A Fawcett Gold Medal Book

13 GREAT STORIES OF SCIENCE-FICTION

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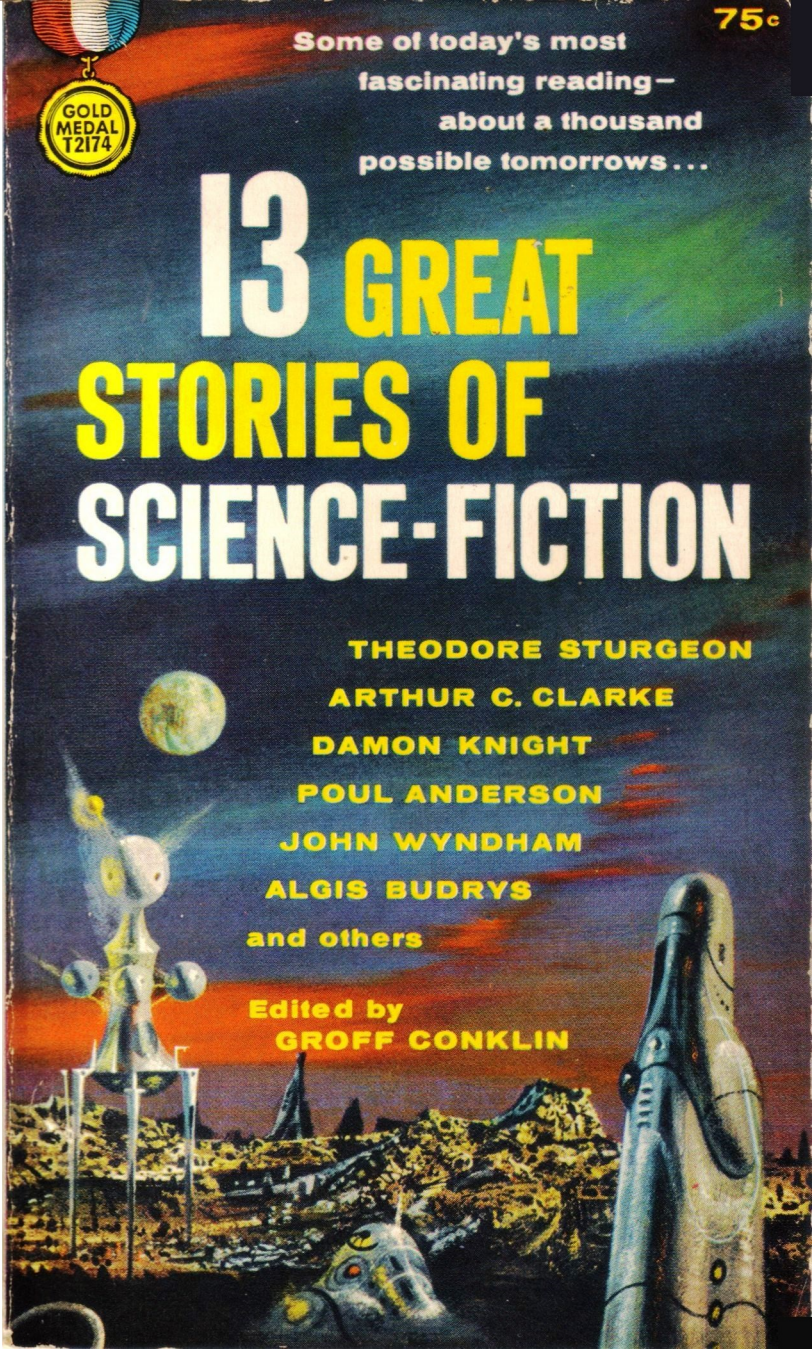

WHO . . .

. . . says you can't find the earth's most fantastic machine sitting in the middle of a neighborhood junkyard?

. . . says you can't use skywriting to build a mausoleum big enough to bury a city?

. . . says you can't play a monstrously elaborate joke on all of the world's leading scientists?

. . . says you can't build a better mousetrap that will by itself destroy civilization?

. . . says you can't stop interplanetary war by finding a certain hungry ragpicker?

Who?

You?

Then read on . . .

Other Fawcett Gold Medal Books
edited by Groff Conklin

SEVEN TRIPS THROUGH TIME AND SPACE

12 GREAT CLASSICS OF SCIENCE FICTION

13
GREAT STORIES OF SCIENCE FICTION

Edited by Groff Conklin

A FAWCETT GOLD MEDAL BOOK
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Contents

Introduction

WHAT constitutes invention—in science fiction as well as science? The dictionary definition is, like so many dictionary definitions, vague, generalized, variable, and subject to wide and conflicting interpretations.

Says Webster: "Invention: the power of inventing, or conceiving, devising, originating, etc. . . . Something invented; specif.: *a.* A fabrication of the imagination; fiction; hence, falsehood. *b.* A device, contrivance, or the like, originated after study and experiment."

In other words, "invention" does not only mean a patentable gadget or process that can be used to increase the luxury, the efficiency, or the complicatedness of modern life. It can mean many other things. To take a single example, there are musical "inventions;" and the great Johann Sebastian Bach described his as having as their purpose not only to teach the student "To learn . . . to acquire good ideas, but also to work them out themselves . . ." The function of invention, in science, in fiction, in music, in everything, is thus to *expand the use of the mind*, as well as to turn out something "new."

How widely the term is used! There have been poets who said that God "invented" the universe. Critics often write in praise of an actor's "inventiveness" in portraying a character or illuminating a situation. Once there was a social poet who wrote:

> "So every great invention means
> Another multi-millionaire
> Whose hirelings—also his machines—
> Subsist on less than prison fare."

