteps, and stopped to wait for him; the other boys waved farewell and went on. Jackie reached his brother's side and dropped to a walk, panting.

"What took you so long?" asked Jim. "I bet you went swimming again!" He glared down at the younger boy.

"Honest, I didn't," gasped Jackie. "I was just comin' on slowly—thinking."

"When did you start thinking, squirt?" An exploratory hand brushed over his hair. "I guess you didn't at that; it's almost as dry as mine. We'd both better stay outside a while longer. Here, drop my books on the porch and find out what time it is."

Jackie nodded, took the books as they turned in at the gate, and ran around to the small rear porch, where he dropped them. Looking in through the kitchen window, he ascertained that it was a few minutes after four; then he jumped down the steps and tore after his brother. Together, they managed to fill the hour and a half before supper with

some of the work which they were supposed to have done earlier in the day; and by the time their mother rang the cow bell from the kitchen door, hair and undershirts were dry. The boys washed at the pump, and clattered indoors to eat. No embarrassing questions were asked at the meal, and the Wade offspring decided they were safe this time.

Undressing in their small room that night, Jackie said as much. "How often do you think we can get away with it, Jim? It's so close to the road, I'm always thinking someone will hear us as they go by. Why don't they like us to swim there, anyway? We can swim as well as anyone."

"I suppose they figure if we did get drowned they'd have an awful time getting us out; they say it's over a hundred feet deep," responded the older boy, somewhat absently.

Jackie looked up sharply at his tone. Jim was carefully removing a sock and exposing a rather ugly scrape which obviously had been fresh when the sock was donned. Jackie came over to examine it. "How did you do that?" he asked.

"Hit my foot against the rock the first time I dived. It's a little bit sore," replied Jim.

"Hadn't we better have Mother put iodine on it?"

"Then how do I explain where I got it, sap? Go get the iodine yourself and I'll put it on; but don't let them see you get it."

Jackie nodded, and ran barefooted downstairs to the kitchen. He found the brown bottle without difficulty, brought it upstairs, watched Jim's rather sketchy application of the antiseptic, and returned the bottle to its place. When he returned from the second trip Jim was in bed; so he blew out the lamp without speaking and crawled under his own blankets.

The next morning was bright and almost clear; but a few thin cirrus clouds implied the possibility of another change in the weather. The boys, strolling down the road toward school, recognized the signs; they prompted a remark from Jackie as they passed the second quarry.

"I bet the middle of a rainstorm would be a good time to go swimming there. No one would be around, and you'd have a good excuse for being wet."

"You'd probably break your neck on the rocks," replied his brother. "They're bad enough when it's dry." Jim's foot was bothering him a little, and his attitude toward the quarry was a rather negative one. He had managed to conceal his trouble



from their mother, but now he was limping slightly. They had already fallen behind the other boys, who had met them at the Wade gate, and there began to be a serious prospect of their being late for school. Jim realized this as they entered the town, and with an effort increased his pace; they managed to get to their rooms with two or three minutes to spare, to Jim's relief. He had been foreseeing the need for a written excuse, which might have been difficult to provide.

When they met at lunch time, Jim refused to discuss his foot, and even Jackie began to worry about the situation. He knew his elder brother would not lie about his means of acquiring the injury, and it seemed very likely that the question was going to arise. After school, there was no doubt of it. Jimmy insisted that his brother not wait for him, but go home and stay out of the way until he had faced the authorities; Jackie was willing to avoid the house, but wanted to keep with Jim until they got there. The older boy's personality triumphed, and Jackie went on with the main crowd, while James limped on behind.

They did not swim, that day. The older boys had determined to play higher up the mountain side, and the younger ones trailed along. They spent a riotous afternoon, with little thought to passage of time; and Jackie heard the supper bell ring when he was a hundred yards from the house. He took to his heels, paused briefly at the pump, burst into the kitchen, recovered his poise, and proceeded more sedately to the dining room. His mother looked up as he entered, and asked quietly, "Where's Jimmy?"

That morning, as on the previous day, Thrykar had made careful count of the number of human beings passing the quarry. Although only one automobile had passed the second day, the number of pedestrians had tallied three times—fifteen people had walked to town both mornings; two had walked back in the afternoon, and thirteen had paused to swim. He concluded that those fifteen could be counted on as regular customers, when he laid his plans for the second afternoon.

This time, he took up his station very near the road, concealed as best he could behind bushes. Tes was at his station of the day before, ready to give him warning of people approaching. He was not counting on a lone swimmer remaining behind at the quarry; he hoped to snatch one of the passersby from the road itself.

In consequence, he was more than pleased to see that the human beings did not stop to swim; the first group to pass consisted of twelve, whom he rightly assumed to be most of the previous day's swimmers, and the second was the pair of girls, which Thrykar, of course, was unable to recognize as such. There was one to go; and, though it seemed too good to be true, there was every chance that that one would pass alone.

He did. Tes signaled his approach, and Thrykar, not waiting for anything more, started blowing a bubble. The wind was against him today; he had to make a much larger one, of heavier material, and "anchor" it to the middle of the road. It was more visible, in consequence, than the other had been; but he placed it in the shadow of a tree. Jimmy might not have seen it even had he been less preoccupied. As it was, he almost missed it; Thrykar had time to lay but one trap, which he placed at the center of the road; and Jimmy, from long-established habit, walked on the left. In consequence, he was downwind from the thing; and when it ruptured at his grazing touch, the alien had no reason to be dissatisfied with the result.

The boy hit the ground before Thrykar could catch him, but there were no visible marks to suggest injury to his head when the trapper examined him. Thrykar picked up the unconscious form with an effort, collected the books which had fallen from its hand, and staggered back to the place where he had concealed the rest of his equipment.

This was not the place from which he had been watching; there was more equipment this time, the operation would take longer, and it would have been foolhardy to work so close to the road. He had found another space between large, discarded granite blocks about midway between road and quarry; and this he made his operating room.

Before going to work, he applied an extra dose of the anaesthetic directly to the boy's nostrils; and he laid the cylinder containing the substance close at hand. He uncased a much larger needle, connected by transparent, flexible tubing to a small jar graduated for volumetric measure; and, not trusting his memory, he laid the book beside it, open to the page which gave the quantity of blood that might safely be removed from a human being—a quantity determined long before by experiment.

As he had done the day before, he swabbed the unpro-

tected throat with alcohol, and inserted the needle; a tiny rubberlike bulb, equipped with a one-way valve, attached to the jar, provided the gentle suction needed, and the container slowly filled to the indicated graduation. Thrykar promptly stopped pumping, extracted the needle, and sealed the puncture as before. Then, before the blood had time to cool appreciably, he removed a small stopper from the jar, inserted his slender tongue, and spent the next two minutes absorbing the liquid into his own circulatory system.

That accomplished, he quickly replaced the apparatus in its case. Then he exerted himself to pick up Jimmy's body and carry it back to the road, at the point where the boy had fallen. There he laid him, face down, as nearly as he could recall in the attitude in which he had collapsed; the books were replaced near his left hand, and after a few minutes' search the alien found a fair-sized fragment of granite, which he placed near the boy's foot to serve as a reason for falling. He considered placing another under the head to account for the loss of consciousness, but couldn't bring himself to provide the necessary additional bruise.

Looking around carefully to make sure none of the human being's property was unreasonably far from the body, Thrykar returned to his watching place and set himself to await the boy's return to consciousness. He had no fears himself for the subject's health, but he remembered Tes' reaction the day before, and wanted to be able to reassure her.

He lay motionless, watching. He was beginning to feel restless, and could tell that he was running a mild fever—the normal result of the refresher reaction. He would be a trifle below par for the rest of the day. That was not worrying him seriously; he could rest until blackness fell, and as soon as that desirable event had occurred, they could be out and away.

He did feel a little impatient with his subject, who was taking a long time to regain consciousness. Of course, the creature had received a far heavier dose of anaesthetic than had the other, and had lost more blood; it might be a little longer in recuperating, on that score; but he had occupied fully ten minutes with the operation and stage-setting, which was about twice as long as the total period of unconsciousness of yesterday's subject.

His patience wore thinner in the additional ten minutes that elapsed before Jimmy Wade began to stir. His first motion attracted the alien's wandering attention, and Thrykar gathered himself together preparatory to leaving. Jimmy moaned

a little, stirred again, and suddenly rolled over on his back. After a moment his eyes opened, to stare blankly at the overshadowing tree; then he rolled over again, this time obviously under conscious control, and started to get to his feet. Thrykar, behind his concealing bush, did likewise. He was the only one to complete the movement. The boy got as far as his hands and knees, and was starting to get one foot under him, when Thrykar saw the small body go limp as though it had received a second shot of gas, and slump back into a huddled heap on the road.

Thrykar stood frozen for a moment, as though he expected to be similarly stricken; and even when he relaxed, he kept both eyes fixed on the inert form for fully half a minute. Then, heedless of the risk of being seen should the creature regain its senses, he rushed out on the road and bent over the body, simultaneously tapping out an urgent call to Tes. Once more he picked Jimmy up, feeling as though his tentacles were about to come out at the roots, and bore him carefully back to the scene of the operation.

His emotions were almost indescribable. To say that he felt criminally guilty in causing serious injury to a sensitive being would not be strictly true; although he had an intellectual realization that human beings were social creatures in a plane comparable to that of his own race, he could not sympathize with them in the etymologically correct sense of the word. At the same time, he was profoundly shocked at what he had done; and he experienced an even deeper feeling of pity than had Tes the day before.

With careful tentacles he opened the loose shirt, and felt for the heart he had located the day before. It was still beating, but fully twice as rapidly as it should have been; and so weakly that for a moment Thrykar could not find it. The chest was rising and falling slightly, in slow, shallow breaths. A man would have detected at once the pallor underlying the tan on the boy's face, but it was unnoticeable to the alien.

Tes arrived and bent over the pair, as her husband performed the examination. Thrykar told her what had happened in a few words, without looking up. She gave a single word of understanding, and let a tentacle slide gently across Jimmy's forehead.

"What can you do?" she asked at last.

"Nothing, here. We'll have to get it down to the ship somehow. I'm afraid to take it under water—none of them went

more than a few feet below the surface yesterday, and none stayed down for more than a few seconds. I hate to do it, but we'll have to bring the ship up in broad daylight. I'll stay here; you go down, cast off, and bring the ship over to this side of the pit. Raise it just far enough to bring the upper hatch out of the water. I'll keep this communicator, and when you are ready to come up call me to make sure it's safe."

Tes whirled and made for the quarry without question or argument; a few seconds later Thrykar heard the faint splash as she hurled herself into the water. She must have worked rapidly; a bare five minutes later Thrykar's communicator began to click, and when he responded, the curved upper hull of the spaceship appeared immediately at the near edge of the quarry. Thrykar picked up the boy once more, carried him to the water's edge, eased him in and followed, holding the head well above the surface. He swam the few feet necessary, found the climbing niches in the hull with his own appendages, crawled up the shallow curve of metal, and handed the limp form in to Tes, who was standing below the hatch. She almost fell as the weight came upon her, but Thrykar had not entirely released his hold, and no damage resulted. A few moments later Jimmy was stretched on a metal table in a room adjacent to the control chamber, and the ship was lying at the bottom of the quarry.

Tes had to go out once more for the equipment Thrykar had left above, which included the all-important book. She took only a few minutes, and reported that there was no sign of any other human being.

Thrykar seized the book, although he had already practically memorized the section dealing with Earth and its natives. He had already set the room thermostat at human blood temperature for safety's sake, and had the air not been already saturated with moisture Jimmy's clothes would have dried very quickly. As it was, he was at least free from chill. The chemist checked as quickly as possible the proper values for respiration rate and frequency of heart beat, and sought for information on symptoms of excessive exsanguination; but he was unable to find the last. His original opinion about heart beat and breathing was confirmed, however; the subject's pulse was much too rapid and his breathing slow and shallow.

There was only one logical cause, book or no book, symptoms or no symptoms. The only source of organic disturbance of which Thrykar had any knowledge was his own removal of

the creature's blood. It was too late to do anything about that. The extra dose of gas might be a contributing factor, but the worried chemist doubted it, having seen the negligible effects of the stuff on the human organism the day before.

"Why does that blasted handbook have to be right often enough to make me believe it, and then, when I trust it on something delicate, turn so horribly wrong?" he asked aloud. "I would almost believe I was on the wrong planet, from what it says of the cultural level of this race; then it describes their physical make-up, and I *know* it's right; then I trust it for the right amount of blood to take, and—this. What's wrong?"

"What does it say about their physical structure?" asked Tes softly. "I know it is fantastically unlikely, but we *might* have the wrong reference."

"If that's the case, we're hopelessly lost," replied her husband. "I know of no other race sufficiently like this in physical structure to be mistaken for it for a single moment. Look—there are close-ups of some of the most positive features. Take the auditory organ—could that be duplicated by chance in another face? And here—a table giving all the stuff I've been using: standard blood temperature, coloration, shape, height, representative weights . . . Tes!"

"What is wrong?"

"Look at those sizes and weights! I couldn't have moved a body that bulky a single inch, let alone carry one twenty yards! You had the right idea; it is the wrong race . . . or . . . or else—"

"Or else," said Tes softly but positively. "It is the right planet, the right race, and the right reference. Those values refer to adult members of that race; we took as a donor an immature member—a child."

Thrykar slowly gestured agreement, inwardly grateful for her use of the plural pronoun. "I'm afraid you must be right. I took blood up to the limit of tolerance of an adult, with a reasonable safety margin; this specimen can't be half grown. Yesterday's must have been still younger. How could I possibly have been so unobservant? No wonder it collapsed in this fashion. I hope and pray the collapse may not be permanent—by the way, Tes, could you make some sort of blindfold that will cover its eyes without injuring them? They seem deeply enough set to make that a fairly simple job. If it does recover consciousness, there are still laws which should not be broken."

"You could not be blamed for the mistake, anyway," added Tes, comfortingly. "This creature is as large as any we have

seen in the open; and who would have thought that children would have been permitted to run freely so far from adult supervision?" She turned away in search of some opaque fabric as she spoke.

"The question is not of blame, but of repairing my error," replied Thrykar. "I can only do my best; but that I certainly will do." He turned back to book, boy, and laboratory.

One thing was extremely clear: the lost blood must be made up in some fashion. Direct transfusion was impossible; the creature's body must do the work. Given time and material, it was probably capable of doing so; but Thrykar was horribly afraid that time would be lacking, and he had no means of learning what materials were usable and acceptable to those digestive organs. One thing he was sure would do no chemical harm—water; and he had almost started to pour some down the creature's throat when he recalled that he had heard these beings speak with their mouths, and that there must consequently be a cross-connection of some sort between the alimentary and pulmonary passages. If it was completely automatic, well and good; but it might not be, and there was in consequence a definite risk of strangling the child. He considered direct intravenous injection of sterile water, but his chemical knowledge saved him from that blunder.

Tes designed and applied a simple blindfold; after that, at Thrykar's direction, she made periodic tests of the subject's blood temperature, pulse, and respiration. That left her husband free to think and read, in the forlorn hope of finding something that would enable him to take positive action of some sort. Simply sitting and watching the helpless little creature die before his eyes was as impossible for him as for any human being with a heart softer than flint.

Unquestionably it could have used some form of sugar; perhaps dextrose, such as Thrykar himself could digest—perhaps levulose or fructose or even starch. That was something that Thrykar could have learned for himself, even though the book contained no information on the matter; for he was a chemist, and a good one.

But he didn't dare take another blood sample from those veins, even for a test. And he didn't dare resort to trial and error; there would probably be only a single error.

A saliva test would have given him the answer, had he dreamt that an important digestive juice could be found so high in any creature's alimentary canal. He didn't; and the

afternoon passed at a funereal tempo, with the faint breathing of the victim of his carelessness sounding in his too-keen ears.

It must have been about sunset when Tes spoke to him.

"Thrykar, it's changing a little. The heart seems stronger, though it's still very fast; and the blood temperature has gone up several degrees. Maybe it will recover without help."

The chemist whirled toward the table. "Gone up?" he exclaimed. "It was about where it should be before. If that thing is running a fever—" He did not finish the sentence, but checked Tes' findings himself. They were correct; and looking again at the figures in the book, he lost all doubt that the creature was suffering from a fever which would have been dangerous to a member of Thrykar's own race and was probably no less so to his. He stood motionless beside the metal table, and thought still more furiously.

What had caused the fever? Certainly not loss of blood—not directly, at least. Had the creature been suffering from some disease already? Quite possible, but no way to make sure. An organic tendency peculiar to the race, resulting from lowered blood pressure, prolonged unconsciousness, or similar unlikely causes? Again, no way to prove it. A previously acquired injury? That, at least, gave hope of providing evidence. He had noted no signs of physical disrepair during the few moments he had seen the creature conscious, but it was more or less covered with artificial fabric which might well have concealed them. The exposed portion of the skin showed nothing—or did it? Thrykar looked more closely at the well-tanned legs, left bare from ankle to just below the knee by the corduroy knickers.

One—the right—was perceptibly larger than its fellow; and touching the brown skin, Thrykar found that it was noticeably hotter. With clumsy haste he unlaced and removed the sneakers, and peeled off the socks; and knew he had the source of the trouble. On the right foot, at the joint of the great toe, was an area from which the skin appeared to have been scraped. All around this the flesh was an angry crimson; and the whole foot was swollen to an extent that made Thrykar wonder how he had managed to get the shoe off. The swelling extended up the leg, in lesser degree, almost to the knee; the positions of the veins in foot and ankle were marked by red streaks.

Ignorant as he was of human physiology, Thrykar could see that he had a bad case of infection on his hands; taken in connection with the fever, it was probably blood poisoning.



And, even more than before, there was nothing he could do about it.

He was right, of course, on all counts. Jimmy, in replacing his sock over the scrape the day before, had assured himself of trouble; the iodine had come far too late. By the next morning a battle royal was raging in the neighborhood of the injury. His healthy blood had been marshaling its forces all night and day, and struggling to beat back the organisms that had won a bridgehead in his body; it might possibly have won unaided had nothing further occurred; but the abrupt destruction of his powers of resistance by the removal of nearly half a liter of blood had given the balance a heavy thrust in the wrong direction. James Wade was an extremely ill young man.

Tes, looking on as her husband uncovered the injured foot, realized as clearly as he the seriousness of the situation. The fear that she had been holding at bay for hours—an emotion composed partly of the purely selfish terror that they might do something for which the law could punish them, but more of an honest pity for the helpless little being which had unwittingly aided her husband—welled up and sought expression; Thrykar's next words set off the explosion.

"Thank goodness for this!" was what he said, beyond any possibility of doubt; and his wife whirled on him.

"What can you mean? You find yet another injury you've caused this poor thing, and you sound *glad* of it!"

Thrykar gave a negative flip of his great fins. "I'm sorry; of course my words would give that impression. But that was not what I meant. I am powerless to help the creature, and have been from the first, though I stubbornly refused to admit the fact to myself. This discovery has at least opened my eyes.

"I wanted to treat it myself before, because of the law against making our presence known; and I wasted my time trying to figure out means of doing so. I was attacking the wrong problem. It is not to cure this being ourselves, so *that* our presence will remain unsuspected; it is to get it to the *care* of its own kind, without at the same time betraying the secret. I suppose I assumed, without thinking, that the latter problem was insoluble."

"But how can you know that the human race has a medical science competent to deal with this problem?" asked Tes. "According to the handbook, their science is practically nonexistent; they're still in the age of superstition. Now that I think

of it, I once read a story that was supposed to take place on Earth, and the men treated some member of our own race on the assumption that he was an evil, supernatural being. Whoever wrote the story must have had access to information about the planet." Thrykar smiled for the first time in hours as he answered.

"Probably the same information used by whoever compiled the Earth digest in this handbook. Tes, my dear, can't you see that whoever investigated this world couldn't have stirred a mile from the spot he landed—and must have landed in a very primitive spot. He made no mention of electrical apparatus, metallurgical development, aircraft—all the things we've seen since we got here. Mankind *must* be in the age of scientific development. That investigator was criminally lax. If it weren't for the letter of the law, I'd reveal myself to a human being right now.

"All sciences tend to progress in relation to each other; and I don't believe that a race capable of creating the flying machine we saw two days ago would be lacking in the medical skill to treat the case we have here. We will figure out a means to get this being into the hands of its own people again, and that will solve the problem. We should be able to get away some time tonight."

Tes felt a great weight roll from her mind. There seemed little doubt that the program her husband had outlined was practical.

"Just how do you plan to approach a man, or group of them, carrying an injured member of their own race—a child, at that—and get away not only unharmed, but unobserved?" she asked, from curiosity rather than destructive criticism.

"It should not be difficult. There are several dwelling places not far down the road. I can take the creature, place it in plain sight in front of one of them, then withdraw to a safe distance, and attract attention by throwing stones or starting a fire or something of that sort. It must be dark enough by now; we'll go up right away, and if it isn't we can wait a little while."

It was. It was also raining, though not heavily; the boy's prediction of the morning had been fulfilled. Tes maneuvered the little ship as close as possible to the quarry's edge, while Thrykar once again transferred his burden across the short but unavoidable stretch of water. He pulled it out on dry, or comparatively dry, land, and signaled Tes to close the hatch and

submerge. She was to wait for him just below the surface, ready to depart the moment he returned.

That detail attended to, he turned, straightened up, and coiled and uncoiled his tentacles two or three times after the manner of a man flexing his muscles for a severe task. He realized that, in the transportation of a one-hundred-fifteen pound body some three-quarters of a mile, he had taken on a job to which his strength might barely be equal; but the alternative of bringing the ship closer to the town was unthinkable as yet. He bent over, picked Jimmy up, and started toward the road, keeping to the right side of the drive that led to the quarry.

It was even harder than he had expected. His muscles were strained and sore from the unaccustomed exertion earlier in the day; and by the time he was halfway to the road he knew that some other means of transportation would have to be found. He let his supple body curve under its load, and gently eased his burden to the ground.

Whether he had grown careless, or the rain had muffled the scuffling sound of approaching human feet, he was never sure; but he was unaware of the fact that he was not alone until the instant a beam of light lanced out of the darkness straight into his eyes, paralyzing him with astonishment and dismay.

Jackie Wade had heard nothing, either; but that may be attributed to Thrykar's unshod feet, the rain, and Jackie's own preoccupation with the question of his brother's whereabouts. He was not yet actually worried, though his parents were beginning to be. Once or twice before, one or the other of the boys had remained at a comrade's home for supper. They were, however, supposed to telephone in such an event, and the rather stringent penalties imposed for failure to do so had made them both rather punctilious in that matter.

Jackie had not told about his brother's sore foot; he had simply offered, after supper, to go looking for him on the chance that he might be at the home of a friend who did not possess a telephone. He had no expectation that Jimmy would be at the quarry; he could think of no reason why he should be; but in passing the drive, he thought it would do no harm to look. Jimmy might have been there, and left some indication of the fact.

He knew the way well enough to dispense with all but occasional blinks of the flashlight he was carrying; so he was almost on top of the dark mass in the drive before he saw it.

When he did he stopped, and, without dreaming for a moment that it was more than a pile of brush or something of that sort, left, perhaps, by one of the other boys, turned the beam of his light on it.

He didn't even try to choke back the yell of astonishment and terror that rose to his lips. His gaze flickered over, accepted, and dismissed in one split second the body of his brother stretched on the wet ground; he stared for a long moment at the object bent over it.

He saw a black, glittering wet body, wide and thick as his own at the upper end, and tapering downwards; a dome-shaped head set on top of the torso without any intermediary neck; great, flat appendages, suggestive in the poor light of wings, spreading from the sides of the body; and a pair of great, staring, wide-set eyes that reflected the light of his flash as redly as do human optics.

That was all he had time to see before Thrykar moved, and he saw none of that very clearly. The alien straightened his flexible body abruptly, at the same time rocking backwards on his short legs away from Jimmy's body; and the muscles in his sinewy, streamlined torso and abdomen did not share any part of the feebleness inherent in his slender tentacles. When he straightened, it was with a snap; he did not merely come erect, but leaped upward and backward out of the cone of light, with his great fins spread wide for all the assistance they could give. He completely cleared the enormous block of stone lying beside the drive, and the sound of his descent on the other side was drowned in Jackie's second and still more heart-felt yell.

For a moment Thrykar lay where he had fallen; then he recognized his surroundings, dark as it was. He was in the space he had used that afternoon for an operating theater; and with that realization he remembered the path among the rocks and bushes which he had used in carrying the boy to the ship. As silently as he could, he crept along it toward the water; but as yet he did not dare signal Tes.

Behind him he heard the voice of the creature who had seen him. It seemed to be calling—"Jimmy! Jimmy! Wake up! What's the matter!"—but Thrykar could not understand the words. What he did understand was the pound of running feet, diminishing along the drive and turning down the road toward the town. Instantly he rapped out an urgent signal to Tes, and abandoning caution made his way as rapidly as possible to the quarry's edge. A faint glow a few feet away

marked the hatch in the top of the hull, and he plunged into the water toward it. Thirty seconds later he was inside and at the control board, with the hatch sealed behind him; and without further preamble or delay, he sent the little ship swooping silently upward, into and through the dripping overcast, and out into the void away from Earth.

Jackie, questioned by his father while the doctor was at work, told the full truth to the best of his ability; and was in consequence sincerely grieved at the obvious doubt that greeted his tale. He honestly believed that the thing he had seen crouched over his brother's body had been winged, and had departed by air. The doctor had already noted and commented on the wound in Jim's throat, and the head of the Wade family had been moved to find out what he could about vampire bats. In consequence, he was doing his best to shake his younger's son's insistence on the fact that he had seen something at least as large as a man. He was not having much luck, and was beginning to lose his temper.

Dr. Envers, entering silently at this stage and listening without comment for several seconds, gleaned the last fact, and was moved to interrupt.

"What's wrong with the lad's story?" he asked. "I haven't heard it myself, but he seems to be sure of what he's saying. Also," looking at the taut, almost tearful face of the boy sitting before him, "he's a bit excited, Jim. I think you'd better let him get to bed, and thrash your question out tomorrow."

"I don't believe his story, because it's impossible," replied Wade. "If you had heard it all, you'd agree with me. And I don't like—"

"It may, as you say, be impossible; but why pick on only one feature to criticize?" He glanced at the open encyclopedia indicated by Wade. "If you're trying to blame Jimmy's throat wound on a vampire bat, forget it. Any animal bite would be as badly infected as that toe, and that one looks as though it had received medical treatment. It's practically healed; it was a clean puncture by something either surgically sterile, or so nearly so that it was unable to offer a serious threat to the boy's health even in his present weak condition. I don't know what made it, and I don't care very much; it's the least of his troubles."

"I told you so!" insisted Jackie. "It wasn't one of your crazy little bats I saw. It was bigger than I am; it looked at me for a minute, and then flew away."

Envers put his hand on the youngster's shoulder, and looked into his eyes for a moment. The face was flushed and the small body trembling with excitement and indignation.

"All right, son," said the doctor gently. "Remember, neither your father nor I have ever heard of such a thing as you describe, and it's only human for him to try to make believe it was something he *does* know about. You forget it for now, and get some sleep; in the morning we'll have a look to find out just what it might have been."

He watched Jackie's face carefully as he spoke, and noted suddenly that a tiny lump, with a minute red dot at the center, was visible on his throat at almost the same point as Jimmy's wound. He stopped talking for a moment to examine it more closely, and Wade stiffened in his chair as he saw the action. Envers, however, made no comment, and sent the boy up to bed without giving the father a chance to resume the argument. Then he sat in thought for several minutes, a half smile on his face. Wade finally interrupted the silence.

"What was that on Jackie's neck?" he asked. "The same sort of thing that—"

"It was *not* like the puncture in Jimmy's throat," replied the doctor wearily. "If you want a medical opinion, I'd say it was a mosquito bite. If you're trying to connect it with whatever happened to the other boy, forget it; if Jackie knew anything unusual about it, he'd have told you. Remember, he's been trying to put stuffing in a rather unusual story. I'd stop worrying about the whole thing, if I were you; Jimmy will be all right when we get these strep bugs out of his system, and there hasn't been anything wrong with his brother from the first. I know it's perfectly possible to read something dramatic into a couple of insect bites—I read 'Dracula' in my youth, too—but if you start reading it back to me I'm quitting. You're an educated man, Jim, and I only forgive this mental wandering because I know you've had a perfectly justifiable worry about Jimmy."

"But what *did* Jackie see?"

"Again I can offer only a medical opinion; and that is—nothing. It was dark, and he has a normal imagination, which can be pretty colorful in a child."

"But he was so insistent—"

The doctor smiled: "You were getting pretty positive yourself when I walked in, Jim. There's something in human nature that thrives on opposition. I think you'd better follow the pre-

scription I gave for Jackie, and get to bed. You needn't worry about either of them, now." Envers rose to go, and held out his hand. Wade looked doubtful for a moment, then laughed suddenly, got to his feet, shook hands, and went for the doctor's coat.

Like Wade, Tes had a few nagging worries. As Thrykar turned away from the controls, satisfied that the ship was following the radial beam emanating from the broadcaster circling Sol, she voiced them.

"What can you possibly do about that human being who saw you?" she asked. "We lived for three Earth days keyed up to a most unpleasant pitch of excitement, simply because of a law which forbade our making ourselves known to the natives of that planet. Now, when you've done exactly that, you don't seem bothered at all. Are you expecting the creature to pass us off as supernatural visitants, as they are supposed to have accounted for the original surveyors?"

"No, my dear. As I pointed out to you before, that idea is the purest nonsense. Humanity is obviously in a well advanced stage of scientific advancement, and it is unthinkable that they should permit such a theory to satisfy them. No—they know about us, now, and must have been pretty sure since the surveyors' first visit."

"But perhaps they simply disbelieved the individuals who encountered the surveyors, and will similarly discredit the one who saw you."

"How could they do that? Unless you assume that all those who saw us were not only congenital liars but were known to be such by their fellows, and were nevertheless allowed at large. To discredit them any other way would require a line of reasoning too strained to be entertained by a scientifically trained mind. Rationalization of that nature, Tes, is as much a characteristic of primitive peoples as is superstition. I repeat, they know what we are; and they should have been permitted galactic intercourse from the time of the first survey—they cannot have changed much in sixty or seventy years, at least in the state of material progress.

"And that, my dear, is the reason I am not worried about having been seen. I shall report the whole affair to the authorities as soon as we reach Blahn, and I have no doubt that they will follow my recommendation—which will be to send an immediate official party to contact the human race." He smiled

momentarily, then grew serious again. "I should like to apologize to that child whose life was risked by my carelessness, and to its parents, who must have been caused serious anxiety; and I imagine I will be able to do so." He turned to his wife.

"Tes, would you like to spend my next vacation on Earth?"





# *The Eagles Gather*

BY JOSEPH E. KELLEAM

*This story was published in April 1942. The Manhattan Project was in its earliest stages. Atomic energy was known to result from the breakdown of uranium atoms into their stable components, but atomic weapons were only a dream in the minds of a few military planners. In this strangely forgotten tale, Joseph Kelleam saw beyond the dream of the atomic bomb to the final nightmare of an atomic armaments race in a world nearly destroyed by war. The story ranks with the best of science fiction's famous previsions of the Atomic Age.*

There were no stars. The ruined landing field was lit by dancing shadows from a huge bonfire. With forlorn, hollow eyes the broken towers looked down upon the field, the leaping flames, and the one battered space boat. Beyond the dancing fire the night waited threateningly.

In the shadow of one of the rickety towers a man huddled before a tiny flame and now and then turned his attention to a bubbling pot that hung from a forked stick above the coals. He was lean and broad-shouldered. The flickering coals occasionally lit up his thin face—the somber, gray eyes, the high cheekbones, the wide, sensitive mouth and the yellow curls that fell across a high forehead. The man seemed to be lost in thought, only turning his gaze away from the coals long enough to look up at the dark sky or to stir the pot of stew. When he moved to throw more wood upon the fire it was with the lithe grace of a cat, and even his tattered uniform took on a trim, military look from its wearer.

As the man stared into the fire he was listening to the sound of an approaching ship, half-heard, far above him in the dark sky. The noise of a descending ship increased, changed from a whine to a scream, and from a scream to a roar.

Joseph Kelleam, *THE EAGLES GATHER*. Copyright 1942 by Street and Smith Publications, Inc. Reprinted by permission of Street and Smith Publications, Inc., from *Astounding Science Fiction*, April 1942.

There was a roar and a gush of flame. A long, billowing jet of fire swept over the landing field like a scythe, and another space boat glided across the weed-strewn field. It stopped near the silent space craft. Both the boats were small, battered, patched and repatched—little one-man boats that had gone buzzing about space like wasps—as though the planets and the asteroids were golden fruit ripe for the taking.

The man before the fire made no movement other than to hitch his belt around so that a lean bronzed hand rested upon the worn butt of a pistol. He sat there looking into the fire, though he could hear the sound of feet stumbling through the underbrush. The night was chill, and with his free hand he pulled his patched leather jacket across his chest.

"Hello." The visitor stood before him smiling a cold smile—a little man with wide, drooping shoulders and eyes as blue as chilled steel.

The man before the fire grunted and motioned with his head for the newcomer to be seated.

"Smells good," said the visitor as he sat down and looked into the steaming pot. "That was white of you to build the fire. I'd never 've landed without it. Not much power left, either." He sighed.

"That's O. K. I figured there would be more boats along. They're coming home now—those that have power enough in their engines to make the trip. My name's Duane, Jim Duane."

"They call me Captain," said the little man. "I've got other names, but mostly I answer to Captain. I'm a professional soldier." He added with a trace of a cold smile, "Like you."

"Yeah," Duane said wearily, "that's my work. 'Fightin' for the highest bidder. But when the war lords ran short of uranium they sent me home." He added with a malicious grin, "Like you."

"And damned lucky to get home. Plenty of boys marooned up there." Captain jerked his chin upward toward the dark, mist-swept sky. "But they'll find more uranium. They'll call us back. Twenty years of fightin' can't end this way. The war lords aren't satisfied. There'll be more power for those crates, and guys like us will be gentlemen again, drawin' monthly wages in four figures."

Duane shook his head. "It's gone. They've hunted everywhere. Oh, they found plenty—enough for centuries. But they burned it up in twenty years. They blasted the worlds apart.

They fought like mad dogs. An' now it's gone. An' I'm damned glad."

Captain's eyes narrowed. "You don't talk like a fightin' man."

Duane's hand tightened upon his gun. "A man don't talk fight. Want to see how I fight?"

The little man shrugged his broad shoulders. "I only fight for money. Perhaps we'll fight for different war lords some day."

The scuffling of boots through the undergrowth eased the tension between the two. Two figures stumbled toward the fire. Two men in tattered leather coats and ragged pants and worn boots stopped as one, and stood there with downcast eyes as though awaiting an invitation.

"Space-nuts," said Captain none too softly.

One of the men looked up and patted a bulge in his coat. "I got a can of tomatoes." He smiled timidly. He was a thin little man with a sunken chest and a long pointed nose. His sunken eyes were black and dull.

Duane had seen hundreds like the two. There were men who cracked up out there in space, men who broke under the strain of the screaming, bellowing, fire-blasting wars.

"Throw the tomatoes in the pot," he said carelessly. "Sit down and warm. My name's Duane. This is Captain—that's his name, he's not my captain."

The man drew a can opener from his pocket and produced the tin of tomatoes. As he sawed at the lid he said listlessly, "I'm Ted Shafer. Used to have my own ship. But I lost it. 'Bout a year ago I was shippin' on a freighter an' they marooned me here. Said I was nuts. I'm not nuts. You can see that I ain't nuts. Well, I been livin' around here for about a year—livin' off what I could find. There's a ruined town over there. Then I run into this feller about a week ago. His name is . . . say, what's your name? I keep forgettin'."

The fourth man, a squat, paunched fellow with a red nose and a thick unkempt beard, snorted. "The name's Belton. Bill Belton. You're gettin' crazier and crazier. I been around here for about six months. Only I wasn't marooned. I jumped ship. You guys got anything to drink?"

Captain swore. "Just a couple of bums. I oughta give 'em the toe of my boot—"

Duane's eyes narrowed. "It's my fire," he said softly.

"O. K., O. K. But they're full of lice, I bet—"

Shafer and Belton sat by the fire, their shoulders slumped forward.

Duane reached behind him into the shadows and brought out a roll of bedding. He produced four plates and four tin spoons and began to ladle out the mulligan. When he served, Shafer and Belton were profuse with their thanks. Captain was contemptuous.

"Mulligan," he swore. "Damn, I've sat at tables with war lords. Twenty courses on silver dishes and wine and liquor enough for all. And everybody dressed like hell."

Duane grinned. "Sorry I ain't a war lord. Maybe you'd like a punch in the nose."

Captain took the proffered plate sullenly. "I'm sorry. I keep forgettin'. Geez, I hope they dig up some more uranium soon. It's hard to take this when you've been used to a monthly salary that runs into four figures."

Duane looked up at the dark sky that was vacant save where a trailing mist tangled with the smoke from the fire.

"They won't find any more uranium. Not soon, anyway. I've thought a lot about it. We weren't ready to conquer space. We made a mess of it. Oh, we had the ships and the guns. Mechanically we were perfect. It was us who was wrong. We conquered space but we hadn't conquered ourselves. That will come some day."

"You sound like a parson," Captain jeered.

Little Shafer mouthed his food wolfishly, now and then drawing the back of his hand across his mouth and the tip of his long pointed nose. "What makes you think we won't find any more uranium?" he asked slyly.

Duane looked at him. The little man's fingers were trembling.

"Oh, we might find it," Duane said, "but there's no organization any more. It's been blown to hell. If we do find uranium, we'll lose it again. We're all washed up—for the time being, anyway. We'll have to dig in here on old Terra and start from scratch. Personally, I'm glad."

Captain snorted. "Nurts."

"There's uranium aplenty left," little Shafer said stubbornly.

Captain's eyes narrowed. "Know where it is, punk?"

Shafer avoided that steely glance. "Maybe I do and maybe I don't," he evaded.

Belton scraped the last bit of grease from his plate and belched contentedly. "I was rich once," he told the fire.

Captain sneered. "You ain't ever had the price of an extra drink in your pocket."

"I was rich once, just the same." Bill Belton looked from face to face pleadingly. A coal sputtered into the flame and lit the high color on his bulby nose and swollen cheeks. "I was rich once, richer than dirt."

"O. K.," Duane told him. "Maybe you were. Go ahead and tell your tale and get it off your mind. I'm not sleeping to-night, anyway."

"It'll be a rum-soaked, mangy lie that he dreamed up between panhandling and fightin' pink lizards." Captain yawned.

Belton looked hurt and lowered his eyes to the fire.

"I was rich once. I was runnin' a one-man mining boat out of Achilles. It wasn't much of a boat, but it was mine. An' all of a sudden I came across a freighter, a drifter. A meteor had torn about a fourth of her away, and she was driftin' and spinnin' alone out there in space with all the stars a-twinklin' down at her like diamonds sparklin' on black velvet.

"So I boarded her, and every bit of oxygen had been ripped from her, and there was all the poor boys there, dead and frozen in Old Father Time's icebox. Well, that ship was loaded with furs. She had been outward bound from Pallas, I reckon. An' those furs were all mine by rights of salvage. A king's ransom. I packed my boat with 'em until I hardly had room to move about it.

"An' then, just off Mars, a damned bunch of hellhounds boarded me and cleaned me out and set me adrift in one of those dinky little emergency boats. I've thought of it and thought of it. Those furs were mine. I was rich. They robbed me. But I got the name of that boat. I saw the name. Some day I'll catch some of those fellows. Or even one—"

While Belton was talking, little Shafer slowly slumped over the fire and held his hands over the coals. His fingers were shaking as though he had a chill. His dull, close-set eyes glanced this way and that furtively.

And two pairs of eyes were upon him, Captain's and Duane's. Captain reached into an inner pocket of his leather jacket and produced a flask. Slowly he uncorked it and held it toward the little man, then drew it back temptingly. Shafer's clutching, trembling fingers followed the flask.

"You seem like a good little guy," Captain said. "An' you look sick. Take it all. It's all I've got, but—" He shrugged his broad shoulders and smiled his cold smile.

Duane watched the little play before him. In his deep eyes was pity for this little derelict and contempt for the man who was leading him on.

"He thinks you know where some uranium is buried," he said mockingly. "He'll trade you a drink for a ton of uranium."

"Go to hell," Captain told him. And then to Shafer, "Go ahead. Drink her down. Don't mind this space lawyer."

The little man obliged. Belton watched, fascinated.

"Hell, don't I get a nip?" he objected.

"Not a drop," Captain's cold eyes were murderous. "Can't you see, this little fellow's a gentleman? I bet he's seen better days—"

"Haven't we all?" Duane interrupted.

"Leave the little guy alone." Captain thumped Shafer on the back lustily. The little man smiled timidly and tilted the flask again.

"Thanks." He drew the back of his hand across his mouth and held out the flask to Captain.

Captain waved it away airily.

"Nix, I can tell when a guy needs a drink better than I do. I bet you've seen better days. Bet you were richer than this mug who yaps about findin' a load of furs—like he was a damned scavenger."

Belton flushed. "Listen." One hand stole within his tattered jacket.

"Easy," Duane said, and patted the worn butt of his gun. Belton slumped back over the fire and began to mutter to himself.

Shafer had taken another pull at the flask. A feverish light was coming into his dull eyes.

"Furs," he snorted contemptuously. "Dirty, stinkin' furs! Who gives a damn about furs? Why, I got a corner on all the wealth in the world. The overlords will be beggin' after me some day. I'm richer than all the stars 'cause I got what everybody wants."

"I knew a guy who talked like that once," put in Duane softly. "He was singin' a tune just like that in a two-bit bar.

But he didn't have money enough to pay for his last drink and they threw him out into the street."

"Shut up." Captain smiled, confident that Duane had played into his hand. "Never mind this cynic."

Shafer looked at Duane and tried to sneer. "Think I'm lyin', eh? Well, you'll see. I used to own my own boat, I did. An' I found a mine, a nice, floatin' mine. I didn't have to stake it, 'cause I'm the only one who knows where it is."

"Sure," said Captain.

"Tons and tons of uranium." Shafer turned the words over in his mouth as though they were bonbons.

"Sure," said Captain softly. "Enough for all. We'll live like kings."

Shafer straightened and looked about him, frightened. His eyes dulled again. "You're trying to get me to talk. No, it's mine. All mine. I found it. Nobody else knows where it is."

Again Captain patted Shafer's thin shoulders. "We were just interested in your story, weren't we, men?"

Duane grunted his contempt.

Little Shafer took another pull at the flask. "Yes, sir," he said dreamily. "I was cruisin' out there in space, 'way off the space lanes, when I bumped into it. A little asteroid not over half a mile across. And solid uranium. I chartered it. I figgered out its orbit to an inch. I used to could do that. An' it's mine. Over an' over I keep repeatin' those figures to myself.

"I may forget other things but I won't forget that orbit. An' I'll write it down when someone puts the cold cash in my hand."

He was silent for a moment. Then he took another drink and began to talk to himself. "Yes, sir, I found an asteroid that's solid uranium. There I was, down on my luck, an' cruisin' around in my own ship, the *Billikins*—"

His thin hand went to his mouth as though to stop the words. His eyes were filled with fear. A scream slipped between his bony fingers.

Bill Belton was on his feet, a groping hand within his coat.

"You," he screamed. "Damn it, I'd know the name of that ship in hell. It was your ship. You took my furs."

The little man's trembling hands were thrust out in protest.

"No!" he screamed. "No, no, no!"

Slowly Belton's hand came from his coat. His stubby, grimy



fist clutched a long knife. "It was you," he cried. He raised the knife in a shining arc.

Then little Shafer's fear changed to desperation. With a scream he jumped back and clawed at his coat. He was quick now. Fear had maddened him. A mean little pistol appeared in his hand. He fired point-blank at Belton's face.

Belton staggered and fell. His hands came up to a bleeding face that was a face no more. He screamed a wild, bubbly scream. Then he rolled into the fire, screamed again, struggled to his feet, and fell again—and lay still.

"You tricked me, damn you all." Shafer stood above the two seated men and brandished his gun. His eyes were burning now, little close-set pools of mad fire. His shaking hand steadied and lowered the gun toward Duane.

Duane's hand moved like a rattlesnake striking. Two stabs of flame lanced into the night. Shafer stumbled and fell.

Duane turned his attention to Captain. The little man was nursing a broken arm. A gun that had been leveled at Duane was slipping from deadened fingers.

"You fool," he cried. "You killed him. I believed that story. He knew where the uranium was."

Duane shrugged. "He was crazy. A killer. I know your kind, Captain. I knew what you were thinking when he hinted that he knew where a lode of uranium was. You were figuring then that only you and Shafer would go away from this fire. You had your gun on me just then, ready to polish me off if Shafer missed."

"Damned blundering idiot," Captain swore. "Oh, I wish I had some of my men here."

"Leave your gun and get out," Duane told him.

"But it's dark. I can't go out there in the dark without a gun."

"Get out!" Duane's words were like icy barbs. "Mornin' will be here soon."

Captain struggled to his feet. He was sobbing with fear and rage and pain. Slowly he moved away from the fire.

"And remember what I said," Duane called after him. "Men will conquer the stars some day—after they have conquered themselves."

Captain's retreating figure faded into the night. The sound of his stumbling footsteps died away.

Duane sat there before the little fire, staring intently into the coals, oblivious of the two fallen figures that lay there in the shadows. At length he arose. In the east a bit of silver

was appearing. As he watched, the silver grew brighter; and long spars of purple and rose stretched across the sky.

And as morning dawned the sweeping mists rose and disappeared. The sky was empty—but clear and shining with promise.



# *The Queen's Astrologer*

BY MURRAY LEINSTER

*This is one of the very few medieval science fiction stories ever written. I know of only one other, called "The Power," also from the prolific Leinster pen. In that tale, an alien from another planet visits an uncomprehending and superstition-ridden scholar of the Middle Ages. In the present one, on the other hand, the science fiction is all native and local; no foreign interference! And it is astonishing how vividly real the "science" in this story seems, despite its medieval trappings.*

*Murray Leinster was writing topnotch science fiction before some of the other authors in this book were born. His first story under the Leinster pseudonym appeared in 1920, although as Will Jenkins (his real name) he had been published even before then.*

When the stranger tapped furtively on the door of the Queen's Astrologer, in Ynarth, it was almost night. There was snow on the gabled roofs of all the huddled houses, and snow in the streets—all trodden and fouled by the footsteps of men—and there was a cap of snow resting rakishly on the head of Robin Chaur, high up on a pole in the central square.

The Queen had had Robin Chaur executed some time since, very edifyingly and lingeringly, and had had his head—by special order neither flayed nor roasted nor crushed slowly between the jaws of a monstrous vise—put up on display to remind her subjects that rebellion was unhealthy. She had taken other measures too, which most of her subjects tried not to think about, but sometimes dreamed of. In consequence, the town and the kingdom of Ynarth was quite desperately loyal to the Queen in her palace which frowned down from the heights above them.

The stranger had come into the town just before the gates

Murray Leinster, *THE QUEEN'S ASTROLOGER*. Copyright 1949 by Standard Magazines, Inc. Reprinted by permission of the author and Oscar J. Friend from *Thrilling Wonder Stories*, October 1949.

were closed at sunset, limping with a stick like a half-starved beggar. He'd gone hobbling about the streets until he found an inn which was properly poverty-stricken, and there he produced copper coins and bought food—which he wolfed—and sat seeming to doze while he listened to the talk. But the talk was not informative because the Queen had many spies. In the end the stranger—speaking with a slight foreign accent—had to ask the way to the house of the Queen's Astrologer.

Now he tapped furtively on the door. There was a properly impressive wait. Then a wide, vacuous face grinned through a grilled opening, and the stranger put a coin between the bars. It fell to the floor, and it rang like gold. So instantly the door was opened, and the Astrologer's servant grinned and slobbered, beckoning the stranger in. Then he closed and barred the door again and without a word led the way upstairs.

The stranger paused when light struck his eyes. He was in a great room with a huge fireplace at one end. It made a comforting noise as the flames roared up the chimney. There was a stuffed alligator hanging from the ceiling and stuffed owls and dried bats about the walls, and most impressive astrological charts and instruments here and there. But the Queen's Astrologer himself, was dressed in a quite commonplace costume, and he was at work upon a curiously complicated device of glass tubing and liquids and a bellows. He looked up and frowned.

The stranger, without a word, stripped off his beggar's clothing. As the tattered garments dropped, the rich costume beneath made the Astrologer's eyes widen. He stood up and bowed gracefully.

"You have come far," he said drily. "Your costume is that of a priest of Ars, from far beyond the mountains. I am overwhelmed by the honor. We do not worship Ars in Ynarth, to be sure, but I offer what professional courtesies may be appropriate."

The stranger nodded and took a seat with easy assurance.

"I expected courtesy. I hope for aid," he said coldly.

The astrologer said as drily as before, "In everything the Queen would approve of, I am at your service. Love-philts, horoscopes, charms, magic of the three colors; anything that is not treasonable I will be most happy to oblige a confrere." As the stranger looked at him quizzically, the astrologer explained:

"Our Queen is wise beyond comparison. She has spies, and

spies upon spies, and spies upon spies upon spies. I assure you that no sane man in Ynarth would even think a treasonable thought. And I am a sane man."

The stranger shrugged his shoulders.

"I had no thought of treason," he observed. "It is a matter of religion. You have heard of the great image of the god Ars, in Sclit. It is fifteen spans high, of resonant golden plates and clad in armor made of the bones of the enemies of our nation. Doubtless you have heard of its great, glowing, single eye, as red as fury, bright as hate and with the fires of hell within its depths. The news may not have reached so far, but some sacrilegious thief has been so skilful and so bold as to steal it."

"I am properly shocked," said the Queen's Astrologer politely.

"I hope," said the stranger, "for your aid in recovering it."

"Now, unfortunately," said the astrologer drily, "my magic is not particularly strong in that branch. Lost cows, errant wives, faithless sweethearts and the like—I have had some success in finding such things. But idols' eyes—no. I am afraid I am a bit rusty in the magical processes potent in finding lost idols' eyes."

"A fig for magic," said the stranger contemptuously. "Pish for astrology! Tosh for charms and incantations! I recognize the device on which you are laboring. It deals with a matter of which I have some knowledge."

The astrologer started a little. He glanced at the apparatus, and looked back to his visitor.

"Yes?" But he looked incredulous. "Indeed, I have had some difficulties—"

The stranger said tolerantly, "Children hear the cries of bats, which no adult can hear. You wondered, and sought to know the reason. You made a whistle, which as you made it ever more shrill reached a point where to your ears it was no sound at all, yet children insisted that they still could hear it. Eh? You work at a device to make a sound no ears can hear?"

The astrologer took a deep breath.

"Well, now!" he said. "I did not expect to find a fellow-scientist in a priest of Ars! To be sure! Dogs also hear these sounds our ears cannot catch. The Queen—"

He stopped then. The stranger smiled, not too pleasantly.

"In Sclit," he said, "there are the holy dogs of the goddess Tici, who hates all evildoers and reveals all crime. When persons accused of crime deny it, they are led before the dogs,

intermingled with other persons plainly innocent. The holy dogs display their anger when the guilty ones approach. They—ah—they have been trained to growl when they hear the sound that to human ears is no sound at all."

The Queen's Astrologer said wryly:

"I have thought that had I a conscience, it would hurt me sometimes in the service of my Queen. But I see that you priests of Ars and Tici are of my kidney. Except—" here his tone was polite—"much more advanced."

"Truly," said the stranger with some boastfulness. "We know of many sounds which cannot be heard by men. Some are too shrill and some are too deep. There is a sound which rouses fear, though the hearer hears it not. There is a sound which rouses amorous passion. Our love-charms do not fail in the temple of Nus the love-goddess!"

The Queen's Astrologer made a gesture of courteous interruption. He called his empty-faced servant and informed him that the stranger would dine and lodge there. He commanded the best possible meal for the two of them, to be fetched from the very best inn of the town. The half-wit, stumbling, went slouching down the stairs.

"You will be ill-served," said the astrologer apologetically, "but if I had a servant with all his wits, my clients—other than the Queen—would think him a spy for the Queen and would fear to ask my services. As it is, besides my official position I have a good business in curses, love-potions and the like aids to intended adultery. Since such things usually work out anyhow, and since I always faithfully report everybody who asks to have a pox put on the Queen—they invariably turn out to have been her spies—I live quite quietly and in good favor with Her Majesty."

He busied himself drawing out a table and cutlery and pouring a huge flagon of wine for his guest.

"But about the eye of Ars—" Then he paused and said inquiringly, "Should I make some respectful gesture when mentioning his name?"

The stranger grinned. The astrologer went on drily:

"Your pardon. I thought that you might believe in your own god. But I fear that I have no knowledge of the jewel at all. It is of infinite value, I am sure. But no thief would dare to offer it for sale in Ynarth. The Queen's spies would seize him, Her Majesty would condemn him to death for his crime, and the jewel—"

"She would keep. To be sure. Yet it is in Ynarth," said the

stranger confidently. "Of that I am sure. Was there not some disturbance here not too long since?"

The astrologer shrugged.

"Robin Ghaur led an insurrection," he said in a carefully toneless voice. "Her Majesty was pleased to summon him for a private conversation, and he had the bad taste to observe that Her Majesty's lovers have short lives, and then he fled the country. Her majesty was justly incensed."

The priest of Ars drank of the wine from the flagon.

"And?"

"His wife and two sons vanished," said the astrologer. "Her Majesty expressed indignation, saying that they also had fled the realm. She vowed that she would hang any man who dared to say she'd had them slain to spite Robin, moreover, so no man dared to say it. But Robin appeared on the border to avenge them, and indeed he raised a pretty force and defeated the Queen's army in two pitched battles."

"And?" said the stranger again.

"Two of the Queen's spies got to him," said the astrologer. "Daring men, those spies. They kidnapped him from the very midst of those rebels, and the rebellion fell to pieces. Robin could rouse the Queen's enemies to rage. All others but roused their fears."

The stranger nodded and grinned.

"The Queen took a great vengeance," the astrologer added, very carefully without intonation. "All the people of Ynarth were required to observe the rebels, imbedded to their necks in the masonry of a new structure the Queen was building. Some, seeing their sons there, were so indiscreet as to go mad. But indeed the rebels made a very dolorous sound, crying out as they did. It took some of them near a week to die."

The stranger in his rich garments nodded with an air of complete satisfaction.

"Of course," added the astrologer, "Robin Ghaur himself was treated with special severity. He lived nearly ten days. His head is in the public square now."

"He," said the stranger comfortably, "he had the eye of the idol of Ars. I was sure of that. I seek your aid in finding it."

There was a noise below. The half-witted servant climbed the stairs with a great clatter. He carried a huge basket from which savory odors issued. He put it on the table the astrologer had pulled out and loutishly set plates, and exposed to



view a steaming goose and a meat pie, a snowy-white bread and all the proper adjuncts for a meal.

He made a gobbling noise and retired to the chimney-corner, where he made faces at the flames. The astrologer set chairs and bowed to his guest. The stranger rose and took his place. The astrologer carved. He seemed uneasily thoughtful.

"If you would tell me—"

The stranger-priest of Ars grunted with his mouth full.

"There are sounds we cannot hear," he said complacently, after an instant, "yet they affect our hearts. I spoke of the sounds which cause fear.

"In Sclit those sounds are made in the temple of the god Plut, who rules the afterworld. They are very effective in promoting piety. In the temple of Nus, the love-goddess, such unhearable strains rouse her devotees to frenzy of another sort, and their amorous transports are doubtless pleasing to the goddess." His tone was purest irony. "And I spoke of the holy dogs of Tici, goddess of justice. I am myself a priest of Ars, the god of war."

The astrologer nodded.

"The image of Ars is made of resonant golden plates," the stranger repeated. He drank. "It quivers to sound like a thin goblet to the chorus of a drinking-song. And—can a bell sound with any but its own voice?"

The astrologer, chewing thoughtfully, shook his head.

"Of course not," said the stranger. "Stand beneath a great bell and shout at it, and it will reply with a tiny clanging of its own voice. The eye of the image of Ars is a crystal, cunningly carved by masters of old time. It rings, as a bell. But no man can hear its voice. Nonetheless, it is a sound. It is a sound which rouses hate."

The astrologer ceased to chew. He stared. The priest of Ars grinned.

"It would be instructive," he said tolerantly, "to one who but fumbles with the science of unhearable sounds, to see a ceremony to the glory of Ars. The temple's head addresses the worshippers, recounting the evil deeds of a national enemy. The ringing crystal eye resounds to his voice. But it resounds in the tones that men cannot hear, yet respond to.

"They rouse a mighty rage. The populace shouts. The sound causes the crystal to reverberate yet again and so increase their fury. Drums beat. Men howl and scream with the hatred the crystal eye of Ars increases with every burst of sound. When the worshippers are dismissed, they are as mad-

men. They have been filled with carefully directed hatred."

The Queen's astrologer swallowed, and was still. The stranger chuckled.

"Of course," he said amiably, "they would feel rage in any case. The unheard sounds produce it. But they are hearing of the villainy of a national enemy when their rage is roused. Did we choose, we the priests of Ars could rouse them similarly against our king, or against even the priests of another god. So the priests of Ars are most powerful of all in Sclit."

The Queen's Astrologer made a helpless gesture.

"But Robin Ghaur," he said uneasily. "He surely—was it not the honest rage of honest men which filled his followers?"

The stranger laughed. It was a very cynical laugh.

"Robin Ghaur," he said zestfully, "was the son of a temple dancer whom Robin Ghaur's father stole away. He was a great noble and he rode fast and far, and guarded himself after. It was fifteen full years before the vigilance of his guards relaxed and we were able to kill man and woman together by an assassin's dagger.

"Doubtless this Robin Ghaur knew some of our temple secrets through his mother, before we killed her. He stole the eye of Ars to rouse men's hatred against his Queen. But—" here the grin of the stranger-priest was pure malevolence—"when the Queen's spies neared him, waves of hatred spread out about him. But the Queen's spies hated him! He was in their thoughts when fury rose, not the Queen! So once they had him fast, no pleading nor any possible bribe would move them, who hated him as the mobs in the temple of Ars hate those we priests command them to."

The astrologer was very pale, now.