That was by an almost-forgotten American named John Luckey McCreery (d. 1906).

Almost every kind of invention in the book is to be found in this collection, except musical. There is an invention that begins a new civilization, and another that ends an old one. There is a silly little invention that makes skywriting impractical—for a limited time and over a limited area, at any rate. And a very serious one that enslaves mankind. One tale tells of a man who "invented" a new animal, and another that reports on a fellow who "dis-invented" noise. And there are a couple describing inventions that are patently (pardon the pun) beyond science; in this, perhaps, partaking more of the aspects of Webster's definition dealing with "fabrications of the imagination" rather than with contrivances "originated after study and experiment." In other words, sheer fantasy inventions.

Only one important type of standard science fiction invention is omitted from this book: a type that has, indeed, become almost tiresomely commonplace in recent years. That is the time machine. There are no time machines in this collection because (if you want the fact flatly) *everyone* will expect some time machine stories: so why include the obvious in a highly unobvious book like this?

Meanwhile, I hope you enjoy this book—and also that you draw a few conclusions from it, comparing its screwy ideas with the real world as we know it. The conclusion: almost anything can be invented! What could have been more unbelievable than radio to a person who hadn't been born in an era in which Hertzian waves were a commonplace? Or hydrogen bombs, in a world without $E=Mc^2$? So don't be surprised if some of the notions in this compilation have become reality by the time you get hold of it. (On the other hand, don't be surprised if they haven't, either!)

There are, of course, many hundreds of "inventions" in the science fiction gold mine, and we can only scratch the surface of the lode in a book as brief as this. For those who want more of the same, many of the over one hundred anthologies of science fantasy that have appeared during the past twelve years are as full of 24-karat invention as a good home-made raisin bread is of raisins. The present selection does, however, offer a selective survey of the almost incredibly rich vein of

ideas that the science fiction imagination habitually explores; and that is all it is intended to do. If it encourages you to further reading in this exciting field—why, so much the better!

—GROFF CONKLIN

The War Is Over

by

ALGIS BUDRYS

The first sentence of this somber story sets its mood with a disturbing incongruity, for only birds and reptiles have nictitating membranes over their eyes. Certainly no human named Frank Simpson ever had them. . . . Well—read on, and discover what strange wonders tomorrow's cybernetic science can be imagined as developing to control living beings—and on an intergalactic scale, at that.

A SLOW WIND was rolling over the dusty plateau where the spaceship was being fueled, and Frank Simpson, waiting in his flight coveralls, drew his nictitating membranes across his stinging eyes. He continued to stare abstractedly at the gleaming, just-completed hull.

Overhead, Castle's cold sun glowed wanly down through the ice-crystal clouds. A line of men stretched from the block-and-tackle hoist at the plateau's edge to the exposed fuel racks at the base of the riveted hull. As each naked fuel slug was hauled up from the plain, it passed from hand to hand, from man to man, and so to its place in the ship. A reserve labor pool stood quietly to one side. As a man faltered in the working line, a reserve stepped into his place. Sick, dying men staggered to a place set aside for them, out of the work's way, and slumped down there, waiting. Some of them had been handling the fuel since it came out of the processing

pile, three hundred miles across the plains in a straight line, nearer five hundred by wagon track. Simpson did not wonder they were dying, nor paid them any attention. His job was the ship, and he'd be at it soon.

He wiped at the film of dirt settling on his cheeks, digging it out of the serrations in his hide with a horny forefinger-nail. Looking at the ship, he found himself feeling nothing new. He was neither impressed with its size, pleased by the innate grace of its design, nor excited by anticipation of its goal. He felt nothing but the old, old driving urgency to get aboard, lock the locks, throw the switches, fire the engines, and go—*go*! From birth, probably, from first intelligent self-awareness certainly, that drive had loomed over everything else like a demon just behind his back. Every one of these men on this plateau felt the same thing. Only Simpson was going, but he felt no triumph in it.

He turned his back on a particularly vicious puff of dust and found himself looking in the direction of Castle town, far over the horizon on the other side of the great plains that ended at the foot of this plateau.

Castle town was his birthplace. He thought to himself, with sardonic logic, that he could hardly have had any other. Where else on Castle did anyone live but in Castle town? He remembered his family's den with no special sentimental affection. But, standing here in the thin cold, bedeviled by dust, he appreciated it in memory. It was a snug, comfortable place to be, with the rich, moist smell of the earth surrounding him. There was a ramp up to the surface, and at the ramp's head were the few square yards of ground hard-packed by the weight of generations of his family lying ecstatically in the infrequently warm sun.

He hunched his shoulders against the cold of the plateau, and a wish that he was back on the other side of the plains, where Castle town spread on one side of the broad hill above a quiet creek, crept past the demon that had brought him here.

The thought of Castle town reminded him of his father—"*This* is the generation, Frank! *This* is the generation that'll see the ship finished, and one of us going. It could be *you*, Frank!"—and of the long process, some of it hard work, some of it inherent aptitude, some of it luck, that had brought him here to pilot this ship into the stars.

And, having brought his reverie back to the ship, he

turned away from the plains and Castle town, looking at the ship.

Generations in the building, and generations in the learning how before the first strut was riveted to the first former. The search, the world over, for a fuel source. Literally hundreds of exploring teams, some of them never coming back, disappearing into the uncharted lands that surrounded the plains. The find, at last, and the building of the pile. The processing of the fuel that killed its handlers, no one knew why.