"Indeed," he said, unsmiling, "I had thought myself without illusions. But I find that I believed in Robin Ghaur. I believed in the despairing fury of those who followed him and won impossible battles. I thought it enviable to have the courage to rebel, even without hope. But it does not seem enviable to have rebelled because of unrealized devices created to make men mad. It is not glorious, though futile, to have won victories because of the calculating science of the priests of Ars. I am disillusioned. I was a fool."

The stranger-priest of Ars was amused. He said benignly, "And you a scientist! I shall aid you with your device to make sounds that none can hear. Ha! I will adjust your device to the sound made in the temple of Nus. And when a buxom

wench comes seeking a love-charm for some hulking peasant lout she would have adore her, you shall fill her ears with a sound she will not know of. She will only know that such frenzied love possesses her that you being nearest are her instant fierce desire! Any maid or matron you may fancy—”

The Queen's Astrologer shook his head.

“Now that,” he said unsteadily, “is something for the Queen to know of. She has a fancy— But no. I am a fool. I have been a scoundrel indeed, but I took some heart from the belief that there were better men than I. And you destroy that belief.” He swallowed. “You are wiser than I, sir priest of Ars. You are my guest. But you distress me. I know nothing of this jewel that you seek. I cannot help you.”

The stranger said amiably, “Come, now! A great jewel, red as fury, bright as hate, with all the fires of hell in its heart? Such a treasure would not be lost! What spies captured Robin, and where would they dare to flee, to sell so great a gem? But find them, and I will ransom it for more gold than any broker would pay. I owe no vengeance for its theft. Not now! Robin Ghaur paid his score. Ten days in dying, you tell me!”

The Queen's Astrologer shivered a little.

“I think I pay a little, also. You do not know what comfort it is to believe that other men are better than you are. It is a warming thought to think that since wiser, greater men believe in kindly gods—gods you cannot reach—that those gods must somehow exist and may even tolerate the men too blind to see them. This you have taken from me.”

The stranger-priest shrugged.

“I offer you much gold.”

“Which of course should pay for anything.” The Queen's Astrologer closed his eyes. “Let me think, now! Robin Ghaur's body they threw on a dung-hill—what was left of it—by the Queen's express command. None would dare remove or bury it. The two spies who kidnapped him came to blows in the Queen's own presence as they disputed which had done most to seize him. She had them hanged for insolence. There has been a murder—yes—I think two—and a beating—”

He thought, his face drawn. After a matter of moments he stood up. He scribbled on a parchment. He beckoned to his servant. They went out of the room together. The Queen's Astrologer came back alone. The stranger said coldly:

“If you have sent news of me to the Queen, and I am seized, I shall swear that you bade me come and recover the eye of Ars, which somehow you had laid hands on.”

The Queen's Astrologer grimaced.

"If I had sent news to the Queen, I would have told her you tempted me to treason. But I did not." Then he said humbly, "What I have done is to send my servant to the place where I suspect the eye of Ars may be found. I did not suspect until you told me of its powers. And I sent him because a man with all his wits would not willingly go nor willingly gain that jewel. We shall have to wait his return. And if you would care to instruct me in the science of sounds which men do not hear—"

The priest of Ars smiled contemptuously. But he drained his goblet of wine and began to speak, precisely. Presently he rose, and expounding as he worked, condescendingly modified the apparatus the Queen's Astrologer had made.

"Ah, yes!" said the astrologer, over and over again as the stranger from beyond the mountains made a point. "Most remarkable! Most ingenious! Truly admirable!"

And in the face of such appreciation, the priest of Ars grew boastful indeed. It is one thing to pose as the mouthpiece of an imaginary deity. It is quite another to receive the tribute of admiration from a man who is able to understand without hope of equalling your monstrous cleverness. The priest of Ars showed off with enormous satisfaction.

And time went on and time went on. The stranger-priest grew a little drunk, what with wine and the astrologer's reverent attention. It grew past the time when guards could have come to seize him had the Queen's Astrologer betrayed him. Presently he observed, somewhat tipsily, that if the astrologer's servant were back, he would prove the effect of certain sounds.

"He will come," said the astrologer. "It may be that he had to hide from a patrol of the Queen's soldiers. They ride abroad at night, seizing all who roam by darkness, on suspicion that they plot against the Queen. But he is a known half-wit, and I am secure in the Queen's good favor. There is no need to fear."

The stranger-priest of Ars drank again. Later, lolling in his chair, he went incontinently to sleep in the midst of slurred boastings of the uses he had made of sounds which none could hear. Then the Queen's Astrologer paced up and down, frowning miserably.

The stranger had been snoring half an hour when a feeble scratching came below. The astrologer hastened to open the

door. It was the half-witted servant, his eyes wide with pure animal terror. His breath came in gasps. He shivered. He whimpered a little as the astrologer closed and barred the great outer door. With shaking fingers he thrust something very hard and small into his master's hand. Then he seemed to wish to collapse. But the astrologer led him up the stairs, and put him before the fire, and poured a great mug of wine for him.

"So you found it, certainly," said the astrologer drily. His eyes ran over his servant's garments. They were stained with filth, and splashed with ice, and there were ominous splotches on them that looked like blood. "You cleansed the gem and took it to the Queen's castle as I bade you?"

The half-wit gobbled, whimpering.

"Ah!" said the astrologer. "You called at the gate, and they knew you for my servant and admitted you, and sent you even to the Queen, eh? Ah! And you gave it to the Queen herself, with my scroll?"

The half-wit gobbled again, weeping in fear.

"I think I know the rest," said the astrologer very quietly. "The Queen summoned all her guards and courtiers, and told them icily that by my magic I had recovered a jewel which one of them had stolen from Robin Ghaur and had tried to hide from her. She called them fools and witlings, eh?"

The half-wit cringed, remembering.

"How many did she order killed?" demanded the astrologer hungrily. "She raged, eh? She began by purring sweetly, as is her wont, and then as anger grew in her, her eyes flashed and her face grew contorted, and her voice grew shrill?"

The half-wit moaned in remembered fear.

"She shrieked at them, eh? She screamed at them in rage and hatred violent even for the Queen? And they began also to rage? The great hall became a place of deadly quiet save for her voice alone, but the eyes of all the guards and all her noblemen began to glow like fire? They moved toward her, with their faces drawn into masks of hate? They went quietly, step by step, their hands clenching and unclenching as she shrieked at them in her fury?"

The half-wit groveled. He wept for the terror now past.

"It would have been good to see," said the astrologer, very quietly. "Ah, it would have been good to see! And suddenly the control of one would break, and he would leap upon her, snarling, and his fellows—male and female alike—would howl

like wolves and leap to destroy her with their teeth and nails! Those gentle folk who have lived by her favor on the life-blood of her people! It would have been good to see! They tore her into small, revolting bits of skin and flesh, did they not?

"And then the monstrous tumult continued, and their rage turned upon each other, and they fought bloodily over the untidy morsels that had been their Queen and screamed their hatred, and knives flashed, and—"

The Queen's Astrologer's nostrils quivered. But the half-wit wept and gobbled and pawed imploringly at his feet. Then the astrologer took a deep breath.

"No, I am not angry with you," he said softly. "You did as I bade you, and waited until you could bring the gem back to me after the Queen had seen it. You have done well. Drink!"

He gave the gibbering creature more to drink. He looked at the gem in his hand. It flashed and flamed in the firelight. It was as red as fury and as bright as hate, and there seemed to be fires as of hell in its interior.

But the astrologer picked it up with a little distaste. He put it in the wooden jaws of a clumsy vise. He struck shrewdly, and the great gem split neatly into two irregular halves. He spoke quietly to the half-wit slobbering over the great mug of wine.

"A bell, once broken, has never the same voice again, no matter how skilful the repair," he said drily. "A bit of gum, now, will mend this so my guest will scarce detect it, and in any case will credit the disaster to Robin rather than to me." He cemented the two halves together again, very neatly. He wiped away the excess cement. The break and repair did not show at all.

"And I have much knowledge of the business," he said.

He put the deadly gem upon the table where he and the stranger had dined.

"Much knowledge!" he repeated ironically. "Now I too can make sounds which none can hear but which rouse terror and rage and lust and all that is evil in men. And I have learned that all other men are scoundrels in no way better than myself." Then he laughed without mirth. "Well, now! If there be no man more honest than myself, then I have to act as if I were an honest man and do what nobler men would do did they exist! I have to try to bring a little of peace and justice

and mercy to the kingdom of Ynarth, just as if I were such a one as Robin tried to be!"

The half-wit yawned cavernously, and curled up on his side by the fireplace. He slept like a puppy, twitching a little in his sleep.

"The Queen and all her court well dead," said the astrologer in ironic meditation. "Madness struck them and they died. I shall spread a tale that Robin laid a curse on them—on the Queen and her court, and every king and queen who may follow her, that madness shall fall on such as are tyrants. It was a curse, of sorts, when he swallowed this gem! 'Twill give a touch of reason to a reign or two, 'ere they perceive the unreasonableness of such sanity."

Then he glanced at the apparatus the stranger—the priest—the scientist of Sclit had so deftly modified for him. He grinned suddenly—wily. "Meanwhile I study to learn if there be any unhearable sound that will make honest men of those it beats upon!"

He shrugged his shoulders. The sky was glowing faintly to the east. He looked again at the jewel. Its fracture and repair was imperceptible. Then he went to his snoring guest, to shake him awake to be ready—in the guise of a limping beggar—to slip out of the gates of the city the instant they were opened, so that he could be lost among the mountains before the people of Ynarth knew that their Queen was dead.

# "Derm Fool"

BY THEODORE STURGEON

*Here is vintage Sturgeon, from his very youngest science fiction and fantasy days—1940, less than a year after he started publishing. And what vintage! Imagine what odd types of life might develop on top of an entirely inaccessible mesa out in our Western deserts if there were no interference from the more "normal" life forms down below. Think in particular what might happen if an alien spaceship had used it as a landing field and inadvertently left behind an example of one of the herpetological species of his planet.*

*Take it from there, and if you can come up with as hilariously bizarre an evolutionary development as has Mr. Sturgeon, you should definitely write it up and sell it to a fantasy magazine.*

*Mr. Sturgeon, who is one of the four or five really top writers in science fiction, lives in a remarkable ship's-cabin-on-land hide-out in Rockland County, New York. There he dreams up and installs household gadgets which make house-keeping remarkably neat and easy, and naturally allow more time for writing.*

I am not generally a fussy man. A bit of litter around my two-and-a-half-room dugout on the West Side seldom bothers me. What trash that isn't big enough to be pushed out in the hallway can be kicked around till it gets lost. But today was different. Myra was coming, and I couldn't have Myra see the place this way.

Not that she cared particularly. She knew me well enough by this time not to mind. But the particular *kind* of litter might be a bit—disturbing.

After I had swept the floor I began looking in odd corners. I didn't want any vagrant breeze to send unexplainable evidence fluttering out into the midst of the room—not while

Theodore Sturgeon, "DERM FOOL." Copyright 1940 by Street and Smith Publications, Inc. Reprinted by permission of the author from *Unknown*, March 1940.



Myra was there. Thinking about her, I was almost tempted to leave one of the things where she could see it. She was generally so imperturbable—it might be amusing to see her hysterical.

I put the unchivalrous thought from me. Myra had always been very decent to me. I was a bit annoyed at her for making me like her so much when she was definitely not my type. Crawling under the bed, I found my slippers. My feet were still in them. I set one on top of the mantel and went into the other room, where I could sit down and wrench the foot out of the other slipper. They were odd slippers; the left was much bigger than the right. I swore and tugged at that right foot. It came out with a rustle; I rolled it up in a ball and tossed it into the waste-paper basket. Now let's see—oh, yes, there was a hand still clutching the handle of one of the bureau drawers. I went and pried it off. Why the deuce hadn't Myra called me up instead of wiring? No chance to head her off now. She'd just drift in, as usual. And me with all this on my mind—

I got the index finger off the piano and threw it and the left foot away, too. I wondered if I should get rid of the torso hanging in the hall closet, but decided against it. That was a fine piece. I might be able to make something good out of it; a suitcase, perhaps, or a rainproof sports jacket. Now that I had all this raw material, I might as well turn it to my advantage.

I checked carefully. My feet were gone, so I wouldn't have to worry about them until the morning. My right hand, too; that was good. It would be awful to shake hands with Myra and have her find herself clinging to a disembodied hand. I pulled at the left. It seemed a little loose, but I didn't want to force it. This wasn't a painful disease as long as you let it have its own way. My face would come off any minute now. I'd try not to laugh too much; maybe I could keep it on until she had gone.

I put both hands around my throat and squeezed a little. My neck popped and the skin sloughed dryly off. Now that was all right. If I wore a necktie, Myra wouldn't be able to see the crinkling edges of skin just above my collarbone.

The doorbell buzzed and I started violently. As I stood up, the skin of my calf parted and fell off like a cellophane gaiter. I snatched it up and stuffed it under a sofa pillow and ran for the door. As I reached it, one of my ears gave a warning

crackle; I tore it off and put it in my pocket and swung the door wide.

"David!" She said that, and it meant that she was glad to see me, and that it had been eight months since the last time, and she was feeling fine, and she was sorry she hadn't written, but then she never wrote letters—not to anybody.

She swooped past me into the room, paused as if she were folding wings, shrugged out of her coat without looking to see if I were there behind her to take it, because she knew I was, crossed her long legs and three-pointed gently on the rug. I put a cigarette into one extended hand and a kiss in the palm of the other, and it wasn't until then that she looked at me.

"Why—David! You're looking splendid! Come here. What have you done to your face? It's all crinkly. It looks sweet. You've been working too hard. Do I look nice? I feel nice. Look, new shoes. Snake-skin. Speaking of snakes, how are you, anyway?"

"Speaking of snakes, Myra, I'm going to pieces. Little pieces, that detach themselves from me and flutter in the gusts of my furious laboring. Something has gotten under my skin."

"How awful," she said, not really hearing me. She was looking at her nails, which were perfect. "It isn't because of me, is it? Have you been pining away for me, David? David, you still can't marry me, in case you were going to ask."

"I wasn't going to ask, but it's nice to know, anyway," I said. My face fell, and I grabbed it and hid it under my coat. She hadn't seen, thank heavens! That meant I was relatively secure for a few hours. There remained only my left hand. If I could get rid of it—good heavens! It was already gone!

It might be on the doorknob. Oh, she mustn't see it! I went into the foyer and searched hurriedly. I couldn't find it anywhere. Suppose it had caught in her wraps? Suppose it were on the floor somewhere near where she was sitting? Now that I was faced with it, I knew I couldn't bear to see her hysterical. She was such a—a *happy* person to have around. For the millionth time since that skinning knife had slipped, I muttered, "Now, why did this have to happen to *me*?"

I went back into the living room. Myra was still on the floor, though she had moved over under the light. She was toying curiously with the hand, and the smile on her face was something to see. I stood there speechless, waiting for the storm. I was used to it by this time, but Myra—

She looked up at me swiftly, in the birdlike way she had. She threw her glances so quickly that you never knew just how much she had seen—under all her chatter and her glittering idiosyncrasies was as calm and astute a brain as ever hid behind glamour.

The hand—it was not really a hand, but just the skin of one—was like a cellophane glove. Myra slipped it on her own and peeped through the fingers at me. "Hiya, fellow reptile," she giggled; and suddenly the giggles changed into frightened little squeaks, and she was holding out her arms to me, and her lovely face was distorted by tears so that it wasn't lovely any more, but sweet—oh, so darned sweet! She clung close to me and cried pitifully, "David, what are we going to *do*?"

I held her tight and just didn't know what to say. She began talking brokenly: "Did it bite you, too, David? It bit m-me, the little beast. The Indians worship it. Th-they say its bite will ch-change you into a snake. . . . I was afraid. . . . Next morning I began shedding my skin every twenty-four hours—and I have ever since." She snuggled even closer, and her voice calmed a little. It was a lovely voice, even now. "I could have killed the snake, but I didn't because I had never seen anything like it, and I thought you might like to have it—so I sent it, and now it's bitten you, and you're losing your skin all the time, too, and—oh-h-h!"

"Myra, don't. Please, don't. It didn't bite me. I was skinning it, and my knife slipped. I cut myself. The snake was dead when I got it. So—you're the one who sent it! I might have known. It came with no card or letter; of *course* it was you! How . . . how long have you been this way?"

"F-four months." She sniffed, and wiped her pink nose on my lapel because I had forgotten to put a handkerchief in my breast pocket. "I didn't care after . . . after I found out that it didn't hurt, and that I could count on when parts of my skin would come off. I—thought it would go away after a while. And then I saw your hand in a store window in Albuquerque. It was a belt buckle—a hand holding a stick, with the wrist fastened to one end of the belt and the stick to the other; and I bought it and saw what it was, because the hand was stuffed with the perfumed moulage you always use for your humming-bird brooches and things—and anyway, you were the only one who *could* have designed such a fascinating belt, or who *would* have thought to use your own skin just because . . . because you happened to have it around—and I hated myself then and I-loved you for it—" She twisted

out of my arms and stared into my eyes, amazement written on her face, and joy. "And I do love you for it, right *now*, David, *now*, and I never loved anyone else before and I don't care"—she plucked my other ear, and the skin rustled away in her hand—"if you *are* all dilapidated!"

I saw it all now. Myra's crazy desire to climb a mesa, one of those island tableaux of the desert, where flora and fauna have gone their own ways these thousand thousand years; her discovering the snake, and catching it for me because I was a combination taxidermist and jeweler, and she had never seen anything like it and thought I might want it. Crazy, brave thing; she had been bitten and had said nothing to anybody because "it didn't hurt"; and then, when she found out that I had the same trouble, she had come streaking to New York to tell me it was her fault!

"If you feel that way about it, Myra," I said gently, "then I don't care at all about this . . . this dry rot . . . little snake in the grass—" I kissed her.

Amazing stuff, this cast-off skin. Regularly as clockwork, every twenty-four hours, the epidermis would toughen, loosen and slip off. It was astonishingly cohesive. My feet would leave their skin inside my slippers, keeping the exact shape of the limb on which it had grown. Flex the dead skin a couple of times, and it would wrinkle in a million places, become limp and flexible. The nails would come off, too, but only the topmost layer of cells. Treated with tannic acid and afterward with wool oil, it was strong, translucent and soft. It took shellac nicely, and a finish of Vandyke-brown oil paint mixed with bronze powder gave a beautiful old-gold effect. I didn't know whether I had an affliction or a commodity.

That snake— It was about four feet long, thicker at head and tail than it was in the middle. It was a lusterless orange, darker underneath than it was on top, but it was highly fluorescent. It smelled strongly of honey and formic acid, if you can imagine that for yourself. It had two fangs, but one was on top of its mouth and the other on the lower jaw. Its tongue was forked, but at the roots only; it had an epiglottis, seven sets of rudimentary limbs and no scales. I call it a snake because it was more nearly a snake than anything else. I think that's fair. Myra is mostly a Puckish angel, but you can still call her a woman. See? The snake was a little of this and a little of that, but I'll swear its origin was not of *this* earth. We

stood there hand in hand, Myra and I, staring at the beast, and wondering what to do about it all.

"We might get rich by renting it to side shows," said Myra.

"Nobody would believe it. How about renting ourselves to the A. M. A.?" I asked.

She wrinkled her nose and that was out. Tough on the A. M. A.

"What are we going to do about it, David?" She asked me as if she thought I knew and trusted me because of it, which is a trick that altogether too many women know.

"Why, we'll—" And just then came the heavy pounding on the door.

Now, there is only one animal stupid enough to bang on a door when there is a bell to ring, and that is a policeman. I told Myra to stay there in the lab and wait, so she followed me into the foyer.

"You David Worth?" asked the man. He was in plain clothes, and he had a very plain face.

"Come in," I said.

He did, and sat down without being asked, eyeing the whiskey decanter with little but evident hope. "M'name's Brett. H. Brett."

"H. for Halitosis?" asked Myra gently.

"Naw, Horace. What do I look like, a Greek? Hey, headquarters's checkin' on them ornaments o' y'rs, Mr. Worth." The man had an astonishing ability to masticate his syllables. "They look like they're made of human skin. Y'r a taxidoimist, ain'tcha?"

"I am. So?"

"So where'dja get th' ror material? Pleece analysis says it's human skin. What do you say?"

I exchanged a glance with Myra. "It is," I said.

It was evidently not the answer Brett expected. "Hal!" he said triumphantly. "Where'd you get it, then?"

"Grew it."

Myra began to skip about the room because she was enjoying herself. Brett picked up his hat from the floor and clung to it as if it were the only thing he could trust. I began to take pity on him.

"What did they do down there, Brett? Microscopic cross-section? Acid and base analyses?"

"Yeah."

"Tell me; what have they got down there—hands?"

"Yeah, and a pair o' feet. Book ends."

"You' always did have beautiful feet, darling," caroled Myra.

"Tell you what I'll do, Brett," I said. I got a sheet of paper, poured some ink onto a blotter, and used it as a stamp pad. I carefully put each fingertip in the ink and pressed it to the paper. "Take that down to headquarters and give it to your suspicious savants. Tell them to compare these prints with those from the ornaments. Write up your reports and turn them in with a recommendation that the whole business be forgotten; for if it isn't I shall most certainly sue the city, and you, and anyone else who gets in my way, for defamation of character. I wouldn't consider it impolite, Mr. Brett, if you got out of here right away, without saying good night." I crossed the room and held the door open for him.

His eyes were slightly glazed. He rose and walked carefully around Myra, who was jumping up and down and clapping her hands, and scuttled out. Before I could close the door again he whirled and stuck his foot in it.

"Lissen. I don't know what's goin' on here, see? Don't you or that lady try to leave here, see? I'm havin' the place watch'd from now on, see? You'll hear from me soon's I get to headquarters, see?"

"You're a big seese," said Myra over my shoulder; and before I could stop her she plucked off her nose and threw it in the detective's face. He moved away so fast that he left his hat hanging in midair; seconds later we heard the violence of his attempted passage down four flights of stairs when there were only three.

Myra danced three times around the room and wound up at the top of the piano—no mean feat, for it was a bulky old upright. She sat there laughing and busily peeling off the rest of her face.

"A certain something tells me," I said when I could talk, which was after quite awhile, "that you shouldn't have done that. But I'm glad you did. I don't think Detective Inspector Horace Halitosis Brett will be around any more."

Myra gestured vaguely toward her bag. I tossed it to her, and she began dabbing at nose and lips in the skillful, absent way women have. "There," she said when she had finished. "Off with the old—on with the new."

"You're the first woman in creation who gets beauty treatments in spite of herself. Pretty neat."

"Not bad," she said impersonally to her mirror. "Not bad, Myra!"

Thinking of her, watching her, made me suddenly acutely conscious of her. It happens that way sometimes. You know you love the gal, and then suddenly you *realize* it. "Myra—"

I think she had a gag coming, but when she looked at me she didn't say anything. She hopped down off the piano and came over to me. We stood there for a long time.

"You sleep in there," I said, nodding toward the bedroom. "I'll—"

She put her arms around me. "David—"

"Mm-m-m?"

"I'll—have a nice torso for you at 12:48—"

So we stuck around and talked until 12:48.

It must have been about two weeks later, after we were married, that she started breaking bottles in my laboratory. She came into the laboratory one afternoon and caught me cold. I was stirring a thick mass in a beaker and sniffing at it, and was so intent on my work that I never heard her come in. She moved like thistledown when she wanted to.

"What are you cooking, darling?" she asked as she put away a beautiful pair of arms she had just "manufactured."

I put the beaker on the bench and stood in front of it. "Just some . . . sort of . . . er . . . stickum I'm mixing up for—Myra, beat it, will you? I'm busy as—"

She slid past me and picked up the beaker. "Hm-m-m. Pretty. Snff. Honey and—formic acid. Using the smell of that beast as a lead, are you? Dr. David Worth, trying to find a cure for a gold mine. It's a cure, isn't it? Or trying to be?" Her tone was very sweet. Boy, was she sore!

"Well . . . yes," I admitted. I drew a deep breath. "Myra, we can't go on like this. For myself I don't care, but to have you spending the rest of your life shedding your epidermis like a . . . a blasted cork oak—it's too much. You've been swell about it, but I can't take it. You're too swell, and it's too much for my conscience. Every time I come in here and start stuffing something of yours, I begin worrying about you. It hasn't been bad, so far—but, woman, think of it! The rest of your life, sloughing off your hide, worrying about whether or not you can find somewhere to take your face off when you're not home; trying to remember where you dropped a hand or a leg. You—Myra, you're not listening."

"Of course I'm not. I never listen to you when you're talking nonsense."

"It isn't nonsense!" I was getting sore.

"I wonder," she said dreamily, sloshing the mess around in the beaker, "whether this thing will bounce." She dropped it on the floor and looked curiously. It didn't bounce. I stood there fumbling for a cuss word strong enough, and wondering whether or not I could move fast enough to poke her one.

"David, listen to me. How long have you been a taxidermist?"

"Oh—eleven years. What's that got—"

"Never mind. And how much money have you saved in eleven years?"

"Well, none, until recently. But lately—"

"Quiet. And you have eight hundred-odd in the bank now. Those stuffed-skin gadgets sell faster than we can make them. And just because you have some funny idea that I don't like to give you my-by-products, you want to cut the water off, go back to stuffing squirrels and humming birds for buttons. David, you're a fool—a derm fool."

"That's not very punny."

She winced. "But here's the main thing, David. You've got this trouble, and so have I. We've been cashing in on it, and will, if only you'll stop being stupid about it. The thing I like about it is that we're partners—I'm *helping* you. I love you. Helping you means more to me than— Oh, David, can't you see? Can't you?"

I kissed her. "And I thought you were just a good sport," I whispered. "And I thought some of it was mock heroics. Myra—" Oh, well. She won. I lost. Women are funny that way. But I still had an idea or two about a cure—

I'd been wrong about the indefatigable Inspector Brett. It was Myra who found out that he was tailing us everywhere, parking for hours in a doorway across the street, and sometimes listening at the door. I'd never have known it; but, as I've pointed out before, Myra has superhuman qualities. When she told me about it, I was inclined to shrug it off. He didn't have anything on us. I had to laugh every time I thought of what must have gone on at police headquarters when they checked up on my fingerprints and those of the hands they had bought in the stores.

The fact that it was human skin, and that the prints were identical in dozens of specimens, must have given them a nasty



couple of days. Prove that the axiom about two points and a straight line is false, and where's your whole science of geometry? And prove that there can be not only identical fingerprints, but *dozens* of identical ones, and you have a lot of experts walking around in circles and talking to themselves.

Brett must have appointed himself to crack this case. I was quite willing to let him bang his head against a wall. It would feel nice when he stopped. I should have known Myra better. She had a glint in her eye when she talked about that gang buster.

In the meantime I kept working on that cure. I felt like a heel to skulk around behind Myra's back that way. You see, she trusted me. We'd had that one row about it, and I'd given in. That was enough for her. She wouldn't spy on me when I was working alone in the lab; and I knew that if she did realize it, suddenly, she would be deeply hurt. But this thing was too big. I *had* to do what I was doing, or go nuts.

I had a lead. The formic-honey idea was out, as a cure, though certain ingredients in them, I was sure, had something to do with the cause. That cause was amazingly simple. I could put it down here in three words. But do you think I would? *Heh*. I've got a corner on this market—

But this was my lead: My *hair* never came off! And I wear a miniscule mustache; every time my face came off it left the mustache. I have very little body hair; now, with this trouble, I had none. It came off, for the follicles were comparatively widely separated. First, I thought that this phenomenon was due to a purely physical anchorage of the skin by the hair roots. But, I reasoned, if that had been the case, layer after layer of skin would have formed under my mustache. But that did not happen. Evidently, then, this amazing separative and regenerative process was nullified by something at the hair roots. I could tell you what it was, too, but—I should knife myself in the back!

I worked like a one-armed pianist playing Mendelssohn's "Spinning Song." It took months, but by repeated catalysis and refinement, I finally had a test tube full of clear golden liquid. And—know what it was? Look: I hate to be repetitious, but I'm not saying. Let it suffice that it can be bought by the gallon at your corner drugstore. Nobody knew about it as a cure for my peculiar disease—if you want to call it that—because as far as I know no one had ever seen the disease before. *Bueno*.

Then I went to work on the cause. It didn't take long. As

I have said, the most baffling thing about the trouble was its simplicity.

In the windup, I had it. An injection to cause the trouble, a lotion to cure or isolate it. I got ten gallons of each fluid—no trouble, once I knew what to get—and then began worrying about how to break the news to Myra.

"Kirro," I said to her one day, "I want a good face from you tonight. I want to make a life mask of you. Have to get all set first, though. You lose your face at 8:45, don't you? Well, come into the lab at 8:30. We'll plaster you with clay, let it dry so that it draws the face off evenly, back it with moulage, and wash the clay off after the moulage has hardened. Am I brilliant?"

"You scintillate," she said. "It's a date."

I started mixing the clay, though I knew I wouldn't use it. Not to take her face off, anyway. I felt like a louse.

She came in on time as if she hadn't even looked at a clock—how I envy her that trick!—and sat down. I dipped a cloth in my lotion and swabbed her well with it. It dried immediately, penetrating deeply. She sniffed.

"What's that?"

"Sizing," I said glibly.

"Oh. Smells like—"

"Shh. Someone might be listening." That for you, dear reader!

I went behind her with a short length of clothesline. She lay back in the chair with her eyes closed, looking very lovely. I leaned over and kissed her on the lips, drawing her hands behind her. Then I moved fast. There was a noose at each end of the line; I whipped one around her wrists, drew it tight, threw it under the back rung of the chair, and dropped the other end over her head. "Don't move, darling," I whispered. "You'll be all right if you keep still. Thrash around and you'll throttle yourself." I put the clock where she could see it and went out of there. I don't want to hear my very best beloved using that kind of language.

She quieted down after about ten minutes. "David!"

I tried not to listen.

"David—pleasel"

I came to the door. "Oh, David, I don't know what you're up to, but I guess it's all right. Please come here where I can look at you. I . . . I'm afraid!"

I should have known better. Myra was never afraid of any-

thing in her life. I walked over and stood in front of her. She smiled at me. I came closer. She kicked me in the stomach. "That's for tying me up, you . . . you heel. Now, what goes on?"

After I got up off the floor and got my gasping done, I said, "What time is it, bl—er, light of my life?"

"Ten minutes to ni— David! David, what have you done? Oh, you fool! You utter dopel! I told you— Oh, *David!*" And for the second and last time in my life, I saw her cry. Ten minutes to nine and her face was still on. Cured!—at least, her face. I went behind her where she couldn't reach me.

"Myra, I'm sorry I had to do it this way. But—well, I know how you felt about a cure. I'd never have been able to talk you into taking it. This was the only way. What do you think of me now, stubborn creature?"

"I think you're a pig. Terribly clever, but still a pig. Untie me. I want to make an exit."

I grinned. "Oh, no. Not until the second-act curtain. Don't go away!" I went over the the bench and got my hypodermic. "Don't move, now. I don't want to break this mosquito needle off in your jaw." I swabbed her gently around the sides of the face with the lotion, to localize the shot.

"I . . . hope your intentions are honorable," she said through clenched teeth as the needle sank into the soft flesh under her jawbone. "I— Oh! Oh! It . . . itches. David—"

Her face went suddenly crinkly. I caught her skin at the forehead and gently peeled it off. She stared wide-eyed, then said softly:

"I can't kiss you, marvelous man, unless you untie me—"

So I did, and she did, and we went into the living room where Myra could rejoice without breaking anything of value.

In the middle of a nip-up she stopped dead, brainwave written all over her face. "David, we're going to do some entertaining." She sat there in the middle of the floor and began to scream. And I mean she could scream.

In thirty seconds flat, heavy footsteps—also flat—pounded on the stairs, and Brett's voice bellowed: "Op'n up in th' name o' th' law!" He's the only man I ever met who could mumble at the top of his voice.

Myra got up and ran to the door. "Oh—Mr. Brett. How nice," she said in her best hostess voice. "Do come in."

He glowered at her. "What's goin' on here?"

She looked at him innocently. "Why, Mr. Brett—"

"Was you screamin'?"

She nodded brightly. "I like to scream. Don't you?"

"Naw. What'a idear?"

"Oh, sit down and I'll tell you about it. Here. Have a drink." She poured him a tumbler of whiskey so strong I could almost see it raise its dukes. She pushed him into a chair and handed it to him. "Drink up. I've missed you."

He goggled up at her uncertainly. "Well—I dunno. Gee, t'anks. Here's how, Miz Worth." And he threw it down the hatch. It was good stuff. He blinked twice and regretfully set the glass down. She refilled it, signaling behind her back for me to shut up. I did. When Myra acts this way there is nothing to do but stand by and wonder what's going to happen next.

Well, she got Brett started on the history of his life. Every two hundred words he'd empty that glass. Then she started mixing them. I was afraid that would happen. Her pet—for others' consumption; she wouldn't touch it—was what she called a "Three-two-one." Three fingers of whiskey, two of gin, one of soda. Only in Brett's case she substituted rum for the soda. Poor fellow.

In just an hour and a half he spread out his arms, said, "Mammy!" and folded up.

Myra looked down at him and shook her head. "Tsk, tsch. Pity I didn't have any knockout drops."

"Now what?" I breathed.

"Get your hypo. We're going to infect John Law here."

"Now, Myra—wait a minute. We can't—"

"Who says? Come on, David—he won't know a thing. Look—here's what we'll do with him."

She told me. It was a beautiful idea. I got my mosquito, and we went to work. We gave him a good case; shots of the stuff all over his body. He slept peacefully through it all, even the gales of merriment. The more we thought of it— Ah, poor fellow!

After we had what we wanted from him I undressed him and swabbed him down with the lotion. He'd be good as new when he came to. I put him to bed in the living room, and Myra and I spent the rest of the night working in the lab.

When we finished, we took the thing and set it in the living room. Brett's breathing was no longer stertorous; he was a very strong man. Myra tiptoed in and put the alarm clock beside him. Then we watched from the crack of the laboratory door.

The first rays of the sun were streaming through the windows, lighting up our masterpiece. The alarm went off explosively; Brett started, groaned, clutched his head. He felt around for the clock, knocked it off the chair. It fell shouting under the daybed. Brett groaned again, blinked his eyes open. He stared at the window first, trying vaguely to find out what was wrong with it. I could almost hear him thinking that, somehow, he didn't know where he was. The clock petered out. Brett began to stare dazedly about the room. The ceiling, the walls, and—

There in the geometric center of the room stood Detective Inspector Horace Brett, fully clothed. His shield glittered in the sun. On his face was a murderous leer, and in his hand was a regulation police hog-leg, trained right between the eyes of the man on the bed. They stared at each other for ten long seconds, the man with the hangover and the man's skin with the gun. Then Brett moved.

Like a streak of light he hurtled past the effigy. My best corduroy bedspread streaming behind him, clad only in underwear and a wrist watch, he shot through the door—and I mean *through*, because he didn't stop to open it—and wavered shrieking down the stairs. I'd never have caught him if he hadn't forgotten again that there were only three flights of stairs there. He brought up sharp against the wall; I was right behind him. I caught him up and toted him back up to the apartment before the neighbors had a chance to come rubbering around. Myra was rolling around on the floor. As I came in with Brett, she jumped up and kissed his gun-toting image, calling it fondly a name that should have been reserved for me.

We coddled poor Brett and soothed him; healed his wounds and sobered him up. He was sore at first and then grateful; and, to give him due credit, he was a good sport. We explained everything. We didn't have to swear him to secrecy. We had the goods on him. If I hadn't caught up with him, he'd have run all the way to headquarters in his snuggies.

It was not an affliction, then; it was a commodity. The business spread astonishingly. We didn't let it get too big; but what with a little false front and a bit more ballyhoo, we are really going places. For instance, in Myra's exclusive beauty shop is a booth reserved for the wealthiest patrons. Myra will use creams and lotions galore on her customer by way of getting her into the mood; then, after isolating the skin on her

face, will infect it with a small needle. In a few minutes the skin comes off; a mud pack hides it. The lady has a lovely smooth new face; Myra ships the old one over to my place where my experts mount it. Then, through Myra's ballyhoo, the old lady generally will come around wanting a life mask. I give her a couple of appointments—they amount to séances—sling a lot of hocus-pocus, and in due time deliver the mask—life-size, neatly tinted. They never know, poor old dears, that they have contracted and been cured of the damndest thing that ever skipped inclusion in "Materia Medica." It's a big business now; we're coining money.

Like all big business, of course, it has its little graft. A certain detective comes around three times a week for a thirty-second shave, free of charge. He's good people. His effigy still menaces our living room, with a toy gun now. Poor fellow.



# Courtesy

BY CLIFFORD D. SIMAK

*Civility does not take the same form in all places, even on this Earth, but rudeness is quickly understood and resented everywhere. On a far distant planet even the gentlest inhabitants have their passive way of showing they are offended: and this can be a lethal way to an Earthman who encounters it.*

*Mr. Simak, one of the star newsmen of the talent-happy Minneapolis Tribune, started writing science fiction in 1932. This makes him one of the Elder Statesmen in the field, young though he is.*

The serum was no good. The labels told the story.

Dr. James H. Morgan took his glasses off and wiped them carefully, cold terror clutching at his innards. He put the spectacles back on, probing at them with a thick, blunt finger to settle them into correct position. Then he took another look. He had been right the first time. The date on the serum consignment was a good ten years too old.

He wheeled slowly, lumbered a few ponderous steps to the tent flap and stood there, squat body framed in the triangular entrance, pudgy hands gripping the canvas on either side.

Outside the fantastic lichen moors stretched to gray and bleak horizons. The setting sun was a dull red glow in the west and to the east, the doctor knew, night already was beginning to close in, with that veil of purplish light that seemed to fall like a curtain upon the land and billow rapidly across it.

A chill wind blew out of the east, already touched with the frigidity of night, and twitched the canvas beneath the doctor's fingers.

"Ah, yes," said Dr. Morgan, "the merry moors of Landro."

A lonely place, he told himself. Not lonely only in its barrenness nor in its alien wildness, but with an ingrained loneliness that could drive a man mad if he were left alone with it.

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Like a great cemetery, he thought, an empty place of dead. And yet without the cemetery's close association, without the tenderness and the inevitability of a cemetery. For a cemetery held in sacred trust the husks of those who once had lived and this place was an emptiness that held no memory at all.

But not for long, said Dr. Morgan. Not for long now.

He stood looking at the barren slope that rose above the camp and he decided that it would make an eminently satisfactory cemetery.

All places looked alike. That was the trouble. You couldn't tell one place from another. There were no trees and there were no bushes, just a fuzzy-looking scrub that grew here and there, clothing the naked land in splotches, like the ragged coat that a beggar wears.

Benny Falkner stopped on the path as it topped the rise and stood rigid with the fear that was mounting in him. Fear of the coming night and of its bitter cold, fear of the silent hills and the shadowed swales, and the more distant and yet more terrible fear of the little natives that might this very moment be skulking on the hillside.

He put up his arm and wiped the sweat off his brow with his tattered sleeve. He shouldn't have been sweating, he told himself, for it was chilly now and getting colder by the minute. In another hour or two it would be cold enough to freeze a man unprotected in the open.

He fought down the terror that choked his throat and set his teeth a-chatter and for an instant stood stock-still to convince himself he was not panic-stricken.

He had been going east and that meant he must go west to reach the camp again. Although the catch was that he couldn't be absolutely sure he had been going east all the time—he might have trended north a little or even wandered south. But the deviation couldn't have been enough, he was sure, to throw him so far off that he could not spot the camp by returning straight into the west.

Sometime soon he should sight the smoke of the Earthmen's camp. Any ridge, the next ridge, each succeeding hummock in the winding trail, he had assured himself, would bring him upon the camp itself. He would reach higher ground and there the camp would be, spread out in front of him, with the semicircle of white canvas gleaming in the fading light and the thin trail of smoke rising from the larger cook tent where Bat Ears Brady would be bellowing one of his obscene songs.

But that had been an hour ago when the sun still stood a good two hands high. He remembered now, standing on the ridge-top, that he had been a little nervous, but not really apprehensive. It had been unthinkable, then, that a man could get himself lost in an hour's walk out of camp.

Now the sun was gone and the cold was creeping in and the wind had a lonely sound he had not noticed when the light was good.

One more rise, he decided. One more ridge, and if that is not the one, I'll give up until morning. Find a sheltered place somewhere, a rock face of some sort that will give me some protection and reflect a campfire's heat—if I can find anything with which to make a campfire.

He stood and listened to the wind moaning across the land behind him and it seemed to him there was a whimper in the sound, as if the wind were anxious, that it might be following on his track, sniffing out his scent.

Then he heard the other sound, the soft, padding sound that came up the hill toward him.

Ira Warren sat at his desk and stared accusingly at the paper work stacked in front of him. Reluctantly he took some of the papers off the stack and laid them on the desk.

That fool Falkner, he thought. I've told them and I've told them that they have to stick together, that no one must go wandering off alone.

A bunch of babies, he told himself savagely. Just a bunch of drooling kids, fresh out of college, barely dry behind the ears and all-hopped up with erudition, but without any common sense. And not a one of them would listen. That was the worst of it, not a one of them would listen.

Someone scratched on the canvas of the tent.

"Come in," called Warren.

Dr. Morgan entered.

"Good evening, commander," he said.

"Well," said Warren irritably, "what now?"

"Why, now," said Dr. Morgan, sweating just a little. "It's the matter of the serum."

"The serum?"

"The serum," said Dr. Morgan. "It isn't any good."

"What do you mean?" asked Warren. "I have troubles, doctor. I can't play patty-cake with you about your serum."

"It's too old," said Morgan. "A good ten years too old. You can't use old serum. You see, it might—"

"Stop chattering," commanded Warren, sharply. "The serum is too old, you say. When did you find this out?"

"Just now."

"You mean this very moment?"

Morgan nodded miserably.

Warren pushed the papers to one side very carefully and deliberately. He placed his hands on the desk in front of him and made a tent out of his fingers.

"Tell me this, doctor," said Warren, speaking cautiously, as if he were hunting in his mind for the exact words which he must use, "how long has this expedition been on Landro?"

"Why," said Morgan, "quite some time, I'd say." He counted mental fingers. "Six weeks, to be exact."

"And the serum has been here all that time?"

"Why, of course," said Morgan. "It was unloaded from the ship at the same time as all the other stuff."

"It wasn't left around somewhere, so that you just found it? It was taken to your tent at once?"

"Of course it was," said Morgan. "The very first thing. I always insist upon that procedure."

"At any time in the last six weeks, at any given moment in any day of that whole six weeks, you could have inspected the serum and found it was no good? Isn't that correct, doctor?"

"I suppose I could have," Morgan admitted. "It was just that—"

"You didn't have the time," suggested Warren, sweetly.

"Well, not that," said Morgan.

"You were, perhaps, too pressed with other interests?"

"Well, not exactly."

"You were aware that up to a week ago we could have contacted the ship by radio and it could have turned back and took us off. They would have done that if we had let them know about the serum."

"I know that—"

"And you know now that they're outside our radio range. We can't let them know. We can't call them back. We won't have any contact with the human race for the next two years."

"I," said Morgan, weakly, "I—"

"It's been lovely knowing you," Warren told him. "Just how long do you figure it will be before we are dead?"

"It will be another week or so before we'll become susceptible to the virus," Morgan said. "It will take, in certain stubborn cases, six weeks or so for it to kill a man."

"Two months," said Warren. "Three, at the outside. Would you say that was right, Dr. Morgan?"

"Yes," said Morgan.

"There is something that I want you to tell me," Warren said.

"What is it?" Morgan asked.

"Sometime when you have a moment, when you have the time and it is no inconvenience to you, I should like to know just how it feels to kill twenty-five of your fellow men."

"I," said Morgan, "I—"

"And yourself, of course," said Warren. "That makes twenty-six."

Bat Ears Brady was a character. For more than thirty years now he had been going out on planetary expeditions with Commander Ira Warren, although Warren had not been a commander when it started, but a second looey. Today they were still together, a team of toughened planet-checkers. Although no one on the outside would have known that they were a team, for Warren headed the expeditions and Bat Ears cooked for them.

Now Warren set out a bottle on his desk and sent for Bat Ears Brady.

Warren heard him coming for some time before he finally arrived. He'd had a drink or two too many and he was singing most obscenely.

He came through the tent entrance walking stiff and straight, as if there were a chalked line laid out for him to follow. He saw the bottle on the desk and picked it up, disregarding the glasses set beside it. He lowered the bottle by a good three inches and set it back again. Then he took the camp chair that had been placed there for him.

"What's the matter now?" he demanded. "You never send for me unless there's something wrong."

"What," asked Warren, "have you been drinking?"

Bat Ears hiccuped politely. "Little something I cooked up."

He regarded Warren balefully. "Use to be we could bring in a little something, but now they say we can't. What little there is you keep under lock and key. When a man gets thirsty, it sure tests his ingen . . . ingen . . . ingen—"

"Ingenuity," said Warren.

"That's the word," said Bat Ears. "That's the word, exactly."

"We're in a jam, Bat Ears," said Warren.

"We're always in a jam," said Bat Ears. "Ain't like the old days, Ira. Had some he-men then. But now—"

"I know what you mean," said Warren.

"Kids," said Bat Ears, spitting on the floor in a gesture of contempt. "Scarcely out of didies. Got to wipe their noses and—"

"It isn't that kind of a jam," said Warren. "This is the real McCoy. If we can't figure this one out, we'll all be dead before two months are gone."

"Natives?" asked Bat Ears.

"Not the natives," Warren told him. "Although more than likely they'd be glad to do us in if there was a chance."

"Cheeky customers," said Bat Ears. "One of them sneaked into the cook tent and I kicked him off the reservation real unceremonious. He did considerable squalling at me. He didn't like it none."

"You shouldn't kick them, Bat Ears."

"Well, Ira, I didn't really kick him. That was just a figure of speech, kind of. No sir, I didn't kick him. I took a shovel to him. Always could handle a shovel some better than my feet. Reach farther and—"

He reached out and took the bottle, lowered it another inch or two.

"This crisis, Ira?"

"It's the serum," Warren told him. "Morgan waited until the ship had got too far for us to contact them before he thought to check the serum. And it isn't any good—it's about ten years too old."

Bat Ears sat half stunned.

"So we don't get our booster shots," said Warren, "and that means that we will die. There's this deadly virus here, the . . . the . . . oh, well, I can't remember the name of it. But you know about it."

"Sure," said Bat Ears. "Sure I know about it."

"Funny thing," said Warren. "You'd expect to find something like that on one of the jungle planets. But, no, you find it here. Something about the natives. They're humanoid. Got the same kind of guts we got. So the virus developed an ability to attack a humanoid system. We are good, new material for it."

"It don't seem to bother the natives none now," said Bat Ears.

"No," said Warren. "They seem to be immune. One of two

things: They've found a cure or they've developed natural immunity."

"If they've found a cure," said Bat Ears, "we can shake it out of them."

"And if they haven't," said Warren, "if adaptation is the answer—then we're dead ducks for sure."

"We'll start working on them," said Bat Ears. "They hate us and they'd love to see us croak, but we'll find some way to get it out of them."

"Everything always hates us," Warren said. "Why is that, Bat Ears? We do our best and they always hate us. On every planet that Man has set a foot on. We try to make them like us, we do all we can for them. But they resent our help. Or reject our friendliness. Or take us for a bunch of suckers—so that finally we lose our patience and we take a shovel to them."

"And then," said Bat Ears, sanctimoniously, "the fat is in the fire."

"What I'm worried about is the men," said Warren. "When they hear about this serum business—"

"We can't tell them," said Bat Ears. "We can't let them know. They'll find out, after a while, of course, but not right away."

"Morgan is the only one who knows," said Warren, "and he blabs. We can't keep him quiet. It'll be all over camp by morning."

Bat Ears rose ponderously. He towered over Warren as he reached out a hand for the bottle on the desk.

"I'll drop in on Morgan on my way back," he said. "I'll fix it so he won't talk."

He took a long pull at the bottle and set it back.

"I'll draw a picture of what'll happen to him if he does," said Bat Ears.

Warren sat easily in his chair, watching the retreating back of Bat Ears Brady. Always there in a pinch, he thought. Always a man that you can depend on.

Bat Ears was back in three minutes flat. He stood in the entrance of the tent, no sign of drunkenness upon him, his face solemn, eyes large with the thing he'd seen.

"He croaked himself," he said.

That was the solemn truth.

Dr. James H. Morgan lay dead inside his tent, his throat sliced open with a professional nicety that no one but a surgeon could have managed.

About midnight the searching party brought in Falkner.

Warren stared wearily at him. The kid was scared. He was all scratched up from floundering around in the darkness and he was pale around the gills.

"He saw our light, sir," said Peabody, "and let out a yell. That's the way we found him."

"Thank you, Peabody," said Warren. "I'll see you in the morning. I want to talk to Falkner."

"Yes, sir," said Peabody. "I am glad we found him, sir."

Wish I had more like him, thought Warren. Bat Ears, the ancient planet-checker; Peabody, an old army man, and Gilmer, the grizzled supply officer. Those are the ones to count on. The rest of them are punks.

Falkner tried to stand stiff and straight.

"You see, sir," he told Warren, "it was like this: I thought I saw an outcropping—"

Warren interrupted him. "You know, of course, Mr. Falkner, that it is an expedition rule you never are to go out by yourself; that under no circumstance is one to go off by himself."

"Yes, sir," said Falkner, "I know that—"

"You are aware," said Warren, "that you are alive only by some incredible quirk of fate. You would have frozen before morning if the natives hadn't got you first."

"I saw a native, sir. He didn't bother me."

"You are more than lucky, then," said Warren. "It isn't often that a native hasn't got the time to spare to slit a human's throat. In the five expeditions that have been here before us, they have killed a full eighteen. Those stone knives they have, I can assure you, make very ragged slitting."

Warren drew a record book in front of him, opened it and made a very careful notation.

"Mr. Falkner," he said, "you will be confined to camp for a two-week period for infraction of the rules. Also, during that time, you shall be attached to Mr. Brady."

"Mr. Brady, sir? The cook?"

"Precisely," said Warren. "He probably shall want you to hustle fuel and help with the meals and dispose of garbage and other such light tasks."

"But I was sent on this expedition to make geologic observations, not to help the cook."

"All very true," admitted Warren. "But, likewise, you were sent out under certain regulations. You have seen fit to dis-

regard those regulations and I see fit, as a result, to discipline you. That is all, Mr. Falkner."

Falkner turned stiffly and moved toward the tent flap.

"By the way," said Warren, "I forgot to tell you. I'm glad that you got back."

Falkner did not answer.

Warren stiffened for a moment, then relaxed. After all, he thought, what did it matter? With another few weeks nothing would matter for him and Falkner, not for any of the rest.

The chaplain showed up the first thing in the morning. Warren was sitting on the edge of his cot, pulling on his trousers when the man came in. It was cold and Warren was shivering despite the sputtering of the little stove that stood beside the desk.

The chaplain was very precise and businesslike about his visit.

"I thought I should talk with you," he said, "about arranging services for our dear departed friend."

"What dear departed friend?" asked Warren, shivering and pulling on a shoe.

"Why, Dr. Morgan, of course."

"I see," said Warren. "Yes, I suppose we shall have to bury him."

The chaplain stiffened just a little.

"I was wondering if the doctor had any religious convictions, any sort of preference."

"I doubt it very much," said Warren. "If I were you, I'd hold it down to minimum simplicity."

"That's what I thought," said the chaplain. "A few words, perhaps, and a simple prayer."

"Yes," said Warren. "A prayer, by all means. We'll need a lot of prayer."

"Pardon me, sir?"

"Oh," Warren told him, "don't mind me. Just wool-gathering, that's all."

"I see," said the chaplain. "I was wondering, sir, if you have any idea what might have made him do it."

"Who do what?"

"What made the doctor commit suicide."

"Oh, that," said Warren. "Just an unstable character, I guess."

He laced his shoes and stood up.

"Mr. Barnes," he said, "you are a man of God, and a very



good one from what I've seen of you. You may have the answer to a question that is bothering me."

"Why," said Mr. Barnes, "why I—"

"What would you do," asked Warren, "if you suddenly were to find you had no more than two months to live?"

"Why," said Mr. Barnes, "I suppose that I would go on living pretty much the way I always have. With a little closer attention to the condition of my soul, perhaps."

"That," said Warren, "is a practical answer. And, I suppose, the most reasonable that anyone can give."

The chaplain looked at him curiously. "You don't mean, sir—"

"Sit down, Barnes," said Warren. "I'll turn up the stove. I need you now. To tell you the solemn truth, I've never held too much with this business of having you fellows with the expedition. But I guess there always will be times when one needs a man like you."

The chaplain sat down.

"Mr. Barnes," said Warren, "that was no hypothetical question I asked. Unless God performs some miracle we'll all be dead in another two months' time."

"You are joking, sir."

"Not at all," said Warren. "The serum is no good. Morgan waited to check it until it was too late to get word to the ship. That's why he killed himself."

He watched the chaplain closely and the chaplain did not flinch.

"I was of a mind," said Warren, "not to tell you. I'm not telling any of the others—not for a while, at least."

"It takes a little while," said Mr. Barnes, "to let a thing like that soak in. I find it so, myself. Maybe you should tell the others, let them have a chance—"

"No," said Warren.

The chaplain stared at him. "What are you hoping for, Warren? What do you expect to happen?"

"A miracle," said Warren.

"A miracle?"

"Certainly," said Warren. "You believe in miracles. You must."

"I don't know," said Mr. Barnes. "There are certain miracles, of course—one might call them allegorical miracles, and sometimes men read into them more than was ever meant."

"I am more practical than that," said Warren, harshly. "There is the miracle of the fact that the natives of this place

are humanoid like ourselves and they don't need any booster shots. There is a potential miracle in the fact that only the first humans who landed on the planet ever tried to live on Landro without the aid of booster shots."

"Since you mention it," said the chaplain, "there is the miracle of the fact that we are here at all."

Warren blinked at him. "That's right," he said. "Tell me, why do you think we're here? Divine destiny, perhaps. Or the immutable performance of the mysterious forces that move Man along his way."

"We are here," said Barnes, "to carry on the survey work that has been continued thus far by parties here before us."

"And that will be continued," said Warren, "by the parties that come after us."

"You forget," the chaplain said, "that all of us will die. They will be very wary of sending another expedition to replace one that has been wiped out."

"And you," said Warren, "forget the miracle."

The report had been written by the psychologist who had accompanied the third expedition to Landro. Warren had managed, after considerable digging in the file of quadruplicates, to find a copy of it.

"Hog wash," he said and struck the papers with his fist.

"I could of told you that," said Bat Ears, "before you ever read it. Ain't nothing one of them prissy punks can tell an old-timer like me about these abor . . . abor . . . abor—"

"Aborigines," said Warren.

"That's the word," said Bat Ears. "That's the word I wanted."

"It says here," declared Warren, "that the natives of Landro have a keen sense of dignity, very delicately tuned—that's the very words it uses—and an exact code of honor when dealing among themselves."

Bat Ears snorted and reached for the bottle. He took a drink and sloshed what was left in the bottom discontentedly.

"You sure," he asked, "that this is all you got?"

"You should know," snapped Warren.

Bat Ears wagged his head. "Comforting thing," he said. "Mighty comforting."

"It says," went on Warren, "that they also have a system of what amounts to protocol, on a rather primitive basis."

"I don't know about this proto-whatever-you-may-call-it," said Bat Ears, "but that part about the code of honor gets me."

Why, them dirty vultures would steal the pennies off a dead man's eyes. I always keep a shovel handy and when one of them shows up—"

"The report," said Warren, "goes into that most exhaustively. Explains it."

"Ain't no need of explanation," insisted Bat Ears. "They just want what you got, so they sneak in and take it."

"Says it's like stealing from a rich man," Warren told him. "Like a kid that sees a field with a million melons in it. Kid can't see anything wrong with taking one melon out of all that million."

"We ain't got no million melons," said Bat Ears.

"It's just an analogy," said Warren. "The stuff we have here must look like a million melons to our little friends."

"Just the same," protested Bat Ears, "they better keep out of my cook tent—"

"Shut up," said Warren savagely. "I get you here to talk with you and all you do is drink up my liquor and caterwaul about your cook tent."

"All right," said Bat Ears. "All right. What do you want to know?"

"What are we doing about contacting the natives?"

"Can't contact them," said Bat Ears, "if we can't find them. They were around here, thicker than fleas, before we needed them. Now that we need them, can't find hide nor hair of one."

"As if they might know that we needed them," said Warren.

"How would they know?" asked Bat Ears.

"I can't tell you," Warren said. "It was just a thought."

"If you do find them," asked Bat Ears, "how you going to make them talk?"

"Bribe them," said Warren. "Buy them. Offer them anything we have."

Bat Ears shook his head. "It won't work. Because they know all they got to do is wait. If they just wait long enough, it's theirs without the asking. I got a better way."

"Your way won't work, either."

"You're wasting your time, anyhow," Bat Ears told him. "They ain't got no cure. It's just adap . . . adap—"

"Adaptation."

"Sure," said Bat Ears. "That's the word I meant."

He took up the bottle, shook it, measured it with his thumb and then, in a sudden gesture, killed it.

He rose quickly to his feet. "I got to sling some grub together," he said. "You stay here and get her figured out."

Warren sat quietly in the tent, listening to his footsteps going across the compound of the camp.

There was no hope, of course. He must have known that all along, he told himself, and yet he had postponed the realization of it. Postponed it with talk of miracles and hope that the natives might have the answer—and the native answer, the native cure, he admitted now, was even more fantastic than the hope of a miracle. For how could one expect the little owl-eyed people would know of medicine when they did not know of clothing, when they still carried rudely-chipped stone knives, when their campfire was a thing very laboriously arrived at by the use of stricken flint?

They would die, all twenty-five of them, and in the days to come the little owl-eyed natives would come boldly marching in, no longer skulking, and pick the camp to its last bare bone.

Collins was the first to go. He died hard, as all men die hard when infected by the peculiar virus of Landro. Before he was dead, Peabody had taken to his bed with the dull headache that heralded the onset of the malady. After that the men went down like ten pins. They screamed and moaned in delirium, they lay as dead for days before they finally died while the fever ate at them like some ravenous animal that had crept in from the moors.

There was little that anyone could do. Make them comfortable, keep them bathed and the bedding washed and changed, feed them broth that Bat Ears made in big kettles on the stove, be sure there was fresh, cold water always available for the fever-anguished throats.

At first the graves were deep and wooden crosses were set up, with the name and other information painted on the cross bar. Then the graves were only shallow holes because there were less hands to dig them and less strength within the hands.

To Warren it was a nightmare of eternity—a ceaseless round of caring for his stricken men, of helping with the graves, of writing in the record book the names of those who died. Sleep came in snatches when he could catch it or when he became so exhausted that he tottered in his tracks and could not keep his eyelids open. Food was something that Bat Ears brought and set in front of him and he gulped without knowing what it was, without tasting what it was.

Time was a forgotten thing and he lost track of days. He asked what day it was and no one knew nor seemed to care. The sun came up and the sun went down and the moors stretched to their gray horizons, with the lonely wind blowing out of them.

Vaguely he became aware of fewer and fewer men who worked beside him, of fewer stricken men upon the cots. And one day he sat down in his tent and looked across at another haggard face and knew it was nearly over.

"It's a cruel thing, sir," said the haggard face.

"Yes, Mr. Barnes," said Warren. "How many are there left?"

"Three," said the chaplain, "and two of them are nearly gone. Young Falkner seems to be better, though."

"Any on their feet?"

"Bat Ears, sir. Just you and I and Bat Ears."

"Why don't we catch it, Barnes? Why are we still here?"

"No one knows," the chaplain told him. "I have a feeling that we'll not escape it."

"I know," said Warren. "I have that feeling, too."

Bat Ears lumbered into the tent and set a pail upon the table. He reached into it and scooped out a tin cup, dripping, and handed it to Warren.

"What is it, Bat Ears?" Warren asked.

"Something I cooked up," said Bat Ears. "Something that you need."

Warren lifted the cup and gulped it down. It burned its way clear into his stomach, set his throat afire and exploded in his head.

"Potatoes," said Bat Ears. "Spuds make powerful stuff. The Irish found that out, years and years ago."

He took the cup from Warren, dipped it again and handed it to Barnes.

The chaplain hesitated.

Bat Ears shouted at him. "Drink it, man. It'll put some heart in you."

The minister drank, choked, set the cup back on the table empty.

"They're back again," said Bat Ears.

"Who's back?" asked Warren.

"The natives," said Bat Ears. "All around us, waiting for the end of us."

He disdained the cup, lifted the pail in both his hands and put it to his lips. Some of the liquor splashed out of the corners of his mouth and ran darkly down his shirt.

He put the pail back on the table, wiped his mouth with a hairy fist.

"They might at least be decent about it," he declared. "They might at least keep out of sight until it is all over. Caught one sneaking out of Falkner's tent. Old gray buck. Tried to catch him, but he outlegged me."

"Falkner's tent?"

"Sure. Snooping around before a man is dead. Not even waiting till he's gone. Didn't take nothing, though, I guess. Falkner was asleep. Didn't even wake him."

"Asleep? You sure?"

"Sure," said Bat Ears. "Breathing natural. I'm going to unslung my gun and pick off a few of them, just for luck. I'll teach them—"

"Mr. Brady," asked Barnes, "you are certain Falkner was sleeping naturally? Not in a coma? Not dead?"

"I know when a man is dead," yelled Bat Ears.

Jones and Webster died during the night. Warren found Bat Ears in the morning, collapsed beside his stone-cold stove, the empty liquor pail beside him. At first he thought the cook was only drunk and then he saw the signs upon him. He hauled him across the floor and boosted him onto his cot, then went out to find the chaplain.

He found him in the cemetery, wielding a shovel, his hands red with broken blisters.

"It won't be deep," said Mr. Barnes, "but it will cover them. It's the best that I can do."

"Bat Ears has it," Warren told him.

The chaplain leaned on his shovel, breathing a little hard from digging.

"Queer," he said. "Queer, to think of him. Of big, brawling Bat Ears. He was a tower of strength."

Warren reached for the shovel.

"I'll finish this," he said, "if you'll go down and get them ready. I can't. . . I haven't the heart to handle them."

The chaplain handed over the shovel. "It's funny," he said, "about young Falkner."

"You said yesterday he was a little better. You imagined it?"

Barnes shook his head. "I was in to see him. He's awake and lucid and his temperature is down."

They stared at one another for a long time, each trying to hide the hope that might be upon his face.

"Do you think—"

"No, I don't," said Barnes.

But Falkner continued to improve. Three days later he was sitting up. Six days later he stood with the other two beside the grave when they buried Bat Ears.

And there were three of them. Three out of twenty-six.

The chaplain closed his book and put it in his pocket. Warren took up the shovel and shoveled in the dirt. The other two watched him silently as he filled the grave, slowly, deliberately, taking his time, for there was no other task to hurry him—filled it and mounded it and shaped it neat and smooth with gentle shovel pats.

Then the three of them went down the slope together, not arm in arm, but close enough to have been arm in arm—back to the white tents of the camp.

Still they did not talk.

It was as if they understood for the moment the dedicatory value of the silence that lay upon the land and upon the camp and the three that were left out of twenty-six.

Falkner said: "There is nothing strange about me. Nothing different than any other man."

"There must be," insisted Warren. "You survived the virus. It hit you and you came out alive. There must be a reason for it."

"You two," said Falkner, "never even got it. There must be some reason for that, too."

"We can't be sure," said Chaplain Barnes, speaking softly.

Warren rustled his notes angrily. "We've covered it," he said. "Covered everything that you know, everything that you can remember—unless you are holding back something that we should know."

"Why should I hold back anything?" demanded Falkner.

"Childhood history," said Warren. "The usual things. Measles, a slight attack of whooping cough, colds—afraid of the dark. Ordinary eating habits, normal acceptance of schools and social obligations. Everything as if it might be someone else. But there has to be an answer. Something that you did—"

"Or," said Barnes, "even something that he thought."

"Huh?" asked Warren.

"The ones who could tell us are out there on the slope," said Barnes. "You and I, Warren, are stumbling along a path we are not equipped to travel. A medical man, a psychologist, even an alien psychologist, a statistician—any one of them would have had something to contribute. But they are dead."

You and I are trying to do something we have no training for. We might have the answer right beneath our noses and we would not recognize it."

"I know," said Warren. "I know. We only do the best we can."

"I have told you everything I can," said Falkner, tensely. "Everything I know. I've told you things I would not tell under any other circumstance."

"We know, lad," said Barnes gently. "We know you have."

"Somewhere," persisted Warren, "somewhere in the life of Benjamin Falkner there is an answer—an answer to the thing that Man must know. Something that he has forgotten. Something that he has not told us, unintentionally. Or, more than likely, something that he has told us and we do not recognize."

"Or," said Barnes, "something that no one but a specialist could know. Some strange quirk in his body or his mind. Some tiny mutation that no one would suspect. Or even . . . Warren, you remember, you talked to me about a miracle."

"I'm tired of it," Falkner told them. "For three days now you have gone over me, pawed me, questioned me, dissected every thought—"

"Let's go over that last part again," said Warren wearily. "When you were lost."

"We've gone over it," said Falkner, "a hundred times already."

"Once again," said Warren. "Just once again. You were standing there, on the path, you say, when you heard the footsteps coming up the path."

"Not footsteps," said Falkner. "At first I didn't know they were footsteps. It was just a sound."

"And it terrified you?"

"It terrified me."

"Why?"

"Well, the dark, and being lost and—"

"You'd been thinking about the natives?"

"Well, yes, off and on."

"More than off and on?"

"More than off and on," Falkner admitted. "All the time, maybe. Ever since I realized I was lost, perhaps. In the back of my mind."

"Finally you realized they were footsteps?"

"No. I didn't know what they were until I saw the native."

"Just one native?"



"Just one. An old one. His coat was all gray and he had a scar across his face. You could see the jagged white line."

"You're sure about that scar?"

"Yes."

"Sure about his being old?"

"He looked old. He was all gray. He walked slowly and he had a limp."

"And you weren't afraid?"

"Yes, afraid, of course. But not as afraid as I would have expected."

"You would have killed him if you could?"

"No, I wouldn't have killed him."

"Not even to save your life?"

"Oh, sure. But I didn't think of that. I just . . . well, I just didn't want to tangle with him, that is all."

"You got a good look at him?"

"Yes, a good look. He passed me, no farther away than you are now."

"You would recognize him again if you saw him?"

"I did recognize--"

Falkner stopped, befuddled.

"Just a minute," he said. "Just a minute now."

He put up his hand and rubbed hard against his forehead. His eyes suddenly had a stricken look.

"I did see him again," he said. "I recognized him. I know it was the same one."

Warren burst out angrily. "Why didn't you tell--"

But Barnes rushed in and headed him off:

"You saw him again. When?"

"In my tent. When I was sick. I opened my eyes and he was there, in front of me."

"Just standing there?"

"Standing there and looking at me. Like he was going to swallow me with those big yellow eyes of his. Then he . . . then he--"

They waited for him to remember.

"I was sick," said Falkner. "Out of my head, maybe. Not all there. I can't be sure. But it seemed that he stretched out his hands, his paws, rather—that he stretched them out and touched me, one paw on each side of my head."

"Touched you? Actually, physically touched you?"

"Gently," said Falkner. "Ever so gently. Just for an instant. Then I went to sleep."

"We're ahead of our story," Warren said, impatiently. "Let's go back to the trail. You saw the native—"

"We've been over that before," said Falkner bitterly.

"We'll try it once again," Warren told him. "You say the native passed quite close to you when he went by. You mean that he stepped out of the path and circled past you—"

"No," said Falkner, "I don't mean that at all. I was the one who stepped out of the path."

You must maintain human dignity, the manual said. Above all else, human dignity and human prestige must be upheld. Kindness, yes. And helpfulness. And even brotherhood. But dignity was ahead of all.

And too often human dignity was human arrogance.

Human dignity did not allow you to step out of the path. It made the other thing step out and go around you. By inference, human dignity automatically assigned all other life to an inferior position.

"Mr. Barnes," said Warren, "it was the laying on of hands."

The man on the cot rolled his head on the pillow and looked at Warren, almost as if he were surprised to find him there. The thin lips worked in the pallid face and the words were weak and very slow in coming.

"Yes, Warren, it was the laying on of hands. A power these creatures have. Some Christ-like power that no human has."

"But that was a divine power."

"No, Warren," said the chaplain, "not necessarily. It wouldn't have to be. It might be a very real, a very human power, that goes with mental or spiritual perfection."

Warren hunched forward on his stool. "I can't believe it," he said. "I simply can't. Not those owl-eyed things."

He looked up and glanced at the chaplain. Barnes' face had flushed with sudden fever and his breath was fluttery and shallow. His eyes were closed and he looked like a man already dead.

There had been that report by the third expedition's psychologist. It had said dignity and an exact code of honor and a rather primitive protocol. And that, of course, would fit.

But Man, intent upon his own dignity and his own prestige, had never accorded anyone else any dignity. He had been willing to be kind if his kindness were appropriately appreciated. He stood ready to help if his help were allowed to stand as a testament to his superiority. And here on Landro he had scarcely bothered to be either kind or helpful, never

dreaming for a moment that the little owl-eyed native was anything other than stone age creature that was a pest and nuisance and not to be taken too seriously even when he turned out, at times, to be something of a menace.

Until one day a frightened kid had stepped out of a path and let a native by.

"Courtesy," said Warren. "That's the answer: courtesy and the laying on of hands."

He got up from the stool and walked out of the tent and met Falkner coming in.

"How is he?" Falkner asked.

Warren shook his head. "Just like the others. It was late in coming, but it's just as bad."

"Two of us," said Falkner. "Two of us left out of twenty-six."

"Not two," Warren told him. "Just one. Just you."

"But, sir, you're all—"

Warren shook his head.

"I have a headache," he said. "I'm beginning to sweat a little. My legs are wobbly."

"Maybe—"

"I've seen it too many times," said Warren, "to kid myself about it."

He reached out a hand, grasped the canvas and steadied himself.

"I didn't have a chance," he said. "I stepped out of no paths."

# Secret

BY LEE CAHN

*In these days of multi-level security regulations, of scientists having secrets from statesmen and soldiers having secrets from both, it might pay to remember that secrecy can cut on both sides of the various curtains that are dividing the world. Here the "cut" was in our favor, as you will see, but that was only by chance. It might as easily have been the other way, and the outcome would have been very, very different.*

*This is not only Lee Cahn's first anthology appearance, but also his first published story. He is an automatic controls engineer—"robot engineer" as we would say in science fiction—and has worked on various robot devices that can, in his words, perform "moderately skilled human occupations, for which not everyone is qualified." World of tomorrow!*

Minutes of the Senate Committee on Military Affairs. May 10, 1962.

Senator Guy: Your name and occupation, please.

Mr. Schlosberg: William Schlosberg, engineer.

Senator Guy: What is your connection with the guided missile *Albatross V*?

Mr. Schlosberg: I was Assistant Project Engineer for guidance, for the entire contract.

Senator Guy: What were the principal specifications for the *Albatross V*? You may talk freely here.

S.: *Al* had an atomic power plant, so his range was unlimited. Maximum speed was Mach 5—

G.: How fast is that in miles per hour?

S.: About twenty-eight hundred miles an hour at service ceiling, which was one hundred twenty thousand feet. Warhead was twenty-five hundred pounds—the missile was designed to take a *Mark VII* warhead, but I was never officially told its Radius of Kill. I understand unofficially it

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exceeded thirty miles. Len Johnson was Project Engineer on the warhead for the A.E.C.

G.: How about the guidance system?

S.: Accuracy was supposed to be plus or minus one mile anywhere on Earth. It was supposed to be invulnerable to the countermeasures expected to be available in 1962. In fact, the whole missile was supposed to be invulnerable. Yall Aircraft has been in the missile business for fifteen years, and *Al V* was the best we could make. It's all written up in the specs and the proposal.

G.: I have here a top secret letter from General A. S. Frederick of the Air Development Force. It asks you to make ready one *Albatross V* for live firing on March 21, 1961. What did you do when you received this letter?

S.: Well, first I canceled the March 1st firing, so we would be sure to have one good missile. Then I went down to the shop and tried to have Number Seven expedited so that if Five and Six failed we would have another chance. They promised they would, but Seven wasn't ready until June 4th.

G.: Did you write to the Joint Chiefs?

S.: Yes, sir, I did.

G.: What did you write?

S.: I asked them not to use *Al* for a tactical mission. I knew it was; they don't fire live for practice.

G.: Why did you advise them not to use your missile, Mr. Schlosberg? Did you know what was going to happen?

S.: No, sir, I did not. *Al V* was still in his engineering test phase. These were handmade models, and we still had plenty of bugs to get out. He just wasn't ready. But they wouldn't listen.

G.: I have here your biweekly Progress Report for the first half of February. It says that all major difficulties have been overcome, and future emphasis will be on production planning. How do you explain that?

S.: Oh, that's just the Progress Report. Don't believe any of that. Uh, that is, the writing of Progress Reports is affected by other considerations than test results. The higher echelons tend to be somewhat optimistic when dealing with the government. I never stated that all difficulties were overcome, sir.

G.: That's all right, Mr. Schlosberg. No one is going to tell Yall Aircraft what you say here. We need the truth. What

reason did the Joint Chiefs give for firing Al over your objections?

S.: Well, it seems Intelligence had them all steamed up over the sensational new enemy defense weapons, and Al's specs sounded real good. And they HAD read that biweekly. Besides, this firing was to enforce an ultimatum, and for psychological reasons it just HAD to go through.

G.: I see. Your tone expressed some skepticism over the specifications. Did your missile meet them?

S.: Well, we met each one at least once, but we had not then hit 'em all at the same time. It takes time to create something reliable and trustworthy, with machines and people.

G.: Who was responsible that the missile be in operating condition on March 21, 1962?

S.: I was, sir, and Levasseur, system engineer for that missile, was responsible to me. He checked the operation of every part of the system, and we both observed the results on the automatic checkoff panel. It was all right, all right.

G.: Including the warhead trigger?

S.: No, sir, that was A.E.C. classified, and we never saw it or knew how it worked. The warhead crew handled that after we were done. The missile people are never allowed to know anything about the cargo. Security, you know. We just take it to the target. From there on it's on its own. This is all written up in the contract. Have you read the contract and the specs?

G.: Perhaps you could tell us how the missile is given its instructions.

S.: A stack of punched I.B.M. cards are inserted into the orders slot. The cards are punched on the autobriefer according to the destination, flight program, special defensive instructions, et cetera.

G.: What instructions were you given for this mission?

S.: I was given no instructions, sir. General White's aide, Colonel Saunders, who had been taught how to use the autobriefer, went into the Briefing Room, locked himself in, and prepared the cards. The machine has a consistency circuit built in, which catches most of the impossible instructions. We were not told anything about the target, but we all knew it was Moscow. Security, you know. Any of my crew members who were present will confirm this. That's how we knew it was wrong. When Al took off east, he couldn't be going to Moscow; Moscow is pretty much north of Muroc along a geodesic. Levasseur and I looked

at each other, and then went down to my office. We have a duplicate card punch and playback unit there, to check the missile cards, and to help in data reduction. We played back the flight Colonel Saunders had plotted from the duplicate cards. *Al* was heading for Washington, D. C.; time of flight seventy-four minutes.

G.: What did you do when you realized that?

S.: First I had a couple of my own people grab General White and Colonel Saunders, and lock them up. I didn't find out until later that "Saunders" was an enemy spy, and that White was merely his dupe. I couldn't take chances. Second I called Washington, the Pentagon. It took me eight minutes to get the Air Force Chief of Staff, and one more to get the President.

G.: Please try to remember your conversation as accurately as possible, Mr. Schlosberg. This is a delicate matter.

S.: Yes, sir. Well, they took it pretty calmly, I guess. Not much double-talking.

G.: But what did they *do*?

S.: First General Allen designated *Al* as hostile, and ordered out the interceptors and the anti-aircraft.

G.: What effect did they have?

S.: Not very much. He flew over and past all the planes and most of the SA missiles. As I said, the interceptor hasn't been made that could shoot *Al* down. At least two SA missiles came within countermeasure range, and *Al* detonated both prematurely. Works something like a radar beacon. It's universal; fits any proximity fuse, including our own. It was developed originally for *Al III*, but it just got done in time for us.

G.: What did the President do next?

S.: He told me to hurry up and call *Al* back. I explained that countermeasures made command-type missiles obsolete years ago, and that once *Al* was launched he was on his own. If I had put anything in *Al* to bring him home, the enemy could have captured him with it.

Then General Allen barked: "Well, what are your radar frequencies, pulse widths, and rep rates? Maybe we can jam it and deflect it into the ocean. It's your baby, Schlosberg; you must know what will stop it."

But for three years, we had all thought of every way we could to stop *Al*, and we had thought of the counter for each way, and built it in. If there *was* any way, I couldn't think of it in sixty minutes if I hadn't in three

years. My job was to build an invulnerable missile, and I thought I had.

In answer to General Allen's specific question, *Al* used no radiation to locate himself, and therefore could not be confused by radiation. You can't jam it if it doesn't receive. This seems to me the best solution to the jamming problem; otherwise you lose yourself in a hopeless maze of frequencies, codes, decoders, and espionage. We rejected radar from the start.

Then the President got worried about Washington; couldn't decide whether to evacuate or not. Only a small fraction of the people could get out from under in sixty minutes, and a lot would be killed in a wild scramble. Of course, they would be killed if they stayed, except maybe they would shoot *Al* down. General Allen remembered my protest, and asked me what the chances were *Al* would fail; that one of these unsuspected bugs would crop up. Well, we were running about one failure per two hundred minutes of operation, or one chance in three of failure. No guarantee that the failure would prevent *Al* from hitting his target, of course.

The President finally decided not to evacuate and to delay the warning until the regular warning system spoke up. It would thus seem a surprise attack from the enemy, which would strengthen the nation's resolve and our moral position before the world. If he announced that one of our own missiles was coming in, it would raise the devil with morale and national unity, not to mention his prestige. We would be the laughingstock of the world. Anyway, not many could be saved. He had his own plane stand by, however, and another for the Pentagon brass.

We were all sworn to secrecy, and no paper would dare print a story like that. Even if we did talk, it would only be a rumor, and they were already as bad as they could be. The committee will have to decide if it wants to disclose this episode to the general public.

General Allen proposed a lot of foolish schemes; we had anticipated all of them. Some of his defense people's tricks were mighty clever, although none of them quite made it. I learned a lot from them which I will pass on to the *Al VI* project engineer.

G.: The committee is quite grateful to you, Mr. Schlossberg, for being so frank with us. Others who were involved were not so open. Could you tell us, finally, why your missile



crashed inside the Pentagon courtyard without detonating? No statement has ever been released.

S.: I take a bitter pride in the fact that Al went precisely where he was told, well within his specified accuracy. He did not explode because the warhead trigger was sabotaged, by an enemy spy in the bomb crew. Despite their fetish of super security the A.E.C. harbored a viper.

G.: Those Communists are subtle! Scare us to death for an hour, and then complete the psychological destruction by not detonating it!

S.: Oh, they'd gladly swap the psychological damage for a good, solid explosion, Senator. I asked the bomb-crew spy why he did it, before the G-men took him away. It seems that "Saunders" worked for the Red Army Intelligence, while the warhead saboteur was an M.V.D. man. They just weren't co-ordinated.

# Thirsty God

BY MARGARET ST. CLAIR

*Miss St. Clair, mistress of horror in science fiction, here outdoes herself in a tale of unconscious retribution almost too terrible to bear remembering. The story, originally published under the pseudonym "Idris Seabright" and reprinted here under her own name by her permission, is another in her series of imaginings of possible worlds. These dreams are rarely optimistic, but even more rarely are they quite as horrid as this one.*

*A Californian, Miss St. Clair published her first science fiction story in 1946.*

Brian was riding hard when he reached the sanctuary at twilight. He had foundered two mounts under him since yesterday, and for all his haste the Hrothy, howling like a pack of dervishes, were close behind him. He rose in the stirrups and looked back anxiously.

Yes, in 40 seconds or so Megath's relatives would be within bowshot. When they caught him they would, he knew, hang him up by the heels and shoot at him with blunted arrows for two or three days before letting him die. He shuddered. The opening of the shrine was dark and uninviting, but he was almost certain that the Hrothy would respect its sacred character; and the sanctuary looked, to his inexperience, like any other of the shrines that dotted the surface of the second planet. It was a piece of extreme luck that he had found it. He jumped from the back of his rox and plunged into it.

The Hrothy got up to the winded rox about 50 seconds later. It was plain enough where Brian was. They looked at each other in silence. Megath's uncle, who had been the hottest in pursuit of any of the Hrothy, gave a short laugh. Man after man began to dismount without speaking.

The Hrothy considered that Brian, in first violating and

Margaret St. Clair, THIRSTY GOD. Copyright 1953 by Fantasy House, Inc. Reprinted by permission of John Schaffner from *Magazine of Fantasy and Science Fiction*, March 1953.

then deserting Megath, had committed an unforgivable sin. (It was not so much his taking her violently as his subsequent tiring of her that they objected to. They objected to it profoundly. It went against all their mores. They liked their violations to stick.) But they thought, from stories they had heard and from experience, that if Brian stayed inside the square stone shrine for the next twelve hours, their grudge against him would be satisfied. Megath would be avenged. Silently the tribesmen seated themselves in a semicircle outside the entrance of the shrine.

Brian, peering from within the opening, was both puzzled and relieved. He had been afraid they would light some of the damp blue river grass and try to smoke him out. All that fuss over a woman whose skin was definitely, if faintly, purple! But apparently they were counting on starvation. He patted the bottles of food-tablets in his pockets and grinned. He had a flask, too. They'd have a long wait, a good long wait.

Their continued silence—the Hrothy were usually noisily emotional—bothered him. He peeked at them doubtfully once more. But apparently they were going to respect the shrine's sanctity; there was nothing to worry about.

He stumbled back a few paces into the shrine's interior. It was quite dark. The floor seemed to be made of slick mud. (Actually, it was an exceedingly durable moisture-resistant plastic, but Brian couldn't know that.) He hesitated, and then lay down on it. He'd had an exhausting day.

He meant to stay awake, on guard, but his fatigue was overpowering. Inside ten minutes he was fast asleep.

As soon as his smoother breathing gave the signal, the scanning rays went to work on him. His pulse was taken, his respiration timed, his oxygen consumption checked. A tiny pad slipped into his damp armpit and came out with perspiration to be analyzed. When he began to snore another tiny pad slipped momentarily into his open mouth. And when he was quite, quite thoroughly asleep, a minute needle drew a drop of blood from his flaccid earlobe. A highly refined technique of zone electrophoresis was exercised on the sample.

The night was well advanced when the scanners completed their diagnosis. In many ways, Brian puzzled them. Physiologically, he was far from what they were used to. But he lay, though just barely, within the range of permissible variation. The mechanism of the scanners had become a little worn. After an almost human pause, the conditioning installations in the shrine went to work on him.

The Hrothy, outside in the cloudy night, waited in wolfish silence. It was not the sacred character of the shrine they were respecting, it was its competence as a factory.

Brian woke at last. He had an impression that much time had passed, and while this was not true chronologically, it was quite accurate physiologically: a lot had happened to him while he was asleep.

The idea of much elapsed time alarmed him. What had the Hrothy been doing while he was unconscious? Still dazed with sleep, he hurried to the opening of the shrine and peered out.

The tribesmen were seated as he had last seen them, squatting in a semicircle in the light drizzle outside the shrine, with their brightly colored cloaks wrapped tightly around them. They must be intending to wait until hunger drove him out. Brian gave a derisive snort and turned back to the interior of the sanctuary. As he pivoted about he struck his head painfully and unexpectedly on the stone lintel of the shrine opening.

For a moment physical distress obscured the meaning of what had happened. He stood blinking tears of pain from his eyes and cursing softly to himself. Then the significance of the incident came to him suddenly. He had bumped his head on the door lintel. But last night the lintel had been two or three feet *above* the top of his head.

He looked up. His thick black oily hair was brushing against the ceiling. What the hell—what had happened to him? Had the building somehow shrunk? Or had he grown, was he somehow bigger than he had been last night?

For a moment he wondered whether he had caught some fever. Venus abounded in them, and hallucinatory ideas about bodily size characterized one or two of them. And he was thirsty, he felt oddly hot.

He looked down at his hands. His cuffs were only an inch or two below his elbows. Unless he was having a remarkably consistent hallucination . . . It couldn't be a fever; he didn't feel feverish at all, only thirsty and hot. Anyhow, he'd had shots for all the endemic Venussian diseases before he'd left Dindymene. He'd gotten bigger during the night, that was all.

Oddly, the idea did not alarm him. He was rather pleased with it. For a moment he thought of stepping boldly out of the shrine and spreading some havoc among the squatting Hrothy. He'd teach them to annoy a man who was eight—no,

more nearly nine feet tall. But there were twenty of them, and they had lots of arrows. He'd better not.

Besides, he was feeling somnolent and lethargic, not at all combative. He couldn't imagine what had happened to him, but it didn't seem to matter. He decided to sit down on the floor and have a drink of water from his flask.

The silvery container was dwarfed in his big new hands. He tipped the flask up to get the last drops, and then tossed it from him petulantly. It was water, all right, but he didn't want water. What he wanted was something more dense.

He crossed his legs under him and leaned back against the slick wall. He closed his eyes; he thought it would help him to think better. In a little while he was asleep.

This time it was late afternoon when he awoke. It was raining hard. Without moving from his sitting position, he peered out of the sanctuary, noting absently as he did so that his back seemed somewhat stiff.

The Hrothy were gone. There wasn't a sign of them in the damp landscape, not even a used beetla stick or a clot of rox dung. It was probably a trap; they must be lurking in the neighborhood. Or they might have gone back to the village for reinforcements. Brian grinned. He didn't think he'd be fooled easily. He decided to get up.

He tried to move: nothing happened. Well, he had been in a cramped position for a long time. His legs must have gone to sleep.

Once more he gave his body the order. Once more nothing happened. Brian licked his lips nervously. Was he paralyzed? What was the matter with him? He began to be really frightened. It was at this point that a plump came in.

Now, the plump are the oddest of the native peoples of Venus. Some workers who have studied them insist that their material backwardness hides a singularly rich and varied spiritual life. Other ethnologists deny this passionately and say that their pointless, rambling creation legends and inept totem poles show that their spiritual life is just about what you'd expect.

Be that as it may, the plump are not prepossessing. They have exceedingly slick grayish skins, long shallow jaws with ferocious teeth, and fierce yellow eyes. They wear no clothing, not even a pubic leaf. They smell a little like frogs.

This one came into the sanctuary and stopped in front of Brian. He made a sketchy gesture with one hand; it might have been meant as a respectful salutation or, more in-

formally, been simply his way of saying "Hil" He looked at Brian calculatingly and then nodded. He opened the hollowed-out arenda nut that depended from a length of vine around his neck.

Brian watched. There wasn't much else he could do, and the plunp's coming seemed somehow significant. He watched the creature with fascinated repulsion (the plunp are *not* prepossessing) while it took a hunk of yellowish ointment out of the nut and smeared the stuff over itself. Then the plunp began to rotate slowly in front of Brian, its twiggy, slick-skinned arms outstretched expectantly.

Almost as soon as the yellow goo touched the plunp's glabrous skin, Brian felt an extraordinary excitement in himself. It had the intensity of a sexual urge, but there was emphatically nothing sexual in its fleshless, cold imperative. It was as if all the myriad cells of his body were thirsty, thirsty as individuals, for the yellow ointment and the moisture in the plunp's slick skin under it. The water in Brian's flask hadn't been dense enough to satisfy his thirst; this moisture would.

He felt a kind of aura, a projection of himself, reach out. It was not a matter of conscious will; even as he made the immaterial contact with the plunp, he resented it. He was thirsty, yes, but it seemed to him that in dehydrating the plunp he was performing an intimate service, submitting to an odious familiarity, with a creature that revolted him unspeakably. A close contact, no matter how impalpable, with a *plunp* . . . ! It made him hate himself. But he couldn't help himself.

(The parallelism between this compulsion and that which he had inflicted on Megath escaped him. Even if he had thought of it, he would not have been edified. He was not a man who edified easily.)

The plunp continued to revolve in front of him, turning first one side and then the other toward the intoxicating dryness it felt emanating from him. It came to Brian that its attitude was that of a worshiper toward a good, serviceable god. Its yellow eyes were closed; its slick skin seemed to be becoming more wrinkled and slack from moment to moment as the dehydration of its tissues continued. Its narrow face wore an expression of repulsive bliss. If he could have moved, Brian felt sure he would have vomited.

Oh, odious. An odious service performed for an odious being. And it felt, somehow, self-destructive, for all Brian's need of moisture. It felt as if Brian, in his new body, had not been quite designed for it. In the contact with the plunp, he

was like a plant which, in default of sulphur in its soil, must perforce absorb selenium. He felt almost as if he were poisoning himself.

In this supposition Brian was quite right. The shrine was not really a shrine; in the first instance, it had been a factory. It had been originally designed by biologists of the fourth planet to help their colonists on the second planet adjust to the (for them) overwhelmingly damp environment of Venus.

There are two possible ways of dealing with dampness. One is to be *waterproof*, as are a duck's well-oiled feathers. The Martians tried this and disliked it. They sweltered miserably in the damp heat of their own impervious bodies. So they adopted the second course, which is to enjoy water, to be *water craving*, as is a frog. This solution meant far greater physiological adaptations than had the first one, but the Martians were more satisfied with it.

After they were adapted, they were continually sucking in water through their pores from their damp surroundings, using it in their metabolism, and exhaling dry air out again. There was some degree of selectivity in the process. They could choose which of several objects they wanted to draw water from. It worked fine for the Martians, though in the dry season they were uncomfortable, and when they went home for vacations they were miserable. But Brian hadn't been a Martian to begin with, and the scanners had become a little deranged in the long eons that had passed since there had last been Martians on Venus. It was different with him.

To the plunp, he was a delightfully hygroscopic god. To himself, he was a man afflicted with a peculiarly horrid curse.

The plunp went away at last, its skin hanging in lank folds. It staggered a little as it went over the threshold, as if it were drunk. It had left the empty arenda nut behind it. Brian watched it weaving away through the pouring sheets of rain.

He couldn't move; he couldn't even wriggle. His back had grown completely stiff. He wasn't sure how he was breathing. But he was sure of one thing: he wasn't going to draw water from a plunp again.

If he got thirsty again, how could he help it? He didn't know, but ignorance had no effect on his determination. As he sat immobile, watching the rain turning to chilly darkness, he felt a tiny surge of hope. What had happened to him was impossible. It just couldn't be. So it couldn't go on forever. Sooner or later, somebody would find him. A plant collector,

a man doing a government survey—somebody. All he had to do was to stay alive until then.

It rained pouringly all next day. Brian remembered having heard that in this part of Venus the rainfall could, during the rainy season, exceed 30 inches in twenty-four hours.

About noon on the day after that four plump came. Brian had been able to satisfy a little of his tormenting thirst from the moisture in the air, and he had laid his plans. As the plump, anointed with yellow ointment, pirouetted in front of him, he drew into himself. It was like being deaf to a barrage of thunder, like refusing to see a blinding light. He didn't know how he was doing it. But he was.

The plump slithered to a stop. They looked at each other wordlessly and began to wave their twiggy hands. Brian felt a flash of triumph; he'd beaten the hated, wretched creatures. He felt even more triumphant when, after another silent round robin, they went out.

They came back in a moment, carrying a sharp cornered wooden chest. (The plump were not clever enough to make such a thing themselves—they had traded for it with the more civilized Orths.) They opened it. Inside there was a drippy, clinging, gelatinous reddish paste. The plump had had some prior experience with recalcitrant gods.

The plump whose skin was grayest wound a gob of the paste on the end of a stick. Rather cautiously he held it out toward Brian. He waved it back and forth across his chest and under the end of his nose.

The result, for Brian, was catastrophic. He felt as if he were being turned inside out. With wild, forced, hateful speed he began to dehydrate the plump with the grayest skin. It was like falling endlessly down the black face of a vertical cliff, and getting sicker all the time.

The plump left at last, when it was nearly dark. They were doing little dance steps and making histrionic gestures with their stick-like arms. They waved their hands in salutation to Brian as they went.

He watched them frozenly. He could not even tremble. The moisture he had taken perforce from them had bloated him by a third; he was distended too with rage and helplessness. This time it had been ten—a hundred times worse than at first. After this he'd accept his degradation docilely. Anything was better than having them force him as they had today.

He sat through the night in a trance of glassy horror. At



times he was no longer sure who Brian was. He only knew that Brian had endured something he should not have endured. Someone had learned a dreadful secret about Brian. Numbly he waited for day.

That day it rained less, and only one plunp came. The god who had been Brian thought, "I can stand it if it's only one of them. Yesterday was so much worse."

But the day after there were five and then two and then three. It went on day after day, with more plunp as the season advanced and the rain grew heavier. Day after day. The Hrothy would have been more than satisfied.

Brian hated his glassy-eyed worshipers with a fury that was at first murderous and then became turned inward. If he could have moved, could have done anything at all except loathsomely dehydrate the plunp, he would have killed himself. He would dwell with black self-hatred on the intricate details of his self-destruction. Whether it should be by knives, or fire, or corrosive poisons, he could not decide. He wanted the one that would hurt most.

From one point of view, his ingenious preoccupation with the minutiae of his destruction was a blessing. It kept him from suffering anxiety or apprehension as his advancing physical degeneration became evident. His masochism was genuine; each new evidence of failure—patchy vision, auditory failure, permanent bloat—he greeted with delight. He might even have come to welcome the moisture-drawing service the plunp required of him, since it was the primary cause of his breaking up. That, however, remained beyond him. The violence to his ego was too great.

Time passed. Rain rained. Sometimes as many as twenty plunp stood in the shrine before him, revolving drunkenly, their faces blank. Then, as the days grew longer, the rain began to abate. There was one clear day and then another and then two in a row. The dry summer was setting in.

Worshipers began to come less frequently. When they did, they did not stay long. The gradual drying out of the plunp's slick tissues by the heat of summer did not intoxicate them; it made them sleepy. They were no longer interested in gods and hygroscoy and yellow goo. They were, in fact, beginning to estivate.

Brian at first did not dare to believe in it. But when nearly a week had passed without a single plunp presenting itself for him to dehydrate, he let himself be invaded by a most passionate relief. There were no more demands. The days

grew longer and brighter. And there were no more plunp.

Then, as the air grew progressively dryer, Brian found that he was beginning to shrink.

He was not alarmed, he was puzzled. He still sat immobile in his corner, his legs crossed under him, but each day he was smaller, lighter, dryer, than he had been the day before. He passed the point of normal physical size where he had been before the mechanism of the shrine had changed him, and receded from it. His bloated skin was shriveling dustily on him. Still he shrank.

He was not alarmed. His puzzlement was a vague and not alarming emotion. And as time passed there were long blank spaces, stretches of faintly voluptuous blackness, in his thoughts.

It came to him slowly that this creeping blackness, this increasingly welcome annihilation of mentality, meant death. Death? Not the agonizing destructions he had pantingly planned for himself, but something better. He rejoiced in it. But—he still had faint curiosities—but why?

Well, he supposed, even gods don't live forever, and he had done an incredible amount of dehydration for the plunp. He had worn himself out with it, and the dry season had finished him. Next year the plunp—for the first time since his agony had begun he felt like laughing—next year the plunp would have to find another god.

At last he sat in his corner shrunken no bigger than a doll. He no longer heard or saw or felt. His mind had stopped. He had shriveled up to nothing; his arms and legs were as small as darning balls. There was no more Brian. If he had had a spark of ego left to make the statement, he would have said that he was dead.

But the plunp were in no immediate danger of losing their deity. When the rainy season came, Brian would wake up again. Once more he would resume his loathsome service for them.

Like worshiper, like god. Brian had years more of hygroscopic action for the plunp before him. But now it was summer. Synchronous with the cycle of his worshipers, the god of the plunp was estivating too.



# *The Mutant's Brother*

BY FRITZ LEIBER

*This little story by a Chicagoan who is one of the editors of Science Digest is of the sort that could happen any day now. If telepathy and the control of other people's minds are possible, and there is no scientific reason to assume that they may not eventually become so, then this story is itself almost dangerously possible.*

*Perhaps it has already taken place. Perhaps the ending was different from the one we have here. How can we ever know? Maybe our miseries and those of the world are due to the fact that the Wrong Mutant won!*

*Fritz Leiber began publishing science fiction and fantasy in 1939, when so many others were entering the field under John W. Campbell's inspired editorship.*

The cabin of the Steelton airjet was like a long satiny box, hurled miraculously through the night. Inside it, the thunder of the jets was muted to a soothing rumble. Passengers dozed in the soft gloom, or chatted together in low, desultory voices.

There was comfort in the cabin, and the warmth of human security.

But Greer Canarvon turned away from his fellow passengers and peered out at the wild rack of wind-torn clouds, silvered by a demon moon. Like shadowy monsters they loomed and writhed, now bending close around the airjet, now opening their ranks so that he caught moonlit glimpses of the ragged Dakota Bad Lands.

Out there, he knew, lay his real kinship—with all that is alien and terrible and lonely. With the wild forces of darkness and the unknown. With all that is abnormal and inhuman, though it wear the mask of humanity.

Hunger to be with one of his own kind—a hunger which had never been satisfied—rose to a new pitch of poignancy.

Fritz Leiber, THE MUTANT'S BROTHER. Copyright 1943 by Street and Smith Publications, Inc. Reprinted by permission of the author from *Astounding Science Fiction*, August 1943.

He fumbled in his pocket for the radiogram, which already looked creased and old, although it had popped out of the radioprinter only yesterday.

## CONSOL SKYGRAMS

EXPRESS BEAM

No. 3A-3077-B89

9/17/1973

GREER CANARVON  
209 BUNA TERRACE  
COMPTON, OHIO

DEAR BROTHER,

IT IS TIME WE GOT IN CONTACT. IF YOU ARE WHAT I THINK YOU ARE, YOU WILL KNOW WE HAVE MUCH TO TALK ABOUT THAT ONLY YOU AND I CAN UNDERSTAND. THE ADDRESS IS 1532 DAMON PLACE, STEELTON. IF YOU COME, HURRY.

JOHN HALLIDANE.

Greer's heart pounded—that heart whose beating always brought a momentary frown of perplexity to doctor's faces as they listened to it through their stethoscopes. He felt for a cigarette, but the package was empty. He glanced at his conventional radioactive-driven wrist watch. Half an hour yet to Steelton. An hour perhaps before he got to Damon Place.

His only brother. His twin brother. And, if orphanage records of their striking similarity could be trusted, his identical twin. The only person in the whole world whose chromosomes and genes could carry the pattern of that frightening mutation.

For it must be a mutation. It was unthinkable that his parents could have possessed his powers and still lived such cramped and mediocre lives as the brief records showed. Almost equally unthinkable that such characteristics could have lain dormant in the germ plasm for generations, submerged by dominant factors, to be brought to life by one chance mating.

"I'm coming home a day early to please the wife," one of the men in the seat ahead was explaining jocularly. "This Carstairs business has made her jumpy."

"A regular city-wide scare," agreed his airjet acquaintance. "Glad to be back with the family myself."

Home, thought Greer bitterly. The familiar, the cozy, the safe, the tried-and-true—all he was now cut off from. Should

he lean forward and whisper confidentially, "Speaking of scares, gentlemen, I have certain knowledge that there is a monster on this airjet."

Though for that matter his own home life had been of the most pleasantly conventional sort. His foster parents were grand people—apparently he'd been luckier than John in that regard. During childhood and adolescence there had been only the most shadowy intimations of what would some day set him so utterly apart. Doctors had frowned at his heart-beat, had puzzled over something in his eyes and an odd tinge in the color of his skin. They had caught fleeting, almost intangible impressions of *otherness*. But being practical physicians, they had assured themselves that his health was sound, and had gone no further. Or perhaps something—some kind of intuition that shields men from contact with the unnatural—had made them sheer off.

At times he had wondered, with a touch of fear, if there weren't something different about him. But all children do that.

Otherwise, he had grown up as a healthy, normal child in a favorable environment. His ideals and aims and standards of behavior had been those of the children around him—a little better, perhaps, for his foster father was a very upright man.

And all the while that thing—that power—had been silently breeding in his flesh.

The cabin lurched gently, and the rumble of the jets went a tone deeper, as if some vast organ in space were sounding the opening notes of an awesome prelude. The silvery-smoky cloud monsters swooped close.

Awareness of his power had come with the suddenness of a thunderclap. Afterward he remembered the splitting headaches he'd had for weeks, and realized that something might have been growing in his brain. Some new organ for which his skull hardly provided space.

Not all characteristics of an individual, whether normal or mutant, need be present at birth. Some, like sexuality, mature late. His power was like that.

He stared at the ragged cloud monsters. They seemed for a moment to be reeling in a wild dance, perhaps in invocation of the spirit of the grotesque and barren landscape the airjet was traversing. A terror of the abnormality lurking in the cosmos possessed him. Evolution was such a coldly and fright-

eningly inhuman process. Mutation worked by chance. It had no pattern or plan. Usually it only botched the normal organism. Sometimes, though rarely, it brought a slight improvement. But it could, conceivably, give rise to—anything.

He realized he was trembling slightly. His face was a tight mask. He automatically fingered for a cigarette, then remembered that the package was empty and crumpled it. He was frightened of his own power, terrified. It was such a darkly inhuman thing, like a survival from myth or primitive sorcery. That was one of the reasons he had not been able to tell anyone about it. It had such immense potentialities. It made a man a king—much more than a king. It clamored to be used. It tempted him, and he wondered if he would be strong enough to resist temptation.

He must talk to someone about it! In less than an hour, he would be with his brother. It would be easier then. Together they could work out some course of action. If only they could have gone together sooner!

Greer had not always known that he had a brother. When his foster parents took him from the orphanage, his twin had already been adopted by the Hallidanes. Later on his foster parents had tried to bring the two boys together, for a visit at least, but the Hallidanes had rebuffed this friendly suggestion.

There were things which his foster parents had not told him about the Hallidanes—unpleasant things, which he had now only discovered through his recent inquiries at the orphanage. How the Hallidanes had been accused of neglect and cruelty with regard to their adopted son, but had successfully fought a legal action. How—final action of what must have been a sordid domestic tragedy—the father had murdered the mother and then killed himself.

That had happened a little less than a year ago. Thereafter the orphanage had lost track of John Hallidane.

For a brief moment the soft lights of the cabin winked out. Chilly moonlight, flooding through a gap in the turbulent clouds, transformed his fellow passengers into a company of ghosts, bound on some ominous mission.

Since Greer had first learned that he had a twin, he had indulged in endless speculations about him. He imagined his twin doing the same things, thinking the same thoughts. Realization that he was a mutant had changed those speculations into a frantic desire for contact. During the past months he

had made every conceivable attempt to pick up his brother's trail. All had failed. In the end it was his brother who had gotten in touch with him.

Evidently John Hallidane had been kept completely ignorant of the fact that he had a twin, and had only discovered it by chance. Perhaps he had recently recontacted the orphanage.

Again Greer scanned the terse radiogram. He could read something like his own anxiety between the guarded lines. The same hunger for a kindred being. The same fear of being found out by strangers. "If you are what I think you are—"

Anticipation made Greer's mind almost painfully alive. Speculations about his brother and his brother's life flashed through it more quickly than he could grasp them. There were a thousand things he wanted to know.

"Well, we should be there in a couple of minutes," observed one of the men on the seat ahead, reaching for his hat. "Then we'll be able to get the real dope on this Carstairs business," he added.

"No doubt of that," his companion replied with a faint, nervous chuckle. "Everybody in Steelton must be talking about it."

Only half an hour now—maybe less! As Greer folded the radiogram, he realized that his hands were shaking. His body throbbed—a suffocating feeling.

The muffled thunder of the jets changed to a different key. He pressed his face against the cold transparency of the window. The airjet was slanting down toward a hole in the thinning clouds. Through it, as through a vast reducing glass, he could glimpse the streets and towers of Steelton. A general glow, and the absence of bright points of glaring light, made it seem like a spectral city.

For a moment the emotion he felt was not so much eagerness as fear.

"Package of Camdens," Greer told the girl at the tobacco counter, a tiny bower of garish plastics in the vaulted immensity of the Steelton Terminals.

"Self-lighters?"

He shook his head. While she was getting them, he jerkily tried to analyze what it was that struck him as so peculiar in the behavior of the people around him. There was something set about their expressions, something tense about their movements. They were a little like the robot mannequins



parading shimmering garments in the display front opposite. The hum of conversation wasn't as loud as it should be. The amplified voice of the newscaster rang out too clearly. From the moment he'd landed, the atmosphere of apprehension had been as palpable as fog. Steelton was like a city awaiting attack.

Probably just a reflection of his own nervousness.

Impatiently he turned back toward the counter and caught the girl staring at him fixedly. He took the package from her hand. She smiled, nervously this time. As she was getting his change, she still watched him guardedly.

He lit a cigarette. He heard the newscaster say: "Tonight Police Director Marly assured a committee of Steelton citizens that it will only be a matter of time before Robert Carstairs is apprehended. Every police officer is on the alert, said Marly. We have sworn in two hundred deputies. Our nets are closing in. Robert Carstairs' hours of liberty are numbered."

Suddenly Greer realized that the hum of conversation and the echoing tramp of footsteps had ceased almost altogether. The girl at the counter turned away to look at the huge telescreen. That was what the rest of them were doing.

"We take this opportunity to repeat a previous statement of Police Director Marly," continued the newscaster. "It is the duty of every citizen to aid in ridding Steelton of this menace. Robert Carstairs is dangerous. As the terrible tragedy at the Carstairs residence proved only too well, he displays a fiendish talent for ingratiating himself with his victims and subjecting them to his will power. If you see this man, instantly inform the police."

Then Greer saw flashed on the telescreen what was, in every detail and particular, a gigantic picture of himself.

What happened next seemed to Greer to happen slow-motion. The girl turned around. Her mouth sucked in air for a scream.

But the scream never came. He exerted his power. He did not see her thoughts—he seldom could see thoughts. He merely exerted his power. She stood there, staring woodenly.

Ducking his head so that half his face was masked by hat brim, he walked away rapidly. He could hold her for perhaps a hundred feet. By that time—

A big man carrying a black suitcase looked at him sharply, then looked again. He dropped the suitcase. He turned on Greer, his hands coming up to grab.

But they never grabbed. Under Greer's control, he picked up the suitcase and walked on.

Several people noticed the incident. They peered at Greer curiously. First two of them, then three, he had to bring under his control, as he saw that they recognized him as the man they had seen on the telescreen. He didn't know how many he could dominate, because he had never tried. Not more than four or five, he had the feeling.

From behind came a piercing scream, as the girl at the tobacco counter escaped from his influence.

The way everyone jumped at that scream gave him an idea. Distraction. There was a young man approaching in a gray coat and hat not unlike his own. Just as the number of people who recognized him was getting beyond his control, he caused the young man to break into a run, and sent three people after him yelling, "There he goes! There he goes!" Then he continued toward the exit.

He felt a profound thrill of satisfaction. It was good to have to use his power without having time to be afraid of it, to think, to weigh the consequences. He walked purposefully, eyes searching the crowd ahead for the telltale signs of recognition, exerting control when he saw them.

Here and there behind him men and women awoke with a jerk—to fear and to the disquieting realization that four or five seconds had vanished unaccountably. They had seen the archcriminal Robert Carstairs. They had been about to do something. Then he had suddenly vanished—as if life were a film and the film had jumped a couple of feet ahead. Had it been an hallucination? Or—what sort of being was this Robert Carstairs. There were stories—stories which the newscasters played down. Around their hearts twined the tendrils of an icy terror.

A surging agitation followed Greer through the crowd, like a wave that lapped at his heels but never quite caught up. He was constantly shifting control from one group of persons to another.

The young man in the gray coat and hat came to himself and began to make profuse, bewildered apologies to an elderly woman he had careened into. His pursuers stopped and stared around, as baffled as he. Individual communicators clicked an alert to the police and detectives stationed in the terminals, as an observer in the gallery sought to fathom the nature of the commotion.

Greer was nearing the exit. But the agitation was increas-

ing, and more and more it was centering around him, closing in. Too many people were staring at him. The situation was getting beyond his control. If he had to hold off a dozen at once, he was done for. Five or six was the limit.

He changed his tactics—caused four men to form a cordon around him, shielding him from view. He had them walk briskly and assume important, official-looking expressions, so that people got out of their way.

There were two policemen at the exit, trim in blue and silver, suspicious-eyed. But as they came within range of Greer's power, their expressions became first blank, then different. They opened the doors for him. He slipped away from his cordon. He kept control of the policemen, causing them to stand at the exit and block off any possible pursuit.

There was a sleek black monocab cruising past the Terminals. He summoned it to the curb. It gave to his weight as he sprang aboard. The gyro brought it smoothly back to even keel as it lunged ahead.

Under his control, the driver turned several corners at random, then headed for the rendezvous at Damon Place.

Since Steelton was a young metropolis, indirect street lighting was the rule. The result was ghostly, unreal—a shadowless city half materialized from the night. It seemed to Greer that there were unusually few people abroad. None of them loitered. Their taut apprehensiveness was more marked even than that of the crowd of the Terminals.

The monocab purred like a satiny cat. Greer felt himself slipping into a mood of black reaction. There was something fundamentally loathsome about using people like puppets. You didn't know where to stop.

Was that what had happened to his twin? Had he yielded to the temptation to use his mutant power to his own aggrandizement, make people his pawns?

Greer's mind veered away from the possibility. Much more likely, he told himself, that his twin had gotten into trouble by unwisely revealing his power. That was enough to make people hate you, fear you, fabricate hysterical accusations, lay all manner of crimes at your door. How else could you expect people to behave toward a mutant with the power of direct hypnotic control?

Yet why the change of name from Hallidane to Carstairs? Why— He fought the ugly suspicions that crowded up into his mind. Partly from unreasoning loyalty. Partly because he

so ached for contact with his own kind, that he could not bear to think of anything standing between them. His brother's attitudes *must* be like his own!

A police monocar droned past. Greer ducked his head, acutely aware that, whatever predicament his brother was in, he was in it, too. For the present, there were two Robert Carstairs in Steelton.

Of course, if he had to, he could prove his identity. Or could he? Steelton's panic was of the hysterical, shoot-on-sight sort. And suppose he did prove that he was Robert Carstairs' identical twin. Wouldn't that only mean two monsters to be exterminated instead of one?

His brother must stand in desperate need of help. Now he could understand the last line of the radiogram. "If you come, hurry."

The monocab swung into a wealthy residential district. The houses drew back, screened themselves with trees. The diminished street lighting was a ghostly counterpart to the cold beams of the high-riding moon. At reduced speed the motor was almost silent. From somewhere far off Greer heard the wail of a siren mount and die away. The face of the driver was placid but very pale. Greer shuddered, although it was his own power which controlled the man. It was too much like traveling under the guidance of the undead.

Quietly, almost furtively, because the driver responded to Greer's present mood, the monocab drew up in front of a yawning archway on which appeared, in glowing metal, the numerals "1532."

Greer stepped out, looking around puzzledly. Something seemed definitely out of key. This was not the sort of neighborhood in which he had expected to meet his brother.

In response to his unspoken question, the driver turned. Moonlight blanched the last color from his features. He enunciated tonelessly, "Yes, I know this place. It is the Carstairs residence."

At that instant Greer's mind darkened with the cloudy telepathic warning that there were minds inimical to himself within his range of control.

From the archway, and from a similar archway across the street, narrow beams of white light struck him like dazzling spears. That such beams trace the course along which police bullets would follow, Greer knew. But the telepathic warning had given him the split second he needed. Before fingers

could press triggers, the minds which the fingers obeyed were under his control.

Yet something whipped past his ear with a faint, high-pitched squeal. A gout of momentary incandescence blossomed from the pavement beyond him as an explosive bullet struck. From a roof perhaps a hundred yards away a lone searchbeam was seeking him out, inexorably determining the path of a second shot.

Once again, as at the station, it seemed to Greer that everything was going slow-motion except his thoughts. His mind reached out to overpower that of the police gunman. But, as he feared, the distance was too great. The lone searchbeam seemed to crawl as it swung in on him. Yet its crawl was air-jet speed compared to anything he could get out of his muscles. The gunman would get at least two more shots before he could reach cover. Perhaps three. There was only one thing to do.

Almost before he realized it, the searchbeams of the police under his control swung away from him, scattered, reconverged on a high, tiny figure silhouetted against the massed black tubing of a sun-heater. As one, their guns spoke. The lone searchbeam careened wildly. There was a nerve-racking pause. Then the sickening hollow smack of a body hitting pavement.

A spasm of revulsion went through Greer. It was murder he had commanded. The man on the roof hadn't had a chance.

Yet even as he fought that reaction of self-loathing, even as he strained to maintain control of the police, he realized that it was not alone the impulse of self-preservation which had motivated him.

There was a job to be done, a job that only he could do. There was a monster at large in Steelton, and Steelton must be ridded of that monster.

Not only Steelton. The whole world.

In one dizzy instant, his fears and suspicions crystallized. Only loyalty to his unknown brother, and an aching desire for the companionship of his own kind, could have blinded him to the obvious truth.

Why had his brother summoned him to Steelton, *without even warning him of the deadly danger to which he would be exposed?* For one reason, and one alone—so that Greer Canarvon would be killed. So that Steelton would think that Robert Carstairs had been killed. So that his twin would be

free to exploit his power without suspicion—with more caution and subtlety, no doubt, but with infinitely greater danger to mankind.

It was not so much hate that filled Greer, as a cold and unswerving determination. Already he had made his plan. The police under his control were escorting him to their monocar.

His thoughts were coming with a machinelike rapidity. All Steelton was engaged in a man hunt. If his brother's mind worked like his own, there was one very obvious place for his brother to be.

And if he were at that place, Greer knew a very simple way of getting at him.

Once again tattered clouds marched across the moon. Through lonely streets the monocar raced toward its destination, the siren wailing a challenge, like some night-thing. Greer sat between two policemen, and there were two more on the seat ahead. To all intents, he was their prisoner.

One of them was reciting a brief history of the Carstairs case. Only a certain lack of color in his voice indicated that he was under direct hypnotic control—unconscious, yet as obedient to Greer's wordless commands as the man at the monocar controls.

"At first we only thought that an unusually clever pick-pocket must be at work. Even at that time there had been a crop of odd suicides, but we didn't connect them up until later. Some of the people who were robbed claimed that their minds had gone blank, usually while strolling down a busy street. They had come to themselves perhaps a half a block later and found their valuables missing. We supposed they'd daydreamed and that the pickpocket had taken advantage of their abstraction. Later we had to change that opinion, for in two cases witnesses reported having seen the victim hand over his pocketbook to a young man, apparently of his own free will.

"About the same time, there had began an inexplicable series of burglaries. Householders would go to answer the door chimes, their minds would blank out, later they would recover consciousness and discover that their homes had been ransacked. A newscaster got hold of that and started a wild story about a criminal who used a mysterious gas to render his victim helpless. The police doctors found no support for any such view."

The monocab banked sharply around a corner. But the voice went on without a break, calmly.

"At first we thought the robberies and the other cases were fakes, done to collect insurance or perpetrate similar frauds. But there were too many of them, and the faking wasn't good enough.

"Then a woman came to us with a story that the Carstairs girl had blurted out to her. The Carstairs are about the richest people in town. The Carstairs girl claimed that they were being victimized by a young man who had installed himself in their home and was passing himself off to visitors as a distant relative. He could control their minds, she said, cause them to lose consciousness and make them do anything he wanted them to. He had made very explicit threats as to what he would do if any one of them squealed to an outsider while not under his influence. They were all terrified of him. The Carstairs girl herself was pitifully frightened, but she just had to talk.

"At any rate, that was the story the woman told us. It was pretty wild, like a lot of groundless accusations we'd been getting. But we went to the Carstairs home to investigate, taking the woman along.

"The Carstairs girl denied the whole story. Said the woman had invented it. Yes, their cousin Robert was visiting with them, but he was a completely respectable young man. The accusations were absurd. And so on. We didn't know at the time that Robert Carstairs must have been in the next room.

"She talked in a very calm and reasonable way—there wasn't the slightest indication that she was hiding any fear. That was what was so convincing about it. It was *our* woman who got hysterical.