The ship, rising here on this plateau year by slow year, at the focus of the wagon tracks that led out to the orepits and the metalworkers' shops where swearing apprentices struggled with hot melt splashing into the molds, and others tore their hands to tatters, filing the flash off the castings.

The hoist operators, hauling each piece up the side of the plateau because this had been the place to build the ship, up where the air was thin and the ground was thousands of feet below, and the patient teamsters, plodding up with new wagonloads, the traces sunk deep in their calloused shoulders.

Now it had all culminated, and he could go.

The crunch of gravel turned his head to his left, and he saw Wilmer Edgeworth coming up to him with the sealed, rusty metal box.

"Here it is," Edgeworth said, handing him the box. Edgeworth was a blunt, unceremonious man, and Simpson could not have said he liked him very much. He took the box and held it.

Edgeworth followed his glance toward the ship. "Almost ready, I see."

Simpson nodded. "The fueling's almost done. They'll rivet those last plates over the racks, and then I can go."

"Yes. Then you can go," Edgeworth agreed. "Why?"

"Eh?"

"Why are you going?" Edgeworth repeated. "Where are you going? Do you know how to fly a spaceship? What have any of us ever flown before?"

Simpson looked at this madman in startlement. "*Why!*" he exploded. "I'm going because I want to—because I'm here, because the ship's here, because we've all of us worked ourselves to the bone for generations, so I could go!" He shook the metal box violently under Edgeworth's jaws.

Edgeworth backed several steps away. "I'm not trying to stop you," he said.

Simpson's rage fell away at the disclaimer. "All right," he said, catching his breath. He looked at Edgeworth curiously. "What made you ask questions like that, then?"

Edgeworth shook his head. "I don't know," he said. He was not so constituted as to be able to top his first climax. His biggest bolt was shot, and now his manner lost much of its sureness. "Or, rather," he went on, "I don't know what I know. But something— Something's wrong. Why are we doing this? We don't even understand what we've built here. Listen—did you know they found little towns, like Castle town, but much smaller? With little men in them, about three inches tall, walking on their hands and feet, naked. They can't talk, and they don't have any real hands."

"What's that got to do with this?"

Edgeworth's head was wagging. "I don't know. But—did you ever look at the boneyard?"

"Who wants to?"

"Nobody wants to, but I did. And, listen—our ancestors were smaller. Their bones are smaller. Each generation, going back—their bones are smaller."

"Is that supposed to mean something to me?"

"No," Edgeworth said. The breath whistled slowly out between his teeth. "It doesn't mean anything to me, either. But I had to tell someone."

"Why?" Simpson shot back.

"Eh?"

"What's the use of that kind of talk?" Simpson demanded. "Who cares about old bones? Who looks in boneyards? The ship's the only important thing. We've sweated and slaved for it. We've died and wandered away into who knows where, we've mined and smelted and formed metal to build it, when we could have been building other things for ourselves. We've fought a war with time, with our own weak bodies, with distance, dragging those loads up here, we've hauled them up and built the ship and now I'm *going!*"

He saw Edgeworth through a red-shot haze. He blinked his eyes impatiently, and slowly the driving reaction to any obstacle was drained out of his bloodstream again, and he could feel a little sheepish.

"Sorry, Edgeworth," he muttered. He jerked his head to-

ward the ship as the sound of riveting mauls came hammering toward him. The filled fuel racks were being plated over, and the long line of empty-handed fuel handlers was sinking down toward the ground, resting and watching the ship being finished.

"Well, I'm going," Simpson said. He put the metal box under one arm and walked toward the ship's ladder, passing among the men who rested on the ground. None of them looked up at him. *Who* went didn't much matter. It was the ship they were interested in.

The inside of the ship was almost all hollow shell, latticed by girders converging on a series of heavy steel rings. Shock-mounted in the cylinder of free space inside the rings was a hulking, complex machine, full of hand-drawn wires and painstakingly blown tubes, all nestled together in tight patterns, encased in fired clay, and wrapped around with swaths of silicone rubber sheeting. Heavy wiring ran from the apertures in the final shield of pressed steel, and joined the machine to a generator. Other wires ran to posts projecting from the inner hull plating. Nobody knew what it was for. A separate crew had built it while the hull sections were being formed, taking years at the job. Simpson looked at the shield seams, and realized the word for that kind of process was "welding."

Below the main compartment were the engines, with their heavy lead bulkhead. "Now, what's *that* for?" he remembered asking when he saw it being levered into place.

"Buddy, *I* don't know, and I specified for it." The crew foreman spread his hands helplessly. "The ship just . . . wouldn't feel right . . . without it."

"You mean it wouldn't fly without a ton of dead weight?"

"No. No . . . I don't think that's it. I think it'd fly, but you'd be dead, like the fuel-handlers, before you got there." The foreman shook his head. "I think that's it."

In the nose of the ship, hanging over Simpson's head as he clung to the interior ladder beside the air lock, was the piloting station. There was a couch in gimbals, and there were control pedestals rooted in the tapering hull and converging on the couch. The nose was solid, and Simpson wondered how he'd see out. He suspected there'd be some way. With one last look around, he clambered up the ladder and into

the couch, moving awkwardly with the box under his arm. Once in the couch, he found a frame jutting out of its structure. The box fitted it exactly, with spring clips holding it fast.

He settled himself in the couch, fastening broad straps over his hips and chest. He reached out tentatively, and found all the controls in easy distance of his fingers.

Well, he thought to himself, I'm here and I'm ready.