"But because we were at our wits' end and not passing up anything, a detective was assigned to shadow Robert Carstairs.

"Two days later that detective carefully locked himself in a room and committed suicide.

"A real locked-room suicide, with a note in his own handwriting and everything else. No chance of a fake. Still—the coincidence. Police Director Marly started some general inquiries about Robert Carstairs. Very quietly, of course, for the Carstairs had enough influence to stop an inquiry if they got wind of it—and if they *were* under his power that was presumably what they'd do.

"Gradually, adding one bit of information to another, we

got at the truth. Friends of the Carstairs complained that the whole family was becoming moody. On some occasions, usually when Robert was present, they would be very pleasant—though there was something unfamiliar about their manner. At other times they would appear very miserable, as if haunted by some secret which they dared not divulge. Some of those same friends mentioned feeling acutely uncomfortable in Robert Carstairs' presence. For some reason they could not define, they were afraid of him. One or two of them spoke of experiencing unaccountable mental lapses in the Carstairs home.

"A discharged servant told an ugly story which indicated that Robert Carstairs' word was law in the household.

"We tried to find out his background, where he came from. We were up against a brick wall.

"Businessmen talked of how old Carstairs was changing the financial policies of his firm. Some of them thought that Robert Carstairs was somehow responsible for this.

"Meanwhile, the crime wave continued. More and more of the crimes seemed to be of a purely wanton sort, done to satisfy a whim or to display power, rather than for the sake of gain. You got the feeling that the criminal was amusing himself with his victims.

"Then a picture of the Carstairs attending a social function went out on the telecasts. One of the witnesses of an early pickpocket episode came to headquarters and identified Robert Carstairs as the young man to whom he had seen the victim hand over his valuables.

"That was all we'd been waiting for.

"Maybe Marly had a hunch about what might happen, for he sent half a dozen men to make the arrest.

"Well—he didn't send enough. Inside the Carstairs home, something happened to their minds. They became insane—homocidally. Up to now, this has been kept out of the news-casts. They killed each other. At least, they were found dead by their own weapons.

"It was the same thing with the Carstairs family, only there the indications pointed at suicide."

Siren moaning a warning, the monocar swung into a brighter thoroughfare, but it brought to Greer no feeling of escape from darkness. His mind was tight and cold. He was remembering how his brother's foster parents, the Hallidanes, had died—a sordid domestic tragedy—the father had murdered the mother and then killed himself.



Suicide—a kind of signature his brother scribbled on his crimes.

Greer understood, almost too well. He knew the temptation to use people, then to go a little further, then a little further still. If he had been brought up in his brother's environment—

His brother had raised a whole city against himself before he realized that there were limits on even a power like his. He could doubtless escape from Steelton, but there would always be that criminal record behind him. How much simpler if a Robert Carstairs died.

As if in agreement with that thought, Greer nodded grimly to himself. The story he had drawn from the unconscious detective had confirmed his own notion about his brother's behavior patterns. When his brother sought power, he had taken control of the wealthiest family in Steelton and had hung on until the last possible moment. Now that his brother was the object of a city-wide man hunt—

The deskman at Steelton Police Headquarters looked up at the newcomers. He saw the prisoner being brought in. His eyes went wide and stayed that way.

"Yes, we got Carstairs," one of the detectives told him. "We're taking him in to Marly."

And they walked up the corridor, two of them on either side of the prisoner, two with their guns in his back.

The deskman stared after them. He'd never really believed that they would get Carstairs. You couldn't—not if you know what the police did.

And they were being so casual about it!

A little later he remembered he hadn't flashed Marly to let him know they were coming.

Greer felt the tautness growing, in muscle and mind. He sought to dispel it, to empty his mind of thought, to maintain only sub-conscious-level control of the four men around him. He must avoid giving any sort of warning.

The corridor turned. He caused the four men to walk ahead of him. They quickened their pace in response to the feeling of urgency that surged through him.

Just a little farther now, Greer told himself, just a little farther—and then, in the mental dark, he sensed a glowing brightness, like a living light. It seemed to beat against his mind in ever-strengthening waves. It called to his mind to

leap toward it and mingle with it. He strove to resist that call, to take no notice of it.

Ahead of him, the four men were filing through a door. On it he read "Director of Police." Beyond it he saw a gleaming metallic table and a ruddy-faced, gray-haired man, with two policemen in uniform seated beside him.

But behind them was another person. As if in a subtly distorting mirror, Greer looked at himself.

He had guessed right. His brother had done the crazily logical thing that Greer had expected.

Tonight there was a city-wide manhunt for his brother—and his brother was directing it.

And now, face to face with his brother, mind to mind, he was overwhelmed by the thought of what they might have meant to each other under different circumstances, and he hesitated too long in giving the order that he knew must be given.

Before the men under his control could raise their guns, they were cut down by a deafening burst of fire from Police Director Marly and the two officers with him. Human flesh exploded nauseously.

Then, for a third time that night, time seemed to crawl. Greer had flung himself to one side. Out of range—but only for a moment. His turn, he knew, was next. He sought to take control of Marly and the other two. He might as well have tried to control statues. They were his brother's puppets—not his.

He heard the rattling echoes of the gunfire die along the corridor. He saw a ribbon of smoke curl from the doorway. Seconds seemed like minutes.

He could see his brother's purposes so clearly now, read them direct from his mind. Control of the world. And it would be such an easy thing—just a matter of getting to the men who controlled it, or who were in a position to control it, and then controlling them.

And he could have prevented it, if only—

If only—

He struck suddenly at his brother's mind, to control it!

For an instant he thought he had succeeded. Then for an instant he thought he had failed. Mental brightness surging at mental brightness, seeking to extinguish. He felt a paralysis grip his muscles, a darkness closing down on his mind. By a supreme effort, he fought it off.

But deadlock was all he had wanted.

In Marly's room, guns thundered.

Greer did not need to look. He felt his brother's mind die.

In resisting Greer's mental assault, his brother had been compelled to free his puppets.

Dully, Greer wondered if he ought to die, too. He, too, was a dangerous monster. Tonight he had killed a harmless man and been the cause of death for four others.

And he had destroyed the only one of his kind in the wide world, the only one with whom he could speak from mind to mind and be answered. Darkness now. Mental darkness unending.

From Marly's room came a muffled exclamation of crazy amazement. Greer Canarvon realized that if he wished to escape, he must act quickly.

He turned to meet his lonely destiny.

# Student Body

BY F. L. WALLACE

*Biologists claim that life on planets with oxygen atmospheres would in general follow a similar evolutionary pattern to the one on Earth. But there is no reason for science fiction writers to be so narrow-minded—especially since the biologists really can't prove their point. In the present story we have an example of biological broad-mindedness so broad as to be just a little frightening. If the kind of life that has evolved on the planet Glade is possible, and it is if Mr. Wallace is right, perhaps the human race should stay at home and not get mixed up with strange new evolutionary types!*

*Mr. Wallace is so recent an arrival in the science fiction field that his name does not even appear in the Index to Science Fiction Magazines, 1926-50. In 1952 and 1953, however, he turned out some of the really outstanding stories of their respective years.*

The first morning that they were fully committed to the planet, the executive officer stepped out of the ship. It was not quite dawn. Executive Hafner squinted in the early light; his eyes opened wider, and he promptly went back inside. Three minutes later, he reappeared with the biologist in tow.

"Last night you said there was nothing dangerous," said the executive. "Do you still think it's so?"

Dano Marin stared. "I do." What his voice lacked in conviction, it made up in embarrassment. He laughed uncertainly.

"This is no laughing matter. I'll talk to you later."

The biologist stood by the ship and watched as the executive walked to the row of sleeping colonists.

"Mrs. Athyl," said the executive as he stopped beside the sleeping figure.

F. L. Wallace, STUDENT BODY. Copyright 1953 by Galaxy Publishing Corporation. Reprinted by permission of Harry Altshuler from *Galaxy*, March 1953.

She yawned, rubbed her eyes, rolled over, and stood up. The covering that should have been there, however, wasn't. Neither was the garment she had on when she had gone to sleep. She assumed the conventional position of a woman who is astonished to find herself unclad without her knowledge or consent.

"It's all right, Mrs. Athyl. I'm not a voyeur myself. Still, I think you should get some clothing on." Most of the colonists were awake now. Executive Hafner turned to them. "If you haven't any suitable clothing in the ship, the commissary will issue you some. Explanations will be given later."

The colonists scattered. There was no compulsive modesty among them, for it couldn't have survived a year and a half in crowded spaceships. Nevertheless, it was a shock to awaken with no clothing on and not know who or what had removed it during the night. It was surprise more than anything else that disconcerted them.

On his way back to the spaceship, Executive Hafner paused. "Any ideas about it?"

Dano Marin shrugged. "How could I have? The planet is as new to me as it is to you."

"Sure. But you're the biologist."

As the only scientist in a crew of rough-and-ready colonists and builders, Marin was going to be called on to answer a lot of questions that weren't in his field.

"Nocturnal insects, most likely," he suggested. That was pretty weak, though he knew that in ancient times locusts had stripped fields in a matter of hours. Could they do the same with the clothing of humans and not awaken them? "I'll look into the matter. As soon as I find anything, I'll let you know."

"Good." Hafner nodded and went into the spaceship.

Dano Marin walked to the grove in which the colonists had been sleeping. It had been a mistake to let them bed down there, but at the time the request had been made, there had seemed no reason not to grant it. After eighteen months in crowded ships everyone naturally wanted fresh air and the rustle of leaves overhead.

Marin looked out through the grove. It was empty now; the colonists, both men and women, had disappeared inside the ship, dressing, probably.

The trees were not tall and the leaves were dark bottle-green. Occasional huge white flowers caught sunlight that

made them seem larger than they were. It wasn't Earth and therefore the trees couldn't be magnolias. But they reminded Marin of magnolia trees and thereafter he always thought of them as that.

The problem of the missing clothing was ironic. Biological Survey never made a mistake—yet obviously they had. They listed the planet as the most suitable for Man of any so far discovered. Few insects, no dangerous animals, a most equitable climate. They had named it Glade because that was the word which fitted best. The whole land mass seemed to be one vast and pleasant meadow.

Evidently there were things about the planet that Biological Survey had missed.

Marin dropped to his knees and began to look for clues. If insects had been responsible, there ought to be a few dead ones, crushed, perhaps, as the colonists rolled over in their sleep. There were no insects, either live or dead.

He stood up in disappointment and walked slowly through the grove. It might be the trees. At night they could exude a vapor which was capable of dissolving the material from which the clothing had been made. Far fetched, but not impossible. He crumbled a leaf in his hand and rubbed it against his sleeve. A pungent smell, but nothing happened. That didn't disprove the theory, of course.

He looked out through the trees at the blue sun. It was bigger than Sol, but farther away. At Glade, it was about equal to the Sun on Earth.

He almost missed the bright eyes that regarded him from the underbrush. Almost, but didn't—the domain of biology begins at the edge of the atmosphere; it includes the brush and the small creatures that live in it.

He swooped down on it. The creature fled squealing. He ran it down in the grass outside the grove. It collapsed into quaking flesh as he picked it up. He talked to it gently and the terror subsided.

It nibbled contentedly on his jacket as he carried it back to the ship.

Executive Hafner stared unhappily into the cage. It was an undistinguished animal, small and something like an undeveloped rodent. Its fur was sparse and stringy, unglamorous; it would never be an item in the fur export trade.

"Can we exterminate it?" asked Hafner. "Locally, that is."

"Hardly. It's ecologically basic."

The executive looked blank. Dano Marin added the explanation: "You know how Biological Control works. As soon as a planet has been discovered that looks suitable, they send out a survey ship loaded with equipment. The ship flies low over a good part of the planet and the instruments in the ship record the neural currents of the animals below. The instruments can distinguish the characteristic neural patterns of anything that has a brain, including insects.

"Anyway, they have a pretty good idea of the kinds of animals on the planet and their relative distribution. Naturally, the survey party takes a few specimens. They have to in order to correlate the pattern with the actual animal, otherwise the neural pattern would be merely a meaningless squiggle on a microfilm.

"The survey shows that this animal is one of only four species of mammals on the planet. It is also the most numerous."

Hafner grunted. "So if we kill them off here, others will swarm in from surrounding areas?"

"That's about it. There are probably millions of them on this peninsula. Of course, if you want to put a barrier across the narrow connection to the mainland, you might be able to wipe them out locally."

The executive scowled. A barrier was possible, but it would involve more work than he cared to expend.

"What do they eat?" he asked truculently.

"A little bit of everything, apparently. Insects, fruits, berries, nuts, succulents, and grain." Dano Marin smiled. "I guess it could be called an omnivore—now that our clothing is handy, it eats that, too."

Hafner didn't smile. "I thought our clothing was supposed to be verminproof."

Marin shrugged. "It is, on twenty-seven planets. On the twenty-eighth, we meet up with a little fella that has better digestive fluids, that's all."

Hafner looked pained. "Are they likely to bother the crops we plant?"

"Offhand, I would say they aren't. But then I would have said the same about our clothing."

Hafner made up his mind. "All right. You worry about the crops. Find some way to keep them out of the fields. Meanwhile, everyone sleeps in the ship until we can build dormitories."

Individual dwelling units would have been more appro-

priate in the colony at this stage, thought Marin. But it wasn't for him to decide. The executive was a man who regarded a schedule as something to be exceeded.

"The omnivore—" began Marin.

Hafner nodded impatiently. "Work on it," he said, and walked away.

The biologist sighed. The omnivore really was a queer little creature, but it was by no means the most important thing on Glade. For instance, why were there so few species of land animals on the planet? No reptiles, numerous birds, and only four kinds of mammals.

Every comparable planet teemed with a wild variety of life. Glade, in spite of seemingly ideal conditions, hadn't developed. Why?

He had asked Biological Controls for this assignment because it had seemed an interesting problem. Now, apparently, he was being pressed into service as an exterminator.

He reached in the cage and picked up the omnivore. Mammals on Glade were not unexpected. Parallel development took care of that. Given roughly the same kind of environment, similar animals would usually evolve.

In the Late Carboniferous forest on Earth, there had been creatures like the omnivore, the primitive mammal from which all others had evolved. On Glade, that kind of evolution just hadn't taken place. What had kept nature from exploiting its evolutionary potentialities? There was the real problem, not how to wipe them out.

Marin stuck a needle in the omnivore. It squealed and then relaxed. He drew out the blood and set it back in the cage. He could learn a lot about the animal from trying to kill it.

The quartermaster was shouting, though his normal voice carried quite well.

"How do you know it's mice?" the biologist asked him.

"Look," said the quartermaster angrily.

Marin looked. The evidence did indicate mice.

Before he could speak, the quartermaster snapped, "Don't tell me they're only micelike creatures. I know that. The question is: how can I get rid of them?"

"Have you tried poison?"

"Tell me what poison to use and I'll use it."

It wasn't the easiest question to answer. What was poisonous to an animal he had never seen and knew nothing about? According to Biological Survey, the animal didn't exist.



It was unexpectedly serious. The colony could live off the land, and was expected to. But another group of colonists was due in three years. The colony was supposed to accumulate a surplus of food to feed the increased numbers. If they couldn't store the food they grew any better than the concentrates, that surplus was going to be scanty.

Marin went over the warehouse thoroughly. It was the usual early construction on a colonial world. Not esthetic, it was sturdy enough. Fused dirt floor, reinforced foot-thick walls, a ceiling slab of the same. The whole was bound together with a molecular cement that made it practically airtight. It had no windows; there were two doors. Certainly it should keep out rodents.

A closer examination revealed an unexpected flaw. The floor was as hard as glass; no animal could gnaw through it, but, like glass, it was also brittle. The crew that had built the warehouse had evidently been in such a hurry to get back to Earth that they hadn't been as careful as they should have been, for here and there the floor was thin. Somewhere under the heavy equipment piled on it, the floor had cracked. There a burrowing animal had means of entry.

Short of building another warehouse, it was too late to do anything about that. Micelike animals were inside and had to be controlled where they were.

The biologist straightened up. "Catch me a few of them alive and I'll see what I can do."

In the morning, a dozen live specimens were delivered to the lab. They actually did resemble mice.

Their reactions were puzzling. No two of them were affected by the same poison. A compound that stiffened one in a matter of minutes left the others hale and hearty, and the poison he had developed to control the omnivores was completely ineffective.

The depredations in the warehouse went on. Black mice, white ones, gray and brown, short-tailed and long-eared, or the reverse, they continued to eat the concentrates and spoil what they didn't eat.

Marin conferred with the executive, outlined the problem as he saw it and his ideas on what could be done to combat the nuisance.

"But we can't build another warehouse," argued Hafner. "Not until the atomic generator is set up, at any rate. And then we'll have other uses for the power." The executive

rested his head in his hands. "I like the other solution better. Build one and see how it works."

"I was thinking of three," said the biologist.

"One," Hafner insisted. "We can't spare the equipment until we know how it works."

At that he was probably right. They had equipment, as much as three ships could bring. But the more they brought, the more was expected of the colony. The net effect was that equipment was always in short supply.

Marin took the authorization to the engineer. On the way, he privately revised his specifications upward. If he couldn't get as many as he wanted, he might as well get a better one.

In two days, the machine was ready.

It was delivered in a small crate to the warehouse. The crate was opened and the machine leaped out and stood there, poised.

"A cat!" exclaimed the quartermaster, pleased. He stretched out his hand toward the black fuzzy robot.

"If you've touched anything a mouse may have, get your hand away," warned the biologist. "It reacts to smell as well as sight and sound."

Hastily, the quartermaster withdrew his hand. The robot disappeared silently into the maze of stored material.

In one week, though there were still some mice in the warehouse, they were no longer a danger.

The executive called Marin into his office, a small sturdy building located in the center of the settlement. The colony was growing, assuming an aspect of permanency. Hafner sat in his chair and looked out over that growth with satisfaction.

"A good job on the mouse plague," he said.

The biologist nodded. "Not bad, except there shouldn't be any mice here. Biological Survey—"

"Forget it," said the exec. "Everybody makes mistakes, even B. S." He leaned back and looked seriously at the biologist. "I have a job I need done. Just now I'm short of men. If you have no objections . . ."

The exec was always short of men, would be until the planet was overcrowded, and he would try to find someone to do the work his own men should have done. Dano Marin was not directly responsible to Hafner; he was on loan to the expedition from Biological Controls. Still, it was a good idea to cooperate with the executive. He sighed.

"It's not as bad as you think," said Hafner, interpreting the

sound correctly. He smiled. "We've got the digger together. I want you to run it."

Since it tied right in with his investigations, Dano Marin looked relieved and showed it.

"Except for food, we have to import most of our supplies," Hafner explained. "It's a long haul, and we've got to make use of everything on the planet we can. We need oil. There are going to be a lot of wheels turning, and everyone of them will have to have oil. In time we'll set up a synthetic plant, but if we can locate a productive field now, it's to our advantage."

"You're assuming the geology of Glade is similar to Earth?"

Hafner wagged his hand. "Why not? It's a nicer twin of Earth."

Why not? Because you couldn't always tell from the surface, thought Marin. It *seemed* like Earth, but was it? Here was a good chance to find out the history of Glade.

Hafner stood up. "Any time you're ready, a technician will check you out on the digger. Let me know before you go."

Actually, the digger wasn't a digger. It didn't move or otherwise displace a gram of dirt or rock. It was a means of looking down below the surface, to any practical depth. A large crawler, it was big enough for a man to live in without discomfort for a week.

It carried an outsize ultrasonic generator and a device for directing the beam into the planet. That was the sending apparatus. The receiving end began with a large sonic lens which picked up sound beams reflected from any desired depth, converted it into electrical energy and thence into an image which was flashed onto a screen.

At the depth of ten miles, the image was fuzzy, though good enough to distinguish the main features of the strata. At three miles, it was better. It could pick up the sound reflection of a buried coin and convert it into a picture on which the date could be seen.

It was to a geologist as a microscope is to a biologist. Being a biologist, Dano Marin could appreciate the analogy.

He started at the tip of the peninsula and zigzagged across, heading toward the isthmus. Methodically, he covered the territory, sleeping at night in the digger. On the morning of the third day, he discovered oil traces, and by that afternoon he had located the main field.

He should probably have turned back at once, but now that he had found oil, he investigated more deliberately.

Starting at the top, he let the image range downward below the top strata.

It was the reverse of what it should have been. In the top few feet, there were plentiful fossil remains, mostly of the four species of mammals. The squirrellike creature and the far larger grazing animal were the forest dwellers. Of the plains animals, there were only two, in size fitting neatly between the extremes of the forest dwellers.

After the first few feet, which corresponded to approximately twenty thousand years, he found virtually no fossils. Not until he reached a depth which he could correlate to the Late Carboniferous age on Earth did fossils reappear. Then they were of animals appropriate to the epoch. At that depth and below, the history of Glade was quite similar to Earth's.

Puzzled, he checked again in a dozen widely scattered localities. The results were always the same—fossil history for the first twenty thousand years, then none for roughly a hundred million. Beyond that, it was easy to trace the thread of biological development.

In that period of approximately one hundred million years, something unique had happened to Glade. What was it?

On the fifth day his investigations were interrupted by the sound of the keyed-on radio.

"Marin."

"Yes?" He flipped on the sending switch.

"How soon can you get back?"

He looked at the photo-map. "Three hours. Two if I hurry."

"Make it two. Never mind the oil."

"I've found oil. But what's the matter?"

"You can see it better than I can describe it. We'll discuss it when you get back."

Reluctantly, Marin retracted the instruments into the digger. He turned it around and, with not too much regard for the terrain, let it roar. The treads tossed dirt high in the air. Animals fled squealing from in front of him. If the grove was small enough, he went around it, otherwise he went through and left matchsticks behind.

He skidded the crawler ponderously to halt near the edge of the settlement. The center of activity was the warehouse. Pickups wheeled in and out, transferring supplies to a cleared area outside. He found Hafner in a corner of the warehouse, talking to the engineer.

Hafner turned around when he came up. "Your mice have grown, Marin."

Marin looked down. The robot cat lay on the floor. He knelt and examined it. The steel skeleton hadn't broken; it had been bent, badly. The tough plastic skin had been torn off, and, inside, the delicate mechanism had been chewed into an unrecognizable mass.

Around the cat were rats, twenty or thirty of them, huge by any standards. The cat had fought; the dead animals were headless or disembowled, unbelievably battered. But the robot had been outnumbered.

Biological Survey had said there weren't any rats on Glade. They had also said that about mice. What was the key to their error?

The biologist stood up. "What are you going to do about it?"

"Build another warehouse, two-foot-thick fused dirt floors, monolithic construction. Transfer all perishables to it."

Marin nodded. That would do it. It would take time, of course, and power, all they could draw out of the recently set up atomic generator. All other construction would have to be suspended. No wonder Hafner was disturbed.

"Why not build more cats?" Marin suggested.

The executive smiled nastily. "You weren't here when we opened the doors. The warehouse was swarming with rats. How many robot cats would we need—five, fifteen? I don't know. Anyway the engineer tells me we have enough parts to build three more cats. The one lying there can't be salvaged."

It didn't take an engineer to see that, thought Marin.

Hafner continued, "If we need more, we'll have to rob the computer in the spaceship. I refuse to permit that."

Obviously he would. The spaceship was the only link with Earth until the next expedition brought more colonists. No exec in his right mind would permit the ship to be crippled.

But why had Hafner called him back? Merely to keep him informed of the situation?

Hafner seemed to guess his thoughts. "At night we'll flood-light the supplies we remove from the warehouse. We'll post a guard armed with decharged rifles until we can move the food into the new warehouse. That'll take about ten days. Meanwhile, our fast crops are ripening. It's my guess the rats

will turn to them for food. In order to protect our future food supply, you'll have to activate your animals."

The biologist started. "But it's against regulations to loose any animal on a planet until a complete investigation of the possible ill effects is made."

"That takes ten or twenty years. This is an emergency and I'll be responsible—in writing, if you want."

The biologist was effectively countermanded. Another rabbit-infested Australia or the planet that the snails took over might be in the making, but there was nothing he could do about it.

"I hardly think they'll be of any use against rats this size," he protested.

"You've got hormones. Apply them." The executive turned and began discussing construction with the engineer.

Marin had the dead rats gathered up and placed in the freezer for further study.

After that, he retired to the laboratory and worked out a course of treatment for the domesticated animals that the colonists had brought with them. He gave them the first injections and watched them carefully until they were safely through the initial shock phase of growth. As soon as he saw they were going to survive, he bred them.

Next he turned to the rats. Of note was the wide variation in size. Internally, the same thing was true. They had the usual organs, but the proportions of each varied greatly, more than is normal. Nor were their teeth uniform. Some carried huge fangs set in delicate jaws; others had tiny teeth that didn't match the massive bone structure. As a species, they were the most scrambled the biologist had ever encountered.

He turned the microscope on their tissues and tabulated the results. There was less difference here between individual specimens, but it was enough to set him pondering. The reproductive cells were especially baffling.

Late in the day, he felt rather than heard the soundless whoosh of the construction machinery. He looked out of the laboratory and saw smoke rolling upward. As soon as the vegetation was charred, the smoke ceased and heat waves danced into the sky.

They were building on a hill. The little creatures that crept and crawled in the brush attacked in the most vulnerable spot, the food supply. There was no brush, not a blade of grass, on the hill when the colonists finished.

Terriers. In the past, they were the hunting dogs of the agricultural era. What they lacked in size they made up in ferocity toward rodents. They had earned their keep originally in granaries and fields, and, for a brief time, they were doing it again on colonial worlds where conditions were repeated.

The dogs the colonists brought had been terriers. They were still as fast, still with the same antirodent disposition, but they were no longer small. It had been a difficult job, yet Marin had done it well, for the dogs had lost none of their skill and speed in growing to the size of a great dane.

The rats moved in on the fields of fast crops. Fast crops were made to order for a colonial world. They could be planted, grown, and harvested in a matter of weeks. After four such plantings, the fertility of the soil was destroyed, but that meant nothing in the early years of a colonial planet, for land was plentiful.

The rat tide grew in the fast crops, and the dogs were loosed on the rats. They ranged through the fields, hunting. A rush, a snap of their jaws, the shake of a head, and the rat was tossed aside, its back broken. The dogs went on to the next.

Until they could not see, the dogs prowled and slaughtered. At night they came in bloody, most of it not their own, and exhausted. Marin pumped them full of antibiotics, bandaged their wounds, fed them through their veins, and shot them into sleep. In the morning he awakened them with an injection of stimulant and sent them tingling into battle.

It took the rats two days to learn they could not feed during the day. Not so numerous, they came at night. They climbed on the vines and nibbled the fruit. They gnawed growing grain and ravaged vegetables.

The next day the colonists set up lights. The dogs were with them, discouraging the few rats who were still foolish enough to forage while the sun was overhead.

An hour before dusk, Marin called the dogs in and gave them an enforced rest. He brought them out of it after dark and took them to the fields, staggering. The scent of rats revived them; they were as eager as ever, if not quite so fast.

The rats came from the surrounding meadows, not singly, or in twos and threes, as they had before; this time they came together. Squealing and rustling the grass, they moved toward the fields. It was dark, and though he could not see

them, Marin could hear them. He ordered the great lights turned on in the area of the fields.

The rats stopped under the glare, milling around uneasily. The dogs quivered and whined. Marin held them back. The rats resumed their march, and Marin released the dogs.

The dogs charged in to attack, but didn't dare brave the main mass. They picked off the stragglers and forced the rats into a tighter formation. After that the rats were virtually unassailable.

The colonists could have burned the bunched-up rats with the right equipment, but they didn't have it and couldn't get it for years. Even if they'd had it, the use of such equipment would endanger the crops, which they had to save if they could. It was up to the dogs.

The rat formation came to the edge of the fields, and broke. They could face a common enemy and remain united, but in the presence of food, they forgot that unity and scattered—hunger was the great divisor. The dogs leaped joyously in pursuit. They hunted down the starved rodents, one by one, and killed them as they ate.

When daylight came, the rat menace had ended.

The next week the colonists harvested and processed the food for storage and immediately planted another crop.

Marin sat in the lab and tried to analyze the situation. The colony was moving from crisis to crisis, all of them involving food. In itself, each critical situation was minor, but lumped together they could add up to failure. No matter how he looked at it, they just didn't have the equipment they needed to colonize Glade.

The fault seemed to lie with Biological Survey; they hadn't reported the presence of pests that were endangering the food supply. Regardless of what the exec thought about them, Survey knew their business. If they said there were no mice or rats on Glade, then there hadn't been any—*when the survey was made*.

The question was: when did they come and how did they get here?

Marin sat and stared at the wall, turning over hypotheses in his mind, discarding them when they failed to make sense.

His gaze shifted from the wall to the cage of the omnivores, the squirrel-size forest creature. The most numerous animal on Glade, it was a commonplace sight to the colonists.

And yet it was a remarkable animal, more than he had real-



ized. Plain, insignificant in appearance, it might be the most important of any animal Man had encountered on the many worlds he had settled on. The longer he watched, the more Marin became convinced of it.

He sat silent, observing the creature, not daring to move. He sat until it was dark and the omnivore resumed its normal activity.

*Normal?* The word didn't apply on Glade.

The interlude with the omnivore provided him with one answer. He needed another one; he thought he knew what it was, but he had to have more data, additional observations.

He set up his equipment carefully on the fringes of the settlement. There and in no other place existed the information he wanted.

He spent time in the digger, checking his original investigations. It added up to a complete picture.

When he was certain of his facts, he called on Hafner.

The executive was congenial; it was a reflection of the smoothness with which the objectives of the colony were being achieved.

"Sit down," he said affably. "Smoke?"

The biologist sat down and took a cigarette.

"I thought you'd like to know where the mice came from," he began.

Hafner smiled. "They don't bother us any more."

"I've also determined the origin of the rats."

"They're under control. We're doing nicely."

On the contrary, thought Marin. He searched for the proper beginning.

"Glade has an Earth-type climate and topography," he said. "Has had for the past twenty thousand years. Before that, about a hundred million years ago, it was also like Earth of the comparable period."

He watched the look of polite interest settle on the executive's face as he stated the obvious. Well, it *was* obvious, up to a point. The conclusions weren't, though.

"Between a hundred million years and twenty thousand years ago, something happened to Glade," Marin went on. "I don't know the cause; it belongs to cosmic history and we may never find out. Anyway, whatever the cause—fluctuations in the sun, unstable equilibrium of forces within the planet, or perhaps an encounter with an interstellar dust cloud of variable density—the climate on Glade changed.

"It changed with inconceivable violence and it kept on changing. A hundred million years ago, plus or minus, there was carboniferous forest on Glade. Giant reptiles resembling dinosaurs and tiny mammals roamed through it. The first great change wiped out the dinosaurs, as it did on Earth. It didn't wipe out the still more primitive ancestor of the omnivore, because it could adapt to changing conditions.

"Let me give you an idea how the conditions changed. For a few years a given area would be a desert; after that it would turn into a jungle. Still later a glacier would begin to form. And then the cycle would be repeated, with wild variations. All this might happen—did happen—within a span covered by the lifetime of a single omnivore. This occurred many times. For roughly a hundred million years, it was the norm of existence on Glade. This condition was hardly conducive to the preservation of fossils."

Hafner saw the significance and was concerned. "You mean these climatic fluctuations suddenly stopped, twenty thousand years ago? Are they likely to begin again?"

"I don't know," confessed the biologist. "We can probably determine it if we're interested."

The exec nodded grimly. "We're interested, all right."

Maybe we are, thought the biologist. He said, "The point is that survival was difficult. Birds could and did fly to more suitable climates; quite a few of them survived. Only one species of mammals managed to come through."

"Your facts are not straight," observed Hafner. "There are four species, ranging in size from a squirrel to a water buffalo."

"One species," Marin repeated doggedly. "They're the same. If the food supply for the largest animal increases, some of the smaller so-called species grow up. Conversely, if food becomes scarce in any category, the next generation, which apparently can be produced almost instantly, switches to a form which does have an adequate food supply."

"The mice," Hafner said slowly.

Marin finished the thought for him. "The mice weren't here when we got here. They were born of the squirrel-size omnivore."

Hafner nodded. "And the rats?"

"Born of the next larger size. After all, we're environment, too—perhaps the harshest the beasts have yet faced."

Hafner was a practical man, trained to administer a colony.

Concepts were not his familiar ground. "Mutations, then? But I thought—"

The biologist smiled. It was thin and cracked at the edges of his mouth. "On Earth, it would be mutation. Here it is merely normal evolutionary adaptation." He shook his head. "I never told you, but omnivores, though they could be mistaken for an animal from Earth, have no genes or chromosomes. Obviously they do have heredity, but how it is passed down, I don't know. However it functions, it responds to external conditions far faster than anything we've ever encountered."

Hafner nodded to himself. "Then we'll never be free from pests." He clasped and unclasped his hands. "Unless, of course, we rid the planet of all animal life."

"Radioactive dust?" asked the biologist. "They have survived worse."

The exec considered alternatives. "Maybe we should leave the planet and leave it to the animals."

"Too late," said the biologist. "They'll be on Earth, too, and all the planets we've settled on."

Hafner looked at him. The same pictures formed in his mind that Marin had thought of. Three ships had been sent to colonize Glade. One had remained with the colonists, survival insurance in case anything unforeseen happened. Two had gone back to Earth to carry the report that all was well and that more supplies were needed. They had also carried specimens from the planet.

The cages those creatures were kept in were secure. But a smaller species could get out, must already be free, inhabiting, undetected, the cargo spaces of the ships.

There was nothing they could do to intercept those ships. And once they reached Earth, would the biologists suspect? Not for a long time. First a new kind of rat would appear. A mutation could account for that. Without specific knowledge, there would be nothing to connect it with the specimens picked up from Glade.

"We have to stay," said the biologist. "We have to study them and we can do it best here."

He thought of the vast complex of buildings on Earth. There was too much invested to tear them down and make them verminproof. Billions of people could not be moved off the planet while the work was being done.

They were committed to Glade not as a colony, but as a gigantic laboratory. They had gained one planet and lost the

equivalent of ten, perhaps more when the destructive properties of the omnivores were finally assessed.

A rasping animal cough interrupted the biologist's thoughts. Hafner jerked his head and glanced out the window. Lips tight, he grabbed a rifle off the wall and ran out. Marin followed him.

The exec headed toward the fields where the second fast crop was maturing. On top of a knoll, he stopped and knelt. He flipped the dial to *extreme charge*, aimed, and fired. It was high; he missed the animal in the field. A neat strip of smoking brown appeared in the green vegetation.

He aimed more carefully and fired again. The charge screamed out of the muzzle. It struck the animal on the forepaw. The beast leaped high in the air and fell down, dead and broiled.

They stood over the animal Hafner had killed. Except for the lack of markings, it was a good imitation of a tiger. The exec prodded it with his toe.

"We chase the rats out of the warehouse and they go to the fields," he muttered. "We hunt them down in the fields with dogs and they breed tigers."

"Easier than rats," said Marin. "We can shoot tigers." He bent down over the slain dog near which they had surprised the big cat.

The other dog came whining from the far corner of the field to which he had fled in terror. He was a courageous dog, but he could not face the great carnivore. He whimpered and licked the face of his mate.

The biologist picked up the mangled dog and headed toward the laboratory.

"You can't save her," said Hafner morosely. "She's dead."

"But the pups aren't. We'll need them. The rats won't disappear merely because tigers have showed up."

The head drooped limply over his arm and blood seeped into his clothing as Hafner followed him up the hill.

"We've been here three months," the exec said suddenly. "The dogs have been in the fields only two. And yet the tiger was mature. How do you account for something like that?"

Marin bent under the weight of the dog. Hafner never would understand his bewilderment. As a biologist, all his categories were upset. What did evolution explain? It was a history of organic life on a particular world. Beyond that world, it might not apply.

Even about himself there were many things Man didn't know, dark patches in his knowledge which theory simply had to pass over. About other creatures, his ignorance was sometimes limitless.

Birth was simple; it occurred on countless planets. Meek grazing creatures, fierce carnivores—the most unlikely animals gave birth to their young. It happened all the time. And the young grew up, became mature and mated.

He remembered that evening in the laboratory. It was accidental—what if he had been elsewhere and not witnessed it? They would not know what little they did.

He explained it carefully to Hafner. "If the survival factor is high and there's a great disparity in size, the young need not ever be young. They may be born as fully functioning adults!"

Although not at the rate it had initially set, the colony progressed. The fast crops were slowed down and a more diversified selection was planted. New buildings were constructed and the supplies that were stored in them were spread out thin, for easy inspection.

The pups survived and within a year shot up to maturity. After proper training, they were released to the fields where they joined the older dogs. The battle against the rats went on; they were held in check, though the damage they caused was considerable.

The original animal, unchanged in form, developed an appetite for electrical insulation. There was no protection except to keep the power on at all times. Even then there were unwelcome interruptions until the short was located and the charred carcass was removed. Vehicles were kept tightly closed or parked only in verminproof buildings. While the plague didn't increase in numbers, it couldn't be eliminated, either.

There was a flurry of tigers, but they were larger animals and were promptly shot down. They prowled at night, so the colonists were assigned to guard the settlement around the clock. Where lights failed to reach, the infra-red 'scope did. As fast as they came, the tigers died. Except for the first one, not a single dog was lost.

The tigers changed, though not in form. Externally, they were all big and powerful killers. But as the slaughter went on, Marin noticed one astonishing fact—the internal organic structure became progressively more immature.

The last one that was brought to him for examination was the equivalent of a newly born cub. That tiny stomach was suited more for the digestion of milk than meat. How it had furnished energy to drive those great muscles was something of a miracle. But drive it had, for a murderous fifteen minutes before the animal was brought down. No lives were lost, though sick bay was kept busy for a while.

That was the last tiger they shot. After that, the attacks ceased.

The seasons passed and nothing new occurred. A spaceship civilization or even that fragment of it represented by the colony was too much for the creature, which Marin by now had come to think of as the "Omnimal." It had evolved out of a cataclysmic past, but it could not meet the challenge of the harshest environment.

Or so it seemed.

Three months before the next colonists were due, a new animal was detected. Food was missing from the fields. It was not another tiger: they were carnivorous. Nor rats, for vines were stripped in a manner that no rodent could manage.

The food was not important. The colony had enough in storage. But if the new animal signaled another plague, it was necessary to know how to meet it. The sooner they knew what the animal was, the better defense they could set up against it.

Dogs were useless. The animal roamed the field they were loose in, and they did not attack nor even seem to know it was there.

The colonists were called upon for guard duty again, but it evaded them. They patrolled for a week and they still did not catch sight of it.

Hafner called them in and rigged up an alarm system in the field most frequented by the animal. It detected that, too, and moved its sphere of operations to a field in which the alarm system had not been installed.

Hafner conferred with the engineer, who devised an alarm that would react to body radiation. It was buried in the original field and the old alarm was moved to another.

Two nights later, just before dawn, the alarm rang.

Marin met Hafner at the edge of the settlement. Both carried rifles. They walked; the noise of any vehicle was likely to frighten the animal. They circled around and approached

the field from the rear. The men in the camp had been alerted. If they needed help, it was ready.

They crept silently through the underbrush. It was feeding in the field, not noisily, yet they could hear it. The dogs hadn't barked.

They inched nearer. The blue sun of Glade came up and shone full on their quarry. The gun dropped in Hafner's hand. He clenched his teeth and raised it again.

Marin put out a restraining arm. "Don't shoot," he whispered.

"I'm the exec here. I say it's dangerous."

"Dangerous," agreed Marin, still in a whisper. "That's why you can't shoot. It's more dangerous than you know."

Hafner hesitated and Marin went on. "The omnimal couldn't compete in the changed environment and so it evolved mice. We stopped the mice and it countered with rats. We turned back the rat and it provided the tiger.

"The tiger was easiest of all for us and so it was apparently stopped for a while. But it didn't really stop. Another animal was being formed, the one you see there. It took the omnimal two years to create it—how, I don't know. A million years were required to evolve it on Earth."

Hafner hadn't lowered the rifle and he showed no signs of doing so. He looked lovingly into the sights.

"Can't you see?" urged Marin. "We can't destroy the omnimal. It's on Earth now, and on the other planets, down in the storage areas of our big cities, masquerading as rats. And we've never been able to root out even our own terrestrial rats, so how can we exterminate the omnimal?"

"All the more reason to start now." Hafner's voice was flat.

Marin struck the rifle down. "Are their rats better than ours?" he asked wearily. "Will their pests win or ours be stronger? Or will the two make peace, unite and interbreed, make war on us? It's not impossible; the omnimal could do it if interbreeding had a high survival factor.

"Don't you still see? There is a progression. After the tiger, it bred this. If this evolution fails, if we shoot it down, what will it create next? This creature I think we can compete with. *It's the one after this that I do not want to face.*"

It heard them. It raised its head and looked around. Slowly it edged away and backed toward a nearby grove.

The biologist stood up and called softly. The creature

scurried to the trees and stopped just inside the shadows among them.

The two men laid down their rifles. Together they approached the grove, hands spread open to show they carried no weapons.

It came out to meet them. Naked, it had had no time to learn about clothing. Neither did it have weapons. It plucked a large white flower from the tree and extended this mutely as a sign of peace.

"I wonder what it's like," said Marin. "It seems adult, but can it be, all the way through? What's inside that body?"

"I wonder what's in his head," Hafner said worriedly.

It looked very much like a man.





# Made in U. S. A.

BY J. T. M'INTOSH

*This fascinating long novelette is by a relative newcomer on the science fiction scene, a Scotsman who is working as a journalist on a north of England newspaper. His first story was published as recently as 1950.*

*In every way this tale represents contemporary science fiction at its best, handling as it does a remarkably delicate theme with urbanity, sophistication and genuine good taste. It is also up-to-date in the way it subtly criticises some of the less pleasant intolerances of our own day—without saying anything about them at all.*

## i

Not a soul watched as Roderick Liffcom carried his bride across the threshold. They were just a couple of nice, good-looking kids—Roderick a psychologist and Alison an ex-copywriter. They weren't news yet. There was nothing to hint that in a few days the name of Liffcom would be known to almost everyone in the world, the tag on a case which interested everybody. Not everyone would follow a murder case, a graft case, or an espionage case. But everyone would follow the Liffcom case.

Let's have a good look at them while we have the chance, before the mobs surround them. Roderick was big and strong enough to treat his wife's 115 pounds with contempt, but there was no contempt in the way he held her. He carried her as if she were a million dollars in small bills and there was a strong wind blowing. He looked down at her with his heart in his eyes. He had black hair and brown eyes and one could see at a glance that he could have carried any girl he liked over the threshold.

J. T. M'Intosh, MADE IN U. S. A. Copyright 1953 by J. T. M'Intosh. Reprinted by permission of Willis Kingsley Wing from *Galaxy*, April 1953.

Alison nestled in his arms like a kitten, eyes half-closed with rapture, arms about his neck. She was blonde and had fantastically beautiful eyes, not to mention the considerable claims to notice of her other features. But even at first glance one would know that there was more to Alison than beauty. It might be brains, or courage, or hard, bitter experience that had tempered her keen as steel. One could see at a glance that she could have been carried over the threshold by any man she liked.

As they went in, it was the end of a story. But let's be different and call it the beginning.

In the morning, when they were at breakfast on the terrace, the picture hadn't changed radically. That is, Roderick was rather different, blue-chinned and sleepy-eyed and in a brown flannel bathrobe, and Alison was more spectacularly different in a pale green negligee that wasn't so much worn as wafted about. But the way they looked at each other hadn't changed remotely—then.

"There's something," remarked Alison casually; tracing patterns on the damask tablecloth with one slim finger, "that perhaps I ought to tell you."

Two minutes later they were fighting for the phone.

"I want to call my lawyer," Roderick bellowed.

"I want to call my lawyer," Alison retorted.

He paused, the number half dialed. "You can't," he told her roughly. "It's the same lawyer."

She recovered herself first, as she always had. She smiled sunnily. "Shall we toss a coin for him?" she suggested.

"No," said Roderick brutally. Where, oh, where was his great blinding love? "He's mine. I pay him more than you ever could."

"Right," agreed Alison. "I'll fight the case myself."

"So will I," Roderick exclaimed, and slammed the receiver down. Instantly he picked it up again. "No, we'll need him to get things moving."

"Collusion?" asked Alison sweetly.

"It was a low, mean, stinking, dirty, cattish, obscene, disgusting, filthy-minded thing to wait until . . ."

"Until what?" Alison asked with more innocence than one would have thought there was in the world.

"Android!" he spat viciously at her.

Despite herself, her eyes flashed with anger.

## ii

The newspapers not only mentioned it, they said it at the top of their voices: HUMAN SUES ANDROID FOR DIVORCE. It wasn't much of a headline, for one naturally wondered why a human suing an android for divorce should rate a front-page story. After all, half the population of the world was android. Every day humans divorced humans, humans androids, androids humans, and androids androids. The natural reaction to a headline like that was: "So what? Who cares?"

But it didn't need particular intelligence to realize that there must be something rather special about this case.

The report ran: "Everton, Tuesday. History is made today in the first human vs. android divorce case since the recent grant of full legal equality to androids. It is also the first case of a divorce sought on the grounds that one contracting party did not know the other was an android. This became possible only because the equality law made it no longer obligatory to disclose android origin in any contract.

"Recognizing the importance of this test case, certain to affect millions in the future, *Twenty-four Hours* will cover the case, which opens on Friday, in meticulous detail. Ace reporters Anona Grier and Walter Hallsmith will bring to our readers the whole story of this historic trial. Grier is human and Hallsmith android. . ."

The report went on to give such details as the names of the people in this important test case, and remarked incidentally that although the Liffcom marriage had lasted only ten hours and thirteen minutes before the divorce plea was entered, there had been even briefer marriages recorded.

*Twenty-four Hours* thus adroitly obviated thousands of letters asking breathlessly: "Is this a record?"

## iii

Alison, back at her bachelor flat, stretched herself on a divan, focused her eyes past the ceiling on infinity, and thought and thought and thought.

She wasn't particularly unhappy. Not for Alison were misery and resentment and wild, impossible hope. She met the tragedy of her life with placid resignation and even humor.

"Let's face it," she told herself firmly, "I'm hurt. I hoped he'd say, 'It doesn't matter. What difference could that make?"

It's you I love'—the sort of thing men say in love stories. But what did he say? *Dirty android.*"

Oh, well. Life wasn't like love stories or they wouldn't just be stories.

She might as well admit for a start that she still loved him. That would clarify her feelings.

She should have told him earlier that she was an android. Perhaps he had some excuse for believing she merely waited until non-consummation was no longer grounds for divorce, and then triumphantly threw the fact that she was an android in his lap. (But what good was that supposed to do her?)

It wasn't like that at all, of course. She hadn't told him because they had to get to know each other before the question arose. One didn't say the moment one was introduced to a person: "I'm married," or "I once served five years for theft," or "I'm an android. Are you?"

If in the first few weeks she had known Roderick, some remark had been made about androids, she'd have remarked that she was one herself. But it never had.

When he asked her to marry him, she honestly didn't think of saying she was an android. There were times when it mattered and times when it didn't; this seemed to be one of the latter. Roderick was so intelligent, so liberal-minded, and so easygoing (except when he lost his temper) that she didn't think he would care.

It never did occur to her that he might care. She just mentioned it, as one might say: "I hope you don't mind my drinking iced coffee every morning." Well, almost. She just mentioned it. . .

And happiness was over.

Now an idea was growing in the sad ripple of her thoughts. Did Roderick really want this divorce case, after all, or was he only trying to prove something? Because if he was, she was ready to admit cheerfully that it was proved.

She wanted Roderick. She didn't quite understand what had happened—perhaps he would take her back on condition that he could trample on her face first. If so, that was all right. She was prepared to let him swear at her and rage at androids and work off any prejudice and hate he might have accumulated somehow, somewhere—as long as he took her back.

She reached behind her, picked up the telephone and dialed Roderick's number.

"Hello, Roderick," she said cheerfully. "This is Alison. No, don't hang up. Tell me, why do you hate androids?"

There was such a long silence that she knew he was considering everything, including the advisability of hanging up without a word. It could be said of Roderick that he thought things through very carefully before going off half-cocked.

"I don't hate androids," he barked at last.

"You've got something against android girls, then?"

"No!" he shouted. "I'm a psychologist. I think comparatively straight. I'm not fouled up with race hatred and prejudice and megalomania and—"

"Then," said Alison very quietly, "it's just one particular android girl you hate."

Roderick's voice was suddenly quiet, too. "No, Alison. It has nothing to do with that. It's just . . . children."

So that was it. Alison's eyes filled with tears. That was the one thing she could do nothing about, the thing she had refused even to consider.

"You really mean it?" she asked. "That's not just the case you're going to make out?"

"It's the case I'm going to make out," he replied, "and I mean it. Trouble is, Alison, you hit something you couldn't have figured on. Most people want children, but are resigned to the fact that they're not likely to get them. I was one of a family of eight. The youngest. You'd have thought, wouldn't you, that that line was pretty safe?"

"Well, all the others are married. Some have been for a long time. One brother and two sisters have been married twice. That makes a total of seventeen human beings, not counting me. And their net achievement in the way of reproduction is zero.

"It's a question of family continuity, don't you see? I don't think we'd mind if there was *one* child among the lot of us—*one* extension into the future. But there isn't, and there's only this chance left."

Alison dropped as close to misery as she ever did. She understood every word Roderick said and what was behind every word. If she ever had a chance of having children, she wouldn't give it up for one individual or love of one individual, either.

But then, of course, she never had it.

In the silence, Roderick hung up. Alison looked down at her own beautiful body and for once couldn't draw a shadow of complacency or content from looking at it. Instead, it irri-

tated her, for it would never produce a child. What was the use of all the appearance, all the mechanism of sex, without its one real function?

But it never occurred to her to give up, to let the suit go undefended. There must be something she could do, some line she could take. Winning the case was nothing, except that that might be a tiny, unimportant part of winning back Roderick.

## iv

The judge was a little pompous, and it was obvious from the start that under the very considerable power he had under the contract-court system, he meant to run this case in his own way and enjoy it.

He clasped his hands on the bench and looked around the packed courtroom happily. He made his introductory remarks with obvious intense satisfaction that at least fifty reporters were writing down every word.

"This has been called an important case," he said, "and it is. I could tell you why it is important, but that would not be justice. Our starting point must be this." He wagged his head in solemn glee at the jury. "We know nothing."

He liked that. He said it again. "*We know nothing.* We don't know the factors involved. We have never heard of androids. All this and more, we have to be told. We can call on anyone anywhere for evidence. And we must make up our minds *here and now*, on what we are told *here and now*, on the rights and wrongs of this case—and on nothing else."

He had stated his theme and he developed it. He swooped and soared; he shot away out of sight and returned like a swift raven to cast pearls before swine. For, of course, his audience was composed of swine. He didn't say so or drop the smallest hint to that effect, but it wasn't necessary. Only on Roderick and Alison did he cast a fatherly, friendly eye. They had given him his hour of glory. They weren't swine.

But Judge Collier was no fool. Before he had lost the interest he had created, he was back in the courtroom, getting things moving.

"I understand," he said, glancing from Alison to Roderick and then back at Alison, which was understandable, "that you are conducting your own cases. That will be a factor tending toward informality, which is all to the good. First of all, will you look at the jury?"

Everyone in court looked at the jury. The jury looked at each other. In accordance with contract-court procedure, Roderick and Alison faced each other across the room, with the jury behind Alison so that they could see Roderick full-face and Alison in profile, and would know when they were lying.

"Alison Liffcom," said the judge, "have you any objection to any member of the jury?"

Alison studied them. They were people, no more, no less. Careful police surveys produced juries that were as near genuine random groups as could reasonably be found.

"No," she said.

"Roderick Liffcom. Have you any objection—"

"Yes," said Roderick belligerently. "I want to know how many of them are androids."

There was a stir of interest in the court.

So it was really to be a human-android battle.

Judge Collier's expression did not change. "Out of order," he said. "Humans and androids are equal at law, and you cannot object to any juror because he is an android."

"But this case concerns the rights of humans and androids," Roderick protested.

"It concerns nothing of the kind," replied the judge sternly, "and if your plea is along those lines, we may as well forget the whole thing and go home. You cannot divorce your wife because she is an android."

"But she didn't tell me—"

"Nor because she didn't tell you. No android now is obliged, ever, to disclose—"

"I know all that," said Roderick, exasperated. "Must I state the obvious? I never had much to do with the law, but I do know this—the fact that A equals B may cut no ice, while the fact that B equals A may sew the whole case up. Okay, I'll state the obvious. I seek divorce on the grounds that Alison concealed from me until after our marriage her inability to have a child."

It was the obvious plea, but it was still a surprise to some people. There was a murmur of interest. Now things could move. There was something to argue about.

Alison watched Roderick and smiled at the thought that she knew him much better than anyone else in the courtroom did. Calm, he was dangerous, and he was fighting to be calm. And as she looked steadily at him, part of her was won-



dering how she could upset him and put him off stroke, while the other part was praying that he would be able to control himself and show up well.

She was asked to take the stand and she did it absently, still thinking about Roderick. Yes, she contested the divorce. No, she didn't deny that the facts were as stated. On what grounds did she contest the case, then?

She brought her attention back to the matter in hand. "Oh, that's very simple. I can put it in—" she counted on her fingers—"nine words. How do we know I can't have a child?"

Reporters wrote down the word "sensation." It wouldn't have lasted, but Alison knew that. She piled on more fuel.

"I'm not stating my whole case," she said. "All I'm saying at the moment is . . ." She blushed. She felt it on her face and was pleased with herself. She hadn't been sure she could do it. "I don't like to speak of such things, but I suppose I must. When I married Roderick, I was a virgin. How could I possibly know then that I couldn't have a baby?"

v

It took a long time to get things back to normal after that. The judge had to exhaust himself hammering with his gavel and threatening to clear the court. But Alison caught Roderick's eye, and he grinned and shook his head slowly. Roderick was two people, at least. He was the hothead, quick to anger, impulsive, emotional. But he was also, though it was hard to believe sometimes, a psychologist, able to sift and weigh and classify things and decide what they meant.

She knew what he meant as he shook his head at her. She had made a purely artificial point, effective only for the moment. She knew she was an android and that androids didn't have children. The rest was irrelevant.

"We have now established," the judge was saying, breathless from shouting and banging with his gavel, "what the case is about and some of the facts. Alison Liffcom admits that she concealed the fact that she was an android, as she was perfectly entitled to do—" He frowned down at Roderick, who had risen. "Well?"

Roderick, at the moment, was the psychologist. "You mentioned the word 'android,' Judge. Have you forgotten that none of us knows what an android is? You said, I believe: 'We have never heard of androids.'"

Judge Collier clearly preferred the other Roderick, whom

he could squash when he liked. "Precisely," he said without enthusiasm. "Do you propose to tell us?"

"I propose to have you told," said Roderick.

Dr. Geller took the stand. Roderick faced him, looking calm and competent. Most of the audience were women. He knew how to make the most of himself, and he did. Dr. Geller, silver-haired, dignified, was as impassive as a statue.

"Who are you, Doctor?" asked Roderick coolly.

"I am director of the Everton Creche, where the androids for the entire state are made."

"You know quite a bit about androids?"

"I do."

"Just incidentally, in case anyone would like to know, do you mind telling us whether you are human or android?"

"Not at all. I am an android."

"I see. Now perhaps you'll tell us what androids are, when they were first made, and why?"

"Androids are just people. No different from humans except that they're made instead of born. I take it you don't want me to tell you the full details of the process. Basically, one starts with a few living cells—that's always necessary—and gradually forms a complete human body. There is no difference. I must stress that. An android is a man or a woman, not in any sense a robot or automaton."

There was a stir again, and the judge smiled faintly. Roderick's witness looked like something of a burden to Roderick. But Roderick merely nodded. Everything, apparently, was under control.

"About two hundred years ago," the doctor went on, "it was shown beyond reasonable doubt that the human race was headed for extinction fairly soon. The population was halving itself every generation. Even if human life continued, civilization could not be maintained . . ."

It was dull for everybody. Even Dr. Geller didn't seem very interested in what he was saying. This was the part that everyone knew already. But the judge didn't interfere. It was all strictly relevant.

At first the androids had only been an experiment, interesting because they were from the first an astonishingly successful experiment. There was little failure, and a lot of startling success. Once the secret was discovered, one could, by artificial means, manufacture creatures who were men and women to the last decimal point. There was only one tiny flaw. They

couldn't reproduce, either among themselves or with human partners. Everything was normal except that conception never took place.

But as the human population dropped, and as the public services slowed, became inefficient, or closed down, it was natural that the bright idea should occur to someone: Why shouldn't the androids do it?

So androids were made and trained as public servants. At first they were lower than the beasts. But that, to do humanity justice, lasted only until it became clear that androids were people. Then androids ascended the social scale to the exalted level of slaves. The curious thing, however, was that there was only one way to make androids, and that was to make them as babies and let them grow up. It wasn't possible to make only stupid, imperfect, adult androids. They turned out like humans, good, bad and indifferent.

And then came the transformation. Human births took an upsurge. It was renaissance. There was even unemployment for a while again. It would have been inhuman, of course, to kill off the androids, but on the other hand, if anyone was going to starve, they might as well.

They did.

No more androids were made. Human births subsided. Androids were manufactured again. Human births rose.

It became obvious at last. The human race had not so much been extinguishing itself with birth control as actually failing to reproduce. Most people, men and women, were barren these days. But a certain proportion of this barrenness was psychological. The androids were a challenge. They stimulated a stubborn strain deep in humans.

So a balance was reached. Androids were made for two reasons only—to have that challenging effect that kept the human race holding its ground, almost replacing its losses, and to do all the dirty work of keeping a juggernaut of an economic system functioning smoothly for a decimated population.

Even in the early days, the androids had champions. Curiously enough, it wasn't a matter of the androids fighting for and winning equality, but of humans fighting among each other and gradually giving the androids equality.

The humans who fought most were those who couldn't have children. All these people could do if they were to have a family was adopt baby androids. Naturally they lavished on them all the affection and care that their own children

would have had. They came to look on them as their own children. They therefore were very strongly in favor of any move to remove restrictions on androids. One's own son or daughter shouldn't be treated as an inferior being.

That was some of the story, as Dr. Geller sketched it. The court was restive, the judge looked at the ceiling, the jury looked at Alison. Only Roderick was politely attentive to Dr. Geller.