His fingers danced over a row of switches. In the belly of the ship, something rumbled and the wan emergency lights went out as the operating lights came on. A cluster of screens mounted over his head, inside the gimbal system, came to life and showed him the outside, all around and fore and aft. He took his last look at the plateau and the watching men, at the sky overhead and the plains behind him. Up here in the ship's nose, that much higher above the plains, he thought he could just make out Castle town's hill.

But he had no time for that. His hands were flying over the controls. Ready lights were flashing on his board, and somewhere in the forest of girders behind him, auxiliary motors were working themselves up toward full song. He pulled the operating levers toward him, and the massive engines began to growl. He tripped interlocks, and more fuel canisters began sliding down their racks, slipping into place. His mouth opened, and he began to heave for breath. He felt the ship tottering, and felt panic flash through him. In the next instant, calm settled on him knowledgeably. It was all right. The ship was just breaking loose. It was all right, the ship was all right, and he was going. At last, at last he was going.

The after screens were blank with the haze of burning sand. The ship rumbled up into the sky, incinerating the watchers on the plateau behind it.

He had never, never in his life imagined that anything like this lay beyond the sky. There were no clouds, no curtains of dust, no ripples of atmosphere, no diffused glows of light. There were stars and nothing but stars, with nothing to veil them, strewn over the black in double handfuls, forming themselves into coagulating spirals and sheets of light, gigantic lenses and eggs of galaxies, sun after sun after sun. He stared at them open-mouthed, while the massive ship charged at them, completely bewildered. But when the time came to

trip controls he had heretofore left scrupulously alone, he did it precisely and perfectly. The machine, nestling in the girders behind him, gulped at power from the generator, surged it through into the hull, and in an instant in which he saw quite clearly why the ship had needed so much internal bracing, he was in hyperspace. He ran through it like a man on a raft on a broad river at night, and then he was out again, with alarm bells exploding through the hollow ship, and hull after gigantic interstellar spaceship hull occluding the new stars around him.

He cut off all power except signal circuits and lights, rested one hand protectingly on the metal box, wondering what was in it and where he'd come, and waited.

Simpson pushed through the inner lock hatch into the Terran ship and stopped, looking at the two aliens waiting for him.

They were smooth-skinned and tannish-white, with soft-looking fibrous growths trimmed into shape on their scalps. "Soft-looking" was a good general description, too. Their skins were flexible as cloth, their faces were rounded, and their features were muddily defined. Soft. Pulpy. He looked at them with distaste.

One of them muttered to the other, probably not allowing for Simpson's range of hearing: "Terran? From *that*? I don't believe it!"

"How'd he understand enough to get in here, then?" the other snapped back. "Be yourself, Hudston. You heard me using the phone. He's got a terrible accent, and some odd idioms, but it's Terran, right enough."

Simpson deciphered their mushy intonations. He should have been angry, but he wasn't. Instead, there was something welling up in his throat—something buried, something that had begun not with him but with generations past, bottled up for all this time and now bursting out:

"The war's over!" he shouted. "It's all over—we've won it!"

The first Terran looked at him in astonishment, one eyebrow raised. "Really? What war is that? I wasn't aware of any."

Simpson felt confused. He felt empty, too, and bewildered at what had erupted from his larynx. He didn't know what answer to make. He waited for himself to say something

new, but nothing else came. Uncertainly, he offered the metal box to the Terran.

"Let's see that!" the second Terran said quickly, snatching it out of Simpson's hand. He stared down at the lid. "Good God!"

"What is it, Admiral?" Hudston asked. The second Terran wordlessly showed him the stamping on the lid, which had never meant anything to Simpson or anyone else on Castle.

"T.S.N. Courier Service?" Hudston spelled out. "What the deuce— Oh, of course, sir! Disbanded in the Twenty-fourth Century, wasn't it?"

"Late Twenty-third," the admiral muttered. "When the hyperspace radio network was completed."

"Four hundred years, sir? What's *he* doing with it?"

The admiral was fumbling with the box. The lid everyone on Castle thought was sealed sprang open. The admiral pulled out a sheaf of crumbling maps, and the leather-covered book that had been under them. Neither of the Terrans was paying any attention to Simpson. He stirred uneasily, and saw several short rods in the compartment wall swing to follow his move.

The admiral brushed carefully at the book's cover. He peered down at the gold-stamped lettering. "Official Log, TSNS *Hare*. All right, now we're getting somewhere!" He thumbed gingerly through the first few pages, silently showing Hudston the date, shaking his head, then going on. "Routine stuff. Let's get to the meat, if there is any." He stopped and looked at Simpson again for a moment, shook his head violently, and resumed searching through the pages. Then he said: "Here it is, Hudston! Listen:

" 'Proceeding at full speed, course for Solar System. All well,' " he read. " 'At 0600 GST, Eglin Provisional Government concluded truce pending armistice. Signatories were—' Well, that doesn't matter. They've all been dust a long time. Let's see what happened to him." The admiral paged forward. "Here we are. Here's the next day's entry. It's interrupted here, you'll notice, and finished later: 'Proceeding at full speed, course for Solar System. In hyperspace. All well. Estimated Time of Arrival, Griffon Base, +2d., 8hrs.'

"Notice the squiggle here, Hudston—he must have jerked his arm. Now: 'Resumption of log: Chance encounter with Eglin picket boat, apparently ignorant of truce, resulted in severe torpedo damage Compartments D-4, D-5, D-6, D-7. Ship out of control. Engines and hyperspatial generator

functioning erratically, and ship definitely off course, though navigation at present impossible. Have sustained superficial burns and simple fractures, right leg and left arm.'

"Here's the next day's entry: 'Ship still out of control, and engines and generator continue erratic. Almost all ship's instruments sprung or short-circuited by explosion shock. Navigation impossible. Ship now falling in and out of hyperspace at random intervals. Attempted shut-off of generator with no success. Suspect complex progressive damage to co-ordinator circuits and tuning grids.' "

"Why didn't he call for help, sir?"

The admiral glared at Hudston. "He couldn't. The reason he was out there in the first place was because they couldn't communicate faster than light, except by couriers. He was stuck, Hudston. Hurt and trapped. And that, by the way, is the last entry in the official log. The rest of it's a short journal:

" 'Crash-landed about 1200 GST on small, uninhabited, unknown planet. The constellations don't make any sense, even by Navigational Projection. I'm down here for good.

" 'The ship went to hell when I hit. Now I've got two broken legs, and some gashes. Got the medkit out, though, so that's not much problem. Not right away. I'm losing blood inside, and I can't figure out how to put a Stedman splint on that.

" 'Did some exploring this afternoon. From where I am, this place looks like nothing but grass, but I saw some mountains and rivers before I hit. It's cold, but not cold enough to bother, unless it's summer now. Maybe it's spring. I'll worry about winter when I get to it.

" 'Wonder how long it's going to be before Earth finds out the war's over, now?' "

Simpson's head jerked. There were the words again. He felt more and more confused, and more and more listless and empty. He should have been interested in this ship, and in these people. But he only turned his head perfunctorily, and neither the smooth, massive bulkheads, glowing with their own light, nor the two Terrans in their scarlet uniforms, seemed to be able to make much real impression on him.

He was here. He'd made it. And he didn't seem to care what happened next.

"There's not much more to the journal," the admiral was

saying. " 'Feel pretty rocky today. Not much doubt about it —I'm losing more than I can stand. Been eating Prothrombin bars like candy, but no help. Running out of them, anyway.

" 'Food'd get to be a problem, anyway. There doesn't seem to be anything I can eat on this place, except for some little things that look like a cross between a prairie dog and a lizard. Take about two dozen of them to make one breakfast.

" 'No use kidding myself. If my AID can't hold my insides together, Vitamin K isn't going to do it either. Food doesn't turn out to be a problem after all.

" 'That brings me to a pretty interesting thought. I've got this piece of information, and an AID's supposed to live inside you and see it gets through. Never thought about it much, before. Always managed to deliver my own messages. But here's this thing, now, that's half-alive in its own right, living inside me. It's built so it's *got* to see that any information I have gets to the right people. I've even heard of AIDs jumping out of a man and crossing over to an Eggy, and making *him* bring the message in. They're smart as hell, in their own way. Nothing stops them. Nothing shuts them off.

" 'Well, here I am God knows where, all by myself, where nobody'll ever find me. If I had a ship, I could just get in it and go. Bound to hit Federation territory sometime. But I haven't got a ship. I haven't even got much of me. I wonder what the AID's going to do now.' "

The admiral looked at Hudston. "That's the end of it. It's signed 'Norman Castle, Ensign, TSN,' and that's the end of it."

Hudston looked casually at the admiral. "Fascinating," he said. "That *was* quite a problem for his AID, wasn't it? I suppose, with the crude model he must have had, it simply died with him."

"AIDs don't die, Hudston," the admiral said slowly. He closed the old logbook, and his face was twisting under the cumulative impact of an idea. "If you've got one AID, you've got a thousand. And they never give up," he said, his voice dropping to a whisper. "They're too unintelligent to give up, and too shrewd."

He looked at Simpson. "Though I don't suppose that one had progressed far enough to have a time sense. Not a real time sense. Not one that could judge when its mission was obsolete." He shook his head at Simpson. "The war's over,"

he told him. "It's over a long time. But thanks, anyway. You did your job."

Simpson didn't hear him. He felt empty. The demon was gone out of him, and he felt his mind closing in, losing interest in things that were important to men. He was down on the deck, on his hands and feet, tearing at his clothes with fretful jaws and whimpering.

The Light

by

POUL ANDERSON

In its quiet, reticent way (not referring to the story's style, which is on the hectic side, but to its denouement), this tale of the first moon trip packs one of the biggest wallops of any science fiction story I have ever read. It is about an invention that has not yet been "discovered"—but that was used once, well over 400 years ago! On a first reading, the story infuriated me. "Nonsense!" I cried. But I could not get it out of my mind; it haunted me. And I'll wager that it will haunt you, too.

And remember—it could *be true. If it really did happen, you can be sure that the original inventor would have suppressed his discovery "for the good of humanity"—and to save his neck—and history would not have been at all changed.*

YOU'VE got to realize this is the biggest secret since the Manhattan Project. Maybe bigger than that. Your life has been investigated since you got out of rompers and—

No, blast it! We're not a gang of power-nutty militarists. Think I wouldn't like to yell the truth to all the world?

But it might touch off the war. And everybody knows the war will mean the end of civilization.

I should think that you, as a historian, could see our reasons. Machiavelli is the symbol of cold-blooded realism . . .

and you don't have to tell me that he was only an exceptionally clear-headed patriot. I've read *The Prince* and the *Discourses.*

Frankly, I'm surprised that you're surprised. Just because I know enough math and physics to be in Astro, why should I be an uncultured redneck? No, sir, I've traveled around and I spent as much time in the museums of Europe as I did in the taverns.

I'll admit my companions on the Moon trip looked a bit askance at me because of that. They weren't robots, either, but there was so much to learn, it didn't seem that one human skull could hold it all. Down underneath, I think they were afraid my memories of the *Virgin of the Rocks*—the one in London, I mean, that's the best one—would crowd out my memories of orbital functions. So I made a point of showing off all the astrogational knowledge I had, during rehearsals, and it may have antagonized Baird a little.