## vi

Everyone knew at once when the lull was over. If anyone missed Roderick's question, no one missed the doctor's answer: "—reasonably established that androids cannot reproduce. At first there was actually some fear that they might. It was thought that the offspring of android and human would be some kind of monster. But reproduction did not occur."

"Just one more point, Doctor," said Roderick easily. "There is, I understand, some method of identification—some means of telling human from android, and vice versa?"

"There are two," replied the doctor. Some of the people in court looked up, interested. Others made their indifference obvious to show that they knew what was coming. "The first is the fingerprint system. It is just as applicable to androids as to humans, and every android at every creche is fingerprinted. If for any reason it becomes necessary to identify a person who may or may not be android, prints are taken. Once these have been sent to every main android center in the world—a process which takes only two weeks—the person is either positively identified as android or by elimination is known to be human."

"There is no possibility of error?"

"There is always the possibility of error. The system is perfect, but to err is human—and, if I may be permitted the pleasantry, android as well."

"Quite," said Roderick. "But may we take it that the possibility of error in this case is small?"

"You may. As for the other method of identification: this is a relic of the early days of android manufacture and many of us feel—but that is not germane."

For the first time, however, he looked somewhat uncomfortable as he went on: "Androids, of course, are not born. There is no umbilical cord. The navel is small, even and symmetrical, and faintly but quite clearly marked inside it

are the words—in this country, at any rate—‘Made in U.S.A.’”

A wave of sniggers ran round the court. The doctor flushed faintly. There were jokes about the little stamp that all androids carried. Once there had been political cartoons with the label as the motif. The point of one allegedly funny story came when it was discovered that a legend which was expected to be ‘Made in U.S.A.’ turned out to be ‘Fabriqué en France’ instead.

It had always been something humans could jibe about, the stamp that every android would carry on his body to his grave. Twenty years ago, all persecution of androids was over, supposedly, and androids were free and accepted and had all but the same rights as humans. Yet twenty years ago, women’s evening dress invariably revealed the navel, whatever else was chastely concealed. Human girls flaunted the fact that they were human. Android girls either meekly showed the proof or, by hiding it, admitted they were android.

“There is under review,” said the doctor, “a proposal to discontinue what some people feel must always be a badge of subservience—”

“That is *sub judice*,” interrupted the judge, “and no part of the matter in question. We are concerned with things as they are.” He looked inquiringly at Roderick. “Have you finished with the witness?”

“Not only the witness,” said Roderick, “but my case.” He looked so pleased with himself that Alison, who was difficult to anger, wanted to hit him. “You have heard Dr. Geller’s evidence. I demand that Alison submit herself to the two tests he mentioned. When it is established that she is an android, it will also be established that she cannot have a child. And that she therefore, by concealing her android status from me, also concealed the fact that she could not have a child.”

The judge nodded somewhat reluctantly. He looked over his glasses at Alison without much hope. It would be a pity if such a promising case were allowed to fizzle out so soon and so trivially. But he personally could see nothing significant that Alison could offer in rebuttal.

“Your witness,” said Roderick, with a gesture that called for a kick in the teeth, or so Alison thought.

“Thank you,” she said sweetly. She rose from her seat and crossed the floor. She wore a plain gray suit with a vivid yellow blouse, only a little of it visible, supplying the

necessary touch of color. She had never looked better in her life and she knew it.

Roderick looked as though he were losing the iron control which he had held for so long against all her expectations, and she did what she could to help by wriggling her skirt straight in the way he had always found so attractive.

"Stop that!" he hissed at her. "This is serious."

She merely showed him twenty-eight of her perfect teeth, and then turned to Dr. Geller.

## vii

"I was most interested in a phrase you used, Doctor," said Alison. "You said it was 'reasonably established' that androids could not reproduce. Now I take it I have the facts correct. You are director of the Everton Creche?"

"Yes."

"And your professional experience is therefore confined to androids up to the age of ten?"

"Yes."

"Is it usual for even humans," asked Alison, "to reproduce before the age of ten?"

There was stunned silence, then a laugh, then applause. "This is not a radio show," shouted the judge. "Proceed, if you please, Mrs. Liffcom."

Alison did. Dr. Geller was the right man to come to for all matters relating to *young* androids, she said apologetically, but for matters relating to adult androids (no offense to Dr. Geller intended, of course), she proposed to call Dr. Smith.

Roderick interrupted. He was perfectly prepared to hear Alison's case, but hadn't they better conclude his first? Was Alison prepared to submit herself to the two tests mentioned?

"It's unnecessary," said Alison. "I am an android. I am not denying it."

"Nevertheless—" said Roderick.

"I don't quite understand, Mr. Liffcom," the judge put in. "If there were any doubt, yes. But Mrs. Liffcom is not claiming that she is not an android."

"I want to *know*."

"Do you think there is any doubt?"

"I only wish there were."

It was "sensation" again.

"And yet it's all perfectly natural, when you consider it," said Roderick, when he could be heard. "I want a divorce

because Alison is an android and can't have a child. If she's been mistaken, or has been playing some game, or whatever it might be, I don't want a divorce. I want Alison, the girl I married. Surely that's easy enough to understand?"

"All right," said Alison emotionlessly. "It'll take some time to check my fingerprints, but the other test can be made now. What do I do, Judge, peel here in front of everybody?"

"Great Scott, no!"

Five minutes later, in the jury room, the judge, the jury and Roderick examined the proof. Alison surrendered none of her dignity or self-possession while showing it to them.

There was no doubt. The mark of the android was perfectly clear.

Roderick was last to look. When he had examined the brand, his eyes met Alison's, and she had to fight back the tears. For he wasn't satisfied or angry, only sorry.

Back in court, Roderick said he waived the fingerprint test. And Alison called Dr. Smith. He was older than Dr. Geller, but bright-eyed and alert. There was something about him—people leaned forward as he took the stand, knowing somehow that what he had to say was going to be worth hearing.

"Following the precedent of my learned friend," said Alison, "may I ask you if you are human or android, Dr. Smith?"

"You may. I am human. However, most of my patients have been android."

"Why is that?"

"Because I realized long ago that androids represented the future. Humans are losing the fight. That being so, I wanted to find out what the differences between humans and androids were, or if there were any at all. If there were none, so much the better—the human race wasn't going to die out, after all."

"But of course," said Alison casually, yet somehow everyone hung on her words, "there was one essential difference. Humanity was becoming sterile, but androids couldn't reproduce."

"There was no difference," said Dr. Smith.

Sometimes an unexpected statement produces silence, sometimes bedlam. Dr. Smith got both in turn. There was the stillness of shock as he elaborated and put his meaning beyond doubt.

*"Androids can have and have had children."*

Then the rest was drowned in a wave of gasps, whispers

and exclamations that swelled in a few seconds to a roar. The judge hammered and shouted in vain.

There was anger in the shouts. There was excitement, anxiety, incredulity, fear. Either the doctor was lying or he wasn't. If he was lying, he would suffer for it. People tricked by such a hoax are angry, vengeful, people.

If he wasn't lying, everyone must re-evaluate his whole view of life. Everyone—human and android. The old religious questions would come up again. The question would be decided of whether Man, himself becoming extinct, had actually conquered life, instead of merely reaching a compromise with it. It would cease to matter whether any person was born or made.

There would be no more androids, only human beings. And Man would be master of creation.

viii

The court sat again after a brief adjournment. The judge peered at Alison and at Dr. Smith, who was again on the stand.

"Mrs. Liffcom," he said, "would you care to take up your examination at the same point?"

"Certainly," said Alison. She addressed herself to Dr. Smith. "You say that androids can have children?"

This time there was silence except for the doctor's quiet voice. "Yes. There is, as may well be imagined, conflicting evidence on this. The evidence I propose to bring forward has frequently been discredited. The reaction when I first made this statement shows why. It is an important question on which everyone must have reached some conclusion. Possibly one merely believes what one is told."

As he went on, Alison cast a glance at Roderick. At first he was indifferent. He didn't believe it. Then he showed mild interest in what the doctor was saying. Eventually he became so excited that he could hardly sit still.

And Alison began to hope again.

"There is a psychologist in court," remarked the doctor mildly, "who may soon be asking me questions. I am not a psychologist any more than any other general practitioner, but before I mention particular cases, I must make this point. Every android grows up knowing he or she cannot have children. That is accepted in our civilization.

"I don't think it should be accepted. I'll tell you why."



No one interrupted him. He wasn't spectacular, but he wasted no time.

He mentioned the case of Betty Gordon Holbein, 178 years before. No one had heard of Betty Gordon Holbein. She was human, said the doctor. Prostrate with shock, she testified she had been raped by an android. The android concerned was lynched. In due course, Betty Holbein had a normal child.

"The records are available to everyone," said the doctor. "There was a lot of interest and indignation when the girl was raped, very little when she had her child. The suggestion that she had conceived after the incident was denied, without much publicity, or belief, for even then it was *known* that androids were barren."

Roderick was on his feet. He looked at the judge, who nodded.

"Look, are you twisting this to make a legal case," he demanded, "or did this girl—"

"You cannot ask the witness if he is perjuring himself," remarked the judge reprovingly.

"I don't give a damn about perjury!" Roderick exclaimed. "I just want to know if this is true!"

It was all very irregular; but Alison knew he might explode any moment and swear at the doctor and the judge. She didn't want that. So her eyes met his and she said levelly: "It's true, Roderick."

Roderick sat down.

"Now to get a true picture," the doctor continued, "we must remember that millions of androids were being tested, and mating among themselves, and even having irregular liaisons with humans—and no conception took place. Or did it?"

A little over a century ago, an android girl had been found in a wood, alive, but only just. Around her there were marks of many feet. She had been mutilated. Though she lived, she was never quite sane after that.

But she also had a child.

Roderick rose again, frowning. "I don't understand," he said. "If this is true, why is it not known?"

The judge was going to intervene, but Roderick went on quickly, "The doctor and I are professional men. I can ask him for a professional opinion, surely? Well, Doctor?"

"Because it has always been possible to disbelieve what one has decided to disbelieve. In this case, that nameless woman was mutilated so that the navel mark would be re-

moved. There was a record of her fingerprints as those of an android. But it was authoritatively stated that there must have been a mistake and that, by having a child, the woman had thus been proved to be human."

A century and a half ago, Winnie—androids had begun to have at least a first name by this time—had a child and it was again decided that this girl, who had been a laundry maid, must have been mixed up with an android while a baby and was in fact human.

A little dead baby was found buried in a garden and an android couple was actually in court over the matter. But since they were androids, it could obviously not be their child, and they were discharged.

Roderick jumped up again. "If you knew this," he asked Dr. Smith, "why keep it secret until now?"

"Five years ago," said the doctor, "I wrote an article on the subject. I sent it to all the medical journals. Eventually one of the smaller publications printed it. I had half a dozen letters from people who were interested. Then nothing more.

"One must admit," he added, "that not one of the cases I have mentioned—as reported at the time—would be accepted as positive scientific proof that androids can reproduce. The facts were recorded for posterity by people who didn't believe them. But . . ."

"But," said Alison, a few minutes later, when the doctor had finished giving his evidence, "in view of this, it can hardly be stated that I *know* I cannot have a child. It may be unlikely; shall I call more medical evidence to show how unlikely conception is for the average human woman?"

Judge Collier said nothing, so she continued: "The present position, as anyone concerned with childbirth would tell you, is that few marriages produce children, but those that do produce a lot. People who *can* have children go on doing it, these days.

"Now I want to introduce a new point. It is not grounds for divorce among humans if the woman is barren and is not aware of it. It is, on the other hand, if she has had an operation which makes it impossible for her to have children and she conceals the fact."

"I see what you are getting at," said the judge, "and it is most ingenious. Finish it, please."

"Having had no such operation," said Alison, "and being

able to prove it, I understand that I can't be held, legally, to have known that I could never have children."

"To save reference to case histories," said the judge contentedly, "I can say here and now that the lady is right. It is for the jury to decide on the merits of the case, but Mrs. Liffcom may be said to have established—"

"I demand an adjournment," said Roderick.

There was a low murmur that gradually died out. Roderick and Alison were both on their feet, staring at each other across ten yards of space. The intensity of their feeling could be felt by everyone in the courtroom.

"Court adjourned until tomorrow," said the judge hastily.

ix

Almost every newspaper which mentioned the Liffcom case committed contempt of court. Perhaps the feeling was that no action could be taken against so many. All the newspapers went into the rights and wrongs of the affair as if they were giving evidence, too. Very little of the material was pro- or anti-android. It was, rather, for or against the evidence brought up.

Anyone could see, remarked one newspaper bluntly, that Alison Liffcom was nobody's fool. If a woman like that went to the trouble of defending a suit of any kind, she would dig up something good and play it to the limit. This was no aspersion on the morals or integrity of Mrs. Liffcom, for whom the newspaper had the keenest admiration. All she had to do was cast the faintest doubt on the truism that androids could not reproduce. She had done that.

But that, of course, said the paper decisively, didn't mean that androids *could*.

Another newspaper took it from there. Just as good a case, it remarked, could have been made out for spiritualism, telepathy, possession, the existence of werewolves . . . Dr. Smith, who was undoubtedly sincere, had been misled by a few mistakes. Obviously, when androids were human in all respects save one, *some* humans would be passed off or mistaken for androids and vice versa. Equally obviously, the mistake would only be discovered if and when conception occurred, as in the cases quoted by Dr. Smith.

A third paper even offered Alison a point to make in court if she liked. True enough, Dr. Smith had shown that such mistakes could occur. It was only necessary for Alison then to

quote these cases and stress the possibility that the same thing might have happened to her. If the proof of android origin was not proof, the case would collapse.

Other papers, however, took the view that there might be something in the possibility that androids could reproduce. Why not? asked one. Androids weren't bloodless, inferior beings. One could keep things warm by holding them against the human body—or by building a fire. In the same way, children could be nurtured in a human body or in culture tanks. The results were identical. They must be identical if one could take them forty years later, give them rigorous tests, and tell one from the other only because the android was stamped "Made in U.S.A." and because his fingerprints were on file.

People had believed androids could not have children because they had been told androids never had. Now they were told androids *had* reproduced. Where was the difficulty? You believed you had finished your cigarettes until you took out the pack and saw there was one left. What did you do then—say you had finished them, therefore that what looked like a cigarette wasn't, and throw it away?

And almost all the newspapers, whatever their general view, asked the real, fundamental question as well.

That artificially made humans could conceive was credible, in theory. That they could not was also credible, in theory.

But why one in a million, one in five million, one in ten million? Even present-day humans could average one fertile marriage in six.

## X

"If you have no objections," said Roderick—politely—determined to be on his best behavior, thought Alison—"let's turn this into a court of inquiry. Let's say, if you like, that Alison has successfully defended the case on the grounds that she can't legally be said to have known she couldn't have a child. Forget the divorce. That's not the point."

"I thought it was," the judge objected, dazed.

"Anyone can see that what matters now," said Roderick impatiently, "is what Dr. Smith brought up. Let's get down to the question of whether there's any prospect of Alison having a baby."

"A courtroom is hardly the place to settle that," murmured Alison. But she felt the first warm breath of a glow of hap-

piness she had thought she would never be able to experience again.

"Women always go from the general to the particular," Roderick retorted. "I don't mean the question of whether you *will* have children. I mean the question of whether it's really possible that you might."

The judge rapped decisively. "I have been too lenient. I insist on having a certain amount of order in my own court. Roderick Liffcom, do you withdraw your suit?"

"What does it matter? Anyway, if you must follow that line, we'd have to have a few straight questions and answers like whether Alison still loves me."

The judge gasped.

"Do you?" demanded Roderick, glaring at Alison.

Alison felt as if her heart was going to explode. "If you want a straight answer," she said, "yes."

"Good," said Roderick with satisfaction. "Now we can go on from there."

He turned to glower at Judge Collier, who was trying to interrupt.

"Look here," Roderick demanded, "are you interested in getting at the truth?"

"Certainly, but—"

"So am I. Be quiet, then. I meant to keep my temper with you, but you're constantly getting in my hair. Alison, would you mind taking the stand?"

There was no doubt that Roderick had personality.

With Alison on the stand, he turned to the jury. "I'll tell you what I have in mind," he told them in friendly fashion. "We all wonder why, if this thing's possible, it's happened so seldom. Unfortunately, to date there hasn't been any real admission that it is possible, so I didn't know. I never had a chance to work on it. Now I have. What I want to know is, if androids can have children, what prevents them from doing so."

He reached out absently, without looking around, and squeezed Alison's shoulder. "We've got Alison here," Roderick went on. "Let's find out if we can, shall we, what would stop her from having children?"

Alison was glad she was sitting down. Her knees felt so weak that she knew they wouldn't support her. Did she have Roderick back or didn't she? Could she really have a baby? Roderick's baby? The court swam dizzily in front of her eyes.

Only gradually did she become aware of Roderick's voice

asking anxiously if she was all right, Roderick bending over her, Roderick's arm behind her back, supporting her.

"Yes," she said faintly. "I'm sorry. Roderick, I'll help you all I can, but do you think there's really very much chance?"

"I'm a psychologist," he reminded her quietly, "and since you've never seen me at work, there's no harm in telling you I'm pretty good. Maybe we won't work this out here in half an hour, but we'll get through it in the next sixty years."

Alison didn't forget where she was, but everything was so crazy that a little more wouldn't hurt. She reached up and drew his lips down to hers.

xi

"What I'm looking for must be in the life of every android, male and female," said Roderick. "I don't expect to find it right away. Just tell us, Alison, about any times when you were aware of distinction—when you were made aware that you were an android, not a human. Start as early as you like.

"And," he added with a sudden, unexpected grin, "please address your remarks to the judge. Let's keep this as impersonal as we can."

Alison composed her mind for the job. She didn't really want to look back. She wanted to look into the new, marvelous future. But she forced herself to begin.

"I grew up in the New York Android Creche," she said. "There was no distinction there. Some of the children thought there was. Sometimes I heard older children talking about how much better off they would be if they were humans. But twice when there was overcrowding in the creche and plenty of room at the orphanage for human children, I was moved to the orphanage. And there was absolutely no difference.

"In a creche, it's far more important to be able to sell yourself than it ever can be later. If you're attractive or appealing enough, someone looking for a child to adopt will notice you and you'll have a home and security and affection. I wasn't attractive or appealing. I stayed in the creche until I was nine. I saw so many couples looking for children, always taking away some child but never me, that I was sure I would stay there until I was too old to be adopted and then have to earn my living, always on my own.

"Then, one day, one of the sisters at the creche found me crying—I forget what I was crying about—and told me there was no need for me to cry about anything because I had

brains and I was going to be a beauty, and what more could any girl want? I looked in the mirror, but I still seemed the same as ever. She must have known what she was talking about, though, for just a week later, a couple came and looked around the creche and picked me."

Alison took a deep breath, and there was no acting about the tears in her eyes.

"Nobody who's never experienced it can appreciate what it is to have a home for the first time at the age of nine," she said. "To say I'd have died for my new parents doesn't tell half of it. Maybe this is something that misled Roderick. He knew that twice a month, at least, I go and see my folks. He must have thought they were my real parents, so he didn't ask if I was android."

She looked at Roderick for the first time since she started the story. He nodded.

"Go on, Alison," he said quietly. "You're doing fine."

"This isn't a hard world for androids," Alison insisted. "It's only very occasionally . . ."

She stopped, and Roderick had to prompt her. "Only very occasionally that what?"

But Alison wasn't with him. She was eleven years back in the past.

xii

Alison had known all about that awkward period when she would cease to be a child and become a woman. But she had never quite realized how rapid it would be, and how it would seem even more rapid, so that it was over before she was ready for it to start.

She wasn't sleeping well, but she was so healthy and had such reserves of strength that it didn't show, and for once her adopted parents failed her. Though Alison would never admit that, it would have been so much easier if Susan had talked with her, and Roger, without saying a word, had indicated in his manner that he knew what was going on.

One day she was out walking, trying to tire herself for sleep later, and ran into a group of youths of her own age in the woods. She knew one of them slightly, Bob Thomson, and she knew that their apparent leader, as tall as a man at fifteen, was Harry Hewitt. She didn't know whether any of them were androids or not—the question had never occurred to her. And it didn't seem of any immediate interest or im-

portance that she was an android, either, as she passed through them and some of them whistled, and involuntarily, completely aware of their eyes on her, she reddened.

She saw Bob Thomson whisper to Harry Hewitt and Hewitt burst out: "Android, eh? *Android!* That's fine!" He stepped in front of her and barred her path. "What a pretty android," he said loudly, playing to his gallery. "I've seen you before, but I thought you were just a girl. Take off your blouse, android."

There was a startled movement in the group, and someone nudged Hewitt.

"It's all right," he said. "She's an android. No real parents, only people who have taken her in to pretend they can have kids."

Alison looked from side to side like a cornered animal.

"Humans can do anything they like with androids," Hewitt told his more timorous companions. "Don't you know that?" He turned back to Alison. "But we must be sure she is an android. Hold her, Butch."

Alison was grasped firmly by the hips, which had so recently stopped being boyish and swelled alarmingly. She kicked and struggled, her heart threatening to burst, but Butch, whoever he was, was strong. Two other boys held her arms. Carefully, to a chorus of nervous, excited sniggers, Hewitt parted her blouse and skirt a narrow slit and peered at her navel.

"Made in U.S.A.," he said with satisfaction. "It's all right, then."

In contrast to his previous cautious, decorous manner, he tore the blouse out of her waistband and ripped it off. Alison's knees sagged as someone behind her began to fumble with her brassiere.

"No, no!" Hewitt exclaimed in mock horror. "Mustn't do that until she says you can. Even androids have rights. Or at least, if they haven't, we should be polite and pretend they have. Android, say we can do whatever we like with you."

"No!" cried Alison.

"That's too bad. Shift your grip a bit, Butch."

The rough hands went up around her ribs, rasping her soft skin.

Alison struggled and twisted wildly.

"Keep still," said Hewitt. He spoke very quietly, but there was savage joy in his face. Slowly and carefully, he loosened Alison's belt and eased her skirt and the white trunks under



it down to the pit of her stomach. Then he took out a heavy clasp knife, opened it and set the point neatly in the center of her belly. Alison drew in her stomach; the knife point followed, indenting the flesh.

"Say we can do whatever we like with you, android."

The knife pricked deeper. A tiny drop of crimson came from under it and ran slowly down to Alison's skirt. Her nerve broke.

"You can do whatever you like with me!" she screamed.

Her brassiere came loose and fluttered to the ground. Hewitt's knife cut her belt and her skirt began to slip over her hips. Butch's hands went down to her waist again, biting into it cruelly. From behind, a hand tentatively touched her breast and another clutched her shoulder. One at a time, her feet were raised and the shoes taken off them and thrown in the bushes.

But someone else had heard Alison's scream. Long after she had thought no one would come, someone did.

"Hell," said Hewitt as one of his companions shouted and pointed, "something always spoils everything. Beat it, boys."

They were gone. Alison clutched her skirt and looked behind her thankfully. A man and a woman were only a few yards from her. The woman was young and heavy with child. Humans, both of them. She opened her mouth to thank them, to explain, to weep.

But they were looking at her as if she were a crushed beetle of some kind.

"Android, of course," said the man disgustedly. "Dirty little beast."

"Hardly more than child," the woman said, "and already at this."

"I think I'll give her a good hiding," the man went on. "Won't do any good, I suppose, but . . ."

Alison burst into tears and darted among the bushes. She didn't wait to see whether the man started after her. Branches and thorns tore her skin. Her skirt dropped and tripped her. She flew headlong, flinched away from a thorny bush, slammed hard into a tree-trunk, and waited on the ground, sick and breathless, for the man to beat her.

Her legs and arms and shoulders were covered with long scratches and a wiry branch had lashed her ribs like a whip, leaving a long weal. But that didn't matter. A twisted root was digging into her side—that, too, didn't matter. Nothing

mattered. Why had no one told her she was an inferior being? Somehow she had known; she had always known. But no one had ever *shown* her before.

She realized afterward why the man and the woman, who must have seen or guessed what had really happened, had spoken as they did. They had, or were going to have, children. They hated all androids. Androids were unnecessary, their enemies, and the enemies of their children.

But at the time she merely waited helpless, incapable of thought. The man would come and beat her, Susan and Roger would turn her away, and she would never know happiness again.

## xiii

"My parents never knew about that," said Alison. "I hid in the bushes until it was dark, and then went straight home. I climbed into my bedroom from the outhouse and pretended later I'd been there for hours."

"Why didn't you tell anyone?" Roderick asked.

Alison shrugged. "It was a small incident that concerned me alone. I knew, once I'd had time to think, that my adopted parents would be upset and angry, but not at me. I thought I'd better keep it to myself. I wasn't hurt and none of it matters when you look back on it, does it?"

"How about the man who was going to give you a good hiding?"

"I never saw him again. It was two years later when I got my first punishment."

"Just a minute," said Roderick. "You said that even then you knew you were an inferior being—you had always known, but this was the first time anyone showed you. How had you known? Who or what had told you? When? Where?"

Alison tried. They could see her try. But she had to say: "I don't know."

"All right," said Roderick, as if it weren't important. "What was this that happened two years later?"

"Perhaps I am giving too much significance to these incidents," Alison remarked apologetically. "Certainly they happened. But when I say 'two years passed,' perhaps I'm not making it clear that in those two years hardly anything happened, hardly anything was said or done, to remind me I was an android and not a human being."

"When I was about sixteen or seventeen, I suddenly developed a talent for tennis. I had played since I was quite young, but just as front-rank players run in and out of form, I improved quite unexpectedly. I joined a new club. I was picked for an important match. I was in singles, mixed and women's doubles. I did well, but that's not the point.

"After the match, my doubles partner told me I was wanted in the locker room. There was something strange about the way she told me, but I couldn't place it. I wondered if I'd broken some rule, failed to check with someone, played in the wrong match, or forgotten to bow three times to the east—you know what these clubs are like."

"No, we don't," said Judge Collier. "We know nothing, remember? Tell us."

Unexpectedly, he got an approving nod from the unpredictable Roderick.

#### xiv

Alison smiled uncertainly as she followed Veronica. She wasn't nervous or sensitive as a rule; she seldom felt apprehension. She was curious, naturally, and even wilder possibilities suggested themselves. Had she been mistaken for someone else? Had someone stolen something and they thought she'd done it? Had someone inspected her racket and found it was an inch too wide?

The whole team was waiting in the locker room. It looked serious, especially when she saw their expressions. It still didn't occur to her that the fact that she was an android could have anything to do with it. Only once in her life had there been any real indication that in some way androids were inferior beings.

But that was what it was. Bob Walton, the captain of the team, said gravely that their opponents, well beaten, had accused them of recruiting star androids to help them.

Alison laughed. "That's a new one. I've heard some peculiar excuses. Made them myself, too—the light was bad, the umpire was crazy, I had a stone in my shoe, people were moving about, the net was too high. But never 'You fielded androids against us.' Androids are just ordinary people—good and bad tennis players. The open singles champion is an android, but the number one woman is human. You know that as well as I do. Might as well complain because you're

beaten by tall people, or short people, or people with long arms."

Everyone had relaxed.

"Sorry, Alison," said Walton. "It's just that none of us knew you *weren't* an android."

Alison frowned. "What's all this? I'm an android, sure. I didn't say so only because nobody asked me."

"We took it for granted," said Walton stiffly, "that you would know . . . as, of course, you did. There are no androids competing in the Athenian League. We try to keep one group, at least, clean."

He looked at the other two men in the team and inclined his head. Without a word they left the room, all three of them.

Alison, left with the other three girls, one of whom she had kept out of the team, looked exasperated.

"This is nonsense," she said. "If you like to run an all-human league, that's all right as far as I'm concerned, but you should put up notices to avoid misunderstanding. I didn't know you were—"

"Whether you knew or not is beside the point," said Veronica coldly—the same Veronica who had laughed and talked and won a match with Alison only a few minutes before. "We're going to make sure you never forget."

They closed in on her. It was to be a fight, apparently. Alison didn't mind. She jabbed Veronica in the ribs and sent her gasping across the room. She expected them to tear her clothes, thinking it would be conventional in dealing with android girls. But it was quite different from the scene in the bushes. This was clean and sporting. The men had left, very properly, and instead of half a dozen youths with a knife against a terrified child, it was only three girls to one.

Alison fought hard, but fair. She guessed that, if she didn't fight clean, it would be ammunition for the android-haters. To do them justice, the other girls were clean, too. They didn't mind hurting her, but they didn't go for her face, use their nails or yank her hair.

Alison gave a good account of herself, but other things being equal, three will always overcome one. She was turned on her face on the floor. One of the girls sat on her legs and one on her shoulders while the third beat the seat of her shorts with a firmly swung racket.

It was no joke. Alison wouldn't have made a sound if it had been far worse, but when they let her go, she was feeling sorry for herself. They left her alone in the room.

She picked herself up and dusted herself off. The floor was clean and the mirror in one corner showed that she looked all right. In fact, she looked considerably better than the three girls who had beaten her.

Still angry, she was able to grin philosophically at the thought that she could beat them all in a beauty contest and at tennis. She could tell herself, if she liked, that they were jealous of her. It was probably at least partly true.

Her feelings were hurt, but there was no other damage. She could even see their point of view.

## xv

"What *was* their point of view?" asked Roderick.

"Well, they were human and they were snobs. They'd even have admitted they were snobs, if you put the question the right way. It was a private club—"

"And it was quite reasonable," suggested Roderick softly, "that they should exclude androids, who are inferior beings."

"No, not quite that," Alison protested, laughing. "I don't really believe . . ."

She stopped.

"Just sometimes?" Roderick persisted. "Or just one part of you, while the other knows quite well an android is as good as a human?"

Alison shivered suddenly. "You know, I have a curious feeling, as if I were being trapped into something."

"That's how people always feel," said Roderick, "just before they decide they needn't be terrified any more of spiders or whatever it was they feared."

The court was very quiet. There was something about Roderick's professional competence and Alison's determination to cooperate that made any kind of interruption out of the question.

"There's very little more I can say about this," said Alison. "I took a job, not because I had to, but because I wanted to. It was with an advertising agency. They knew I was an android. They paid me exactly what they paid anyone else. When I did well, they gave me a raise."

"But then I noticed something—I never got any credit for anything. When I had an idea, somehow it was always possible to give the credit to someone else. Soon there was a very curious situation. I held a very junior position, I had little or no standing, but I did responsible work and I was paid well for it.

"I went to another agency and it was quite different. Again, they knew I was an android, but no one seemed remotely interested. When I did well, I was promoted. When I did badly on any job, my chief swore at me and called me a fool and an incompetent and an empty-headed glamor girl and a lot of things I'd rather not repeat here.

"But it never seemed to occur to him to call me a dirty android. I don't think he was an android himself, either.

"I joined a dramatic society, but again I chose the wrong club. They didn't mind at all that I was an android. They didn't keep me in small parts. But it was perfectly natural that the three human girls in the cast shouldn't want to use the same dressing room as another android girl in the show and I did. When we were at small places, she and I had to change in the wings.

"There were scores of other little incidents of the same kind. They multiplied as I grew older—not because differentiation was getting worse, but because I was moving in higher society. In places where it's held against you that you didn't go to Harvard or Yale, naturally it's a disadvantage if you're an android, besides.

"Then a law was passed and it was no longer necessary to admit being an android. I don't know what the Athenian Tennis League did about that. I'd come to Everton then and hardly anyone knew I was an android. And the plain fact, despite everything I've said, is that hardly anyone cared. There are so many androids, so many humans. You may find yourself the only android in a group—or the only human.

"Then I met Roderick."

"There," said Roderick, "I think we can stop." He turned to the judge. "I'm withdrawing my suit, of course. I think I made that clear quite a while ago."

He gave Alison his arm. "Come on, sweetheart, let's go."

The roar burst out again. It must have been both one of the noisiest and one of the quietest trials on record. The

judge, dignity forgotten, was standing up, hopping from one foot to the other in impatience and vexation.

"You can't go like that!" he shrieked. "We haven't finished . . . we don't know . . ."

"I've gone as far as I can here," said Roderick. He hesitated as the roar grew. "All right," he went on, raising his voice. "But you don't explain people to themselves. Any little quirks that make them do funny things, or not do normal things, you get them gradually to explain to you, and to themselves."

He searched in his pockets and pulled out a key ring. "Go and wait in the car, honey," he said, and told Alison where it was. She went, dazed.

"I'll have to keep the papers from her for a day or two," Roderick went on, almost to himself. "After that, it won't matter." He turned his attention to the court. "All right, then, listen. If I'm right, I've found something that's been under everyone's nose for two hundred years and has never been seen before. I don't say I found it in five minutes. I've been working it out for the last twenty-four hours, with the help of quite a few records of android patients.

"Will you listen?" he yelled as the excited chatter increased. "I don't want to tell you this. I want to go home with Alison. You've seen her. Wouldn't you want to?"

The court gradually settled.

"Let's consider human sterility for a moment," said Roderick. "As you might imagine, some of it's medical and some psychological. As a psychologist, I've cured people of so-called barrenness—and when I did, of course, it wasn't sterility at all, but a *nuerosis*. These people didn't and don't have children because, owing to some unconscious conclusion they've reached, they don't want them, feel they shouldn't have them, or are certain they can't have them.

"But that's only some. Others come to me and, in consultation with a specialist in that line, I find there's nothing psychological about it whatever.

"I have an idea, now, that *all* androids are psychologically sterile. Sterility has eaten into the cycle of human reproduction but how should it touch the androids? If one android can reproduce, they all can. Unless they, like these humans I've cured, have reached unconscious conclusions to the effect that androids can't or shouldn't or mustn't have children.

"And we know they nearly all have."

His voice suddenly dropped, and when Roderick spoke quietly, he was emphasizing points and people listened. There was no murmuring now.

"I think if you were to run a survey and find who now is continuing to deny—passionately, honestly, sincerely—that androids can reproduce, you'd find the most passionate, honest and sincere are androids. If you looked into the past, I think you'd find the same thing. Wasn't it significant that it had to be a *human* doctor who declared publicly that androids weren't sterile?

"Into every android is built the psychological axiom that an android must be inferior to a human to survive. That's the answer. Androids don't come to me to be cured of this because they don't *want* to be cured of it. They know it's essential to them. With the more aware part of their brains, they may know exactly the opposite, but that doesn't count when it comes to things like this.

"And long ago, without knowing it, androids picked on this. Androids could not be a menace if they couldn't reproduce. Androids would be duly inferior if they couldn't reproduce. Androids would be allowed to exist if they couldn't reproduce. Androids could compete with humans in other things if they couldn't reproduce."

He knew he was right as he looked around the court. For once, almost at a glance, it was possible to tell humans from androids. Half the people in court were interested, bored, amused, indifferent, thoughtful—the humans. The other half were angry, frightened, ashamed, apathetic, resentful, wildly excited, or in tears . . . for Roderick was tearing at the very foundation of their world.

"I have real hopes for Alison," he remarked mildly, "because she brought in Dr. Smith. See what that means? Not one android in a thousand could have done it. She must love me a lot . . . but that's none of your business."

He went the way Alison had gone. No one tried to stop him this time. At the door, he paused.

"When the first acknowledged android children are born," he observed, "it'll mean that regardless of the trials or disasters mankind still has to face, the *human* race won't die out. Because . . . I think we might all chew a little on this point . . . the children of androids can't be android, can they?"



Roderick drove. Alison usually did when they were out in a car together, but there was an unspoken agreement that Roderick would have to take charge of almost everything for a while.

"We both won," she said happily. "At least, we will have when little Roderick arrives."

"Do you believe he will?" asked Roderick, in his professional, neutral tone.

"Not quite. I wonder what you said in the court. I suppose I'm not to try to find out?"

"Find out if you like. But do it from yourself. From what's in you. I'll help."

"I think," Alison mused, "it must be something to do with Dr. Smith."

"Oh? Why?"

"Because I had the most peculiar feeling when I remembered hearing about him and the idea that androids could have children. Like when Hewitt had his knife in my stomach, only as if . . ."

She laughed nervously, uncomfortably. "As if I were holding it myself, and had to cut something out, but couldn't do it without killing myself. Yet I had a sort of idea I could cut it out, if I tried hard enough and long enough, and *not* kill myself."

Roderick turned the corner into their street. "This is a little unprofessional," he said, the exhilaration in his voice ill-concealed, "but I don't think it'll do any harm with you, Alison. There is going to be a little Roderick. I didn't decide it. *You* decided it. And it won't kill you. And—God, look at that!"

Cameras clicked like grasshoppers as Roderick Liffcom carried his bride across the threshold. The photographers hadn't had to follow them, for they knew where the Liffcoms were going. Scores of plates were exposed. The Liffcoms were news. The name of Liffcom was known to almost everyone.

Roderick was big and strong enough to treat his wife's 115 pounds with contempt, but there was no contempt in the way he held her. He carried her as if she were made of crystal which the faintest jar would shatter. One could see at a glance that he could have carried any girl he liked over the threshold.

Alison nestled in his arms like a kitten, eyes half-closed

with rapture, arms about Roderick's neck. One could see at a glance she could have been carried over the threshold by any man she liked.

As they went in, it was the beginning of a story. But let's be different and call it the end.



# Technical Advisor

BY CHAD OLIVER

*Here is a hilariously satirical tale about the mores of that alien planet known as Hollywood. It includes a horrendous picture of the monumental gullibility of movie big shots, who seem likely to fall for any new idea that promises Big Box Office, no matter how farfetched. Of course, the fact that the idea in this story turns out rather unexpectedly only adds a fillip to its already numerous charms.*

*Chad Oliver is one of the newer crop of upcoming writers of talent in the science fiction field; his first item in this category was published late in 1950. When this was written, Mr. Oliver was assiduously engaged in working for his Ph.D. at the University of Southern California, and in writing top-grade science fantasy in the interstices of his time.*

Gilbert Webster, slouched down in a soft chair at the conference table, radiated a distinctly fluid impression that he was on the verge of cascading away into a puddle on the rug. His long, thin face wore a funereal air, as though he were perpetually preoccupied with World Problems. As a matter of strictly objective fact, however, he happened to be thinking about his incipient ulcer.

"You are not a corpse, Webster," stated the patient voice of Daniel Purdy Bell. "Let's sit up and play Man."

Webster flowed into a more orthodox posture and cocked an eyebrow at the producer. "Whom are we impressing today, Purdy? If it's the League again, I left my Eagle Scout badge in the washroom—"

"Don't play dumb, Webster. Just be yourself. Dee Newton is due here any minute." Purdy Bell paused significantly. "Dr. Newton has a Ph.D."

Chad Oliver, TECHNICAL ADVISOR. Copyright 1953 by Fantasy House, Inc. Reprinted by permission of the author, Scott Meredith and Forrest J. Ackerman from *Magazine of Fantasy and Science Fiction*, February 1953.

"Oh, Dr. Newton!" exclaimed Webster in awed tones. "Is he bringing his gravity with him?"

Bell sighed. "Brief him," he told Cecil Kelley, the director.

"Technical advisor on the science fiction deal," Kelley explained shortly. "Physicist. Used to write the stuff. Won't interfere with your script except for the science angle—"

"Never mind, Cecil," Webster interrupted, lifting his hands in surrender. "I was only kidding—you know, a joke. Like in an egg."

Cecil Kelley shot him a look reserved for subspecies.

"It's no joking matter, Gil," said Purdy Bell, his face very tanned under his snow-white hair. "In this business you've got to keep up with the times. Science fiction is big right now, and it's going to get bigger. You can't pass off fool's gold for the genuine article, not today. People know too much. *Valley of the Moon* has got my name on it, and it's going to be Scientifically Accurate right down the line from Atom to Zygote. That's what Newton is for—nice Joe, too; speaks English, got his feet firmly on the ground. . . ."

The buzzer on the table burped apologetically and Bell flipped a switch.

"Dr. Dee Newton, sir," announced a voice like distilled honey.

"Send him in," said Purdy Bell.

Dee Newton didn't look like a scientist. Of course, Gilbert Webster admitted to himself, such a thought raised the question of just what a scientist *did* look like. No doubt they came in all sizes, like Space Cadet hats. Nevertheless, they shouldn't, somehow, look like Dee Newton. Newton was a rotund, cherubic little man, nattily dressed, who seemed to be bubbling with silent laughter that percolated just below the surface. Webster liked him on sight.

"I'm not the man to waste words, Dr. Newton," said Purdy Bell when the introductions had been completed. "I'll run through the broad outline of *Valley* and you see what you think of it. Remember, what we're after is Scientific Accuracy—you don't have to pull any punches for us."

"Fine," beamed Dr. Newton, obviously pleased. "Admirable."

"Here's the set-up: *Valley* is going to be class, in color, with a good, sound story of a misunderstood guy who finds both himself and the girl he loves in the dark reaches of Outer Space." Purdy Bell paused, in deference to Infinity. "Two

ships have already reached the moon, you see, but have not been heard of since they landed. Something happened to them *after* they got there. This film deals with the Third Flight, sent by the U. S. Army to find out what happened to them."

"Martians, of course," chuckled Dee Newton.

"Of course," agreed Purdy Bell. "What else? There's no air on the moon—as I guess you know, Newton—so that rules out any moon people. Accuracy! That's what this business needs more of."

"Agreed," said Dee Newton, lighting up a virulent black cigar.

"Yes," said Purdy Bell. "Now—it all starts off with a bang, to hook the audience right from the beginning. This third job barely clears into Outer Space when she runs smack into trouble with a capital T—a blazing meteor swarm, great in Technicolor. The ship twists and turns, piloted by this guy nobody thinks is any good, and just barely manages to. . . ."

"Whoa," objected Dee Newton, waving his cigar like a fiery sword. "That won't do, I'm afraid."

"Something—ummm—wrong?"

"You might say that, yes. In the first place, Purdy, the chances of running into a meteor swarm in space between here and the moon are almost zero—the ship has a better chance of getting smacked on the noggin than you would have in your own back yard, but not much. And if the meteors *did* happen to be around, they wouldn't be blazing in a vacuum. No friction. In the second place, that's not a World War I Spad you're flying out there—it's a spaceship, jet-controlled. You'd do well to curve it in an arc at all in that short a time, much less do stunts in it."

"Hmmm," observed Purdy Bell. "Well, that's what we want—Accuracy! I tell you—suppose we cut it down to *one* meteor, just sort of glowing, and blast it out of the way. No fancy rays, of course; just some sort of radar-directed artillery—"

"No dice." Dee Newton smiled sadly. "At those speeds you couldn't hit the Empire State Building with a howitzer. Why not just forget the meteors?"

"No can do." Purdy Bell got to his feet and began pacing the room, the eyes of the three men following him like spectators at a tennis match. He jabbed his finger, six-gun fashion, at Newton. "That meteor may be just a chuck of rock to you, but to me it's Visual Appeal. Man versus the Unknown—in terms that the dumbest popcorn chewer in the third balcony

can sink his teeth into, and no pun intended. The meteor stays in."

"You said you wanted accuracy," the physicist shrugged. "I've nothing against space opera, God knows—used to write it myself—but I don't see why it can't be *realistic*."

"Well," said Purdy Bell, "we'll see."

Gilbert Webster smiled sourly. Purdy had *meteor* written all over him in indelible letters a foot high. Webster went back to thinking about his ulcer while Newton and Bell haggled over the costs of technical accuracy on sets, and then jerked back to attentiveness when Newton shot off on a new tangent.

"Look here, Purdy," Dee Newton said, banging his pudgy fist on the polished table. "Don't you realize that space travel is almost in our grasp today? You can't just throw a fake set together on chicken feed and get by with it. These things cost money."

"I am aware of that," Purdy Bell assured him. "But I'm not in the gambling racket; an investment has to show returns. This business of building these fantastic sets over and over again. . . ."

"Wait a minute," Dee Newton breathed, bouncing to his feet and standing there stock-still. "Wait—a—minute. Why do we *have* to go on faking these shots and rebuilding our sets? *Why?*"

"Ummm? I don't quite follow you."

Newton sat down again and leaned forward intently, eyes flashing with excitement. "Look here," he said. "How would you like to clear about 15,000,000 bucks on this picture?"

Purdy Bell smiled tolerantly.

"Look," Newton persisted. "Dammit, can't you see? I said that space travel is almost within our grasp, and it *is*. What it lacks is financing. Now, the government doesn't seem to be pushing it—and what's the other source of bigtime financing?" He paused, then answered his own question: "Hollywood."

Purdy Bell's smile vanished. "You mean—"

"Exactly." Newton was breathing very fast now, his hands shaking. "You give me \$4,000,000 and *we can go to the moon and shoot the picture there*. We can keep it strictly hush-hush; the very first shots of the moon will be in *your* picture!"

"Four million dollars. . . ."

"Million shmillion! Purdy, I thought you were a businessman. Why, man, you'll get the biggest audience in history—an exhibitor's paradise—it can't miss. Don't you understand? *It can't miss!*"

"You mean—film it on location," faltered Purdy Bell.

"On the *moon*," amplified Cecil Kelley.

"Well, I'll be damned," said Gilbert Webster.

One year later, a toy in fairyland, the ship rode a tongue of white flame into space. Ahead of her, waiting, hung the moon.

Gilbert Webster surveyed the interior of the club room with quiet satisfaction. Comfortable modern chairs and couches in a soft pattern of contrasting greens were arranged snugly in the chamber and a neat chromium bar functioned against the far wall. There were no windows. The air was fresh and clean, vaguely pine-scented, and a green light set into a black check panel signified that the automatic pilot had everything under control.

Dee Newton smiled, anticipating his thoughts. "It's real," he said.

Webster shook his head. "I *knew* that space travel was a possibility," he said, downing the last of his scotch and ice. "I believed in it, have for years. But it all went off with such precision, such clockwork! And artificial gravity and everything—more like a luxury liner than a pioneering vessel—"

Dee Newton puffed happily on his cigar. "That's one thing about a spaceship," he pointed out. "Either it works or it doesn't and there just isn't much in between. Why be uncomfortable when you don't have to be? I just used what knowledge I had, cut a corner or two with some notions of my own, and there you are—or more precisely, *here* we are. The ship is a bit unorthodox in some respects, but what's the difference?"

Gilbert Webster looked at the soft green wall that stood between him and nothing. "I've got to hand it to you, Dee." He paused. "*Dee*—I've been meaning to ask you about that name. Where'd it come from?"

The physicist hesitated, chewing on his cigar. "Long story, Gil," he said apologetically. "I'll try to cut it short. The D was originally short for Danton, and I always sort of felt like a fugitive from the French Revolution. Never could keep Danton and Robespierre straight anyhow, and the D just naturally evolved into *Dee*, which same I am stuck with." He smiled engagingly. "One of those things."

Cecil Kelley stuck his head into the club room then, and Webster was surprised to note the flush of enthusiasm on the director's face. Around the studios, it was legendary that Kelley hadn't really been impressed with a picture since



*Gunga Din*, and before that there was a gap that ran all the way back to Charlie Chaplin's *City Lights*.

"Shooting in the control room," he advised them. "Come kibitz."

Dee Newton bounded to his feet, hot on the trail of technical flaws. Gilbert Webster uncoiled himself more slowly, not entirely elated at the prospect of hearing his own dialogue mouthed by Linda Lambeth and the current bobbysox dreamboats. In the best of times, trying to construct a workable script from one of Purdy Bell's "outlines" was not his idea of Paradise.

He followed the two men out of the club room and through a narrow metal corridor. It was hard to believe, in the cozy club room, that you were thousands upon thousands of miles in the middle of nowhere. Here, with the great emptiness whispering from the walls and the vertigo tugging at your stomach, it was different.

You didn't doubt it here.

The control room was buzzing with activity. A sound effects crew had switched on a transcription of a screaming jet, which was intended to represent the noise of an atomic drive, inasmuch as the actual drive devised by Newton was unimpressively subdued. Prop men had already fitted a dummy instrument panel over the real controls, in order to supply the thumping relays, knife switches, rheostats, knobs, buttons, televiewers, spark gaps, and multi-colored flashing lights that were conspicuously lacking in the genuine article.

Webster shook his head. Purdy Bell—who had judiciously elected to cheer them on from the safety of Mother Earth—even had to fake the real thing in the interests of Scientific Accuracy, which was an interesting exercise in semantics. But it was understandable enough, and Purdy *did* know his business, and had a private bank to prove it. It was just that he knew science in the same way that he knew Roman history—he had made a picture about it once. When Webster had ventured to suggest to him that perhaps Nero had not set fire to Rome at all, but had in fact been busily engaged in trying to put it *out*, Purdy had almost had him banished for heresy.

Dee Newton looked daggers at the phony control panel and waved his cigar at Webster. "Why can't they play it straight?" he demanded. "They've got such a wonderful opportunity; this idiocy isn't *needed*."

"The popcorn all tastes the same, you know," said Gilbert Webster. "Sometimes I wonder why I don't just open the airlock door and step outside."

"There's no air out there, darling," protested Linda Lambeth, overhearing the last part of Webster's remark. "You couldn't breathe."

"That's the idea," Webster replied, watching her fluttering eyebrows without interest. Linda was a beautiful woman, by Hollywood standards, but a few years past her prime and beginning to acquire a certain desperate glamour. She had been written into the script on Purdy's orders; she was the lovely female reporter in love with The Guy That Nobody Understood. Webster had had nightmares visualizing a Purdy Bell Special in which Linda bathed in Martian goat's milk, but the great man had spared him that final *coup de grâce*.

Kelley clapped his hands together for order. "Okay," he said. "Let's take that discovery scene and let's get it right. This is a take."

The room cleared as if by magic, and Gilbert Webster found himself seated on the sidelines next to Dee Newton. He relaxed, taking a secret satisfaction in the fact that his body was able to assume positions never intended for the human organism, and settled back to watch. The alchemy of drama never failed to fascinate him, even though the raw product you saw with your eyes was by no means what would later appear on the screen replete with music and special effects. There was silence now, except for the toned-down whistle of the pseudo-atomics. Four men and Linda Lambeth took their places on the set. The men, for some obscure reason no doubt connected with Visual Appeal, had shapeless flour sack garments over the top halves of their uniforms—Purdy presumably remembered *Dawn Patrol* and wanted to protect his actors from flying oil. Linda was in a neat correspondent's uniform, as befitted a young girl reporter going to the moon.

"Okay, now," said Cecil Kelley. "You've just spotted it on the viewscreen. *React!* Don't just stand there. You're up against the Unknown, your lives depending on a guy you have no confidence in. Set? Action . . ."

Shadows blanketed the control room with crisscrosses of anxiety. Frosted stars swam in a deep black viewscreen. Somewhere, a high-toned radar *beep* whistled insistently at electronic intervals that were drawing inexorably closer together. A lieutenant, his face haggard, sank down next to the pilot.

"It's no use," he said flatly. "The computer doesn't *make* mistakes."

Linda registered Fear.

"That does it," said the gray-haired colonel, crumpling a chart into a wad in his fist. He shot a despairing look at the pilot. "To come all this way and then to . . ."

"If only we could *do* something," breathed Linda Lambeth. "I don't understand—why must we just sit here and take it? *Why do we have to die?*"

"Extended parabola of the space-time coordinates," the old colonel explained rapidly. "There's only one man who could get us out of this alive." He looked at the pilot. "And *he* doesn't happen to be with us."

For a long moment, the pilot did not speak. Then, slowly, he lit a cigarette. His voice was steady in the hum of the atomics. "Stand by for turnover," the pilot said.

The *beeps* from the radar came faster and faster.

"But the *orbits*," protested the lieutenant. "It's a *collision* orbit."

"Stand by," the pilot said.

"You—you haven't got a chance," whispered the old colonel.

"He'll do it," gritted Linda Lambeth. "He'll *do* it."

The radar *beeps* coalesced into a keening whine.

"Steady," said the pilot. "Look out, meteor—here we come!"

The atomics erupted into a rising roar.

"Cut!" yelled Cecil Kelley. "That's fine."

"Come on," said Gilbert Webster. "Let's have another drink." Why couldn't they be just a little more realistic? What harm could it do?

"The fate of the artist, my boy," Dee Newton said, reading his mind. "The fate of the artist."

The ship's forward braking jets flared into atomic life. The cold face of the moon watched them come, impassively. Staring into the viewscreen, Gilbert Webster filled his eyes with what he saw.

"How long?" he asked quietly.

"Soon, my friend," said Dee Newton. "Very soon."

"Just think," gushed Linda Lambeth, "we're going to land on the *moon*."

"Someone should really say something appropriate," an actor said, in sepulchral tones that hinted he was just the right fellow for the job. "This is a momentous occasion in the long history of mankind, an occasion which I feel sure will . . ."

Gilbert Webster nudged Newton and together they slipped away from the voice, retiring to the bar where they could not hear. Newton excused himself and headed for the control room. Webster was alone, and it was just as well. There are some moments that cannot be shared.

Webster's heart pounded with a clean excitement he hadn't known since he was a youngster in Vermont. They would have to land a camera crew first, of course, and then the ship would have to take off and land again, in order to get pictures of the landing. It would consume a lot of fuel, but Newton said that their supply would be sufficient.

There was no sensation of discomfort. The moon filled the screen. . . .

Webster tensed himself. Soon—very soon—man would be on the moon. And all because of a space opera! *Space operas or wars*, he said to himself. *One or the other. You pays your money and you takes your choice.*

There was a low whine and a sudden thump.

Silence.

The ship had landed.

The door of the airlock clamped shut behind him. Gilbert Webster felt the cold silence of the moon press down on him, sealing him in. It made him feel oddly heavy, despite the slight gravity. The five men of the camera crew, standing uncertainly with their equipment, were grotesque caricatures of life—living jokes stuffed in spacesuits and turned loose on the moon.

"I don't know about the rest of you, he said aloud, "but I'm scared stiff."

"Man's first words on the moon!" one of the cameramen chuckled. "Take that down for posterity."

"Nothing to worry about," Dee Newton's voice rasped in his earphones. Newton was handling the initial landing party, while Kelley directed the actors for the ship landing, inasmuch as this end of things was purely a technical one. "Come on—we've got fifteen minutes to clear the blast area."

Webster followed the squat figure across the desolate lunar plain. He had a sudden impulse to reach up and touch the stars, so near did they seem. Stars, brushing his fingertips. . . .

Walking was a pleasure in the light gravity and the men had no trouble carrying equipment that would have broken their backs on Earth. Looking back, Webster could see that

the ship that had carried them between the worlds had already dwindled against the close lunar horizon.

"Okay," said the physicist finally. "Let's get setup—we don't want to miss this."

Webster checked his special suit watch. Five minutes to go. Newton had adjusted the automatic controls to lift the ship off the moon and bring her back again after an interval of half an hour. Nothing, he said, could possibly go wrong. Still, Webster worried. It would be disconcerting, to say the least, if the ship failed to return.

Thirty seconds.

"Okay," said Dee Newton. "Start the cameras."

The special cameras went into action as the crews activated the tracking mechanisms. A spot of white flame flickered around the ship's tail and a brief shudder shook the ground. The ship hesitated uncertainly for a moment, and then lifted on a column of fire. The complete absence of any sound at all gave Webster the creeps; it was like watching a silent film of Niagara, with tons upon tons of foaming water crashing down on the black rocks below, without a murmur, without a sound.

"What a picture," murmured Gilbert Webster.

"They're tracking her perfectly," said a cameraman's voice.

"Fine," said Dee Newton, and whistled three times into his suit mike. The whistles hurt Webster's ears, and he opened his mouth to protest. Or, rather, he *tried* to.

His mouth wouldn't open.

Out of the corner of his eye he saw that the cameramen, too, had frozen into immobility. Dee Newton, smiling cheerfully and evidently quite in command of the situation, balanced himself comfortably in his bulky spacesuit and began to hum *How High the Moon*, with bop interpolations.

Somewhere in space, the ship from Earth began her slow turnover for the return to the moon.

Within minutes, circular vehicles running on tractor treads came crunching over the rocks and whisked silently up to their position. Gilbert Webster just stared, unable to move a muscle, feeling like the man who casually dug up a live dinosaur out of his backyard. The machines stopped and spacesuited figures clambered out briskly. Webster could see distinctly red features on the faces behind the plastiglass helmets. His stomach took a long dive into nowhere.

It just couldn't be, his mind illogically insisted. Not his own plot, the oldest chestnut in the business, really *happening*.

It was like finding a banker actually trying to poison a water-hole in Texas. It couldn't be—

But it emphatically was.

What was it that Newton had said so long ago? "*Martians, of course.*"

A confused jumble of thoughts chimed through his brain. So the Martians were telepathic—naturally. They *would* be. Webster wasn't surprised. Nothing surprised him any more.

*Congratulations, Dee!*

*Stupid fools, most of them. Never suspected. . . .*

*Wonderfull!*

Newton waved at Webster and grinned. "Degrading business, this space opera," he said aloud. "But think of it—a really new twist at last! *A space opera with real live Earthmen in it!*"

Webster felt very ill.

"Don't worry, my friend," Newton said, reading his thoughts again. "I have plans for you, lad—big plans. I want accuracy in my pictures, and I like you. You've spent your whole life on Earth, while I only skimmed the surface. I want you for my technical advisor later—you won't be harmed, I assure you. We'll do 'em up brown together!"

*Here she comes*, the telepathy resumed. *Remember, no killing; We want no trouble with the SPCA. Stick to the paralysis, and we can use them all over again in other pictures.*

Linda Lambeth would be in heaven, Webster thought irrelevantly. One of the seven human women on Mars . . .

The ship from Earth eased down on her stern jets and settled on the lunar plain. The airlock door swung open. As indicated by Webster's own script, spacesuited figures clambered down a metal ladder, brandishing phony ray pistols in their gloved hands.

The Martian cameras worked feverishly. Webster wanted to groan, but couldn't.

"Rich, rich!" bubbled Dee Newton. "This is rich!"

Webster had to admit that it was. The Martian actors launched themselves from the rocks and advanced across the moon's surface, their paralysis beams mowing down the Earthmen like scythes going through wheat.

It was beautiful.

Webster took it all in, and was surprised to find that he felt quite good. Happy, even. It wouldn't be so bad, really. Technical advisor for a Martian film company, working under a stickler for accuracy like Newton! What if he was a Martian—Webster wasn't prejudiced, and it might even be a chance

to do the job right at last. Webster didn't much care who the job was done *for*. Idly, he wondered how Ray Bradbury would go over with the Martians, and the more he thought about it the better he liked the idea.