Not that we had any fights. We were a tightly woven team when the *Benjamin Franklin* left the space station and blowtorched for the Moon. It's just—well, maybe we were somewhat more tense than we would have been otherwise.

There were three of us, you remember. Baird was the skipper and pilot, Hernandez the engineer, and I the instrument man. A single person could have handled the ship if nothing went wrong, but three were insurance—any one of us could do any of the other jobs. Also, of course, since this was to be the first actual landing on the Moon, not merely a swing around it, we thought our numbers were peeled down to the bare minimum.

Once in orbit, we hadn't much to do for several days. We floated upward, watching Earth recede and Luna grow against the deepest, blackest, starriest night you have ever imagined. No, you haven't imagined it, either. Pictures don't convey it, the splendor and loneliness.

It was very quiet in the ship. We talked of little things, to keep that silence at arm's length. I remember one conversation pretty well and it touches on the why of all this secrecy.

Earth hung sapphire in the middle of darkness and the stars. Long white auroral streamers shook from the poles like banners. Did you know that, seen from such a distance, our planet has belts? Very much like Jupiter. It's harder than you'd believe to distinguish the continental outlines.

"I think that's Russia coming into view," I said.

Baird glanced at the chronometers and the orbital schedule taped to the wall, and worked his slipstick a minute. "Yeah," he grunted. "Siberia ought to be emerging from the terminator right about now."

"Are they watching *us*?" murmured Hernandez.

"Sure," I said, "They've got a space station of their own, haven't they, and good telescopes on it?"

"Won't they grin if we barge into a meteor!" said Hernandez.

"If they haven't already arranged an accident," grumbled Baird. "I'm not a damn bit sure they're behind us in astronautics."

"They wouldn't be sorry to see us come to grief," I said, "but I doubt if they'd actually sabotage us. Not a trip like this, with everybody watching."

"It might start the war?" said Baird. "Not a chance. Nobody's going to wipe out a nation—knowing his own will be clobbered, too—for three spacemen and a ten-million-dollar hunk of ship."

"Sure," I replied, "but one thing can lead to another. A diplomatic note can be the first link in a chain ending at war. With the antipodal hydrogen missile available to both sides, you get an interesting state of affairs. The primary aim of national policy has become the preservation of the status quo, but at the same time the tension created makes that status quo exceedingly unstable.

"Do you think our own government would be sending us to the Moon if there were any military benefit to be gained? Hell, no! The first thing which looks as though it will tip the balance in favor of one side will make the other side go to war, and that means the probable end of civilization. We gain points—prestige—by the first Lunar landing, but not a nickel more. Even as it is, you'll note the Moon is going to be international territory directly under the U.N. That is, nobody dares claim it, because there just might be something of real strategic value there."

"How long can such a balance exist?" wondered Hernandez.

"Till some accident—say, a hothead getting into power in Russia, or anywhere else, for that matter—touches off the attack and the retaliation," I said. "Or there's the faint hope that we'll come up with a gadget absolutely revolutionary—oh, a force screen able to shield a continent—before they have

any inkling of it. Then we'll present the world with a *fait accompli* and the Cold War will be over."

"Unless the Russians get that screen first," said Hernandez. "Then it'll be over, too, but the bad guys will have won the bloodless victory."

"Shut up," snapped Baird. "You both talk too much."

It had been the wrong thing for me to say, I knew, out there in the great quiet night. We shouldn't have carried our little hates and fears and greeds beyond the sky and out into space.

Or perhaps the fact that we can be burdened with them and still reach the Moon shows that Man is bigger than he knows. I couldn't say.

The waiting wore us down, that and the free-fall. It's easy enough to get used to zero gravity while you're awake, but your instincts aren't so docile. We'd go to sleep and have nightmares. Toward the end of the trip, it happened less often, so I suppose you can get completely adjusted in time.

But we felt no dramatic sense of pioneering when we came down. We were very tired and very tense. It was merely a hard breakneck job.

Our landing site hadn't been chosen exactly, since a small orbital error could make a big difference as far as the Lunar surface was concerned. We could only be sure that it would be near the north pole and not on one of the *maria*, which look invitingly smooth but are probably treacherous. In point of fact, as you remember, we landed at the foot of the Lunar Alps, not far from the crater Plato. It was rugged country, but our gear had been designed for such a place.

And when the thunder of blasts had faded and our deafened ears tolled slowly toward quiet, we sat. We sat for minutes without a word being spoken. My clothes were plastered to me with sweat.

"Well," said Baird at length. "Well, here we are."

He unstrapped himself and reached for the mike and called the station. Hernandez and I crowded the periscopes to see what lay outside.

It was eerie. I've been in deserts on Earth, but they don't blaze so bright, they aren't so absolutely dead, and the rocks aren't so huge and razor-cornered. The southern horizon was near; I thought I could see the surface curve away and tumble off into a foam of stars.

Presently we drew lots. Hernandez got the small one and

stayed inside, while I had the privilege of first setting foot on the Moon. Baird and I donned our spacesuits and clumped out through the airlock. Even on Luna, those suits weighed plenty.

We stood in the shadow of the ship, squinting through glare filters. It wasn't a totally black, knife-edged shadow—there was reflection from the ground and the hills—but it was deeper and sharper than any you'll see on Earth. Behind us, the mountains rose high and cruelly shaped. Ahead of us, the land sloped rough, cracked, ocherous toward the rim of Plato, where it shouldered above that toppling horizon. The light was too brilliant for me to see many stars.