"They can't be any worse than people," he thought cheerfully, and when they released him to walk he followed the Martians willingly to their ship.

It was one year later and it felt like ten.

Gilbert Webster surveyed the set of *Down To Earth* with a feeling of horror. Dee waddled up, a rather globular mass of reddish protoplasm in his native state, and Webster grabbed him in dismay.

"But my God, Dee!" he exploded. "You say you want accuracy, and then you have your women going around New York with bare breasts. Civilized women haven't done that since Cretel!"

The thing that had been Dee Newton smiled sadly. "I know, dear boy," he said with infinite patience. "It isn't *quite* strictly accurate, but what can I do? The audience knows that these people are supposed to be mammals, and how else can I show it in dramatic visual terms?"

# Feedback

BY KATHERINE MACLEAN

*The second Lady Author in this collection is a sharply brilliant and somewhat fey girl whose opinion is that science fiction offers an excellent medium for social criticism. In this tale, she proves her point to the hilt. Rarely has a science fiction story held quite the savage punch of this one about the life of a teacher in an unhappy tomorrow of enforced conformism and psychopathic fears.*

*For those who are not up on their American history and do not remember what Nathan Hale complained of (see the ending of this story), there is a statement in The Shorter Bartlett's Familiar Quotations published by Permabooks that will provide the answer. Look it up under "Hale."*

"Why did Leonardo write backward?" The year was 1991.

A pupil had asked the question. William Dunner switched on the lights suddenly, showing the class of ten- and twelve-year-olds blinking in the sudden glare.

"He was in danger of his life," he said seriously. "Here"—he tapped the pointer against the floor—"give that last slide again."

The pupil at the back of the room worked the slide lever, and Da Vinci's "Last Supper," which still showed dimly on the screen, vanished with a jerk and a click and was replaced by an enlarged sketch of a flying machine, with time-dimmed handwriting under it in oddly curled and abbreviated words. It was backward, as if the slide had been put in the wrong way.

"He was writing ideas that no one had ever written before," said William Dunner, "and he had seen things that should not have been there—the symmetry of sound waves—the perfect roundness of ripples spreading through each other, and high up on a mountain he had found sea shells, as if the sea and

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the land had not always been where they were, but had changed, and perhaps some day the sea would again close over the mountain top, and mountains rise from the depth of the sea. These thoughts were against the old beliefs, and he was afraid. Other men such as he, saw new truths about nature, and risked their lives to teach and write them. And those men gave us the new world of science we have today. Leonardo had great thoughts, but he wrote them down in silence and hid them in code, for if the people guessed what he thought they might come and burn him, as they had burned some of his paintings. He was afraid."

He tapped the base of the pointer on the floor and the slide vanished and was replaced by the "Last Supper."

A chubby little girl put up her hand.

"Yes, Maralyn?"

"Were they Fascists?" It was an obvious identification: Fascists tortured people. Those who knew a little more history stirred and giggled to show that they knew better.

"Stand up, please," he said gently. She stood up. It did not matter what the question or answer was, as long as they stood up. That was the way they learned. Standing up while the class sat, being alone on the stage in the drama club he had formed for them; learning to stand and think alone; learning to grow past the fear.

"No, not Fascism. It wasn't their government which made them cruel." Mr. Dunner made a slight sad clumsy gesture with the hand that held the pointer. "You might say it is a democratic thing, for in defending the old ways people feel that they are defending something worthy and precious." He ran his eyes across their faces as though looking for something and said firmly. "Logically, of course, nothing is wrong which does not injure a neighbor, but if you attack a man's beliefs with logic he sometimes feels as if you are attacking his body, as if you are injuring him. In Leonardo's time they held very many illogical beliefs which were beginning to crumble, so they felt constantly insecure and attacked, and they burned many men, women, and children to death for being in league with Satan, the father of doubts."

In the painting on the screen the figure of Christ sat at the long table. The paint was blotched and cracked and his face almost hidden.

Mr. Dunner turned to it. "No, it need not be Fascism. The rulers of a venal government may have no beliefs or ideals left to defend. The Roman government would have pardoned

Christ, but it was his own people who slew him, preferring to pardon a robber instead of a man of strange beliefs."

He pointed with his stick. "He is eating with his disciples. He has just said 'One of you will betray me.' Observe the composition of—"

There was a slight stirring and whispering of disapproval, and a question was passed in quick murmuring and agreement. A boy raised his hand.

"Yes, Johnny?"

"Why is it democratic?" He was almost defiant. "Burning people."

"Because it is an expression of the majority will. The majority of people have faith that the things they already believe are true, and so they will condemn anyone who teaches different things, believing them to be lies. All basic progress must start with the discovery of a truth not yet known and believed. Unless those who have new ideas and different thoughts be permitted to speak and are protected carefully by law, they will be attacked, for in all times men have confused difference with criminality."

The murmur began again, and the boy put up his hand.

"Yes, Johnny?"

"I *like* change. I *like* things different." He was speaking for the class. It was a question. The teacher hesitated oddly.

"Stand up, please."

The boy stood up. He had a thin oval face with large brown eyes which he narrowed now to hide nervousness. The class turned in their seats to look at him.

"You said you like things different," the teacher reminded him. "That's a good trait, but do you like to *be* different yourself? Do you like to stand up when the others are sitting down?" the boy licked his lips, glancing from the side of his eyes at the classmates seated around him, his nervousness suddenly increased.

Mr. Dunner turned to the blackboard and wrote "sameness." "Here is the sameness of mass production, and human equality, and shared tastes and dress and entertainment, and basic education equalized at a high level, and forgotten prejudices, and the blending of minorities, and all the other good things of democracy. The sameness of almost everybody doing the same thing at once. Some of the different ones who are left notice their difference and feel left out and alone. They try to be more like the others." He curved a chalk arrow, and

wrote "conformity." Johnny, still standing, noticed that Mr. Dunner was nervous, too. The chalk line wavered.

The arrow curved through "conformity" and back to the first word in a swift circle. "And then those who are left feel more conspicuous and lonesome than ever. People stare and talk about them. So *they* try to be more like the others. And then everybody is so much like everybody else that even a very tiny necessary difference looks peculiar and wrong. The unknown and unfamiliar is feared or hated. All differences, becoming infrequent, look increasingly strange and unfamiliar, and shocking, and hateful. Those who want to be different hide themselves and pretend to be like the others."

He moved the chalk in swift strokes. The thickening circle of arrows passed through the words: sameness, conformity, sameness, conformity, sameness. . .

He stepped back and printed in the middle of the circle, very neatly. "STASIS."

He turned back to the class, smiling faintly. "They are trapped. And it is all unconscious. They don't know what has happened to them."

He turned back to the blackboard and drew another circle thoughtfully. This one wavered much more. "These are feedback circles. All positive feedbacks are dangerous. Not just man but other social animals have an instinct to follow, and can fall into the trap. Even the lowly tent caterpillars are in danger from it, for they crawl after each other in single file, and if the leader of a line happens to turn back and find before him the end of his own line, he will follow it, and the circle of caterpillars will keep crawling around and around, growing hungry and exhausted, following each until they die."

Johnny licked his lips nervously, wishing Mr. Dunner would let him sit down.

Miraculously the teacher's eyes met his.

"I stand up," said Mr. Dunner softly to him alone. "If everyone else went sledding, could you go skating alone, all by yourself?"

He could see that it was a real question: Mr. Dunner honestly wanted him to answer, as if he were an equal. Johnny nodded.

"It would take courage, wouldn't it? Sit down, Johnny."

Johnny sat down, liking the tall shy bony teacher more than ever. He was irritably aware of the stares and snickers of the others around him. As if he'd done something wrong! What did they think they were snickering at anyhow!

He leaned both elbows on the desk and looked at the teacher as if he were concentrating on the lecture.

The bell rang.

"Class dismissed," called Mr. Dunner unnecessarily and helplessly over the din of slamming desk tops and shouts as everybody rushed for the door.

Glancing back, Johnny saw the teacher still standing before the blackboard. Beside him the projected image of Leonardo's painting glowed dimly, forgotten, on the screen.

At his locker, Johnny slipped his arms into his jacket and grabbed his cap angrily. Why did they have to scare Leonardo? Grownups! People acted crazy!

Outside they were shouting, "Yeaaa-ahh yeaaa-ahh! Charlie put his cap on backward! Charlie put his cap on backward!" Charlie, one of his best pals stood miserably pretending not to notice. His cap was frontward. He must have put it right as soon as they had started to call.

Johnny hunched his shoulders and walked through the ring as if he had not seen it, and it broke up unconcernedly in his wake into the scattering and clusters of kids going home. Johnny did not wait to get into a group. Stupid, they were all stupid! He wished he could have thought of something to tell them.

At home, stuffing down a sandwich in the kitchen he came to a conclusion. "Mother, does everyone have to be like everyone else? Why can't they be different?"

*It's started again, she thought. I can't let Johnny get that way.*

Aloud she said, "No, dear, everyone can be as different as they like. This is a free country, a democracy."

"Then can Charlie wear his cap backward?"

It was an insane concept. She was tempted to laugh. "No, dear. If he did, he would be locked up."

He grew more interested. "Why? Why would they lock him up?"

"Because it would be crazy—" Her breath caught in her throat but she kept the sound of her voice level, and busied herself at the stove, her head down so that he wouldn't notice anything wrong.

"Why? Why would it be crazy?" The clear voice seemed too clear, as if someone could hear it outside the room, outside the walls, as if the whole town could hear. "Why can't I wear my cap backward—"

"It's crazy!" she snapped. The pan clattered loudly on the stove under the violence of her stirring. Always answer a child's questions with a smile. She swallowed with a dry mouth, and tried.

"I mean it would be queer. It's odd. You don't want to be odd, do you?" He didn't answer, and she plunged on, trying desperately to make him see it. "Only crazy people want to be odd. Crazy people and seditioners." She swallowed again, turning her head covertly to see if he understood. He had to understand! He couldn't talk like this in front of her friends, they might not understand, they might think that she—

She remembered the seditioner who had moved into town three years ago, a plane and tractor mechanic. He had seemed such a nice man on the outside, but he had turned out to be a seditioner, wanting to change something. People from the town had gone to show him what they thought of it, and someone had hit him too hard, and he had died. Johnny mustn't—

He looked sulky and unconvinced. "Mr. Dunner said everybody could be as different as they liked," he said. "He said it doesn't matter what you wear." He kicked the edge of the sink defiantly, something like desperation welling up in his voice. "He said being like other people is stupid, like caterpillars."

She thought: *Mr. Dunner now, the history teacher, another seditioner. That tall shy man. And he had been teaching the children for five years! Other people's children too—* She turned off the stove and went numbly to telephone.

While she was telephoning the fourth house, Johnny came out of the kitchen with his cap on and his jacket zipped, ready to go out and play. She lowered her voice. While she talked on the phone he went to the hall mirror, looked into it and carefully took his cap off, rotated it and replaced it backward, with the visor to the back and the ear tabs on his forehead. His eyes met hers speculatively in the mirror.

For a moment she did not absorb what he had done. She had never seen anyone wearing a hat wrong way before. It gave a horrible impression of a whole head turned backward, as if the back of his head were a featureless brown face watching her under the visor. The pale oval of his real face in the mirror seemed changed and alien.

Somehow a steel strength came to her. She remembered that the viewing screen was off. No one had seen. She said into the phone, as if starting a sentence, "Well, I think—" and

putting her finger on the lever, cutting the connection, and hung up.

Johnny was watching her. Rising she slapped his face. Seeing the white hand marks, she realized that she had slapped harder than she had intended, but she was not sorry. It was for his sake.

The phone began ringing.

"Go upstairs—" she whispered, breathing hard. "Go to your room—" He went. She picked up the phone. "Yes, Mrs. Jessups, I'm sorry . . . I guess we were cut off."

Three calls, four calls, five calls.

When Bruce Wilson arrived home he heard the story. He listened, his hand clutching the banister rail, the knuckles whitening.

When Pam finished he asked tightly, "Do you think a spanking would do any good?"

"No, he's all right now, he's frightened."

"Are you sure he's safe?"

"Yes." But she looked tired and worried. Johnny had been exposed to sedition. It remained to be seen if it would have any effect. Seditious were always tarred and feathered, fired, driven out of their homes, beaten, hung, burned.

The telephone rang. Pam reached for it, then paused, glancing away from him. Her voice changed. "That will be the vigilantes, Bruce."

"I have to finish that report tonight. I'm tired, Pam."

"You didn't go last time. It wouldn't look right if you—"

"I guess I'd better go. It's my duty anyhow." They didn't look at each other. He answered the phone.

They screamed and shouted, pushing, making threatening gestures at the man on the platform, lashing at him with the noise, trying to build his fear to the point where it would be visible and cowering. Someone in the crowd was waving a noose, shouting for his attention. Someone else was waving a corkscrew. He saw it. They laughed at the comic horror of the threat, and laughed again at the man's expression as he realized what it was.

They were in a clearing among trees which was the town picnic grounds. At the center, before the mob, was the oration platform, built around the base of the giant picnic oak.

On the rear of the platform the judges of the occasion finished arranging themselves and were ready.

"Silence."

The mob quieted.

"William C. Dunner, you are accused of teaching sedition—malign and unworthy doctrines—to our children, violating the trust placed in you." He did not reply.

"Have you anything to say in your defense?"

The fluorescent lamp shone on the people grouped on the platform. Below, the light gleamed across the upturned faces of the mob as they watched the tall, stooped man who stood disheveled in the light, his hands tied behind him and a smear of blood on one cheek. He shook his head in negation. "I wouldn't do anything against the children," he said. They heard the slightly faltering voice unclearly. "I'm sorry if it seems to you that—"

"Do you or do you not teach subversion?"

The reply was clearer. "Not by my definition of the term, although I have heard usages that—"

"Are you or are you not a seditioner?"

"You would have to define—"

A thick-armed young man standing by was given a nod by one of the judges and stepped forward and knocked the prisoner down. He started clumsily struggling to get to his feet again, hampered by his tied hands.

"Just like a seditioner, trying to hide behind words," said someone behind Bruce in the crowd. Bruce nodded.

Seditioners must all be skilled with words as their weapon, for, though it had been forty years since any hostile foreign power existed to assist and encourage treachery, there seemed to be more and more seditioners. It was impossible to open a paper without reading an item of their being tarred and feathered, beaten up or fired, of newer and stricter uniformity oaths with stricter penalties of jailing and fines for those who were found later expressing opinions different from those beliefs they had sworn to. Yet in spite of this the number of seditioners increased. Their creed must be terrifyingly seductive and persuasive.

And Johnny had been exposed to those words! The shy tall teacher who was supposed to be "so good with children," whom he and Pam had hospitably invited to dinner several times had repaid their hospitality with treachery.

Bruce felt the anger rising in him, and the fear. It must never happen again!

"We've got to find every crawling seditioner in Fairfield right now, and get rid of them! We've got to get the names of the others from this sneak!"

"Take it easy," said the man on his left, whose name he remembered vaguely as Gifford. "We're getting to that now." The teacher had regained his feet and stood up to face the judges.

The questioning began again.

Off to one side a man had climbed to the rail and was tossing the knotted end of a rope towards a high thick branch of the oak above.

"William Dunner, were you, or were you not, directed to teach subversion and disloyalty to our children?"

"I was not."

"Are you associated with other seditioners in any way?"

"I know other people of my own opinion. I wouldn't call them seditioners though."

"Are you directed by any subversive or disloyal organization?"

"I hold a great deal of love and loyalty for the people of the United States," he answered steadily. "But right now I think you people here are being extremely childish. You—" He was struck across the mouth.

"Answer the question!"

"I am a member of no subversive or disloyal organization."

"Will you give the names of those associated with you in subversion?"

The end of the rope was slung again, and passed over the limb this time, coming suddenly writhing down to be captured dexterously by the man holding the other end. He did not seem to be listening to the questions, or care what the answers would be.

"I will not. I'm sorry but it's impossible."

Gifford nudged Bruce. "He's sorry! He doesn't know how sorry he can get. He'll change his mind in a hurry."

Up on the platform the judges conferred ceremonially and Dunner waited, standing abnormally still. The finished noose was released, and swung down and past his face in a slow arc. In the crowd the man with the corkscrew waved it again, grinning. There was laughter.

The teacher's face was suddenly shiny with sweat.

The men who were the judges turned from their conferring.

"Our finding is treason, however, confess, throw yourself on the mercy of the court, give the names of your fellow traitors and we will extend clemency."

The disheveled tall man looked from one face to another



for a time of silence. "Do you have to go through with this?" The voice barely reached the crowd. The judges said nothing. His eyes searched their faces.

"I have committed no crimes. I refuse to tell any names." His voice was clear and carrying, a teacher's voice, but he was terrified, they could see.

"The prisoner is remanded for questioning."

One of the judges made an imperious gesture and the teacher was seized roughly on either side by two guards, and his jacket and shirt stripped off roughly and cut free from the bound arms. As the slashed clothing was tossed to one side, the crowd chuckled at the effective brutality of the gesture, and at the reaction of the teacher.

"A good vicious touch," Bruce grinned. "He's impressed."

"Scared," Gifford laughed. "We'll have him talking like a dictaphone. Watch what's next."

Something small was handed up onto the platform. Walt Wilson, who had volunteered for the questioning, held it up for all to see. It was a card of thumbtacks.

The teacher was shoved against the trunk of the oak and secured to it rapidly. The rope was looped around his elbows, and his ankles fastened together with another loop. He faced the crowd upright, helpless and unable to struggle, with the harsh bright light of the lantern shining in his face and the noose dangling where he could see it.

"Scared green," commented somebody near Bruce. "He'll tell us."

Walt Wilson stood waiting to one side until all was quiet, then he extracted a tack and leaned forward with it pointed at the bare, bony chest.

"What are the names of the seditioners in Fairfield?"

The teacher closed his eyes and leaned back against the tree. The crowd waited, their breaths suspended unconsciously, waiting for the whimpers and apologies and confession, ready to laugh. The teacher was already afraid. Tacks are small things, but they hurt, and they held an aura of ruthlessness that spoke of tortures to come that would frighten him more. There was no sound from him yet, as Walt reached for another tack, but he jerked when it touched him. They laughed and waited, and waited with increasing impatience.

Walt's smile was fading. People in the crowd called encouragement. "Go on Walt, more." Walt put in more. He ran out of tacks and was handed another card of them.

"He's being a martyr," Bruce said, considering the shiny

pale face and closed eyes with irritation. "A martyr with tacks. Trying to hold out long enough to seem noble."

"Go on Walt!"

"He jumped that time," said someone behind Bruce. "He'll run out of nobility before we run out of tacks." They laughed.

Walt retired to a corner and the young guard took his place.

"Are you, or are you not, a seditioner?"

It went on.

The harsh bright light of the lantern beat on the figures on the platform: the cluster of people at the sides where it curved around the tree; in the middle, leaning back against the trunk, the bony ungainly figure of the teacher, dressed only in shoes and green slacks. The light caught a decorative glitter of metal from Dunner's chest.

"The names, Mr. Dunner, the names!"

One time he answered. "Nonsense," he said in his clear teacher's voice without opening his eyes.

There was no yielding in that answer, only an infuriating self-righteousness. They continued. The tacks were used up.

"Confess." Already he had wasted half an hour of their time.

He opened his eyes. "I have committed no crimes."

An angry sibilance of indrawn breath ran over the crowd. The questioner slapped his thick hand against the glittering chest, and Dunner's arms jerked, and he leaned his head back against the tree trunk watching them with an air of suffering and patience.

The hypocrisy was intolerable.

"Noble. He's being noble," Gifford growled. "Give him something to be noble about, why don't they?"

Someone handed up the corkscrew they had used to frighten the teacher with.

"Now we'll see," said someone on Bruce's left.

The tall bony teacher stood upright, looking with quick jerks of his head from the faces of the crowd to the man approaching with the thing in his hand. Without any pause or relenting the glittering small kitchen object was brought nearer to him. Suddenly he spoke, looking over their heads.

"If you will examine the term 'seditioner' semantically, you will discover that it has lost its original meaning and become a negatively charged label for the term referent 'innova-'"

A sudden blow stopped him.

"The names please, Mr. Dunner."

"The names, please."

"Mr. Dunner! Who are the seditioners?"

"*There are a number of them.*" He had answered! A sudden hush fell.

He spoke again. "*They are here.*"

The questioner asked, "Which ones?" People in the crowd stirred uneasily, not speaking. The names coming would be a shock. Bruce glanced around uneasily. Which ones?

The teacher raised his head sickly and looked at them, turning his face slowly to look across the crowd, with a wild smile touching his lips. They couldn't tell whose face his eyes touched— He spoke softly in that clear, carrying teacher's voice.

"Oh, I know-you," he said. "I've talked to you and I know your minds, and how you've grown past the narrow boundaries of what was considered enlightened opinion and the right ways—forty years ago. I know how you hate against the unchanging limits, and fight yourselves to pretend to think like the contented ones around you, chaining and smothering half your mind, so that the stump will fit. And I know the flashes of insane rage that come to you from nowhere when you are talking and living like the others live; rage against the world that smothers you; rage against the United States; rage against all crowds; rage against whoever you are with—even if it is your own family; rage like being possessed!" Bruce suddenly felt that he couldn't breathe. *And it seemed to him that William Dunner was looking at him, at Bruce Wilson.* The gentle, inhumanly clear voice flowed on mercilessly.

"And how terror comes that the hatred will show, that the rage will escape into words and betray you. You force the rage down with the frenzy of terror and hide your thoughts from yourself, as a murderer conceals his reddened hands. You are comforted and reassured, moving with a crowd, pretending that you are one of them, as contented and foolish as they." He nodded slightly, smiling.

But Bruce felt as if the eyes were burning into his own, plunging deep with a torturing dagger of cold clear vision. He stood paralyzed, as if there were a needle in his brain—feeling it twist and go deeper with the words.

The man leaning against the tree nodded to himself, smiling. "I've had dinner with all of them one time or another. And I know you, oh hidden seditioners, and the fear of being known that drives you to act your savagery and hatred against those of us who become known." He smiled vaguely, leaning

his head back against the tree, his voice lower. "I know you—"

The husky questioner jogged him, asking harshly—

"Who are they?"

Bruce Wilson waited for the names, and incredibly, impossibly, *the* name. It would come. He stood unmoving as if he were a long way away from himself, his eyes and ears dimmed by the cold weight of his knowledge. He waited. There was no use moving. There was no place to go. From all the multitude of the people of Fairfield there came no sound.

The teacher raised his head again and looked at them. He chuckled almost inaudibly in a teasing gentle chuckle that seemed to fill the world.

"All of you."

Bruce grasped at the words and found that they were nonsense, meaningless— Swaying slightly he let out a tiny hysterical chuckle.

Like a meaningless thing he saw the questioner swing an instantaneous blow that rammed the teacher's head against the tree and sent him toppling slowly forward to dangle from the ropes at his elbows.

Around him were strange noises. Gifford was clapping him on the back, shouting in his ear. "Isn't that funny! Ha ha! Isn't that crazy! The guy's insane!" Gifford's eyes stared out of a white face. He shouted and laughed.

"Crazy!" shouted Bruce back, and laughed loudly and shouted, "that crazy nonsense! We'll get the truth out of him yet." It had all been a dream, a lie. He could not remember why he was shaking. He had nothing to fear, he was one of the vigilantes, laughing with them, shouting against the teacher, hating him—

They revived William Dunner and he leaned back against the tree with his eyes closed, not speaking or answering, his body glittering with tacks. He must have been in pain. The crowd voices lashed at those on the platform. "Make him answer!" "Do something!" Bruce took out his pocket lighter and handed it up.

They took the pocket lighter.

The teacher leaned against the tree he was tied to, eyes closed with that infuriating attitude of unresentful patience, not seeing what was coming, probably very smug inside, laughing at how he had tricked them all, probably thinking—

Thinking—

*Behind the closed eyes, vertigo, spinning fragments of the world. NAMES, MR. DUNNER. NAMES, MR. DUNNER. The yammering of insane voices shouting fear and hate and defensive rationalization. The faces which had been friendly, their mouths stretched open, shouting, their heavy fists coming — Impressions of changes of expression and mood passing over a crowded sea of upturned faces, marionettes being pulled by the nerve strings of one imbecile mind. Whirling and confusion—pain.*

*Somewhere far down in the whirlpool lay the quiet cool voice that would bring help.*

*He went down to it.*

*He was young, listening to the cool slow voice. The instructor standing before the class saying quietly: "It is easy. Your adult bodies have already learned subtle and precise associations of the cause and effect chains of sensations from within the body. The trick of making any activity voluntary is to bring one link of the chain to consciousness. We bring up the end link, by duplicating its sensations."*

*And a little later the instructor sitting on the edge of his cot with a tray of hypos, picking one up, saying softly, "This one is for you, Bill, because you're such a stubborn fool. We call it suspenser." The prick of the needle in his arm. The voice continuing. "One of your steroids. It can produce coma with no breathing or noticeable pulse. Remember the taste that will come on your tongue. Remember the taste. Remember the sensations. You can do this again." The voice was hypnotic. "If you ever need to escape, if you ever need to play possum to escape, you will remember."*

*The needle was withdrawn. After a time the voice of the instructor was at the next cot, speaking quietly while the blackness came closing in, his heart beat dimming, dwindling, the strange familiar taste—*

*Somewhere out of time came pain, searing and incredible.*

*Ignore it . . . ignore it— Concentrate on the taste. The taste— The heart beat dwindling— out of the dreaming distance a face swam close, twisted by some odd mixture of emotions.*

*"Confess. Get it over with."*

*Heart beat dwindling—*

*He managed a whisper: "Hello, Bruce." A ghost of laughter touched lightly. "I know . . . you—" A small boy taunt, mocking and then sad. The face jerked itself away and then pain came again, but it was infinitely distant now, and he was*

*floating slowly farther and farther away down a long tunnel—*

Night wind stirred across the empty picnic ground. It had been deserted a long time—the light and sound and trampling footsteps gone away, leaving a little whimper of wind. Stars glittered down coldly.

Up on the platform something moved.

When Dr. Bayard Rawling, general practitioner and police coroner, came home at five a.m., he saw the humped form of a man sitting on his doorstep in the dark. He approached and bent forward to see who it was.

"Hello, Bill."

Dunner stirred suddenly as if he had been over the edge of sleep. "Hello, Doc."

Rawling was a stoutish kindly man. He sat down beside Dunner and picked up his wrist between sensitive fingertips. He spoke quietly. "It happened tonight, eh?"

"Yes, tonight."

"How was it?" The doctor's voice roughened slightly.

"Pretty bad."

"I'm sorry. I would have been there if I could." In his bag he carried a small supply of cortocanan-oxidase, the life suspender, "death," and a small jet hypo, a flesh-colored rubber ball with a hollow needle which could be clenched in a fist with the needle between the fingers and injected with the appearance of a blow. Perhaps many doctors had carried such a thing as a matter of mercy since the hangings and burnings had begun.

"I know," Dunner smiled faintly in the dark.

"I was working on a hard delivery. No one told me about the trial."

"'Sall right—I managed a trance. Took me a while though—Not very good at these things. Couldn't die fast enough." He whispered a chuckle. "Thought they'd kill me before I could die."

The doctor's fingertips listened to the thin steady pulse. "You're all right."

Dunner made an effort to get up. "Let's get back to the picnic grounds and tie me up to be dead." He mumbled apologetically. Something wrong with my arms. Strained hanging from those ropes I guess. Took a while to get untied."

The doctor rose and gave him a hand up. "Make it to the 'copter?"

"Well enough." He made an obvious effort and the doctor

helped him. Once in, the doctor started the blades with a quick jerky motion.

"You aren't in fit shape to be dead and have a lot of boobs pawing you over and taking your fingerprints for six hours," he said irritably. "We'll chance substituting another corpse and dub it up to look like you. I knew you'd be in trouble. Cox at State University has had one your size and shape in a spare morgue drawer for four months now. He set it aside for me from dissection class." The ground dropped away. The doctor talked with spasmodic nervous cheerfulness. "Had any fillings lately?"

"No."

"I have your fingerprint caps. We'll duplicate the bruises and give it a face make-up, and they won't know the difference. There's not much time to get there and get it back before morning." He talked rapidly. "I'll have to photograph your damage. I'm going to drop you with Brown."

Working with nervous speed, he switched on the automatic controls and took out a camera from the glove compartment. "Let's see what they've done to you. Watch that altimeter. The robot's not working well."

The 'copter droned on through the sky and Dunner watched the dials while Dr. Rawling opened the slit jacket and shirt and slid them off.

He stopped short and did not move for a moment: "What's that, burns?"

"Yes."

The doctor did not speak again until he had finished snapping pictures, slipped the tattered clothing back over Dunner's shoulders, turned off the light and returned to the controls. "Dig around in my bag and find the morphia ampoules. Give yourself a shot."

"Thanks." A tiny automatic light went on in the bag as it was opened and illuminated the neat array of instruments and drugs.

The doctor's voice was angry. "You know I'd treat you, Bill, if I had time."

"Sure." The light went out as the bag was closed.

"I've got to get that corpse back to the picnic grounds." The doctor handled the controls roughly. "People stink! Why bother trying to tell them anything."

"It's not them."

"I know, it's the conformity circle! But it's their own, not

yours. Let 'em stew in it." He pounded the wheel. "Forty years with the same lousy type model 'copter, the same kind of clothes, the same talk, people repeating each other like parrots! They can't keep living in their own hell forever. It's bound to crack. Why not just ride it out?" He was plaintively vehement.

"It will end when enough people stand up in the open and try to end it." Dunner smiled. They landed with a slight jolt that made him suck in his breath suddenly.

"Don't preach at me," the doctor snarled, helping him out with gentle hands. "I'm just saying quit it, Bill, quit it. Stifle their kid's minds if that's what they want." They were out on the soft grass under the stars. Through the beginning pleasant distortion of the morphine Dunner saw that the doctor was shouting and waving his arms. "If they want to go back to the middle ages, let 'em go! Let 'em go back to the amoeba, if that's what they want! We don't have to tell 'em anything!"

Dunner smiled.

"Go on laugh!" the doctor muttered. He climbed back into the 'copter abruptly. "If anyone wants to contact me, my 'copter number is ML 5346. Can you make it to the house?"

"Sure." Dunner located the source of the doctor's upset. "You've been a great help, Doc. Nobody expects you to do more than you've done."

"Sure," the doctor snarled, slamming the 'copter into gear. "Everything's just fine. And we've made a lot of progress since Nathan Hale's time. Remember what *he* was complaining of!" He slammed the door, the 'copter taxied away a little distance, and then lifted into the sky with a heavy whispering rush of wind.

The teacher walked towards Brown's house. The stars swung in pleasant blurred loops, and the memory of angry frightened screaming faces and blows seemed very distant. He pushed the doorbell and heard it ring far away in the house, and then remembered suddenly what Nathan Hale had complained of and laughed weakly until the friendly door opened.





# The Cave

BY P. SCHUYLER MILLER

*When one is in Rome, one should do as the Romans do, as was sagely suggested many centuries ago by an early Bishop of Milan. And if one doesn't know what the Romans do, one shouldn't do anything until one finds out.*

*Of course, in a cave on Mars where there are no Romans but only nasty small animals and ugly big ones, maybe one wouldn't need to follow the old rule. It is true that some of these animals are smart enough to carry knives and to have some sort of language, but—Romans? Why, these Martians aren't even people!*

*This is one of the best of Schuyler Miller's fine Mars series from the heyday of Astounding Science Fiction—for which magazine Mr. Miller is now official book reviewer. His first science fiction story was published in 1931, which makes him one of the Grand Old Men in the business.*

The cave measured less than a hundred feet from end to end.

It opened at the base of a limestone ridge which rose like a giant, rounded fin out of the desert. Its mouth was a flat oval, a shallow alcove scoured out of the soft stone by wind and sand. Near one end a smooth-walled tunnel sloped gently back into the ridge. Twenty feet from the entrance it turned sharply to the right and in a few feet swung back to the left, paralleling its original course. Here it leveled out into a broad, flat channel not more than four feet high. This was the main chamber of the cave.

The big room, like the rest of the cave, had been leached out of the limestone by running water, long before. The water had followed a less resistant seam in the rock, dissolving out a passage whose low ceiling rose and fell a little with irregularities in the harder stratum overhead, whose floor was flat

P. Schuyler Miller, THE CAVE. Copyright 1943 by Street and Smith Publications, Inc. Reprinted by permission of the author from *Astounding Science Fiction*, January 1943.

and water-polished in spots and in others buried under a fine yellow clay. A little past the midpoint the room opened out into a kind of inverted funnel in which a tall man could stand erect, a tapering chimney which quickly dwindled to a shaft barely big enough to admit a man's hand. Here the floor of the cave was lower and the walls, which had drawn together until they were less than ten feet apart, were ribbed and terraced with flowstone.

Beyond the chimney the ceiling dropped suddenly to within a few inches of the floor. By lying flat on his face and squirming along between the uneven layers of rock a thin man might have entered here. After measuring his length perhaps three times he would have been able to raise himself on one elbow and twist into a sitting position, his back against the end wall of the cave and his head and shoulders wedged into a crevice which cut across the main passage at right angles. This crevice lay directly under the highest part of the ridge and vanished into darkness above and on either side. Water must at one time have flowed through it, for the harder silicious layers in the limestone stood out on the walls in low relief like fine ruled lines drawn in sooty black. Not even air stirred in it now.

Twenty feet in the winding entry—six or eight feet at the bend—another thirty to the chimney and fifteen or twenty more to the back wall; it was a small cave. It was also very old.

The limestone of which the ridge was formed was perhaps the oldest exposed rock on the surface of that small old world. It had been laid down in fairly deep water at a time when there were seas where there were only deserts now. There had been life in those seas; where wind or water had worn away the softer lime, their fossil bodies stood out from the surface of the gray stone. There were fluted shells like glistening black trumpets—swarms of tiny big-eyed things with fantastically shaped armor and many sprawling arms—long ropes of delicate, saw-edged weed whose fossil tissues were still stained a dull purple—occasionally fragments of some larger thing like an armored, blunt-headed fish. They had been alive, swarming and breeding in the shallow sea, when Earth was no more than a scabbed-over globe of slowly jelling flame.

The cave itself was very old. It had been made by running water, and it was a long time since there was much water on the dying world. Water, sour with soil acids leached from the black humus of a forest floor, had seeped down into the

network of joint-planes which intersected the flat-lying limestone beds, eating away the soft stone, widening cracks into crannies and crannies into high-arched rooms, rushing along the harder strata and tunneling through the softer ones, eventually bursting out into the open again at the base of a mossy ledge and babbling away over the rocks to join a brook, a river, or the sea.

Millions of years had passed since there were rivers and seas on Mars.

Things change slowly underground. After a cave has died—after the sources of moisture which created it have shifted or dried up—it may lie without changing for centuries. A man may set his foot in the clay of its floor and go away, and another man may come a hundred or a thousand or ten thousand years afterward and see his footprint there, as fresh as though it had been made yesterday. A man may write on the ceiling with the smoke of a torch, and if there is still a little life in the cave and moisture in the rock, what he has written will gradually film over with clear stone and last forever. Rock may fall from the ceiling and bury portions of the floor, or seal off some rooms completely. Water may return and wash away what has been written or coat it with slime. But if a cave has died—if water has ceased to flow and its walls and ceiling are dry—things seldom change.

Most of the planet's surface had been desert for more millions of years than anyone has yet estimated. From the mouth of the cave its dunes and stony ridges stretched away like crimson ripples left on a beach after a wave has passed. They were dust rather than sand: red, ferric dust ground ever finer by the action of grain against grain, milling over and over through the centuries. It lay in a deep drift in the alcove and spilled down into the opening of the cave; it carpeted the first twenty-foot passage as with a strip of red velvet, and a little of it passed around the angle in the tunnel into the short cross-passage. Only the very finest powder, well-nigh impalpable, hung in the still air long enough to pass the second bend and reach the big room. Enough had passed to lay a thin, rusty mantle over every horizontal surface in the cave. Even in the black silt at the very back of the cave, where the air never stirred, there was a soft red bloom on the yellow flowstone.

The cave was old. Animals had sheltered in it. There were trails trodden into the dry clay, close to the walls, made be-

fore the clay had dried. There was no dust on these places—animals still followed them when they needed to. There was a mass of dragged, shredded stalks and leaves from some desert plant, packed into the cranny behind a fallen rock and used as a nest. There were little piles of excreta, mostly the chitinous shells of insectlike creatures and the indigestible cellulose of certain plants. Under the chimney the ceiling was blackened by smoke, and there were shards of charcoal and burned bone mixed with the dust of the floor. There were places where the clay had been chipped and dug away to give more headroom, or to make a flat place where a bowl could be set down. There were other signs as well.

The *grak* reached the cave a little after dawn. He had been running all night, and as the sun rose he had seen the shadow of the ridge drawn in a long black line across the crimson dunes, and turned toward it. He ran with the tireless lope of the desert people, his splayed feet sinking only a little way into the soft dust where a man of his weight would have floundered ankle deep.

He was a young male, taller than most of his kind, better muscled and fatter. His fur was sleek and thick, jet black with a pattern of rich brown. The colors in his cheek patches were fresh and bright, and his round black eyes shone like disks of polished coal.

He had been a hunter for less than one season. His tribe was one of the marauding bands which summered in the northern oases, raiding down into the lowlands in winter when the dry plateau became too cold and bare even for their hardy breed. It had fared better than most, for it had had little contact with man. The *grak* carried a knife which he had made for himself out of an eight-inch bar of beryllium copper, taken in his first raid. It was the only human thing he owned. Its hilt was of bone, intricately carved with the clan symbols of his father-line; its burnished blade was honed to a wicked double edge. It was the finest knife any of the desert folk had ever seen, and he had had to fight for it more than once. The desert tribes retained the old skills of metal working which the softer-living pastoral greenlanders had forgotten, and his tribe, the *Begar*, were among the best of the dryland smiths.

He wore the knife tucked into the short kilt of plaited leather which was his only garment. The Old One of his father-line had given it to him on the day he became a hunter

and could no longer run naked like a cub. It was soft and pliable with long wear and oiled to a mahogany brown almost as dark and rich as his own chest patterns. There were black stains on it which he knew were blood, for the Old One had been one of the fiercest slayers of his line and the kilt had come down to him from an even greater warrior in his own youth. The very pattern in which the thin strips of *zek* hide were woven had lost its meaning, though it undoubtedly had been and still was of great virtue.

It was cold in the shadow of the ridge, and the *grak's* long fur fluffed out automatically to provide extra insulation. He looked like a big black owl as he stood scanning the western sky, sniffing the wind with his beaklike nose. There was a tawny band low on the horizon, brightening as the sun rose. He had smelled a storm early in the night, for he had all the uncanny weather-wiseness of his race and was sensitive to every subtle change in the quality of the atmosphere. He had started for the nearest arm of the greenlands, intending to claim the hospitality of the first village he could find, but the storm front was moving faster than he could run. He had seen the ridge only just in time.

He had recognized the place as he approached, though he had never seen it and none of his tribe had visited this part of the desert for many seasons. Such landmarks were part of the education of every dryland cub, and until they had become thoroughly ingrained in his wrinkled young brain he could not hope to pass the hunter's tests and win a hunter's rights. The cave was where he had known it would be, and he chuckled softly with satisfaction as he saw the weathered symbol carved in the stone over the opening. The desert people had long ago discarded the art of writing, having no use for it, but the meaning of certain signs had been passed down as a very practical part of their lore. This was a cave which the *grak's* own forefathers had used and marked.

He studied the signs in the dust around the entrance of the cave. He was not the first to seek shelter there. The feathery membranes of his nose unfolded from their horny sheath, recording the faint scents which still hung in the thin air. They confirmed what his eyes had told him. The cave was occupied.

The wind was rising fast. Red dust devils whirled ahead of the advancing wall of cloud. Red plumes were streaming from the summit of every dune. Making the sign of peace-

coming, the *grak* stooped and entered the cave. Beyond the second bend in the passage was darkness which not even his owl's eyes, accustomed to the desert nights, could penetrate. However, he did not need to see. The sensitive organs of touch which were buried in the gaudy skin of his cheek patches picked up infinitesimal vibrations in the still air and told him accurately where there were obstacles. His ears were pricked for the slightest sound. His nose picked up a mixture of odors—his own characteristic scent, the dry and slightly musty smell of the cave itself, and the scents of the other creatures with which he would have to share it.

He identified them, one by one. There were four or five small desert creatures which had more to fear from him than he from them. There was one reptilian thing which under other circumstances might be dangerous, and which still might be if the peace were broken. And there was a *zek*.

The carnivore was as big and nearly as intelligent as the tribesman himself. Its kind waged perpetual war on the flocks of the greenland people, and rarely visited the oases, but when one did wander into the desert it was the most dreaded enemy of the dryland tribes. It stole their cubs from beside their very campfires and attacked full-grown hunters with impunity. Its mottled pelt was the choicest prize a hunter could bring back as proof of his prowess. To some of the more barbaric tribes of the north it was more than just a beast—it was His emissary.

A sudden gust from the passage at his back told the *grak* that the storm was breaking. In a matter of minutes the air would be unbreathable outside. Softly, so as not to arouse the savage beast's suspicions, he began to murmur the ritual of the peace. His fingers were on the hilt of his knife as he began, but as the purring syllables went out into the hollow darkness, his nostrils told him that the fear-odor was diminishing. Somewhere in the dark a horny paw scuffed on the dry clay and there was an instant reek of terror from some of the smaller things, but the *zek* made no sign. It was satisfied to keep the peace. Moving cautiously, the *grak* found a hollow in the wall near the entry and sat down to wait, squatting with his knees tucked up close under his furry belly, the hard rock at his back. The knife he laid on the floor beside his hand where it would be ready if he needed it. For a time his senses remained keyed to fever pitch, but gradually his tenseness eased. They were all *grekka* here—all living things, united in the common battle for existence against a

cruel and malignant Nature. They knew the law and the brotherhood, and they would keep the truce as long as the storm lasted. Gradually the nictitating lids slipped across his open eyes and he sank into a half-sleep.

Harrigan blundered into the cave by pure luck. He knew nothing about Mars or its deserts except what the Company put in its handbook, and that was damn little. He was a big man and a strong man, born in the mountains with a more than ordinary tolerance for altitude, and he had had to spend less than a week in the dome before they shifted him to the new post in the eastern Sabaeus. He did what he was told and no more than he was told, laid away his pay every week in anticipation of one almighty spree when they brought him in at the next opposition, and had nothing but contempt for the native Martians. *Grekka* they were called, and that was all he knew or cared about them. To him they looked like animals and they were animals, in spite of the fact that they could talk and build houses and kept herds of peg-legged monstrosities which seemed to serve as cattle. Hell-parrots could talk and ants kept cattle!

Harrigan had been a miner on Earth. He was that here, but he couldn't get used to the idea that plants could be more valuable than all the copper and tungsten and carnotite in the world. The desert and its barren red hills nagged at him, and whenever he could get time off he explored them. The fact that he found only rocks and sand did nothing to extinguish his sullen conviction that there was treasure incalculable here somewhere if only the damned natives would talk or the Company would listen to a man who knew minerals better than the big shots knew the swing of their secretaries' hips.

The fact was, of course, as the Company knew very well, that Martian mineral deposits had been exhausted by a native Maritian civilization pursuing its inevitable way to an inevitable end at a time when Adam and Eve probably had tails. That the descendants of that civilization were still alive, even on a basis of complete savagery, spoke volumes for the stamina of the native race. Such arguments, however, would have meant less than nothing to a man of Harrigan's type. There were mines on Earth. There were mines on the Moon. Hell—there were mines on Mars!

This time he had overstayed his luck. To him the low yellow wall of cloud on the western horizon was only a distant



range of hills which he might some day visit and where he might find wealth enough to set him up in liquor for the rest of his life. He had spent the night in the cab of his sand car, and it was not until the clouds were a sullen precipice towering halfway up the sky that he understood what he was heading into. He swung around and headed back, but by then it was too late.

When the storm hit it was like night. The air was a semi-solid mass through which the sand car wallowed blindly with only its instrument board to show where it was going. Dust swiftly clogged the air intake and he had to take out the filters, put on his mask, and hope for the best. It didn't come. In seconds the air inside the cab was a reddish mist and dust was settling like fine red pepper on every exposed surface. The wind seized the squat machine and rocked it like a skiff in a typhoon, but Harrigan could only hang on, peer red-eyed through dust-coated goggles at his dust-covered instruments, and wonder where he was.

The floundering car climbed painfully to the top of a monster dune, pushed its blunt snout out over the steep leading edge, slewed violently around and started down. Harrigan yanked despairingly at the steering levers; they were packed tight with dust and refused to move. He did not see the ridge until the car smashed head on into it. There was a despairing gurgle from the engine, a last clatter of broken bearings, and the car stopped. At once sand began to pile up behind and around it, and Harrigan, picking himself up off the floor of the cab, saw that if he didn't get out fast he would be buried where he sat.

He struggled out on the lee side of the car into a gale that bit into him like an icy knife. He could not see the car when he had taken one step away from it. The dust drove through every seam and patch of his clothes and filtered in around the edges of his mask. It was sucked into his mouth and nose and gritted under his swollen eyelids. It was everywhere, and in no time it would smother him.

The car was lost, though he was probably less than ten feet from it. The wind screamed past him in unholy glee, tearing at every loose flap on his coat, chilling him to the bone. He took half a dozen blundering steps, knee-deep in the soft dust, stumbled, and came down on his knees at the foot of the cliff. His outthrust hands met solid rock. He struggled forward on his knees and peered at it through

crusted goggles. It was limestone, and where there was limestone there might be a cave. Foot by foot he felt his way along the uneven surface of the ridge until suddenly it dropped away in front of him, he staggered forward, and fell on his hands and knees in the entrance of the cave.

His head had clipped the low overhang as he fell and it was a minute or two before he realized where he was. Almost automatically, then, he crawled ahead until his skull rammed hard into another wall. He sat gingerly back on his heels and clawed at his mask. It was completely plugged with dust and utterly useless. He lifted it off his face and took a slow breath. There was dust in the air—plenty of it—but he could breathe.

He groped about him in the pitch dark, found an opening in the right-hand wall, and crawled in. Almost immediately there was another sharp turn and the passage suddenly opened out on either side and left him crouching at the entrance of what he knew must be a good-sized room.

Harrigan knew caves too well to take chances with them. What lay ahead might be a room or it might be a pit dropping to some lower level. He had a feeling that it was big. He found the corner where the left-hand wall swung back, moved up against it, moistened his lips with a thick, dry tongue, and shouted:

“Hoy!”

The echo rattled back at him like gunfire. The place was big, but not too big. What he needed now was water and a light.

He had both. Dust had worked in around the stopper of his canteen until he could barely start the threads, but one last savage twist of his powerful fingers did the trick. There wasn't much left. He let a few drops trickle over his tongue and down his throat, wiped the caked dust off the threads with a finger, and screwed the cap back on. These storms lasted for days sometimes, and it was all the water in the world as far as he was concerned.

Light came next. Harrigan had spent too much time underground to be afraid of the dark, but it was plain common sense to want to see what you were getting into. Harrigan hated mysteries. If he knew what he was facing he could fight his way through anything, but he hated blind fumbling and he hated the dark.

Enough water had evaporated from the open canteen in the minute or two he had had the cap off to appreciably

raise the moisture content of the cave—at least for the Martians. To their acute senses it was the equivalent of a heavy fog. A few feet away in the blackness the *grak* awoke with a start. Farther back in the cave one of the small animals stirred eagerly. And the *zek* sneezed.

Harrigan's blundering approach had roused the occupants of the cave, and every eye, ear and nose had been trained on him when he appeared. One rodentlike creature made a panicky rush as it got his scent, only to freeze in terror as it nearly bumped into the *zek*. The peace, for the moment, was suspended—a new factor had entered the situation and a new equilibrium must be reached. They quietly awaited developments.

Harrigan had missed all this preliminary activity in his efforts to find out where he was, rub the dust out of his eyes, and get a few drops of water down his parched gullet. But when the *zek* sneezed, the sudden sound was like an explosion in his ears. In the dead silence which followed he could clearly hear the sound of quiet breathing. It was close to him, and it came from more than one place. He had to have a light!

There should have been a torch in the pocket of his coverall. There wasn't. He had lost it or left it in the car. He had a lighter, though. He ripped feverishly at the zipper of his coverall. It slid open a few inches with a sound like the crackle of lightning and jammed. Sweat dripping from his forehead he sat back on his heels and fumbled for his gun, but there was no movement from the things in the dark. Slowly and softly he slipped two fingers into his pocket and found the lighter. Leveling the gun at the blank blackness in front of him he lifted the lighter above his head and flipped off the cap.

The burst of yellow flame was dazzling. Then he saw their eyes—dozens of little sparks of green and red fire staring out of the dark. As his own eyes adjusted he saw the *grak*, huddled like a woolly black gargoyle in his corner. The Martian's huge round eyes were watching him blankly, his grinning mouth was slightly open over a saw-edged line of teeth, and his pointed ears were spread wide to catch every sound. His beaklike, shining nose and bright red cheek patches gave him the look of a partly plucked owl. He had a wicked-looking knife in his spidery fingers.

Harrigan's gaze flickered around the circle of watching

beasts. He knew nothing of Maritian animals, except for the few domesticated creatures the greenlanders kept, and they made a weird assortment. They were mostly small, ratty things with big eyes and feathery antennae in place of noses. Some of them were furred and some had horny or scaly armor. All of them were variously decorated with fantastic collections of colored splotches, crinkled horns, and faceted spines which presumably were attractive to themselves or their mates. At the far end of the cave, curled up in a bed of dry grass, was a lean splotched thing almost as big as the little native which stared at him with malevolent red eyes set close together over a grinning, crocodilian snout. As he eyed it, it yawned hideously and dropped its head on its crossed forepaws—paws like naked, taloned hands. It narrowed its eyes to crimson slits and studied him insolently from under the pallid lids. It looked nasty, and his fingers closed purposefully over the butt of his gun.

The *grak's* cackle of protest stopped him. The only word he could make out was *bella*—peace. He knew that because he had a woman named Bella back in New York, or he had had before he signed on with the Company. Besides, it was part of the spiel you were supposed to rattle off every time you talked to one of the damned little rats. It was all the Martian he knew, so he spat it out, keeping one eye on the other beast.

This was the first man the *grak* had ever seen. It was a monstrous-looking thing, wrapped in layer after layer of finely plaited fabric which must have taken his mates many years to weave, even if their clumsy fingers were as deft as those of the greenlanders, who occasionally did such things. A thrilling philosophical problem was teasing the *grak's* young brain. Was or was not this man of the *grekka*?

To a native Martian the term *grekka* means literally "living things." Any creature native to the planet is a *grak*; all of them, separately or collectively, are *grekka*. The first men to come in contact with the native race heard the word used to designate the Martians themselves and assumed that it was the Martian equivalent of "men." Graziani, of course, as an anthropologist of note, immediately realized the truth of the matter—the situation is duplicated again and again among human aborigines—but the label stuck. Nor did that matter too much, for *grekka* did include the natives and made perfectly good sense when it was used as men proceeded to

use it. What did matter was that the word was also the key to the whole elaborate structure of Martian psychology.

Millions of years of unceasing struggle with the forces of an inclement environment on a swiftly maturing and rapidly dying planet have ingrained in the native Martian race, greenlanders and drylanders alike, the fundamental concept that Nature is their undying enemy. Life for them is a bitter fight against overwhelming odds, with an invisible foe who will use every possible means to grind out the little spark of ego in each round, furry Martian skull. You find it in the oldest legends: always the wily native hero is outwitting—there is no other word for it—the evil purposes of the personified, malignant Universe.

*Grekka* is the ultimate expression of this grim philosophy. In the battle for life all living things—all *grekka*—are brothers. No Martian would ever dispute the theory of evolution—it is the very core of his existence that all beasts are brothers. That is a somewhat oversimplified statement of the fact, for from there on *grekka* becomes entangled in the most elaborate maze of qualifications and exceptions which a once highly civilized race has been able to devise over a period of millions of years. Your native Martian, drylander or greenlander, will help his brother beast whenever the latter is clearly losing out in a battle with Nature, but there are certain things which the individual is supposed to be able to do for himself if he is not to give unholy satisfaction to Him—the Great Evil One—the personification of the universal doom which pours unending misfortune on all *grekka* alike.

The distinction is one of those things which no logician will ever be able to work out. It is one thing for the desert tribes and something else for the lowlanders. The *Begar* will draw the line at something which is a sacred duty of every *Gorub*, in spite of the fact that the two tribes have lived side by side on a more or less friendly basis for generations. One clan—even one father-line—may and must act in ways which no other clan on Mars may duplicate without eternally losing a varying number of points in its game with Him and His aides.

What puzzled the young *grak* of the cave was whether man—specifically Harrigan—was *grekka*. If he was, he was an innate member of the brotherhood of living things and subject to its laws. If he wasn't, then he could only be a personification or extension of the inimical First Principle Himself, and hence an inherent enemy. Since the time of Graziani and the Flemming expedition every Martian native,

individual by individual and tribe by tribe, has had to make this decision for himself, and by it govern his further relations with humanity. The *Begar* had had too little contact with mankind to have needed to make such a decision as a tribe. Now the young *grak* decided to reserve judgment, keep his eyes open, and let the man prove himself by his further actions.

Harrigan, of course, knew absolutely nothing of all this. It would probably not have mattered if he had. What some damned animal thought about the Universe was nothing to him.

For a moment there had been death in the air. Now the tension was vanishing. The smaller animals were settling down again, the little *grak* grinning and nodding as he squatted down in the corner. Only the *zek's* slitted eyes were still studying him with cold indifference. The damned nightmare was curled up in the one place in the cave where a man could stand up! Harrigan gave it eye for eye, and all the little furry and scaly creatures lifted their heads and watched them while the *grak* blinked worriedly. They could all smell the hostility between the two. The *zek* yawned again, showing an evil double line of knife-edged fangs and a leprous white gullet, and flexed the mighty muscles which lay like slabs of molded steel across its massive shoulders. Harrigan sat glumly down where he was, his back against the cold stone, his gun on the floor beside him, the lighter wedged into a crack in the rock between his feet.

Outside the storm was at its height. The far-off screaming of the wind echoed and re-echoed in the big room. Puffs of red dust drifted in out of the darkness, and the flame of the lighter wavered and danced. In the occasional lulls, the only sound in the cave was their steady breathing. Every eye, Harrigan knew, was on him. He was the intruder here, and they were wary of him. Let 'em be! A man was something to be afraid of on this damned little dried-up world!

He glowered back at them, making up malicious fantasies about their probable habits. There were plenty of fancy stories going the rounds about how these Martians went at things. He grinned sardonically at the little *grak* as he recalled one particularly outrageous libel. The *grak* smiled reassuringly back at him. This man was a hideous travesty of a thing, but he was keeping the peace.

Harrigan sized up the cave. It wasn't a bad hole as caves

went. It was dry, the angle in the passage kept the dust out, and it was big enough so a man could stretch. With a fire and water he could last as long as the storm would.

There had been a fire, he noticed, under the chimney at the far end of the cave. There was soot on the ceiling, and the rock had the crumbled look of burned limestone. It was too close to the big beast for comfort, though. That was a wicked-looking brute if there ever was one. Better leave him be—but if he tried to start anything, James Aloysius Harrigan would show him who was tough!

A gust stronger than any that had come before bent the thin flame of the lighter far over, drawing it out into a feeble yellow thread. Harrigan bent quickly and sheltered it with his cupped palms. It seemed smaller and duller than when he had first lit it. He picked up the lighter and shook it close to his ear. It was almost dry! He snapped down the cap.

The darkness which fell was stifling. The invisible walls of the cave seemed to be closing in on him, compressing the thin air, making it hard to breathe. The dust got into his nose and throat. It had a dry metallic taste. Iron in it. It shriveled the membranes of his throat like alum. He cleared his throat noisily and ran his tongue over his thick lips. What he needed was a drink. Just a couple of drops. He unscrewed the canteen and lifted it to his lips.

Somewhere in the blackness something moved. It made only the very smallest sound—the tick of a claw on the rock—but he heard it. Instantly he was on the alert. So that was their game! Well, let 'em come! They were as blind as he was in this hole, and he had yet to see the day when any animal could outsmart him!

He set the canteen carefully down behind a block of stone. It would be safer there if there was a scrap, and it might hit against something and give him away if he carried it. Shifting his gun to his left hand, he began cautiously to work his way along the wall, stopping every few inches to listen. He could hear nothing but the rhythmic, ghostly whisper on the creatures' breathing. Whatever it was that had moved, it was quiet now.

His fingers found the first of the slabs of fallen limestone which lay half buried in the clay along the right-hand wall. They reached almost to the chimney, but about fifteen feet from where he had been sitting there was a break in the line, and the wall dropped back into a shallow alcove no more

than two feet high. In there he would have solid rock on all sides of him, and he would be directly opposite the pile of dried weeds in which the *zek* was lying. He would have a clear shot at the ugly brute between two of the fallen blocks.

His groping hand came down on something cold and scaly that wriggled hastily away under the rocks. There was an answering squeal of terror and a patter of scampering feet as panic-stricken little creatures scattered in front of him. Something as heavy as a cat landed on his back and clung there, chattering madly. He batted at it and knocked it to the floor. Then, only a few feet ahead in the darkness, he heard the stealthy click of claw on stone again. The *zek*!

He had to have light! It was suicide to face that monster in pitch blackness! He had slipped the lighter back into the outside pocket of his coverall. He fumbled for it. It was gone!

The panic went out of Harrigan in a flash. He sat back on his heels and curled his fingers lovingly around the butt of his gun. The tougher things got, the better he liked them. The lighter must have dropped out of his open pocket; he could find it when he needed it by going back over the ground he had just covered. It wasn't lost. But he didn't need it. The dark was his protection, not his enemy. They couldn't see him in the dark.

He dropped back on all fours. Everything was quiet again. He'd hear them if they tried anything. He was almost at the alcove, and then they'd have to blast to get at him. He could pick 'em off one by one if they tried to get in.

The clay was hard as brick and full of little chunks of broken stone that gouged at his knees, even through the heavy suit. The roof was lower, too; he had to get down on his elbows and hitch along, almost flat on his face.