You may recall we landed near sunset and figured to leave shortly after dawn, two weeks later. At night on the Moon, the temperature reaches 250 below zero, but the days are hot enough to fry you. And it's easier—takes less mass—to heat the ship from the pile than to install a refrigerating unit.

"Well," said Baird, "go ahead."

"Go ahead and what?" I asked.

"Make the speech. You're the first man on the Moon."

"Oh, but you're the captain," I said. "Wouldn't dream of —no, no, Boss. I insist."

You probably read that speech in the papers. It was supposed to have been extemporaneous, but it was written by the wife of somebody way upstairs who believed her claim to be a poet. A verbal emetic, wasn't it? And Baird wanted *me* to deliver it!

"This is mutiny," he grumbled.

"May I suggest that the captain write in the log that the speech was delivered?" I said.

"Judas priest!" he snarled. But he did that, later. You understand you're hearing this under the Top Secret label, don't you?

Baird remained in a foul temper. "Get some rock samples," he ordered, setting up the camera. "And on the double! I'm being cooked alive."

I picked loose some of the material, thinking that the traces I left would probably last till the Sun burned out. It seemed an act of desecration, though Lord knew this landscape was ugly enough—

No, I thought, it wasn't. It was only so foreign to us. Do you know, it was several hours before I could really *see* everything? It took that long for my brain to get used to some of those impressions and start registering them.

Baird was taking pictures. "I wonder if this lighting can be photographed," I remarked. "It isn't like anything that ever shone on Earth." And it wasn't. I can't describe the difference. Think of some of the weird illuminations we get on Earth like that brass-colored light just before a storm, things like that—and multiply the strangeness of them a millionfold.

"Of course it'll photograph," said Baird.

"Oh, yes. In a way," I said. "But to get the feel of it, you'd need such a painter as hasn't lived for centuries. Rembrandt? No, it's too harsh for him, a cold light that's somehow hell-hot, too—"

"Shut up!" The radio voice nearly broke my earphones. "You and your blasted Renaissance!"

After a while, we went inside again. Baird was still mad at me. Unreasonable, but he'd been under a breaking strain, and he still was, and perhaps this wasn't the right place to chat about art.

We fiddled around with our instruments, took what observations were possible, had a meal and a nap. The shadows crept across the land as the Sun rolled downhill. It was a very slow movement. Hernandez examined my rock samples and said that while he wasn't a geologist, this didn't look like anything on Earth. We were told later that it was new to the experts. Same minerals, but crystallized differently under those fantastic conditions.

After our rest, we noticed that the low Sun and the irregular landscape had joined to give us a broad, nearly continuous band of shade clear to Plato Crater. Hernandez suggested we use the chance to explore. It would be after sunset before we could get back, but the ground wouldn't cool off so fast that we couldn't return with the help of our battery packs. In sunless vacuum, you don't lose heat very fast by radiation; it's the Lunar rock, cold to the core, which sucks it out through your boots.

Baird argued, for the record, but he was eager himself. So, in the end, we all set out and to hell with doctrine.

I won't describe that walk in detail. I can't. It wasn't simply the landscape and the lighting. On the Moon, your weight is only one-sixth as much as on Earth, while the inertia remains the same. It feels a bit like walking under water. But you can move fast, once you get the hang of it.

When we came to the ringwall, there were still a couple of hours till sundown, and we climbed it. Tricky work in

that undiffused dazzle and those solid-looking shadows, but not very hard. There was an easy slope at the spot we picked and a kind of pass on top, so we didn't have to climb the full height, which is a little under 4000 feet.

When we reached the summit, we could look down on a lava plain sixty miles across; the farther side was hidden from us. It seemed almost like polished black metal, crossed by the long shadow of the western ringwall. The downward grade was steeper, its base lost in darkness, but it could also be negotiated.

My helmet, sticking into the direct sunlight, was a Dutch oven; my feet, in the shade, were frozen clods. But I forgot all that when I saw the mist below me.

Have you heard of it? Astronomers have noticed it for a long time, what seemed to be clouds or—something—in some of the craters. Plato is one. I'd been hoping we'd solve the mystery this trip. And there, curling in ragged streamers a quarter mile below me, was the fog!

It boiled out of the murk, glowed like gold for a moment as it hit the light, and then it was gone, evaporated, but more came rolling up every minute. Not a big patch, this one couldn't have been seen from Earth, but—

I started down the wall. "Hey!" cried Baird. "Get back here!"

"Just a look," I pleaded.

"And you break your leg and have to be carried home, with the night coming on? No!"

"I can't break anything in this suit," I told him. True enough. Space armor is solid metal on the outside—even those trick expanding joints are metal—and the plastic helmet is equally strong. I suppose a man could fall hard enough to kill himself on the Moon, if he really tried, but it would take some doing.

"Come back or I'll have you court-martialed," said Baird between his teeth.

"Show a heart, Skipper," begged Hernandez.

Eventually he talked Baird around. It was only me the captain was irritated with. We roped ourselves together and made a cautious descent.

The mist was coming out of a fissure about halfway down the wall. Where the shadows fell, our lights showed it collecting in hoarfrost on the rocks, then boiling gently

away again. After dark, it would settle as ice till dawn. What was it? Water. There's a water table of some kind, I guess, and—I don't know. It suggests there may be indigenous life on the Moon, some low form of plant life maybe, but we didn't find any while we were there. What we found was—

A broad ledge lay just beneath the fissure. We scrambled to it and stood looking up.

Now you'll have to visualize the layout. We were on this ledge, several yards across, with the ringwall jutting sheer above and a cliff falling below into blackness. Far away, I could see the steely glimmer of the crater floor. The ground was all covered with the fine meteoric dust of millions of years; I saw my footprints sharp and clear and knew they might last forever, or until thermal agitation and new dustfall blurred them.