His heart was thumping like mad. He was working too hard in this thin air. He rolled over on his side, his back against one of the big blocks, and stared into the blackness. Another few feet and he could lie down and wait for them. He needed time out. He had to have a clear head. He cursed his stupidity in not bringing an oxygen flask from the car. One shot of that stuff and he'd be ready to take 'em on all at once, barehanded!

As he started on again something tinkled on the stone beside him. He groped for it: it was the lighter. It had been in his back pocket. Damn fool—letting the darkness rattle



him! Animals were all afraid of fire. He could smoke 'em out any time he wanted to. He was boss of this cave! A grin of satisfaction spread over his grimy face as he shuffled along on knees and elbows through the dust.

One big slab almost blocked the hole he was looking for. It was a tight squeeze, but he wriggled through and found plenty of room behind it. He felt for the crack between the blocks that was opposite the nest, slid his gun cautiously into position, and flashed the lighter. Now!

The nest was empty.

With a curse Harrigan rolled to the other opening. The flame of the lighter showed him the far end of the cave—the *grak* crouching wide-eyed in his niche—the black arch of the entrance—and the *zek*!

The thing had slipped past him in the dark. It stood where he had been sitting a moment ago, by the entrance. It stared back at him over its shoulder—a hideous thing like a giant reptile-snouted weasel, mottled with leprous gray. It grinned at him, its red eyes mocking, then stretched out a handlike paw and picked up his canteen!

Harrigan's first shots spattered against the rock above the monster's head; the light blinded him. His next clipped through the coarse mane on the back of its thick neck. His last was fired point-blank into its snarling face. Then the lighter went spinning away across the floor and talons like steel clamps closed on his arm.

The rocks saved him then. The thing had him by the arm, but his body was protected. He still had the gun; he twisted around in the beast's grim grasp and emptied it into the darkness. Its grip loosened and he snatched his arm free. It was bleeding where the *zek's* claws had bitten into the flesh. Then, through the crack on his right, he saw a sheet of white flame go up as the lighter touched the powder-dry mass of weeds in the beast's nest.

The cave was lit up as bright as day. Harrigan saw the *zek*, blood streaming from a ragged wound in its broad chest, its face a bloody mask of fury. One shot had plowed a long furrow across the side of his head. It gathered its powerful hind legs under it, seized a corner of the great block which barred the opening with paws like human hands, and pulled. The muscles stood out in knotted ropes on its arms and shoulders as it worried at the massive stone. Then the packed clay

at its base crumbled and the great block slowly tipped. The way was open. His sanctuary had become a trap.

There was one way out. Harrigan took it. Desperately he lunged forward, out of the cranny straight into the thing's arms. He clamped both hands over its narrow lower jaw and forced its slavering snout straight back with all the power of his own broad back. It rose on its haunches, hugging him to it, then toppled over, dragging him with it into the open, raking at him with its cruel hind claws. He set his jaw and felt his arms stiffen and straighten as the evil head was driven back-back. As through a red mist he saw the *grak's* owl eyes staring at him over the monster's shoulder—saw the coppery gleam of firelight on a shining knife. He felt the *zek* shudder as the keen blade was driven home in its back. It began to cough—great racking coughs that shook its whole frame. Its arms tightened convulsively about him and its claws clenched in his back as the copper knife drove home again and again. Then, slowly, they began to loosen. The beast was dead.

The burning weeds had dimmed to a dull flicker. The dust that had been stirred up in their struggle hung like a red veil in the air. Harrigan lay staring up through it at the little native, sucking the thin air painfully into his tortured lungs. The damned little rat had saved his life! He wiped the blood and dust off his face with his sleeve and got slowly to his feet. He had to stoop to clear the ceiling. That knife—that was a man's weapon. Wonder where the *grak* got it—

He took one step toward the *grak*. Before he could take another the knife went smoothly into his belly, just under the breastbone, driving upward to the heart.

Squatting in the darkness, listening to the distant murmur of the storm, the *grak* wondered what would have happened in the cave if the man had not come there. The *zek* had been a treacherous ally: sooner or later it might have broken the peace. Once its blood-rage had been aroused it had, of course, been necessary to kill it. But if the man had not come that necessity might have been averted.

The man had been very clever. The *grak* had been almost certain that he was what he pretended to be. But as always there was one thing—one very little thing—to betray him. He did not know the law of water.

In every doubtful situation, the *grak* reflected smugly, there was some trivial matter in which the Source of Evil or His

emissaries would reveal themselves. Some one thing in which the true *grak* was clearly distinguishable from the forces of Nature against which he must forever fight. One must be quick to see such discrepancies—and quick to act on them.

The matter of water lay at the very root of the law by which all *grekka*—all living things—existed. It was the thing which all must have, which none, under the law, could withhold from another. Without it there could be no life. With it every living thing was given strength to battle on against the eternal foe.

The man had brought water to the cave. Under the law all *grekka* must share in it according to their need. But when the *zek* had gone to take its share, the man had tried to kill it. By that small thing he revealed himself—no *grak*, but one of His evil things. So he had died. So, once more, was victory won for the brotherhood of living things against the Universe.

He would make a song about this thing, and sing it by the fires of his tribe. He would cut a sign in the stone over the entrance of the cave, after the storm was over, so that others who came there would know of it. And the cave itself, where his forefathers had come and lit their fires, would keep the bodies of the *zek* and the man thus, side by side, as witness forever.

# Vocation

BY GEORGE O. SMITH

*This is the first story by the famous inventor of the Venus Equilateral and numerous other haywire conceptions about the space lanes ever to see the inside of a science fiction anthology. Since Smith began to be published as long ago as 1942, it is time that this lacuna in the anthology field be filled. It is a pleasure to do so with this sharp little story involving a highly ego-shrinking concept that should make homo sapiens pause and take thought.*

*Incidentally, Mr. Smith is one of those practical scientist-technicians who write science fiction as a part-time hobby. Currently he is Components Manager for the Engineering Department of Emerson Radio and Phonograph Corporation, a job which is as important as it sounds.*

Gerd Lel Rayne stood in the arched doorway of the living room of his home and smiled at the Terran. Andrew Tremaine smiled up at his host with an almost microscopic feeling of annoyance. The Terran was a large man, well proportioned, but the other was somewhat larger and somewhat in better proportion. The annoyance was the usual jealousy of the better man.

Tremaine knew that Gerd was a better man, and he stifled his feeling of annoyance because hating Gerd was unjust. Besides, Tremaine wanted a favor and one does not irritate a favor-giver.

Gerd Lel Rayne was of a breed that could know when a man disliked him no matter how well it was concealed. Therefore—

Andrew smiled. "You've been well?"

"Positively dripping with good health," boomed Gerd in a resonant voice. "And yourself?"

"Fair to middling."

George O. Smith, VOCATION. Copyright 1945 by Street and Smith Publications, Inc. Reprinted by permission of the author from *Astounding Science Fiction*, April 1945.

"Good. I'm glad to hear it. Will you have refreshment?"  
"A cigarette, perhaps."

Gerd opened an ornate box on the table and offered Andrew a cigarette. Andrew puffed it into illumination and exhaled a cloud of smoke. "Busy?" he asked.

"Yes," drawled Gerd. "I'm always busy, more or less. But being busy or un-busy is my own desire. Being without something to do would drive me crazy, I'm sure." Gerd laughed at the thought. "At the present time I'm busy seeing you. Is this a business visit or a personal visit?"

"Partly pleasure, partly business. There's something been bothering me for some time."

"Glad to help— That's what I'm here for, you know."

"Now that I'm here," admitted Andrew with some abashment, "I have a feeling that the same question has been asked and answered before. But I want to hear, firsthand, why your race denies us the secret of interstellar travel."

"Because you have not developed it yet," said Gerd. "Yes, we could give it to you. You couldn't use it."

"You're looking down at us again."

"I'm honestly sorry that I give you that opinion. I have no desire to look down at anything or anyone. Please believe me."

"But—"

"May I offer a hypothetical case?" asked Gerd, and then went on because he knew the answer to his own question: "A hundred years ago, the Terrans were living without directive power. You used solar phoenix power. It brought you out of the mire of wire and machinery under which Terra writhed. You were, you thought, quite advanced. You were. But could you have used directives? Supposing that I had given you the secret of directive power? What would have happened?"

"Um— Trouble, perhaps. But with supervision?"

"I cannot give you supervision. I am but one. Consider, Andy. A planet filled with inventive people, a large quantity of which are highly trained technically. What would they say to a program which restricted them to any single phase? We came, and all that we could do to assist was to let your race know that directive power was available. The problem of power is an interesting thing. The initial steps into any realm of power are such that the discoverers are self-protected by their own lack of knowledge, and their investigations lead them into more and more knowledge; they gain the danger-

ous after learning how to protect themselves against it. The directive power could destroy not only Terra but the entire Solar System if improperly applied."

"What you're saying is that we could not understand it," objected Andrew.

"I admit it. Could a savage hurt himself if permitted to enter a powerhouse—even one of the primitive electronic places? Obviously he could. Even were he given the tools of the art, his survival might be a matter of guesswork. Only study permits any of us to work with power. When the Terrans are capable of handling the source of interstellar power, it shall come to them—be discovered by them, if you will. Meanwhile I can but watch and wait, and when I am approached I can and will try to guide Terra. That is my job."

"We'll hunt for it!"

"I know," said Gerd Lel Rayne with a smile. "Your fellows are hunting now. I approve. But I may not point the way. Your race must only find it when you are ready to handle it."

Gerd arose from his chair and flexed the muscles across his back. The reason for his arising was not clear to Andrew immediately, but it came less than three seconds later—It was Gaya Lel Rayne, Gerd's wife. Andrew arose and greeted her with pleasure.

Her smile was brilliant and genuine. "Business?" she asked.

"Yes," answered Gerd. "But do not leave, because the discussion is interesting. Andy, the perfect example of the persistent newsman, is holding forth on the interstellar power."

"They've discovered it?" asked Gaya hopefully.

"No," answered Tremaine. "We'd like to, though."

"You will," said Gaya. "I know you will."

"We know we will, too," said Andrew. "Our irritation is not that we shall be denied it, but that it takes us so long to find it when there is one on Terra that knows it well."

"Please, Andy. I do most definitely not know it well. I am no technician."

Gaya looked at her husband quickly. "He's excusing himself," she said with a laugh.

"He's hoping that we'll believe that his knowledge is no better than ours and that we'll be content. But, Gerd, I know that you know enough to give us the answer."

"You know? How, may I ask?"

"It is inconceivable that you would not know."

"Perhaps I do," came the slow answer. "Perhaps I do." The tone of the speech was low and self-reflective. "But again, perhaps I, too, am in the dangerous position of not knowing enough. You Terrans have a saying—'A little knowledge is dangerous.' It is true. Again we strike the parallel. I give you stellar power and you, knowing nothing about its intricacies, use it. Can you hope to know down which road lies total destruction?"

"You are possibly right. We could learn."

"But not from me," said Gerd with finality. "That I cannot and will not do. One cannot supervise and control the inventiveness of a planet such as yours. Your rugged individualists would be investigating in their small laboratories with inadequate protection, and inevitably one or more of them would strike the danger-spot."

"I'm answered," said Andrew reluctantly. "Answered negatively. I'm forced into accepting your statements. They are quite logical—and Gaya's willingness to be glad for us when she thought that we had discovered it is evidence that you are not withholding it with malice. But logic does not fill an empty spot, Gerd."

Gerd laughed. "If you had everything you want, your race would have died out before it came out of the jungles."

"I know," Tremaine admitted. "Also—and I'm talking against my own race—there is the interesting observation that if Heaven is the place where we have everything we want, why are people always trying to live as long as they can?"

"Perhaps they're not certain of the hereafter."

"Whether they are firmly convinced yes or as firmly convinced no, they still view death with disfavor. I'd say their dislike was about even. All right, Gerd. I'll take your statements as you made them and with reluctance I'll return to my work and ponder."

"Stay for dinner," urged Gaya. She gave him a warm smile, but Andrew shook his head.

"I've got to write an editorial," he said. "Or rather, I've got to change one already written. I was a bit harsh about you, and I feel it was unfair. Perhaps you'll join us at dinner tomorrow?"

Gaya laughed. "You're speaking for Lenore, too?"

"Yes," nodded Andrew. "She'll be glad to see you."

"Then we'll be glad to come," said Gerd.

As he left, Gerd turned to his wife and said: "He'll bear watching."

"I caught your thought. He will. Shall I?"

"From time to time. Tremaine suspects. He is a brilliant man, Gaya, and for his own peace of mind, he must never know the truth."

"If he suspects," said Gaya thoughtfully, "it may mean that he has too little to do. There are many sciences—would it be possible to hint the way into one? That might occupy his mind enough to exclude the other question."

"In another man it might work. But Andrew Tremaine is not a physical scientist. He is a mental scientist working in an applied line. To give him the key to any science would mean just momentarily postponing the pursuit of the original problem. Were he a physical scientist, his mind would never have come upon the question in the first place. I'm almost tempted to let loose the initial key to stellar power."

Gaya blanched. "They'd destroy everything. No, Gerd, not that. You'd be defying the Ones."

"I know," nodded Gerd. "You and I must never interfere. We are emissaries only; evidences of good will and friendship. Our position is made difficult because of the general impression, held by all Terrans, that an ambassador is a man who lies to you, who knows that he is lying, and who further knows that you know he is lying—and still goes ahead and lies, smiling cheerfully at the same time."

"We've given good evidence of our friendship."

"Naturally. That's our main purpose in life. To befriend, to protect, even to aid when possible. One day, Gaya, Terra will be one of us. But guiding Terra and the Solar System into such a channel is difficult. Yet, who is to do it but you and I?"

"Shall we request advice? Perhaps the Ones will be interested to know that Terrans are overly ambitious?"

"You mean they're too confounded curious? The Ones know that. The Ones put us here because we can cope with Terra. To ask for any aid would be an admission of undisputed failure."

"I guess you're right."

Gerd smiled. "Honestly, there is no real danger. Don't forget, the Ones rate us adequate. We can do no more than to prove their trust. After all, our race has been wrong about a classification only once in three galactic years."



"I might be worried," smiled Gaya. "Isn't it about time for them to make another mistake?"

Gerd put his hands on her shoulders and shook her gently. "Superstitious lady," he said, "that's against the Law of Probabilities."

"No," disagreed Gaya. "Right in accordance with it. When the tossed coin comes up heads ten million times without a tail, it indicates that there may be two heads on the coin, or that some outside force is at work. I was fooling, Gerd."

"I know," he said with a laugh. "Now enough of our worries. What's on the program this evening?"

"Dinner with Executive General Atkins and wife."

"I'd better dress, then," said Gerd. "Complete with all the trimmings. And in a hurry, too; it's getting late."

Gaya stretched; then strolled toward the dressing room. "Me too—even though you always take longer than I do," she called after him, with light-hearted maliciousness.

"I might be able to get the legislature to pass laws against women," returned Gerd thoughtfully.

The answer came through the closing door, laughingly. "Not while I have my charm!"

Andrew Tremaine jerked the paper from the electrotyper and pressed two buzzers simultaneously. The answer to one came immediately: "Yes?"

"Tell Jackson that the editorial page is complete and that he should get the revised copy set up."

"Yes, Mr. Tremaine. It's on the way."

"Should be coming out of his typer now."

"I'll call him."

The door opened, and the answer to buzzer number two entered.

He was a tall, thin, pale-looking man with stooped shoulders and thick glasses. He came in and seated himself before Andrew's desk and waited in silence until the editor spoke.

"Gene, how many fields in psychology have you covered?"

The other shook his head. "Since I came to work for you, only one. Applied psychology, or the art of finding out what people want to be told and then telling them."

"That's soft-soapism."

"You name it," grinned the thin man. "You asked for it. Oh, we've carried the burning torch often enough—that's the other psychology. Finding out what people think is good for them and crying against it."

"Or both."

"Or both," smiled Gene.

"This is a crazy business, sometimes. I'm on another branch again, Gene. How much of the human brain is used?"

"Less than ten percent."

"Right. What would happen if the whole brain were used?"

"Andy, how can we tell? Look what it can do on ten percent: One: locate from a mention the complete account of a complex experience; two: do it almost instantly, and three: compile the data in five dimensions?"

"Five dim—? Are you kidding?"

"Not at all. Each of the five senses is essentially different and will require separate cards to make the picture complete. A rose smell, for instance, would be meaningless alone—you must classify it. The same card would not fit for all rose-smelling memories since some are strong, some are weak, some are mixed with other minor odors, and so forth. Do you follow?"

"Yes, but aren't we getting off the track?"

"Not at all. If ten percent of your brain can run through ten to the fiftieth power experiences in five mediums and come up with the proper, correlated accounts, all in a matter of seconds—think what the same brain might do at ninety percent efficiency—or even only thirty percent. As it is now, you can carve better than half of a man's brain out and not impair a single memory, or action, or ability."

"And nature does not continue with a nonfunctional organ."

"Nature would most certainly weed out anything that was completely useless. Evolution of a nonfunctional part does not happen."

"Appendix?"

"It had a use once. It is atrophying now. But the brain should be increasing since we're using it more every year. Instead of being forced into increase by demand, the brain is already too big for the work. How did it get that way?"

"You'll never explain it by the law of supply and demand," said Gene. "We might go over a few brains with analyzers."

"And if you get a nonconforming curve, then what?"

"Fifty years of eliminating the sand to get the single grain of gold."

"You'd never recognize it," said Andrew, wryly.

"But what brought this conference?" asked Gene. "Know-

ing you as I do, you aren't just spending the time of day."

"No, I'm not. Look, Gene, what do you know about Gerd Lel Rayne?"

"Just common knowledge."

"I know. But catalogue it for me. I am trying to think of something and you may urge the thought into solidification."

"Sounds silly," said Gene. "But here it is—and quite incoherent." He laughed. "What was I saying about the excellence of memory files? Well, anyway, Gerd Lel Rayne is a member of a race that has and employs interstellar travel. Terra has nothing, produces nothing, manufactures nothing that this race requires. Neither, according to Gerd, has this race anything that would interest Terrans. Save stellar power."

"At any rate, it is obvious that Gerd Lel Rayne and his wife are emissaries—ambassadors of good will, if you want to call them that—whose sole purpose is to give advice upon things that Terra does not quite understand."

"Except stellar power."

"Reason enough for that," said Gene. "Terrans are sort of vicious. We were forced to fight for our very existence. We fought animals, nature, plants, insects, reptiles, the earth itself. We've fought and won against weather and wind and sun and rain. And when we ran out of things to fight, we fought among ourselves because there were too many differences of opinion as to how men should live. We, Andrew Tremaine, are civilized—and yet the one thing we all enjoy is a bare-handed fight to the finish between two members of our own race."

"That's not true."

"Yes it is. What sport has undergone little change for a thousand years? It is no sport using equipment. The equipment-sports are constantly changing with the development of new materials with which to make the equipment. Take the ancient game of golf, for instance. They used to make four strikes to cover a stinking four hundred yard green. That's because control of materials was insufficiently perfect to maintain precision. No two golf balls were identical, and no two clubs were alike."

"But—and stop me if my rambling annoys you—the sport of ring-fighting is still similar to its inception. Men stand in a ring and fight with their hands until one is *hors de combat* for a period of ten seconds. They used gloves at one time, I believe, but men are harder and stronger now—and surgery repairs scars, mars, and abrasions. Also, my fine literary

friend, the audience, gentle people, like to see the vanquished battered, torn, and bloody. Civilization! One step removed from Ancient Roma, where they tossed malcontents into an arena to see if they could avoid being eaten by a hungry carnivore!

"Well, the one thing that Terra would most probably do would be to make use of this drive to go out and fight with the Ones."

"Are they afraid?"

"I don't know. I'd hardly think so."

"Gene, they wouldn't even bother brushing us off."

"No?"

"No. There's something else there and I don't know what it is."

"You don't follow the hatred angle? You think them benign?"

"I wonder—but am forced to believe the overwhelming pile of evidence. In every way, Gerd and his wife have been willing to co-operate. They've submitted themselves to our mental testing—and that is complete, believe me—and in every case they have proven intelligent, enthusiastic, and capable. Oh, we make mistakes, but not such complete blunders. I'll tell you one thing, Gene. I went over there today to ask one question. I wanted to know just why they refuse to give us the stellar power. Their answer was that we were not ready for it."

"Whitewash."

"Think so? Then tell me how you can tell."

"Gerd Lel Rayne is a supergenius, according to the card files. Intelligence Quotient 260! That, my friend, is high enough to fool the machine!"

"Nonsense."

"A machine is a mechanical projection of a man's mind, Andy. It is built to do that which can not be done by man himself. It is capable—sometimes—of exceeding man's desire by a small amount, but is seldom capable of coping with a situation for which it is not engineered. Since no man on Terra has an I.Q. of higher than about 160, for a guess, the machine can not be engineered to analyze mentalities of I.Q. 260 without failure."

"You do not believe the I.Q. 260 then?"

"Yes, I believe that machine. But the one that gives the curves of intent can be fooled by such a man."

"Then what is Gerd's purpose?"

"Supposing his race intends to take over?"

"Then why don't they just move in and take, Gene?"

"Time. Say they are overrunning the Galaxy. No matter how they start, they must move from point to point. That means a waiting period of some kind. It also means considerable distance here from home base, because if we were close to them the program would already have started. Now, since there is this waiting, we can assume they are not ready for us yet. What does this mean? They are finding opposition on other planets of other systems."

"I'm beginning to follow you."

"If we had the drive, and the power for it, their job might well be impossible. I doubt that anything alive could conquer an armed planet unless that planet was quite inferior in weapons. Given the same weapons and power, and at best stalemate. For the very energy-mass of a planet is unbelievably great, and weapons permanently anchored to Terra would be able to withstand anything up to and including another, equally armed planet."

"Then what do you want me to do?"

"I want knowledge, Andy. I want something that will permit me to use that ninety percent of my brain."

Andrew Tremaine said, flatly: "Gene, I'm almost convinced that Gerd Lel Rayne and company are generating some force-field that prevents it!"

Gene sat silent after that. He thought about it for some time before speaking. "The answer to that," he said very slowly and very carefully, "is this: If some force is being generated to prevent full use of the human brain, a counterforce may be set up to nullify the field. That will be simple enough once we isolate the field that prevents thought. But on the other hand, if no such field exists and it is just one of those paradoxes, we'll have considerable working to do to generate a force-field that *will* permit one hundred percent brain-usage."

"Right. And remembering that this may be the answer to Terra's existence, we'll have to keep it silent."

"You're handing me the job?"

"Yes. You're a practicing psychologist. You're also an amateur technician. If you need anything, no matter what, requisition it and I'll see that it is O.K.'d. Send the thing to me marked *personal* so that some clerk won't toss it out for not belonging to the publishing business."

"You know how much this will cost?"

"Sure. You'll start off with a copy of the I. Q. Register and recorder and work your way up through the Intent-Register. From there on in, Gene, you're on your own. And—alone! I do not want to know what you're doing. I might let it out before Rayne or his wife. Their race *may* be friendly—but I don't believe in taking foolish chances."

"Right. Why not give me a batch of signed requisitions so that you won't know what I'm working on next?"

"Good. I'll sign one block, and mail it to your home. You are fired as of now for . . . for—"

"Differing with the management in a matter of policy."

"Excellent. And when the last requisition of the block comes in, I'll sign up and mail another block to your home. Leave a forwarding address. The bank will honor your signature on company checks to the tune of two thousand dollars per month. That's salary."

"Applied psychology is wonderful," smiled the tall, thin man. "You wouldn't have trusted me a thousand years ago."

"There are a lot of people I wouldn't trust now, today."

"But the difference is, Andy, that nowadays you know whom you can trust."

Gaya Lel Rayne's entry into the grand ballroom had the same effect it always had. In another woman it might have produced triangle-trouble, but Gaya's attraction for men was not her only charm; the woman who hated her for her ability to draw men was one who did not know her. Once introduced, and permitted to talk with Gaya, the jealous dislike died, for Gaya was not far below her husband in wit and intelligence. Like all intelligent people, Gaya was capable of making herself liked by all.

Gerd had his audience, too. Partly in payment for the slight put upon them by their husbands, Gerd was surrounded by women as soon as he entered. They knew that he was more than capable of running far ahead of their own devious thought-processes. Yet he was interesting and attractive, and as versatile as his wife.

The party took on a faster air, and all were dazzled save one. Andrew Tremaine stood on the side lines and watched.

He saw Gaya whirl from man to man across the dance floor and Gerd moving through a closely-knit crowd of women. He wished fervently for someone to discuss it with, but even his wife was in the press of people about Gerd Lel Rayne.

Emissaries, he thought. Ambassadors who cut their mentality because they did not care to appear so far beyond their friends would certainly develop a certain contempt. It must be so, if for no other reason than it could not be otherwise. Andrew wondered what made them tick.

It was a month since he had "dismissed" Gene Leglen. Since then he had heard from him once. It was not good. A negative result—which was inconclusive. Yet, according to the letter, the thought-process frequencies had been inspected carefully by the most delicate detector that Gene could make, and he had found nothing out of line. Nothing that could be expected to block the operation of nine tenths of a man's brain.

Andy saw Rayne approaching with Lenore, and smiled.

"Thinking deeply again?" asked Rayne. "More power?"

"Don't laugh at me, Gerd," pleaded Andrew.

"Laugh at you?" asked Gerd in genuine dismay. "Never. You are a good friend, Andrew. I will never laugh at you." He shook his head. "Tell me, what makes you think I'm laughing?"

"I cannot but think, sometimes, that you are playing with all of us."

"Please . . . please. Is there nothing I can do to dispel this fixation?" He turned to Lenore. "Do you, too, think I'm toying?"

"No," she said quickly. "You're too fine a person to toy with another. I know."

Gerd flustered at that. "The trouble with this job of mine," he said, "is that no one ever tells me that I'm a meddling fool or to mind my own business."

"That's your fault," said Andrew. "You are a well-liked man, Gerd, and no one wants to tell you off. Furthermore, you always seem to know when to let a man alone—and that in itself precludes any possibility of telling you to stay away. How do you know that sort of thing?"

"Accident of birth," said Gerd wryly.

"Spacewash."

"You think I studied to learn it?"

Andrew laughed. "If I thought that, I'd apply for entrance to the same school," he said. "I'd like to have that trait myself."

Lenore interrupted. "Andy," she said, "you must remember that Gerd is a sensitive man. You might have been a

sensitive man at one time, but being a publisher has taken all of the reticence out of you."

"Well," grumbled Andrew, "I'd still like to be able to recognize when someone does not want to be bothered."

"And those are just the people you'd bother. I know."

"But what was bothering you?" asked Gerd with honest concern.

"I was just thinking about brains. One of the women said that your wife's brains excluded her from the 'dangerous female' classification because she would be bored with any one of the husbands present. It led to other trains of thought and I came to the universal question: Why does a man use but one tenth of his brain?"

"Oh that? That's obvious! You have a flier. What is its peak power?"

"About seven dirats."

"And it develops that total power only at high speed. Suppose you drove the machine at that power all the time?"

"Wouldn't last—besides, you couldn't. It takes time to get to that speed."

"Right. It is a matter of capacity. The brain is built to exceed the present demand. When it is needed, it will be available. Nature expects that the brain will be called on, one hundred percent, and she intends to keep increasing that availability as it is needed. But it takes millions of years to develop and evolve something as intricate as brain-material, and nature does not intend that you and I catch up with her and find her adaptive ultimate inadequate to proceed because of her lack of foresight.

"Actually, you're running on one tenth of your brain because no real thinking can come out of a full brain. Efficiency will increase, with evolution and science, to high percentages, but will never reach saturation. Saturation, I believe, might be dangerous."

"Sounds plausible," admitted Andrew.

"It is true," said Gerd. "And now before you drive yourself mad by thinking in circles, come and have a good time."

"No, I've just thought of something important. Your explanation gave me the impetus to think it out. Lenore, do you mind if I leave for an hour or so?"

"I'd better go along—"

"Please do not," objected Gerd. "Andy, I'll see that Lenore is properly entertained in your absence. May I?"



Andrew nodded, and Lenore smiled brightly. "I'll be in excellent company," she said.

"The best," agreed Andrew. "See you soon."

"Fair enough."

Andrew drove his flier at almost peak power all the way to Gene's home and dropped on the roof with a sharp landing. He raced inside and found Gene working over a bread-board layout of an amplifier for thought frequencies.

He told Gene about Rayne's speech and waited for an answer.

"What did you expect?" asked Gene. "A confession?"

"No, but I hoped to catch him."

"In catching anything, Andy, you should first know more than your rabbit knows." Gene handed the editor a sheet of paper. "Follow that?"

Andrew started down the list of equations and stopped after the fourth. "Way ahead of me. How did you derive this term here?"

"By deduction."

"Guesswork?"

"Deduction. I tried everything else and nothing else worked."

"You tried everything? Look, Gene, everything covers—"

"I know," Gene grinned. "Space is bigger than anything. Now I've got the field generator running properly, I am going to make another try to find the possible conflicting term. It may well prove the thought barrier exists. Give me that paper and stand back out of the way!" Gene set the temple-clamp over his head and snapped the switch. The equipment warmed for a minute, and then Gene started to put characters down on the page as fast as he could write. He filled a half page in finger-cramping fury, and then stopped writing to stare at the page for a full ten seconds. Another equation appeared after this, and another. There was no more writing for a full minute then, and Andrew lost all track or semblance of order to Gene's writing. A scant term here, a single character there, a summation line—it became a sort of mathematical shorthand; a mere reminder of the salient points in the argument. The manipulation of the terms went on mentally.

The tenseness increased. The shorthand scrawls became fewer and fewer and disappeared entirely. The paper was forgotten, and the pencil dropped from Gene's fingers.

Andrew watched, held by the intensity of Gene's thinking.

The other man was motionless, his muscles tensed slightly. Fifteen minutes passed, and Gene had not moved, before Andrew became worried. He remembered—

Gene had not blinked his eyes for ten minutes!

"Gene! Gene!"

No answer.

"Shut that thing off!"

No answer.

Andrew stood up, looked around, and then stepped forward. Nothing happened, so he took another step forward. What had happened to Gene? He didn't know, but he was going to find out. He stepped forward again, and then walked into the field of the machine. A wave of excitement filled him as the leakage-impact caught him; it heightened his perceptive sense enormously. He touched the corner of the desk with the tip of his hand and though he was not looking at the wood he knew that it was Terran oak, had been varnished with synthanic twice, and that it should be refinished again in a few months if it was to be preserved adequately. The air in the room came to his notice; it seemed tangy, pleasant, as though some subtle perfumes had been blended in it. He forgot the air and inspected the inert man. He knew without close examination that the psychologist was dead.

From what cause? Andrew guessed that it was overload; if his own senses and brain power were heightened by field-leakage from Gene's machine, the effect of being in absolute contact would be similar to running a small motor without protective circuits from a high-power source. Gene had succeeded too well.

His perception of his surroundings continued to lift into the higher levels. Knotty little problems did not bother him, and his mind leaped from problem to answer without stopping to investigate and inspect the in-between steps.

Andrew wondered whether leaving the machine would cause his increased perception to drop. Forgetting Gene because the dead psychologist was no longer a sentient being, Andrew turned and walked away from the desk. The field must be terrific, he thought. To check the field effect further, he left the building and made his way down the street. The machine's leakage effect seemed to persist.

He finally dismissed the dead man from his mind. The things he saw and felt and knew were of greater consequence—and whether or not the effect failed, there was one

great question that he, Andrew Tremaine, was going to answer.

He returned to the party.

He stood upon the rim of the dance floor and considered the crowd of circling dancers. He listened to the light chatter and the foolish laughter and he pitied them. His ears, he found, had taken on a sort of selectivity and were much higher in sensitivity—and yet he could control the sound-pickup to a comfortable degree. Talk from the far side of the floor came to him, filtered from the rest of the general noise-level by his own, newly-found ability. He shamelessly listened to the conversations, and found them dull and uninteresting.

Through the broad doorway at the far side of the floor he looked in upon the bar. The odor of liquor came then, powerful and overwhelming until Andrew decided that it was too strong and caused his smell-sense to drop.

Foolishness.

There were so many important things to be done and these people were frittering their time away in utter foolishness. He wondered whether Gerd Lel Rayne would agree with him, and with the thought he knew where to find the emissary. He turned and went through the moving crowd impatiently until he found Rayne and Lenore.

"You were gone a long time," said Lenore.

"Sorry," he said shortly. "Rayne, I have a question to ask."

"Come now, Andrew," came the booming, resonant answer, "you're not going to mix business with pleasure?"

"I must—for I may lose the trend of my thought if I wait."

"Then by all means . . . Lenore, you'll forgive us?"

"Yes," smiled she, "but not for too long."

Andrew contemplated his wife's exquisite shoulders as she left, and then he turned back to Gerd and bluntly asked: "Gerd, doesn't this idiotic party disgust you?"

"Not at all. Relaxation is good."

"But the time—and life is so short."

"Continuous running of any machine will cause its life to be shorter. The same is true of the brain."

"Maybe. Gerd, what is behind all of this? Who are you?"

"You know who I am."

Yes, Andrew knew. His higher perception told him without argument that Gerd Lel Rayne was exactly what the emissary claimed.

"But why?"

"Pure and sheer altruism."

"What do you want?"

"Nothing. We are but waiting until you evolve to the proper degree to join us."

"Then," stormed Andrew, "why not help us evolve?"

"Impossible."

"Nonsense. You are not too far above me."

"At the present time you and I are fairly equal in intelligence. You've been working on a mental amplifier, haven't you? A more hellish instrument has never been invented, Andy."

"I find myself enjoying the sensation. If there is one thing that will raise our general level sufficiently, it is this machine. Can it be, Gerd, that your race does not want us to evolve? Do you want us to remain ignorant? Do you fear our competition?"

"My race," said Gerd, "has absolutely nothing that your race can use. Your race has absolutely nothing that can possibly be of interest to us—save eventual evolution up to our civilization-level. That we desire."

"Since the level of my intelligence has been raised to equal yours, why couldn't the same process work on my race as a whole? The problem then will be solved immediately."

"I see that your answer does not lie with me. Also, since you are equal to me, you must be capable of understanding the whole truth. Will you come to my home right now?"

"To solve this problem? Certainly."

"Then come. A member of the Ones is there now, reading my periodic report. I will prevail upon him to see you. But it must be swift, for he is due to leave in about one hour."

They went from the building side by side and entered Rayne's flier. Andrew wondered whether the emissary was willing to discuss the problem before his visit, and decided to try. "Who is your visitor?"

"He is Yord Tan Verde."

"A sort of high overseer?"

"Sort of. He is not connected with the Grand Council of Galactic Civilization in any managerial position, though. Yord is merely one of the group-leaders—a field representative."

"Do you mind discussing yourself?"

"I'd prefer not—though if you ask me a question that I think is not too personal, I'll be glad to answer."

"Your I. Q. is 260, according to the register. If he is your immediate superior, what must his be?"

Rayne shook his head. "I don't really know," he answered. "Frankly, I'd say his was higher—but you shall see."

Gerd stopped Andrew at the door to his library. "Wait," he said. "I'll see if Yord will see you."

"If he won't?"

"I'll be as persuasive as I can. I think he may be interested when I inform him that you have artificially increased your I.Q. to my level."

"You think so?"

"I know so. However, Andrew, it will not be a productive interest. Your means is still artificial and not to be assumed adequate."

"Why not?"

"Because without the machine to step up your brain, you'd revert to your original state in a single generation. And some might refuse to be treated. No one can tell what they might do, either. To lack the power of understanding while the machines of intelligence are left lying around for all to play with would be disastrous. No, you wait and I'll go in and prepare Yord Tan Verde."

Rayne left the door partly open. There was a greeting in an alien tongue, and then as the other voice continued, Gerd interrupted. "Please—I was trained in Terran. I think best in Terran. May we use it?"

Verde's reply came in Terran. "I'd forgotten."

"Thank you." Gerd Lel Rayne explained the situation to his overseer, and it was quite obvious to Andrew that Gerd accelerated the story continuously. He ended with an air that gave Andrew to understand that the overseer was quite impatient and that he was far ahead of Gerd.

"Granted!" came the decision. "Have him enter—he may be able to understand."

Gerd came out and nodded at Andrew. "Go in," he said with an encouraging smile. "And—good luck."

"Thanks, Gerd," said Andrew. He straightened up his shoulders and entered the inner library.

His eyes met the full, interested glance of Yord Tan Verde as he entered, and were held immobile. His swift and purposeful walk slowed to a slogging trudge. He came up to the desk, looked full in the face of the One, shook his head in understanding, turned and left the room.

Gerd was waiting for him, a sympathetic smile upon his

face. Andrew looked at him for a long, quiet moment. Then:  
"You are his emissary?"

"I am—a moron," Gerd said evenly.

"You have a job."

"I am his in-between."

"Because only a moron can understand us," said Andrew slowly.

"No—because your people can understand me, but not the Ones."

"And my efforts with the mental amplifier can do no more than bring me to your level?"

"Worse, Andrew. Nature causes many sports to be sterile because they interfere with her proper plan. Your machine will introduce sterility."

"I have one protecting job of destruction to do myself," said Andrew thoughtfully. "Or—perhaps it should be maintained—secretly, of course, for some emergency?"

"Your race is adequately protected. It will mature eventually."

Andrew shrugged. "I see. Terra must not have either the machine or its product. Our people would die from too much knowledge."



# *The Time Decelerator*

BY A. MACFADYEN, JR.

*No one knows whether time travel will ever be possible, though most reputable scientists today think it is against the basic laws of nature as we know them. However, if it were possible, this astonishing story from the early days of modern science fiction—1936—makes a reasonable series of assumptions about some of the difficulties that would be encountered.*

*This was the first science fiction story ever published under Macfadyen's name. The last, according to the record, appeared in 1939, fourteen years ago. Since then the author seems to have dropped out of sight. Every effort to get in touch with him has proved unavailing, and the story is here published with a hope that Mr. Macfadyen will find out about it and at once write to the Editor who is very eager to hear from him.*

In the month of January, in the year 1935, Dr. George Kirschner said, "One of the crumbs which men have managed to extract from relativity and get into their custom-clogged heads is the idea that a moving clock runs slower than when at rest. Specific values may be computed with the Lorentz correction, and at the velocity of light a second would never end. Since time, as we know it, is really change or causality, and since a clock merely measures the rate of change, what is meant is that the rate of change is a function of the velocity of the system referred to.

"Thus a quantity of Radium A, at low velocities, has a half-life period of three minutes. At 161,000 miles per second, its period would be six minutes, and at the velocity of light the period would be infinite; the radium would never decay. Thus the speed of physical processes and events varies with the velocity of the reference system. This is true of living

A. Macfadyen, Jr., THE TIME DECELERATOR. Copyright 1936 by Street and Smith Publications, Inc. Reprinted from *ASTOUNDING STORIES*, July 1936.



processes, of course. If a man were to travel at the velocity of light he would never die——”

In June he said, “The discovery, by mass spectrum analysis, that mass was a function of motion, upset the classical dictum that gravitation was a function of mass. And the view of Einstein and others that distances varied with the velocity of the observer similarly threw light on the previously unquestioned principle that gravitation varied inversely as the square of the distance.

“From these premises Einstein made the deduction that motion and gravitation are exactly and ultimately equivalent, that the phenomena each give rise to are wholly identical. Consequently, time is a function, not only of motion, but of gravitation also, and the speed of a chemical reaction, for instance, varies inversely as the intensity of the gravitational field in which the reaction takes place. Johnny, do you remember what I said months ago? Then, under the influence of a suitable gravity field, a man would never die——”

In January, 1936, he said, “The control must be independent of the G-field, or it will be subject to the lengthening of the time interval also. You’d go up, Johnny, and never come down—— What’s the answer?”

In February, Dr. Johnny Latimer, the one to whom all these remarks had been addressed, and the only other person now present in the big laboratory, frowned again at the strange device which had occupied their attention for thirteen months.

The rigid, welded framework of steel tubing formed a hemisphere fully ten feet across the flat top, or diameter, and, mounted into complicated mass of cross braces, struts and supporting members, was an equally complex assembly of electrical apparatus.

There had been no room for the thing on any of the benches, so a space had been cleared for it on the floor, and it rested there on its six air wheels, like the top of an inverted mushroom. He let his glance move among the coils, valves, huge condensers and transformers, and found the maze familiar, now. There was the seat in the center of the top, a nice comfortable seat with pneumatic cushions, and the complex switchboard mounted in a semicircle about it.

On the board were devices which showed the state, at any instant, of any of the dozens of separate mechanisms which combined into the entire machine. There were potentiometers, ammeters, and switches inserted into the many sep-

arate circuits; pyrometers to indicate the temperatures of the huge oscillator tubes, and, most important of all, there were the dozen or so instruments which controlled and registered the G-field.

Latimer mounted the network of steel, placed himself in the seat and smiled gently at his companion—the inventor of this device. “Shall I move it outside?”

“Yes.” Kirschner moved to the wall and threw over a heavy switch. Electric motors whined into life at the other end of the big laboratory. The two huge doors separated silently and Latimer, at the controls of the machine, closed a switch and grasped a rheostat. On its six wheels the strange vehicle rolled forward, passed beneath the roof, and came out upon the cement driveway, into the warm sun of July. It turned off the driveway and moved on over the close-cut lawn, its huge tires leaving no impressions on the grass.

Some fifty yards from the house, Latimer stopped, close to another queer device resembling a complex searchlight, except that the huge parabolic reflector was built not from silvered metal, but from many-strand copper wire.

As Kirschner examined this other device once more, Latimer turned in his seat, and stared again at the low, rambling white house to which his companion had retired three years previously, there to pursue independent research in chemistry with Latimer as his chief assistant.

Exactly why Kirschner had left the university, the engineer still was not sure. His patents brought him an enormous income; yet it barely covered his research expenses. It was true that there were no classes to take up a small fraction of his time, yet there was also no convenient board of trustees, who could be expected to grant any appropriation within reason, such was the reputation of the gray-haired scientist. But Dr. George Kirschner was colossally independent.

New York City was but twenty miles distant from this house, yet the grounds were amazingly extensive. Fifty yards away the trees began, and continued for a hundred yards to the garden wall. Beyond the garden wall was Number 9 highway. Among the trees, in cleared spaces were several greenhouses.

He brought his attention back to his surroundings when Kirschner said, “I think we’re ready.” He made a minute adjustment. “Remember a hundred feet of altitude, exactly. If

you get, beyond the radio beam, or away from its path, no one knows what would happen."

He stepped close to the machine, reached across the maze of apparatus, and gravely shook hands with Latimer. "I think there's no danger. In fifteen minutes I'll bring you down again, and you will have known what it is like to have traveled in time."

Latimer grinned at him suddenly. There was no danger that he could see, either. He said, "O. K.," and before the older man could reply, grasped his switches.

The machine rose smoothly into the air like a silent elevator, to stop and hang motionless when the gravitational altimeter indicated that its height was a hundred feet, exactly. He looked over the side, down through warm air and sunlight and saw the foreshortened figure of Kirschner, staring up at him.

He examined his switchboard carefully, waved an arm and called, "Here she goes!" and closed five switches, the switches which controlled the G-field, that peculiar structure of force of the same nature as gravitation, yet whose influence was locked into a closed sphere. Had the effect not been confined in this manner, the earth would have been disturbed in her orbit, such was the intolerable power generated in that relatively small mass of apparatus.

As his fingers moved the last switch between its silver contacts there flashed about that hemispherical framework and its operator what appeared to be a perfect, continuous concave mirror. It was as if the machine had been suddenly transferred to the center of a hollow sphere, whose sides were silvered with incredible perfection. It was the boundary of the G-field, forming an impenetrable barrier to all actions, and lengthening the time interval of all physical events within its radius.

An unimaginable lethargy fell over Latimer's brain. He attempted to unclasp his fingers and remove them from the last switch. From a great distance he watched his fingers, waiting for signs of the motion which should respond to the command of his brain. As he watched them they seemed to recede into infinite distance, and across a darkening void he saw the tips of them uncoil, slowly. Then his brain sped with accelerated velocity into the void and complete darkness closed about it. The time interval of the reference system which was his body and the machine had lengthened until a second with respect to it would never end. He knew nothing more.

A hundred feet beneath the machine and its operator, Dr. George Kirschner stood, one hand grasping a stop watch and the other the switch, whose closing would send a series of short-wave impulses to the heart of that machine poised in the sunlight, and cut off the G-field. Two minutes before he had watched the strange framework, with Latimer seated in its center, slowly fade from sight until complete invisibility shrouded it. Where it should have been, there was now merely warm air, sunlight and the blue sky.

Dr. George Kirschner frowned at his expensive stop watch and waited—

Latimer's return to the spatial system which constituted the earth was without abnormal incident. There was simply a reversal of those events which had preceded his unconsciousness. It was a strange experience. As the physical processes of his body and of all the matter under the influence of the G-field began to speed up once more, his brain, or consciousness, headed back across that void into the depths of which it had seemed to vanish. Across a shrinking distance he watched his fingers unwrap themselves from the rubber of the switch handle, and was aware that the darkness about him was lifting.

And then, abruptly, the last darkness fled, his hand dropped away from the switch and he was sitting in the center of a strange machine immersed in warm sunlight and air, beneath a blue sky. He finished the drawing in of a breath he had begun, as he thought, some fifteen minutes before, and looked over the side of the machine, down toward where he should see Kirschner.

But he saw no Kirschner, no lawn, no house, no short-wave directional antenna.

He saw only a low hill covered with low verdure, several trees and some long, untended green grass. About the hill, stretching to the distant horizon haze, was a calm countryside. It all had a strange appearance of intentional disarray, as though planned by those who desired pleasant disorder.

Latimer slapped his face so violently that tears came from his eyes. He was not dreaming, then, or was in a dream so veridical that he could never hope to get out of it. He said, "What the blue Sam Hill—" and stared and stared—

He turned back to the control board and began adjusting voltages and making connections. The machine, at its altitude of a hundred feet, sped off across the calm landscape, the

air-speed indicator moved over to the thirty-mile-an-hour mark. It was possible that, somehow, the machine had moved of its own accord away from the house, and that Dr. Kirschner waited in perplexity at no great distance. In which event, how in Heaven's name had he come back to earth time?

He stared at the earth speeding past beneath him. Such a country as this he had never seen in any part of the United States. It was like a colossal, endless, abandoned garden. Over on the left something white kicked up and fled away; it was a cottontail. Latimer had never seen a wild rabbit before, in thirty years. He twisted in his seat, surveyed the rolling, tumbling green and brown, the occasional flashing white of scattered birch and spruce.

As the machine sped silently over the green hills and flats, Latimer understood what a remarkable device it was, which could not only leave time behind, but could also travel with ultimate convenience in space. The propulsion he understood; the G-field, at reduced power, interacted with earth's own gravity field, and the resulting reaction supported the craft in the atmosphere. Forward motion was obtained by allowing the craft to fall "downhill" in a straight line, like rolling on an inclined plane without the plane.

He passed over a tiny lake set like a jewel among the hills, and was nearing the slopes which swelled away from its farther edge when interruption came. There was a strange high whine from behind him, and a second air machine drew up by the side of his speeding craft, keeping pace easily.

In a glance he saw that it resembled an autogiro. Spinning rotors supported it; there was an air screw on each stubby wing, invisible in strangely silent speed.

A hard-faced man with black-clad, wide shoulders put his head through an open window and yelled, "Pull up, guy! Where the hell do you think you're going?"

Latimer stopped his forward velocity, and the plane slowed with him, a dozen feet away. Both machines hung there in the air, one motionless, the other hovering easily. Latimer called, "What do you want?"

The hard-faced man spoke to an invisible companion in the cabin. "He wants to know what we want. The lug!" He spoke across the gap. "What's the name, brother? What's that thing you're riding in?"

Latimer was not unwilling. "I'm John Latimer. What's the date?"

"May fifth. Toss across your iden."

"What year is this?"

"1940. What the hell's the matter with you? Let's see your iden. Snap it up!"

1940! Latimer stopped thinking for a moment. 1940! What had happened? Kirschner should have brought him back, yet Kirschner had not. Then, how had he come back at all? What had awakened him?

The fellow in the plane whispered something and his shoulders moved. "Last chance, brother, where's your iden?"

"What's that?"

The hard-faced man jerked back from the window, and Latimer had a brief flash of a stubby thing with a ridged barrel in his hands. It kicked and roared violently, and the air about him was suddenly filled with crackling, sputtering streams of visible smoke.

Without thinking, Latimer huddled in his seat, and his hand moved on the forward switch, which it had never left. The machine leaped away, and sped with rising speed over the green earth. There was a yell behind him, and he glimpsed lightning smoke trails in the air to his left. He slued away, and advanced the rheostat to its limit, wondering how long his batteries would last.

He looked back and saw not one, but five planes whining in his wake. They would soon be within accurate range again, for his own speed was limited by the weight of his machine, since it functioned with the aid of earth's gravity. He cursed violently.

In a few minutes the leading plane was smoking the air about him with invisible, miniature shells, which came ever closer to their mark. There was absolutely nothing he could do about it. To land was impossible, simply suicide. Nothing he could do— There was one thing! He had come back to earth time once, with the assistance of some power at present wholly beyond his comprehension. He might do it again; even so, possible eternity was preferred to certain death.

Smoke streams were spitting and crackling about the machine as he carefully closed the switches that controlled the G-field. That concave mirror flashed about him again, then lethargy fell and darkness closed in. Great fingers, slow and heavy and deadening, shut over all his movements, and there was a weight upon his brain. Then there was only an eternal void of darkness—

His consciousness struggled against a slowly lifting haze which obscured his thinking, and his eyes fought a thinning darkness which hid his surroundings. His body seemed immeasurably heavy, but its normal lightness returned after a long time; it seemed long, at least. Finally, though, he conquered the incubus and haze and darkness lifted. Again, miraculously, he had come back from the limbo of eternal, infinite time. Some outside agency had interfered with his machine, which he and Kirschner had thought inviolate, and had brought him back to the spatial system of earth.

There was only time for this brief thought to flicker in his brain before, with a faint sense of anticipation, he looked about him.

This time he hung above a vast and endless area of small, white, flat-roofed buildings, set among streets and roads which seemed to have been laid out by a geometrician, in rectangles, squares and triangles—curves having been ignored entirely. The buildings—dwellings by their appearance—were as unvarying as the streets; all were identical within the limits of his vision; they were merely embellished cubes.

The treeless roads were bordered with the green of close-sheared grass, and there were figures walking about on the glaring white under the powerful sun and the faint blue sky. It was like an exaggerated suburb, and the eternal order and discipline had something unpleasant and distasteful about it. Definitely, he did not like it.

He twisted in his seat, and stared from his height in all directions; but the city persisted to all four horizons. He turned back in time to see an air machine bearing down upon him, and caution caused his hand to tighten on the first switch of the G-field bank.

The plane sped up and stopped on invisible rotors, little changed from the machine of his other experience, save that a certain refinement was apparent, a smoother moulding of the motor fairings, even stubbier wings. He felt a sense of duplication, when a window slid back and a head frowned at him.

Latimer stared back, across the few feet of intervening air, and saw that the eyes of this man had weariness in them, that there was a looseness, as of fatigue, in the muscles of the face. He spoke first, "What year is this?"

"Lost your memory?" The inquiry was slow-spoken, as though the fellow would not be surprised at almost anything.

"This is 1980, friend, and I want to see your token. Flash it, will you?"

It was 1980! Latimer, little surprised now, was struck with a new thought. He had slept, the first time, for four years. Now, it seemed that he had skipped forty years. Four and forty. Four was the square of two, and the universe was a union of four dimensions.

"All right, brother," the sad-faced man was mild and patient, "come out of the fog and flash your token. I've other things to do, and I don't want to get tough."

"I haven't got a token," Latimer said. "I don't know what it is, and I want time to explain. Who are you?"

"He hasn't got a token," the fellow said quietly to a companion in the cabin. "Flash a call, will you?" He turned back and said to Latimer, "Last time, friend. Will you show your token?"

"I haven't got one."

The weariness left the slack features, and the fellow snapped, "You damn fool, do you know what you're saying?" Abruptly his head withdrew and there was a gun there instead.

But Latimer was prepared, now. He threw his body flat and pulled at the switch. The machine leaped away from the plane and the smoky streamers which now spurted from it, in jetty ribbons of death. Even the gun was the same, and Latimer wondered, as the machine sped away above the changeless and endless dwellings, if the fellow had been lying about the year, lying reasonlessly. It seemed unlikely.

He looked back and saw not one plane, nor five, but eight machines speeding with rapidly rising velocity after him. He cursed again and considered landing, hunting refuge among the buildings, and decided against the attempt, for it was an unfavorable world to be stranded in.

And so, as the machines were almost within range once more, he closed the circuits of the G-field, and gave himself up to darkness and heavy, lethargic oblivion—

He awoke, for the third time, to hard sunlight and a blue sky, and was dimly puzzled, for in three attempts the laws of chance indicated that he should have returned to darkness and night at least once. That he should have come back to sunshine and a cloudless sky, three times— He looked down and about the machine.

The strange white buildings no longer spread in duplicate



over the land, instead there seemed to have been a reversal to the scene of his first returning, in 1940. There were rolling hills and flats, strewn with the thick green grass, currant bushes, scattered trees and a small lake in the distance. The cycle had moved again.

He had skipped four years, then forty. It would now be the height of perplexity if, this last journey, he had been away for four hundred years of earth time. There was obviously a factor which neither he nor Kirschner had foreseen, a recurring variable like the displacement of the perihelion of a planet, which in some manner was able to cut the field of force which they had called the G-field. Yet why should this factor move in obedience to the decimal system?

He closed a switch, and the machine started forward smoothly, picked up speed and fled over the green land fifty feet beneath. After a while he came upon an incredibly wide road, white-surfaced, and altered his course to follow it into the east. Speeding above its amazing width, fully a quarter of a mile, he examined its length ahead until it was lost in the blue horizon shimmer, eager to see signs of movement upon it, signs of anything.

He increased his speed until the wind whined through the struts of the machine, tore at his hair and whipped the laboratory smock which he still wore. After a few minutes he picked out a speck on the road ahead. At closer distance the speck become double. It was a small vehicle, mounted on two huge wheels, and there was a figure pulling it.

He set the machine down upon the white road and got out.

The figure stopped and looked up as he came across and smiled cheerfully at him. It was, he saw, a girl dressed in a light cloak and a cross between skirts and his conception of a Scottish kilt. She was tall, with wind-blown black hair, and possessed a certain beauty which he could not define.

Latimer said, succinctly, "Stuck? Want any help?"

She said, "No, thanks," and looked calmly past him, at the machine resting on the wide road. He watched her eyes scan it swiftly and intently, then swing back to him, and saw that they were puzzled and surprised.

"A field machine!" she said. "And so old that it must be the grandfather of all field machines. Did you come in that? Where did you get it?"

"I helped to build it," Latimer told her, "and I think I've come farther than I intended. What year is this?"

"Don't you know?" The girl was surprised. "This is 2380. How far have you come?"

There it was—twenty-three eighty. It was the cycle again; four, forty, four hundred. The machine, he thought, must have a screw loose; there must be a fault in it. Perhaps the radio waves which should have shut off the G-field after fifteen minutes of operation, earth time, had been twisted by some warped freak of time and space, something that built up to a potential, like the rising charge of a condenser, and periodically interfered with the mechanism.

"I have come exactly," he said, "four hundred and forty-four years—"

"Four forty-four!" the girl exclaimed. "1936— But that's impossible, you must be mistaken. The curve field wasn't developed until 2060, and the field machine is even more recent—2210, I think. It's impossible."

"That machine," he said firmly, pointing to it, "was developed in 1936, by Dr. George Kirschner and Dr. Johnny Latimer. I am Latimer, and I have come in it against my will. If this is 2380 I have skipped four hundred and forty-four years, and I would like to get back if only to find out what happened to Kirschner, who was a friend of mine."

"You can't go back." Slowly she shook her head. "The curve field operates in one direction only, as you probably know. The interval can be lengthened, but it cannot be shortened or reversed. We have had it for a hundred and seventy years, but few have ever dared to skip more than a dozen years, or less, for it is difficult to control at higher velocities. What are you going to do?"

What could he do? Latimer reflected that another leap forward beyond time might be embarrassing—it would be four thousand years this time, if his reasoning was correct.

"The G-field," he began, "or the curve field, as you call it—do you know all about it? Are you certain that it works one way only?"

She was almost certain. "Although Veblen recently has said otherwise, I think. But I don't know all about it and my brother Lenar does. He might be able to help you. Would you like to come with me and meet him?"

Latimer was willing. He directed her to the seat of the machine and perched himself on the framework, within reach of the controls. She gave him the direction. He started the machine again, and as they flew over the green land he dis-

covered that she was Mora Kessel, university student, living with her brother, who was an instructor somewhere.

He told her more about the enigmatically accidental—he had assumed that some mishap had occurred to Dr. Kirschner—manner in which his life had been transposed across the centuries, and discovered that there was a record, to which one resorted in such matters, but which had not been begun until 2010. Yet it might contain data regarding Kirschner, since he had been quite famous. The record contained the fingerprints and other material concerning all persons born since 2010—

He discovered, in turn, that she had been pulling the vehicle, no great effort since it was almost frictionless, purely for reasons of exercise. It was not self-propelling, being a sort of training shell. She was training for something or other, some type of racing, where it was necessary to possess sufficient physical strength to withstand sudden accelerations. Sport was violent and almost wholly mechanized—

He decided suddenly to visit and inspect the record, of which she spoke, before interviewing her brother Lenar. He was troubled with an intense and consuming curiosity regarding the fate of Kirschner. He was bothered with a faint sorrow. Accordingly, he questioned Mora Kessel and then altered his course, heading for the nearest branch of the record, speeding across a wide river which he failed to recognize, but which she said was the Hudson.

The branch which housed that colossal monument to organization, the record, was an enormous white, flat, low building, with dozens of huge portals. They landed on the green turf surrounding, made their way past banks of enormous flowers, passed along wide walks sparsely occupied by men and women dressed much the same—in the manner of Mora Kessel—and walked under one of the arched portals, into the cool of the building.

Sunshine flooded the place from heavy electron tubes girdling the walls, and they traversed corridor after corridor. Moving floors and escalators, it seemed, had been turned down for reasons of health. Health and science were the dominant factors of this year and age of 2380. Latimer saw hundreds of sections where enigmatic shelves and cabinets bore the numbers of years and months, and at last they entered a large room and headed for a distant shelf.

After careful scanning, Mora Kessel found the volume.

Latimer took it, found the index and flipped the opaque, tough, metallic pages rapidly. And there it was—

George Sachse Kirschner—doctor of this and that—born 1885 A. D.—and so on. Latimer read on eagerly. Kirschner had died in bed! He had died in 1970, at the comfortable age of eighty-five, from “natural causes”! The mystery was thicker than ever. If Kirschner had been stricken during their experiment, only death would have sealed his lips regarding Latimer, still presumably hanging there in mid-air, in the sky. Latimer studied the ample account, in the small, clear print.

Kirschner had been educated at Munich and Princeton, was the discoverer of the proton method for curing leukemia, by killing the excess white corpuscles, inventor of the direct-vision ultra-violet microscope and the infra-red device for examining the state of the moving blood in the veins and arteries three inches beneath the skin—and so on. Latimer had helped on the last two. There were others, some developed after 1937, about which Latimer knew nothing.

Puzzled, he flipped the page—and his heart skipped. There he was, *himself*! Under “Associates” there was the name, John Hervey Latimer, born 1905, educated Massachusetts Institute and so on—Doctor of Science in chemistry—chief assistant to Kirschner; it was all there. All but the date of his death—and the length of his term as chief assistant. In fact, the data was meager. Evidently he had not made much of a mark on the world—evidently he had never returned.

He sighed and let Mora Kessel read it, then together they walked out of the building, and set off once more for home and brother Lenar.

Once they passed over a colossal manufacturing center, stretching for miles beneath the flashing machine, a great mass of white buildings constructed largely from tempered, bubbled glass, sprawling for hundreds of acres along the bank of a convenient river. He learned that those buildings were jammed with eternally moving machines, moulding and processing raw materials into synthetic food, machines which functioned in inscrutable silence, wholly automatic.

As Latimer stared down at this monument to science, he suffered a peculiar hallucination, enigmatic and disturbing. While the machine sped on over the distant hills and grassed plains, he thought he saw the sunlight visibly dim and darken, and became aware of a subdued roaring, like the mutter of far thunder. For an instant it seemed that his brain was re-

ceding from his body into an endless void, he tried to unclasp his fingers from the switch and could not—

The sensation lasted for but an instant, yet time seemed to lengthen out, and just before the hallucination lifted he caught a momentary flash of his body, as though his eyes were outside it. His body was standing with wide-spread feet and head thrown back, and there were two spheres of radiance somewhere. It was like a nightmare; nothing was substantial. He had a foot in each, and the spheres were colossal things. Blood drummed in his ears, and he seemed to be standing between two worlds—

Then, suddenly, he was back on the machine, standing erect against the thrust of the wind. He was standing there in the sunshine and Mora Kessel was there also, her strong fingers holding his right arm tightly, and staring at him with perplexed black eyes.

"Are you ill?" she asked gravely. "You stood up and seemed to be going to faint. What happened?"

"I'm all right," he said. "It was something like fainting, but I'm not ill. I'm all right."

But as he spoke he felt the stirrings of warning somewhere in his brain, and was tormented by doubt. His own time was separated from him now, by many millions of miles of airless, heatless space. There was no such thing as time. Many things had happened while he had been gone, locked into eternity, and, for convenience, men had fixed the order of their occurrence by means of a device called the year. That was all.

But there seemed to be another factor; several times he almost grasped it but the thing eluded him. It seemed to evolve somehow from the thinking of Ouspensky, the conception of time as a static space dimension, with past, present and future existing simultaneously, but perceived in succession due to the limitations imposed by the senses of the observer. The machine had been based on the effect of motion on time according to another conception—that time was simply the causal form of events: Kirschner had named it change, which amounted to the same thing.

His brain struggled with this for a minute. If time was static it was simple to conceive of traveling in both directions; if it was dynamic, merely the name applied to continuous causality, then it was difficult to imagine traveling in any direction but forward—into the future. He had simply skipped time, that was all, and had arrived at the future in a very rational manner. It was as if he had simply slept through it all.

The remainder of the journey was without incident, and finally they came to her home, a low, green structure, squarish and flat-roofed. It seemed that the roof was the accepted place for landing, being braced and strengthened for the purpose. And then, as they were about to land, the haziness of Latimer's dread took on shape.

Again, darkness settled with slow wings about him, and there was a distant mutter, faint as though heard from behind a barrier. Latimer threw all his will against the lethargy which tried to stifle his actions, and his hands on the switches moved frantically. They thumped down upon the white roof with such violence that Mora was thrown flat on the framework of the machine, and Latimer heard his voice yelling, "Get off, Mora! Get off the damned thing!"

But the girl lay still, and Latimer, struggling against that darkness which threatened to engulf his senses, slipped an arm under her shoulders and picked her up. His brain was fleeing again, and across a distance he saw her cloak catch on a projecting switch handle, and come away from her shoulders. His legs moved slowly; as he leaped down from the machine, on to the white roof, he seemed to float gently through the air. But when his feet touched the yielding surface, his legs seemed to die, and be of no more use than twigs.

They could not support his body at all. He collapsed on the roof, his grip loosened, and Mora Kessel slid and rolled away from him. The darkness was almost complete and the roaring violence was like a colossal, sounding voice. Through a dark haze he saw Mora come to her feet and leap toward him, with sudden, shocked realization in her eyes.

Too late!

As he half crouched there on the roof, fighting to get up and away from the machine, there was a gigantic tugging at his body, and instantly it seemed to snatch him back on the framework of that strange device. Then darkness closed in, and even the roaring voice was stilled---

He returned to consciousness as he had done before, but slowly and familiarly now. His eyes pierced a lifting, thinning darkness, and saw that his body was sprawled half out of the seat of the machine, and that there was a well-known scene around him. The last wisps cleared, and he was able to look over the edge of the machine, down through a hun-

dred feet of air and sunshine, and see the foreshortened figure of Dr. George Kirschner, staring up at him.

The gray-haired man yelled, in a cracked wheeze, "Come down, come down, for Heaven's sake!" Then his voice broke.

Without thinking very much, Latimer manipulated his switches carefully, and brought the machine to a gentle rest on the green turf, close to the short-wave transmitter. Kirschner ran up and, as Latimer stepped from the machine, gripped his arm powerfully and yelled, needlessly, "In Heaven's name, what happened? You've been away forty minutes, not fifteen! I've been yelling myself hoarse for a dozen minutes! Where the devil were you? What happened?"

Latimer said slowly, "There is a missing factor, doctor, in your conception of time, for causality does not explain the—"

And there was a driving voice within him saying, "I must get back. I must get back——" as he held out to the startled gaze of Kirschner, an object which he had brought from the seat of the machine—a cloak cut strangely from a cloth of peculiar texture and shade of color, such a thing as no earth girl wore, in 1937 A. D.

# Zen

BY JEROME BIXBY

*Mr. Bixby, accomplished pianist and editor of science fiction magazines, began both writing and editing late in 1949. The present story is his first to be included in a science fiction anthology, according to the record. And a startling little story it is, too! If, however, there ever comes a time when the Solar System, including the Asteroid Belt, is as familiar to explorers and paleontologists as the deserts of Arabia or the atolls of the Pacific, the sort of event described may become one of the more typical dangers encountered. And then again, of course, it may not. In any event, it is a delightful bit of semi-scientific extrapolation, which can be thoroughly enjoyed whether it is "possible" or not.*

It's difficult, when you're on one of the asteroids, to keep from tripping, because it's almost impossible to keep your eyes on the ground. They never got around to putting portholes in spaceships, you know—unnecessary when you're flying by GB, and psychologically inadvisable, besides—so an asteroid is about the only place, apart from Luna, where you can really see the stars.

There are so many stars in an asteroid sky that they look like clouds; like massive, heaped-up silver clouds floating slowly, around the inner surface of the vast ebony sphere that surrounds you and your tiny foothold. They are near enough to touch, and you want to touch them, but they are so frighteningly far away . . . and so beautiful: there's nothing in creation half so beautiful as an asteroid sky.

You don't want to look down, naturally.

I had left the *Lucky Pierre* to search for fossils (I'm David Koontz, the *Lucky Pierre's* paleontologist). Somewhere off in the darkness on either side of me were Joe Hargraves,

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gadgeting for mineral deposits, and Ed Reiss, hopefully on the lookout for anything alive. The *Lucky Pierre* was back of us, her body out of sight behind a low black ridge, only her gleaming nose poking above like a porpoise coming up for air. When I looked back, I could see, along the jagged rim of the ridge, the busy reflected flickerings of the bubble-camp the techs were throwing together. Otherwise all was black, except for our blue-white torch beams that darted here and there over the gritty, rocky surface.

The twenty-nine of us were E. T. I. Team 17, whose assignment was the asteroids. We were four years and three months out of Terra, and we'd reached Vesta right on schedule. Ten minutes after landing, we had known that the clod was part of the crust of Planet X—or Sorn, to give it its right name—one of the few such parts that hadn't been blown clean out of the Solar System.

That made Vesta extra-special. It meant settling down for a while. It meant a careful, months-long scrutiny of Vesta's every square inch and a lot of her cubic ones, especially by the life-scientists. Fossils, artifacts, animate life . . . a surface chunk of Sorn might harbor any of these, or all. Some we'd tackled already had a few.

In a day or so, of course, we'd have the one-man beetles and crewboats out, and the floodlights orbiting overhead, and Vesta would be as exposed to us as a molecule on a micro-screen. Then work would start in earnest. But in the meantime—and as usual—Hargraves, Reiss and I were out prowling, our weighted boots clomping along in darkness. Captain Feldman had long ago given up trying to keep his science-minded charges from galloping off alone like this. In spite of being a military man, Feld's a nice guy; he just shrugs and says, "Scientists!" when we appear brightly at the airlock, waiting to be let out.

So the three of us went our separate ways, and soon were out of sight of one another. Ed Reiss, the biologist, was looking hardest for animate life, naturally.

But I found it.

I had crossed a long, rounded expanse of rock—lava, wonderfully colored—and was descending into a boulder-cluttered pocket. I was nearing the "bottom" of the chunk, the part that had been the deepest beneath Sorn's surface before the blow-up. It was the likeliest place to look for fossils.

But instead of looking for fossils, my eyes kept rising to those incredible stars. You get that way particularly after several weeks of living in steel; and it was lucky that I got that way this time, or I might have missed the Zen.

My feet tangled with a rock. I started a slow, light-gravity fall, and looked down to catch my balance. My torch beam flickered across a small, red-furred teddy-bear shape. The light passed on. I brought it sharply back to target.

My hair did *not* stand on end, regardless of what you've heard me quoted as saying. Why should it have, when I already knew Yurt so well—considered him, in fact, one of my closest friends?

The Zen was standing by a rock, one paw resting on it, ears cocked forward, its stubby hind legs braced ready to launch it into flight. Big yellow eyes blinked unemotionally at the glare of the torch, and I cut down its brilliance with a twist of the polarizer lens.

The creature stared at me, looking ready to jump halfway to Mars or straight at me if I made a wrong move.

I addressed it in its own language, clucking my tongue and whistling through my teeth: "Suh, Zen—"

In the blue-white light of the torch, the Zen shivered. It didn't say anything. I thought I knew why. Three thousand years of darkness and silence . . .

I said, "I won't hurt you," again speaking in its own language.

The Zen moved away from the rock, but not away from me. It came a little closer, actually, and peered up at my helmeted, mirror-glassed head—unmistakably the seat of intelligence, it appears, of any race anywhere. Its mouth, almost human-shaped, worked; finally words came. It hadn't spoken, except to itself, for three thousand years.

"You . . . are not Zen," it said. "Why—how do you speak Zennacai?"

It took me a couple of seconds to untangle the squeaking syllables and get any sense out of them. What I had already said to it were stock phrases that Yurt had taught me; I knew still more, but I couldn't speak Zennacai fluently by any means. Keep this in mind, by the way: I barely knew the language, and the Zen could barely remember it. To save space, the following dialogue is reproduced without bumbings, blank stares and *What-did-you-says?* In reality, our talk lasted over an hour.

"I am an Earthman," I said. Through my earphones, when I

spoke, I could faintly hear my own voice as the Zen must have heard it in Vesta's all but nonexistent atmosphere: tiny, metallic, cricketlike.

"Eert . . . mn?"

I pointed at the sky, the incredible sky. "From out there. From another world."

It thought about that for a while. I waited. We already knew that the Zens had been better astronomers at their peak than we were right now, even though they'd never mastered space travel; so I didn't expect this one to boggle at the notion of creatures from another world. It didn't. Finally it nodded, and I thought, as I had often before, how curious it was that this gesture should be common to Earthmen and Zen.

"So. Eert-mn," it said. "And you know what I am?"

When I understood, I nodded, too. Then I said, "Yes," realizing that the nod wasn't visible through the one-way glass of my helmet.

"I am—last of Zen," it said.

I said nothing. I was studying it closely, looking for the features which Yurt had described to us: the lighter red fur of arms and neck, the peculiar formation of flesh and horn on the lower abdomen. They were there. From the coloring, I knew this Zen was a female.

The mouth worked again—not with emotion, I knew, but with the unfamiliar act of speaking. "I have been here for— for—" she hesitated—"I don't know. For five hundred of my years."

"For about three thousand of mine," I told her.

And then blank astonishment sank home in me—astonishment at the last two words of her remark. I was already familiar with the Zens' enormous intelligence, knowing Yurt as I did . . . but imagine thinking to qualify *years* with *my* when just out of nowhere a visitor from another planetary orbit pops up! And there had been no special stress given the distinction, just clear, precise thinking, like Yurt's.

I added, still a little awed: "We know how long ago your world died."

"I was child then," she said. "I don't know—what happened. I have wondered." She looked up at my steel-and-glass face; I must have seemed like a giant. Well, I suppose I was. "This—what we are on—was part of Sorn, I know. Was it—" She fumbled for a word—"was it atom explosion?"

I told her how Sorn had gotten careless with its hydrogen atoms and had blown itself over half of creation. (This the E. T. I. Teams had surmised from scientific records found on Eros, as well as from geophysical evidence scattered throughout the other bodies.)

"I was child," she said again after a moment. "But I remember—I remember things *different* from this. Air . . . heat . . . light . . . how do I live here?"

Again I felt amazement at its intelligence; (and it suddenly occurred to me that astronomy and nuclear physics must have been taught in Sorn's "elementary schools"—else that *my years* and *atom explosion* would have been all but impossible). And now this old, old creature, remembering back three thousand years to childhood—probably to those "elementary schools"—remembering, and defining the differences in environment between *then* and *now*; and more, wondering at its existence in the different *now*—

And then I got my own thinking straightened out. I recalled some of the things we had learned about the Zen.

Their average lifespan had been 12,000 years or a little over. So the Zen before me was, by our standards, about twenty-five years old. Nothing at all strange about remembering, when you are twenty-five, the things that happened to you when you were seven . . .

But the Zen's question, even my rationalization of my reaction to it, had given me a chill. Here was no cuddly teddy bear.

This creature had been born before Christ!

She had been alone for three thousand years, on a chip of bone from her dead world beneath a sepulchre of stars. The last and greatest Martian civilization, the *L'hrai*, had risen and fallen in her lifetime. And she was twenty-five years old.

"How do I live here?" she asked again.

I got back into my own framework of temporal reference, so to speak, and began explaining to a Zen what a Zen was. (I found out later from Yurt that biology, for the reasons which follow, was one of the most difficult studies; so difficult that nuclear physics actually *preceded* it!) I told her that the Zen had been, all evidence indicated, the toughest, hardest, longest-lived creatures God had ever cooked up: practically independent of their environment, no special ecological niche; just raw, stubborn, tenacious life, developed to a fantastic extreme—a greater force of life than any other known, one that could exist almost anywhere under practi-

cally any conditions—even floating in midspace, which, asteroid or no, this Zen was doing right now.

The Zens breathed, all right, but it was nothing they'd had to do in order to live. It gave them nothing their incredible metabolism couldn't scrounge up out of rock or cosmic rays or interstellar gas or simply do without for a few thousand years. If the human body is a furnace, then the Zen body is a feeder pile. Maybe that, I thought, was what evolution always worked toward.

"Please, will you kill me?" the Zen said.

I'd been expecting that. Two years ago, on the bleak surface of Eros, Yurt had asked Engstrom to do the same thing. But I asked, "Why?" although I knew what the answer would be, too.

The Zen looked up at me. She was exhibiting every ounce of emotion a Zen is capable of, which is a lot; and I could recognize it, but not in any familiar terms. A tiny motion here, a quiver there, but very quiet and still for the most part. And *that* was the violent expression: restraint. Yurt, after two years of living with us, still couldn't understand why we found this confusing.

Difficult, aliens—or being alien.

"I've tried so often to do it myself," the Zen said softly. "But I can't. I can't even hurt myself. Why do I want you to kill me?" She was even quieter. Maybe she was crying. "I'm alone. Five hundred years, Eert-mn—not too long. I'm still young. But what good is it—life—when there are no other Zen?"

"How do you know there are no other Zen?"

"There are no others," she said almost inaudibly. I suppose a human girl might have shrieked it.

*A child, I thought, when your world blew up. And you survived. Now you're a young three-thousand-year-old woman . . . uneducated, afraid, probably crawling with neurones. Even so, in your thousand-year terms, young lady, you're not too old to change.*

"Will you kill me?" she asked again.

And suddenly I was having one of those eye-popping third-row-center views of the whole scene: the enormous, beautiful sky; the dead clod, Vesta; the little creature who stood there staring at me—the brilliant-ignorant, humanlike-alien, old-young creature who was asking me to kill her.

For a moment the human quality of her thinking terrified

me . . . the feeling you might have waking up some night and finding your pet puppy sitting on your chest, looking at you with wise eyes and white fangs gleaming . . .

Then I thought of Yurt—smart, friendly Yurt, who had learned to laugh and wisecrack—and I came out of the jeebies. I realized that here was only a sick girl, no tiny monster. And if she were as resilient as Yurt . . . well, it was his problem. He'd probably pull her through.

But I didn't pick her up. I made no attempt to take her back to the ship. Her tiny white teeth and tiny yellow claws were harder than steel; and she was, I knew, unbelievably strong for her size. If she got suspicious or decided to throw a phobic tizzy, she could scatter shreds of me over a square acre of Vesta in less time than it would take me to yelp.

"Will you—" she began again.

I tried shakily, "Hell, no. Wait here." Then I had to translate it.

I went back to the *Lucky Pierre* and got Yurt. We could do without him, even though he had been a big help. We'd taught him a lot—he'd been a child at the blow-up, too—and he'd taught us a lot. But this was more important, of course.

When I told him what had happened, he was very quiet; crying, perhaps, just like a human being, with happiness.

Cap Feldman asked me what was up, and I told him, and he said, "Well, I'll be blessed!"

I said, "Yurt, are you sure you want us to keep hands off . . . just go off and leave you?"

"Yes, please."

Feldman said, "Well, I'll be blessed."

Yurt, who spoke excellent English, said, "Bless you all."

I took him back to where the female waited. From the ridge, I knew, the entire crew was watching through binocs. I set him down, and he fell to studying her intently.

"I am not a Zen," I told her, giving my torch full brilliance for the crew's sake, "but Yurt here is. Do you see . . . I mean, do you know what you look like?"

She said, "I can see enough of my own body to—and—yes . . ."

"Yurt," I said, "here's the female we thought we might find. Take over."

Yurt's eyes were fastened on the girl.

"What—do I do now?" she whispered worriedly.

"I'm afraid that's something only a Zen would know," I told her, smiling inside my helmet. "I'm not a Zen. Yurt is."

She turned to him. "You will tell me?"

"If it becomes necessary." He moved closer to her, not even looking back to talk to me. "Give us some time to get acquainted, will you, Dave? And you might leave some supplies and a bubble at the camp when you move on, just to make things pleasanter."

By this time he had reached the female. They were as still as space, not a sound, not a motion. I wanted to hang around, but I knew how I'd feel if a Zen, say, wouldn't go away if I were the last man alive and had just met the last woman.

I moved my torch off them and headed back for the *Lucky Pierre*. We all had a drink to the saving of a great race that might have become extinct. Ed Reiss, though had to do some worrying before he could down his drink.

"What if they don't like each other?" he asked anxiously.

"They don't have much choice," Captain Feldman said, always the realist. "Why do homely women fight for jobs on the most isolated space outposts?"

Reiss grinned. "That's right. They look awful good after a year or two in space."

"Make that twenty-five by Zen standards or three thousand by ours," said Joe Hargraves, "and I'll bet they look beautiful to each other."

We decided to drop our investigation of Vesta for the time being, and come back to it after the honeymoon.

Six months later, when we returned, there were twelve hundred Zen on Vesta!

Captain Feldman was a realist but he was also a deeply moral man. He went to Yurt and said, "It's indecent! Couldn't the two of you control yourselves at least a little? *Twelve hundred kids!*"

"We were rather surprised ourselves," Yurt said complacently. "But this seems to be how Zen reproduce. Can you have only half a child?"

Naturally, Feldman got the authorities to quarantine Vesta. Good God, the Zen could push us clear out of the Solar System in a couple of generations!

I don't think they would, but you can't take such chances, can you?

# Let There Be Light

BY HORACE B. FYFE

*After World War Three (or Four, or whatever number you chose to select) there is likely to be very little left of the civilization that climbed so high and fell so far. Descriptions of this final state of Man are among modern science fiction's most effective—and ominous—output. Here a young author, who has been anthologized nearly a dozen times even though he began writing science fiction seriously only four or five years ago, tells of a possible future in which most of our natural resources have been exhausted and are consequently of enormous value. The picture is not a pretty one, but it has its sharp atomic-age moral for modern readers.*

The two men attacked the thick tree trunk with a weary savagery. In the bright sunlight, glistening spatters of sweat flew from them as the old axes bit alternately into the wood.

Blackie stood nearby, on the gravel shoulder of the highway, rubbing his short beard as he considered the depth of the white notch. Turning his broad, tanned face to glance along the patched and cracked concrete to where squat Vito kept watch, he caught the latter's eye and beckoned.

"Okay, Sid—Mike. We'll take it awhile."

The rhythm of the axe-strokes ceased. Red Mike swept the back of a forearm across the semi-shaven stubble that set him as something of a dandy. Wordlessly, big Sid ambled up the road to replace Vito.

"Pretty soon, now," boasted Mike, eyeing the cut with satisfaction. "Think it'll bring them?"

"Sure," replied Blackie, spitting on his hands and lifting one of the worn tools. "That's what they're for."

"Funny," mused Mike, "how some keep going an' others bust. These musta been workin' since I was a little kid—since before the last blitz."

Horace B. Fyfe, LET THERE BE LIGHT. Copyright 1952 by Quinn Publishing Company, Inc. Reprinted by permission of the author from *If: Worlds of Science Fiction*, November 1952.



"Aw, they don't hafta do much. 'Cept in winter when they come out to clear snow, all they do is put in a patch now an' then."

Mike stared moodily at the weathered surface of the highway and edged back to avoid the reflected heat.

"It beats me how they know a spot has cracked."

"I guess there's machines to run the machines," sighed Blackie. "I dunno; I was too young. Okay, Vito?"

The relieving pair fell to. Mike stepped out of range of the flying chips to sit at the edge of the soft grass which was attempting another invasion of the gravel shoulder. Propelled by the strength of Vito's powerful torso, a single chip spun through the air to his feet. He picked it up and held it to his nose. It had a good, clean smell.

When at length the tree crashed down across the road, Blackie led them to the ambush he had chosen that morning. It was fifty yards up the road toward the ruined city—off to the side where a clump of trees and bushes provided shade and concealment.

"Wish we brought something to eat." Vito said.

"Didn't know it would take so long to creep up on 'em this morning," said Blackie. "The women'll have somethin' when we get back."

"They better," said Mike.

He measured a slender branch with his eye. After a moment, he pulled out a hunting knife, worn thin by years of sharpening, and cut off a straight section of the branch. He began whittling.

"You damn' fool!" Sid objected. "You want the busted spot on the tree to show?"

"Aw, *they* ain't got the brains to notice."

"The hell they ain't! It stands out like one o' them old street signs. D'ya think they can tell, Blackie?"

"I dunno. Maybe." Blackie rose cautiously to peer over a bed of blackberry bushes. "Guess I'll skin up a tree an' see if anything's in sight."

He hitched up his pants, looking for an easy place to climb. His blue denims had been stoutly made, but weakened by many rips and patches, and he did not want to rip them on a snag. It was becoming difficult to find good, unrotted clothing in the old ruins.

Choosing a branch slightly over his head, he sprang for it, pulled, kicked against the trunk, and flowed up into the foli-

age with no apparent effort. The others waited below. Sid glanced up occasionally, Vito idly kicked at one of the clubs made from an old two-by-four.

The other lay beneath the piled jackets; but enough of the end protruded to show that they had been chopped from the same timber, gray-painted on one side, stained and gouged on the other where boards had once been nailed. A coil of rope lay beside the axes.

High in the upper branches, Blackie braced himself with negligent confidence and stared along the concrete ribbon.

*From here, he thought, you'd almost think the place was still alive, instead of crumbling around our ears.*

The windows of the distant houses were dark, unglassed holes, but the sunlight made the masonry clean and shining. To Blackie, the ragged tops of most of the buildings were as natural as the tattered look of the few people he knew. Beyond, toward the center of the city, was real evidence of his race's bygone might—a vast jumble of shattered stone and fused metal. Queer weeds and mosses infected the area, but it would be centuries before they could mask the desolation.

Better covered, were the heaps along the road, seemingly shoved just beyond the gravel shoulders—mouldering mounds which legend said were once machines to ride in along the pavement.

Something glinted at the bend of the highway. Blackie peered closer.

He swarmed down the tree from branch to branch, so lithely that the trio below hardly had the warning of the vibrating leaves before he dropped, cat-footed, among them.

"They're comin'!"

He shrugged quickly into his stained jacket, emulated in silent haste by the others. Vito rubbed his hands down the hairy chest left revealed by his open jacket and hefted one of the clubs. In his broad paws, it seemed light.

They were quiet, watching Sid peer out through narrowly parted brush of the undergrowth. Blackie fidgeted behind him. Finally, he reached out as if to pull the other aside, but at that moment Sid released the bushes and crouched.

The others, catching his warning glance, fell prone, peering through shrubbery and around tree trunks with savage eyes.

The distant squawk of a jay became suddenly very clear, as did the sighing of a faint breeze through the leaves overhead. Then a new, clanking, humming sound intruded.

A procession of three vehicles rolled along the highway at an unvarying pace which took no account of patches or worn spots. They jounced in turn across a patch laid over a previous, unsuccessful patch, and halted before the felled tree. Two were bulldozers; the third was a light truck with compartments for tools. No human figures were visible.

A moment later, the working force appeared—a column of eight robots. These deployed as they reached the obstacle, and explored like colossal ants along its length.

"What're they after?" asked Mike, whispering although he lay fifty yards away.

"They're lookin' over the job for whatever sends them out," Blackie whispered back. "See those little lights stickin' out the tops o' their heads? I heard tell, once, that's how they're run."

Some of the robots took saws from the truck and began to cut through the tree trunk. Others produced cables and huge hooks to attach the obstacle to the bulldozers.

"Look at 'em gol" sighed Sid, hunching his stiff shoulders jealously. "Took us hours, an' they're half done already."

They watched as the robots precisely severed the part of the tree that blocked the highway, going not one inch beyond the gravel shoulder, and helped the bulldozers to tug it aside. On the opposite side of the concrete, the shoulder tapered off into a six-foot drop. The log was jockeyed around parallel to this ditch and rolled into it, amid a thrashing of branches and a spurting of small pebbles.

"Glad we're on the high side," whispered Mike. "That thing 'ud squash a guy's guts right out!"

"Keep listenin' to me," Blackie said, "an' you'll keep on bein' in the right place at the right time."

Mike raised his eyebrows at Vito, who thrust out his lower lip and nodded sagely. Sid grinned, but no one contradicted the boast.

"They're linin' up," Blackie warned tensely. "You guys ready? Where's that rope?"

Someone thrust it into his hands. Still squinting at the scene on the highway, he fumbled for the ends and held one out to Mike. The others gripped their clubs.

"Now, remember!" ordered Blackie. "Me an' Mike will trip up the last one in line. You two get in there quick an' wallop him over the head—but good!"

"Don't go away while we're doin' it," said big Sid. "They

won't chase ya, but they look out fer themselves. I don't wanna get tossed twenty feet again!"

The eyes of the others flicked toward the jagged white scar running down behind Sid's right ear and under the collar of his jacket. Then they swung back to the road.

"Good!" breathed Blackie. "The rollin' stuff's goin' first."

The truck and bulldozers set out toward the city, with the column of robots marching a fair distance behind. The latter approached the ambush—drew abreast—began to pass.

Blackie raised himself to a crouch with just the tips of his fingers steadying him.

As the last robot plodded by, he surged out of the brush, joined to Red Mike by their grips on the twenty feet of rope. They ran up behind the marching machine, trailed by the others.

In his right hand, Blackie twirled the part of the rope hanging between him and Mike. On the second swing, he got it over the head of the robot. He saw Mike brace himself.

The robot staggered. It pivoted clumsily to its left, groping vaguely for the hindrance. Mike and Blackie tugged again, and the machine wound up facing them in its efforts to maintain balance. Its companions marched steadily along the road.

"Switch ends!" barked Blackie.

Alert, Mike tossed him the other end of the rope and caught Blackie's. They ran past the robot on either side, looping it in. Blackie kept going until he was above the ditch. He wound a turn of rope about his forearm and plunged down the bank.

A shower of gravel spattered after him as Mike jammed his heels into the shoulder of the highway to anchor the other end. Then he heard the booming sound of the robot's fall.

Blackie clawed his way up the bank. Vito and Sid were smashing furiously at the floundering machine. Mike danced about the melee with bared teeth, charging in once as if to leap upon the quarry with both feet. Frustrated by the peril of the whirling two-by-fours, he swept up handfuls of gravel to hurl.

Blackie turned to run for one of the axes. Just then, Sid struck home to the head of the robot.

Sparks spat out amid a tinkle of glass. The machine ceased all motion.

"All right!" panted Blackie. "All *right!* That's enough!"

They stepped back, snarls fading. A handful of gravel

trickled through Mike's fingers and pattered loudly on the concrete. Gradually, the men began to straighten up, seeing the robot as an inert heap of metal rather than as a weird beast in its death throes.

"We better load up an' get," said Blackie. "We wanna be over on the trail if they send somethin' up the road to look for *this*."

Vito dragged the robot off the highway by the head, and they began the task of lashing it to the two-by-fours.

It was about two hours later when they plodded around a street corner among the ruins and stopped before a fairly intact building. By that time, they had picked up an escort of dirty, half-clad children who ran ahead to spread the news.

Two other men and a handful of women gathered around with eager exclamations. The hunters dropped their catch.

"Better get to work on him," said Blackie, glancing at the sky. "Be dark soon."

The men who had remained as guards ran inside the entrance of polished granite and brought out tools: hammers, crowbars, hatchets. Behind them hurried women with basins and large cans. The original four, weary from the weight of the robot despite frequent pauses on the trail, stepped back.

"Where first, Blackie?" asked one of the men, waiting for the women to untangle the rope and timbers.

"Try all the joints. After that, we'll crack him open down the middle for the main supply tank."

He watched the metal give way under the blows. As the robot was dismembered, the fluid that had lubricated the complex mechanism flowed from its wounds and was poured by the women into a five-gallon can.

"Bring a cupful, Judy," Blackie told his woman, a wiry blond girl. "I wanna see if it's as good as the last."

He lit a stick at the fire as they crossed the littered, once-ornate lobby, and she followed him down a dim hall. He pulled aside the skins that covered their doorway, then stumbled his way to the table. The window was still uncovered against the night chill, but it looked out on a courtyard shadowed by towering walls. To eyes adjusted to the sunny street, the room was dark.

Judy poured the oil into the makeshift lamp, waited for the rag wick to soak, and held it out to Blackie. He lit the wick from his stick.

"It burns real good, Blackie," the girl said, wrinkling her

nose against the first oily smoke. "Gee, you're smart to catch one the first day out."

"Tell them other dames to watch how they use it!" he warned. "This oughta last a month or more when we get him all emptied."

He blew out the dying flame on the stick and dropped the charred wood thoughtfully to the floor.

"Naw, I ain't so smart," he admitted, "or I'd figure a way to make one of them work the garden for us. Maybe someday—but *this* kind won't do nothin' but fix that goddam road, an' what good's that to anybody?"

His woman moved the burning lamp carefully to the center of the table.

"Anyway, it's gonna be better'n last winter," she said. "We'll have lights now."



# *The Brain*

BY W. NORBERT

*The following imaginative and rather ominous look into the dangerous possibilities of modern surgery is here published under the pseudonym of one of America's most brilliant and famous scientist-philosophers, Norbert Wiener. Dr. Wiener prefers to have the pseudonym used since, as he says, he "wishes to make a clear distinction between the work I publish as a scientist and as an objective observer, and the stories I publish for the pure fun of it." The editor can only add that he wishes Dr. Wiener would write more stories for fun, for the reader unquestionably would enjoy such sharp and vivid fictions just as much as the author enjoys writing them.*

The brain is a funny organ. It controls all the sensations of the body and yet it can be touched and cut with no local sensation at all. One man will die of a slight concussion and another can have a crowbar shot through his head with nothing but a ruined disposition to show for it. Recently it has become fashionable to do all sorts of weird things to the brain with needles and hot wires in order to cure or relieve some of the many forms of depressive insanity. It's an ugly business—I don't like it. Sometimes it cuts out a man's conscience, and pretty nearly every time it does eerie things to his judgment and personal balance.

There was a fellow in Chicago, for instance, a big-shot salesman with an insurance company. The only trouble with him was that he had the blues so bad that they never knew whether he would leave for home via the elevator or the tenth-story window. His company begged him to have a little piece of his prefrontal lobe out, and he consented. After that, Mr. Big-shot became Mr. Bigger-shot. As a matter of fact, he outsold every salesman in the history of the company. As a token of their regard, they made him vice-president. They

Norbert Wiener, THE BRAIN. Copyright 1952 by *The Tech Engineering News*, Cambridge, Mass. Reprinted from *The Tech Engineering News*, April, 1952.



forgot one thing, however, that a man with a prefrontal lobotomy isn't very good at following the pea under the walnut shell. When he got out of the selling game into Higher Finance, he went flat and so did the company. No, I shouldn't like to have anyone tamper with my inner wiring diagrams.

This brings me to a case which came to my attention the other day. I belong to a small group of scientists which meets once a month in the private room of a little restaurant. We have a scientific paper to give an excuse for our meeting, but the real reason for it is a miscellaneous interest and an unbridled loquacity on the part of the whole gang. It's no place for the striped pants boys. We rib one another unmercifully; and if you can't take it, the door is always open. I myself am something in between a mathematician and an engineer, but perhaps the bulk of us are medical men. Heaven help the waitresses when the medical boys get talking freely! I won't go so far as to assert that the electric lights go blue, and that the atmosphere smells of sulphur at times, but that is the general idea.

Waterman is in our good graces. He runs a state madhouse some fifty miles away, and looks like the amiable and prosperous proprietor of a delicatessen shop. He is short, fat, walrus-moustached and completely without vanity. He usually has a lame duck in tow. This time he came in with a rather tall, sallow man, whose name I didn't get. I did get the impression that he was a doctor, but he had some of the curious hesitation in company that I have seen in prospectors or engineers who have been too long away from normal civilization, confined in the mountains of Korea or the backwoods of Borneo. It is a mixture of lost familiarity with civilization and overdeveloped self-consciousness and self-criticism. Some of those boys had had to do things that no civilized man can do with impunity to himself, and they carry around the marks ever after.

I do not know how the conversation got around to frontal lobotomy. I think one of the engineering guests asked about it as a possibility for a distant relative who was a mental patient. Everybody present had an opinion about it. A few of them spoke for it, but most of them—even the brain surgeons—did not want any part of it.

Then we got talking about what a modern automobile accident can do to a child's brain. The discussion was not exactly dainty, even as doctors' discussions go. The talk was going hot and heavy; and I do not think anyone noticed anyone but the fellow he was talking to. Suddenly there was a

little crash. We looked around to see Waterman's friend cold out on the floor. His forehead was covered with beads of sweat. Waterman knelt down beside him and felt his pulse.

"I don't think it's anything serious," he said. "He is a patient of mine, but very intelligent, and I thought it might cheer him up a bit to come along. He is suffering from amnesia, and we don't know his real name. I shouldn't have taken the chance of bringing him here. Come on, let's carry him out. It won't be necessary to break up the meeting."

Waterman telephoned to his hospital for an ambulance, while two or three of our medical contingent got in touch with the proprietor of the restaurant. He was flustered, but told us to carry the unconscious man to a couch in a back room. Our patient was beginning to come to a bit. He was in an obvious state of emotional excitement and confusion. He kept talking incoherently. Among the words that came out were "gangster," "Little Paul," "Martha," and "the crash." The words formed sentences, but they were spoken too low for us to understand them.

Waterman fetched his bag up from the cloakroom. He administered some sedative; a barbiturate, I think. For a while, it quieted our man; but you never can tell about these sedatives. After a while the patient opened his eyes. His mutterings became louder and more intelligible. The words were fairly coherent.

Waterman is a good enough doctor to use opportunities when he finds them.

"This is my chance," he said. "He's on a talking jag. Some six weeks ago a cop picked him up in a doorway. The police turned him over to us. He doesn't even remember his name. We know that he has been a doctor, and it isn't hard to see that he has been through some pretty times. Up to now he's been getting back strength, and we haven't wanted to disturb his recovery by questioning him too much. However, since we seem to have got him into a talkative mood, here goes!

The return of the banished memory was fascinating to watch. Waterman is a smooth worker, and it was a delight to hear him ask questions. The new personality emerged like the face of a drowned man when they bring him to the surface with grappling irons. I haven't kept any record of what I saw; but Waterman was writing steadily in a little black notebook. The following conversation is a transcription of his record.

Q. "What is your name?"

A. "My name is Arthur Cole."

Q. "You are a doctor, aren't you?"

A. "I am."

Q. "What medical school did you go to?"

A. "Central Western Medical, in Chicago. Class of 1926."

Q. "Where did you pass your internship?"

A. "I was surgical intern at the Physicians and Surgeons Charity Hospital in Chicago. You know where the hospital is—down at the South End."

I dimly remember the Physicians' and Surgeons' Charity Hospital in Chicago. It was a dingy pile of greasy red brick in that festering hell of dead streets where the South End meets the West End.

Q. "Surgical intern. That's interesting—did you go in for any special branch of surgery?"

A. "Yes, of course, for two years I took pretty much what they gave me, but I always wanted to be a brain surgeon. What was I saying? I'm afraid I am very confused. I had forgotten altogether that I had been a brain surgeon."

Q. "Oh, so you were a brain surgeon. What did you do after your internship?"

A. "I remember a long line of locked corridors and barbed windows. What was it called? It must have been a hospital for the insane. Oh yes, now I recollect. The Mere—Mere—Meredith County Hospital for the insane. That's in Illinois isn't it?"

Q. "I think it is. Do you remember what they called the town?"

A. "Buckminster. No, it wasn't Buckminster. Now, I have it, it was Leominster."

Q. "Yes, that's right, it is at Leominster. How old were you when you went there?"

A. "About thirty."

Q. "Do you remember the year?"

A. "It was in 1931."

Q. "Did you go there alone?"

A. "I went there with my wife. I am married, aren't I? What happened to my wife? She's here, isn't she? Oh, my God! Martha—Martha."

His voice rose to an incoherent scream. Waterman said, "I'm afraid we shall have to try some more sedative. I'm going to make the dose as light as I can. I don't want to lose this opportunity to find out more about him."

The excitement of the patient gradually subsided as the drug took hold. For a few minutes he seemed too dazed to

say anything. Then the confusion began to wear off and Waterman recommenced his inquiries.

Q. "You must help us if we are to help you," he said. "Pull yourself together. How long had you been married when you went to Leominster?"

A. "Not two years. Martha was a nurse at the Chicago Charity Hospital. Martha Sorenson was her name. She came from Minnesota, I remember. Her father owned a wheat farm somewhere near the North Dakota line. We went back there to be married."

Q. "Any children?"

A. "Yes, a boy—Paul. Now it all comes back to me."

He sunk his head in his arms and began to weep. He burst into incoherent cries. "Where is Paul? Where is Paul?" It seemed indecent to be the witness of such pain.

Waterman stood by the head of the couch where Cole lay. I had always thought of him as the life of the party—gay, witty and salty. I had never seen Waterman, the doctor. He was quiet and dignified, and his voice was more soothing than any anodyne. He was Aesculapius himself, the God of Healing.

Q. "Calm yourself, Dr. Cole," he said. "We want to help you, but you are the only man who can teach us how to. Tell us something about the County Hospital. Did you live in?"

A. "For a few months. Then we took an old farmhouse about a mile away. Martha thought we could fix it up, but I didn't see how we could ever dig through that mess of trash and dirt. Martha could make even a pigsty livable. Let's see: I remember there was a U. S. highway passing in front of the house."

He sank onto his face, his head between his arms—his shoulders heaved. "The brakes," he said. "I can hear them scream. The crash! The car turned over. Blood on the road—blood on the road! I could see it and I couldn't do a thing."

Waterman motioned to us to be quiet. I felt the shame of witnessing another man's naked suffering. Gradually the sobs subsided. Again Waterman took up the inquisition.

"Now, don't bother yourself to put it all together," he said. "Just let me ask you questions. It will all come out easier that way. Let's see. What sort of a place was this Goodair?"

A. "Oh, just one of those farming towns, set down on the prairie by pure chance. It was a farming town; that is, except for the factory."

Q. "The factory—what was that? What did it make?"

A. "I never could tell. The people in the town—well, you couldn't believe a word they said. You know the gossip in a small place like that."

Q. "What sort of gossip?"

A. "Some people said it was a bootleg headquarters, and others that it was a headquarters for making drugs. Anyhow, I never liked the place."

Q. "Why not?"

A. "It was a low building of crumbling concrete left over from World War I. I took a walk over there one day. I always felt that somebody was watching me, and I didn't dare to go very near. It was surrounded by a tangle of giant pigweed, and ditches half-filled with a scummy green water. There were a lot of dismantled wrecks of old cars there, and some neglected farm machinery. Nobody ever seemed to go there for weeks at a time, but every now and then we saw a big car drive up just about dusk."

Q. "What sort of a car?"

A. "It looked like a fancy limousine, but it drove like a truck—and the man in it—"

Q. "When did you see the man?"

A. "That was when the car was coming down our road at about eighty miles just before—Oh God! I saw my car open up like a wet paper boat and spring across the road. They were in it. My Paul—my Martha—my poor little Paul."

Cole became inarticulate again; he twitched all over. I have only seen the like in an experimental animal on the operating table. Waterman gave him another dose. I don't know whether of sedative or stimulant, and Cole gradually quieted down.

Q. "Tell me about the man in the car."

A. "Tall and fat and well-dressed. A red scar went from the corner of his eye to his mouth."

Q. "Do you remember what they called him?"

A. "Macaluso, I think. But they never spoke of him by his name. The country people didn't talk of him much, but when they did they called him *The Brain*."

Q. "Was he the man who made the drugs?"

A. "I think so, but a friend of mine told me that he was a big-shot bank robber, too. A slick article, they said. The police had been looking for him a long time, but they hadn't been able to get anything on him which would stick."

Q. "What happened after the accident?"

The patient made as if to answer, but the words would not come through his mouth. The doctor waited silently until Cole

seemed to take hold of himself. He spoke bitterly, forcing his words between his teeth.

A. "It broke my wife's back," he said. "From then to the day she died, she never walked one step. My boy had the left side of his skull crushed in against the seat in front. When I saw it, it was flat and utterly without shape. My partner at the hospital was a good man and saved his life. That is, saved him as a blind, deaf, paralyzed, healthy lump of flesh. With the care that he will get in an institution he will probably outlive most well children. You know what that means. Care that you can't get at a state institution and money—money—money. Or else that I would have to live all my life with this horror right in front of me. My God! It can't be real. It isn't real."

Q. "Didn't they ever try to compensate you for the damage? Of course, I don't mean that they could really compensate you, but you must have needed a lot of money to take care of your wife and child."

A. "They tried to compensate me, all right. A few days after the accident, I was approached over the phone by a local lawyer named Peterson. Peterson was regarded as a pretty slick article in the village. He wanted to know some lawyer representing me whom he could get in touch with. I had a friend named Epstein who did some of the hospital's legal business, so I gave Peterson his name. Epstein told me to keep off the telephone, and to stall Peterson until after he had a chance to talk with me."

Q. "What happened then?"

A. "Epstein came over, and I asked him why he was so cagey. He told me that Peterson was hand in glove with Macaluso and did his legal business for him. He also told me something about the Brain's connections and his tie-up with the county authorities. It did not seem possible to do anything against him. While Epstein was talking Peterson came in. He had a dapperly-waxed little moustache, a frock coat, and an eyeglass hung on a black ribbon. I didn't like the sight of him, but I must say that he was polite."

Q. "He made you an offer though, didn't he?"

A. "He didn't let us know who his principal was, and he disclaimed all responsibility. He tendered me a check for \$30,000 for full release. His patter was pretty glib, but I couldn't turn down his money. I would have taken it, if Epstein hadn't told him that we couldn't sign the paper for less than \$50,000, as the hospital expenses were going to be so

severe and long-lasting. Peterson made a show of protest and I had the good sense to keep quiet. Finally Peterson came across with an offer of \$50,000, and Epstein advised me to accept it."

Q. "Well, that compensation must have left you in a financially possible position. What happened then?"

A. "There wasn't anything we could do about Paul. He could eat and he was healthy enough in a vegetative way, but he wasn't my child any more. He had to stay in bed, and he was blind, deaf, and paralyzed. There wasn't a trace of intelligence to be seen. We managed to get him taken at one of the few institutions for cases of that sort, but he was scarcely enough of a human being for us to see him except at long intervals."

Q. "What happened to your wife?"

A. "They took care of her at the State General Hospital about twenty miles away. At first she did pretty well, and then I even thought of building a special house for her with ramps and special kitchen equipment. However her kidneys had not been too good for years and that is always the weak point for paraplegics. She went downhill rapidly. In about three months she sank into a uremic coma, and never opened her eyes again. She died in the late fall, but mercifully my colleagues in the hospital were good to me, so we could be together as much as possible in the last days. The funeral was at her home in Minnesota. Her father was a grim old Swedish farmer and did not say much, but I could see he was a broken man."

Q. "I don't see that there was anything left to keep you at Leominster. Did you go back?"

A. "Yes, I did. The train from the West came into the station at about ten in the evening. I noticed two rather strange-looking fellows loitering about and they seemed to be waiting for me. One was a big six-foot bruiser with a broken nose. The other was a lean, wizened, sallow man of ordinary height. He wore a tight overcoat, kept his hat well over his eyes and his hands in his pockets. The prize fighter sidled over to me and said in a hoarse, wheezy voice, 'We've got a job for you. The Boss is hurt.' 'The Boss,' said I, 'do I know him?' 'Sure you do,' wheezed the prize fighter. 'Everybody knows him. You know him. They call him the Brain. We was driving down the turnpike at a pretty fair clip (it wasn't more than eighty), when a cow steps into the road. Well, the cow's beef, and the car's junk. It turned over three times. The

Brain was thrown up against the windshield and we don't like his looks. We keeps ourselves to ourselves, and we was on private business so we can't take the Brain to a hospital. It's a job down your line. We know you and they tell us you're a guy who can turn out a classy piece of work. We think you're a right guy. If you aren't, it don't matter anyhow. Come along.'

"I said I would have to go back to the hospital to collect my bag. 'Big boy,' said Tight Overcoat, 'be good and do what you're told. Come along.' Then he said to the other fellow, 'Beefy, you talk too much.'

"There wasn't anybody around that I could call and the shops were closed up. I didn't like the looks of the situation, but there was nothing to do but come along. They drove out about a mile and a half to the concrete factory surrounded by lank growths of pigweed and beggar's lice. Somebody yelled out, 'Hey, give us the high sign.'

"Beefy muttered something which seemed to be satisfactory. Then they took me by both arms and hustled me into an office. It was comfortable and even elegant, quite different from what I had expected from the bare boards and broken windows of the rest of the factory. They pushed me into the room and I tripped over the threshold and fell on my face. I got up again and found there were a couple of other men in the room. One of them was Peterson. He helped me to get up. The other fellow was a brisk business executive type in a brown tweed suit. I never did learn his name, but I think he was the Brain's tie-up with big business. Peterson said to me, 'I am sorry that we have got to be somewhat uncereemonious with you, but we are not in a position in which we can choose our methods or our manners. We do not wish you any harm, but you must understand that you have got to be discreet. Mr. Macaluso has just had an accident, and it would not be discreet to take him to a hospital. We are depending on you for help, and I promise you that you will be well paid for it.'

"Supposing I say no?" I looked slowly at their faces and turned cold.

"In that case, Doctor Cole, we shall have to take measures to protect ourselves. You are an intelligent man, and I am sure you will appreciate the nature of those measures.'

"I hesitated a moment and then made up my mind. All right, I'll do it. Where is the patient? They opened up the door of an inner office, furnished even more luxuriously than the main one. The Brain was sitting on an overstuffed leather chair with his head lolling back over the cushion. His face was



covered with an unhealthy deep flush, and the scar stood out even more clearly than I had remembered. His mouth was open. His breath came out stentoriously, and there was a line of dried blood coming from his left nostril, as if a stream had been stenchd not more than a minute or two ago. His head was wrapped in a clean towel. 'Mr. Macaluso was engaged in a business trip of a very private nature,' said Brown-tweed. 'His car hit a cow. He was thrown into the windshield. It would be highly undesirable for us, and I may say for you, if any news of his condition should leak out.'

"I unwrapped the bandage. Macaluso's eyes were staring forward into emptiness. The pupils were unequal. I started to palpate the forehead. It was out-of-shape like a watermelon kicked by a horse. As I touched the skull, Peterson leaned forward; Brown-tweed looked at his fingernails, and stood up suddenly as the bone grated when I pressed on it. It was a clear case of depressed fracture of the left frontal bone. I took my fingers away and told Brown-tweed that I would have to operate at once, and that I would have to send back for my tools.

"Don't worry about that,' he said. 'We have already taken steps to secure anything that may be needed.'

"He passed me a doctor's bag with J. McC. in gold letters just under the handle.

"Isn't that Dr. McCall's bag?" I said.

"It might be,' said the other fellow, 'but that is no concern of yours. How carelessly they do make these car locks.'

"I felt better when I knew I had McCall's bag to work with. His techniques are somewhat different from mine, but anyway I would have a good kit. They were all there—trephine, elevators, electric saw, sodium amytal, novocaine, and alcohol.

"Can you make it?" said my new friend.

"I can, said I, hoping I could. I felt very calm and very powerful.

"I looked around for a pan to boil water in and some towels and a good flat table to work on. The business man followed my eyes.

"You can use the desk,' he said. 'The Brain won't worry about a few spots on it. The water is already hot in the lavatory, and we have plenty of towels in the linen room. Cupid there used to work as an attendant in the State Hospital until he cooked a patient. That's all right, Cupid,' he remarked. 'It's quite all right to talk before the Doctor.'

"Evidently somebody had known how to prepare for an operation. There were a couple of pair of clean coveralls to take the place of surgical gowns. I put one on, and Cupid put on the other. We laid him out—comfortably flat on his back.

"I got busy. The atmosphere was easier and I first shaved the whole head and bathed it in alcohol. Then I injected the novocaine. When this had taken hold, I injected a deeper local anaesthetic into the tissues around the crushed frontal sinus. I didn't want to use a general anaesthetic because it was too important to watch the return of the patient to consciousness as the pressure was relieved. Then I cut the flap of scalp and heard the grating of the trephine as it bit itself into the bone.

"I must admit that Cupid was a good surgical nurse. He knew just when to pass me a hemostatic forceps on a gauze pad, and he seemed to appreciate what I was doing. Even under these weird circumstances, I must admit that I felt complimented.

"Perhaps the most unpleasant moment of the operation is when the sawed circle breaks off from the rest of the skull. Then there is the problem of stenching the flow of blood from under the dura, the brain's cellophane wrapping. I could see Macaluso beginning to come to life again and I could hear his softer and more regular breathing. He opened his eyes. They had lost their glassy unequal stare and his lips began to mouth words.

"'Where am I?' he said. 'What has happened?'

"'Take it easy, Brain,' said the businesslike man. 'You've had an accident. You are in good hands. Dr. Cole is taking care of you.'

"'Cole,' he said. 'I had a little business with him a while ago. He's a right guy. Can I speak with him?'

"'Here I am,' I said as calmly as I could. 'What have you to tell me?'

"'I am sorry about that other accident. You took it like a brick. Bygones is bygones. You'll do a good job on me, won't you?'

"I suppose that if he had not flicked me on the raw like this, reminding me of my loss, the whole thing might have come out differently. As it was, I made my mind up. I tried to keep all appearance of emotion suppressed; but I felt white and when I started to reassure the Brain, and tell him that I was giving his case my closest personal consideration and the advantage of my best judgment, Cupid turned around and looked at me in a way that I didn't like.

"'We are not through yet,' I said. 'Now be very quiet, and I will finish the operation and clean up.'

"I knew what I was going to do, and I don't think I have ever been more deft. At any rate, I was going to settle my relations with Mr. Macaluso once and for all.

"Suddenly Cupid called out, 'Say, Doc, what's you doing? That doesn't look Kosher to me.'

"I said to him quietly, 'This is my judgment and I am taking the responsibility.' I felt I had the upper hand.

"The other fellow from the car, the one who pushed a revolver at me through his pocket, turned to Macaluso and said, 'Brain, Cupid is opening his trap again.' The patient was bandaged except for a small area of operation, but he was perfectly conscious. I like to have them that way in brain operations. It's safer, and besides the brain's surface has no feeling.

"'That's all right,' he said. 'Cole is a friend of mine. Don't let Cupid hold up the operation. He talks too much.'

"I had completed the debridement, and still had one particular job to do before replacing the bit of skull removed by the trephine.

"'Look out,' said Cupid. 'He is. . . .'

"The man who had had his hands in his pocket hit Cupid over the head with the butt of his revolver. 'Shut your damn trap,' he said. Cupid lay dead to the world on the floor, and a stream of blood began to creep from one ear. I suppose he had a fracture of the base of the skull, but they wouldn't let me attend to him. I don't even know whether he died or not. I had to walk over Cupid's body to get to the washroom to clean up. When I came back Brown Tweed was waiting. 'Here are \$50,000,' he said. 'You understand that you are through at Leominster. If we ever find you in this part of the country again, you know just how long you will last. We will furnish you transportation to the coast, and you can set yourself up in business again under another name. Now remember, or else.'

"I didn't say anything. The money didn't mean a damn thing to me. Nothing did. The Brain started mumbling through his bandages, 'Give him \$100,000, boys. I feel fine.'

"I told them what to do for him and took the money offered—ninety-nine shiny new thousand dollar bills and one thousand in fifties and hundreds. They gave me a ticket to San Francisco. Beefy drove me through the night to the Chicago airport. He did not leave me until I was safe aboard the through

plane to San Francisco. Once I was on the plane, I took all the money but a few dollars for my immediate needs and folded it up in the big envelope that I found in the pouch behind the seat in front of me. I addressed it to the County Hospital and gave it to the stewardess to mail. Now I had no debts, no money and no friends in this world. It did not seem real. I could go anywhere, and I had nowhere to go. At last I was in a cold sweat, and felt as if the half of me was dead and in the grave. That's about all I remember. I have dim recollections of tramp jungles, freight yards, and riding the rods. How I ever got into Dr. Waterman's care I don't remember. They told me a policeman picked me up for a drunk in a doorway."

Cole had spoken more and more slowly as his drugs took hold, and the rest that he desperately needed began. He closed his eyes and passed into a quiet sleep.

I asked Waterman, "Do you believe this yarn?"

"I hate to say," said Waterman. "The man has certainly been through hell, but there is nothing in what he says that a good imagination couldn't invent. I don't quite get his remarks about what he did to the Brain before closing up the wound. There is nothing particularly impressive about reducing a depressed fracture. Have you any ideas?"

"I don't know," I said. "He could have killed Macaluso on the spot, but he didn't. I don't quite see what he was getting at."

We heard a distant siren growing louder and in a few minutes the ambulance from the State Hospital drove up. Two agile young attendants came in under the direction of a white-clad intern. They picked Cole up, transferred him to a stretcher, and carried him away.

Waterman was tired and sat with us for a few minutes before driving out to the hospital in his own car. We smoked in silence.

"I think he dropped something," said Waterman. "Isn't that a wallet?" It contained a coin or two and a few mementos belonging to his present hospital period.

"Wait a minute," said Waterman. "I think I know something about these wallets. They have a secret compartment inside. Give it to me." He took it and after a little manipulation, he turned it inside out.

"Yes, I think there is a secret compartment. Let's see what's in it."

It contained nothing but a Chicago newspaper clipping two years old. It said.

BRAIN GANG WIPED OUT  
PLUTORIA BANK BREAK FLOPS  
ONE HUNDRED GRAND LOOT RECOVERED

It went on to tell of a bank robbery attempt made by Macaluso and his henchmen. The attempt had failed grossly. The bank officials were more than ready for the robbers and gave a good account of themselves in the exchange of shots. Those of the robbers who survived to make a getaway were caught between their pursuers and a fast freight where they had to cross the tracks. Not one lived to tell the tale. The paper commented on the incident, remarking that the Brain was known as a careful operator who always planned his jobs well, and that this was the first time he had omitted the most ordinary and elementary precautions.

Waterman took a long puff on his pipe and let the smoke escape upward. I was completely puzzled.

"I don't understand," I said. "It just doesn't make sense. What do you suppose really happened?"

"I don't know," he answered, "but I can guess. In the course of the operation Cole had exposed Macaluso's frontal lobe. It would have been a matter of only a few seconds to undercut it and perform what would be the equivalent of a thoroughgoing frontal lobotomy. It would not have driven Macaluso out of his mind, but would have made him thoroughly unfit to carry out any plans requiring judgment and caution."

I puffed my cigar. "It's not a nice story," I said, "but at any rate, it was a thoroughly successful operation."

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