Ten feet overhead was the fissure, like a petrified mouth, and the mist came out of it and smoked upward. It formed almost a roof, a thin ceiling between us and the sky. And the Sun was behind the upper wall, invisible to us. The peaks reflected some of its beams down through the fog.

So we stood there in a cold, faintly golden-white radiance, a fog-glow—God! There's never been such light on Earth! It seemed to pervade everything, drenching us, cold and white, like silence made luminous. It was the light of Nirvana.

And I had seen it once before.

I couldn't remember where. I stood there in that totally alien dream-light, with the mist swirling and breaking overhead, with the stillness of eternity humming in my earphones and my soul, and I forgot everything except the chill, calm, incredible loveliness of it—

But I had seen it somewhere, sometime, and I couldn't remember—

Hernandez yelled.

Baird and I jerked from our thoughts and lumbered to him. He stood crouched a few feet away, staring and staring.

I looked at the ground and something went hollow in me. There were footprints.

We didn't even ask if one of us had made them. Those weren't American spaceboots. And they had come from *below.* They had climbed the wall and stood here for a while, scuffed and paced around, and presently we located the trail going back down.

The silence felt like a fiddle string ready to snap.

Baird raised his head at last and gazed before him. The light made his face a thing of unhuman beauty, and somewhere I had seen a face lit that way. I had looked at it, losing myself, for half an hour or more, but when, in what forgotten dream?

"Who?" whispered Baird.

"There's only one country that could send a spaceship to the Moon secretly," said Hernandez in a dead voice.

"British," I croaked. "French—"

"We'd know about it, if they had."

"Russians. Are they still here?" I looked down into the night welling up in Plato.

"No telling," said Baird. "Those tracks could be five hours or five million years old."

They were the prints of hobnailed boots. They weren't excessively large, but judging from the length of the stride, even here on the Moon, they had belonged to a tall man.

"Why haven't they told the world?" asked Hernandez wildly. "They could brag it up so—"

"Why do you think?" rasped Baird.

I looked south. Earth was in half phase, low above the horizon, remote and infinitely fair. I thought America was facing us, but couldn't be sure.

There was only one reason to keep this trip a secret. They had found something which would upset the military balance, doubtless in their favor. At this moment, there on Earth, the Kremlin was readying the enslavement of all the human race.

"But how *could* they have done it secretly?" I protested.

"Maybe they took off in a black ship when our space station was on the other side of the planet. Shut up!" Baird stood without moving.

The Sun went lower, that eldritch light died away, and the blue radiance of Earth took its place. Our faces grew corpse-colored behind the helmets.

"Come on," said Baird. He whirled around. "Let's get back to the ship. They have to know about this in Washington."

"If the Russians know we know, it may start the war," I said.

"I've got a code."

"Are you sure it can't be broken? That it hasn't already been?"

"You trouble-making whelp!" he shouted in a fury. "Be quiet, I tell you!"

"We'd better have a closer look," said Hernandez gently. "Follow those prints and see."

"We didn't bring any weapons," said Baird. "I'd be surprised if the Russians were as careless."

I won't detail the arguments. It was finally settled that I would look further while Baird and Hernandez returned. I had about an hour to follow that trail, then must hurry home if I didn't want to freeze solid.

I looked back once and saw a space-armored shape black across the stars. There were more stars every minute as the sunlight faded and my pupils expanded. Then the shadows walled me in.

It was a rough climb, but a quick one. The stone here was dark and brittle; I could track the stranger by the lighter spots where he'd flaked off chips as he scrambled. I wondered why those spots should be lighter when there was no oxygen around, but decided a photochemical effect was involved.

It was hard to see my way in the shade. The flashbeam was only a puddle of undiffused light before me. But soon I came out in the Earth-glow, and when my eyes had adjusted, it was easy enough. In half an hour, I was on the crater floor. The Sun was behind the ringwall. Black night lay over me.

Not much time to spare. I stood on dark, slick lava and wondered whether to follow those dim footprints in the dust. It might be a long way. Then I shrugged and went bounding off, faster than the other man had gone.

My heart thudded, the suit filled with stale air, it was hard to see the trail by Earthlight. I was more aware of those discomforts than of any danger to my life.

I was a little past the limit of safety when I found the camp.

There wasn't much to see. A long track of plowed dust and chipped stone, where something with runners had landed and taken off again . . . but no sign of a rocket blast! A few scars where a pick had removed samples. Footprints. That was all.

I stood there with the crater wall a loom of night behind me and the mist rising thicker, blue-tinged now. I stood thinking about somebody who landed without needing rockets and never told anyone. I looked around the sky and saw the

ruddy speck of Mars and felt cold. Had the Martians beaten us to our own Moon?

But I had to get back. Every minute I lingered whittled down the chance of my returning at all.

One more look—

There was a little outcrop of granite not far away. I thought it might be a cairn, but when I got there, I saw it was natural. I shrugged and turned to go.

Something caught my eye. I looked closer.

The rock was sleet-colored in the Earthlight. It had one flat surface, facing my planet. And there was a cross hacked into the stone.

I forgot time and the gathering cold. I stood there, thinking, wondering if the cross was merely a coincidental symbol or if there had also, on Mars or on some planet of another star, been One who—

The million suns wheeled and glittered above me.

Then I knew. I remembered where I had seen that light which lay on the wall at sundown, and I knew the truth.

I turned and started running.

I almost didn't make it. My batteries gave out five miles from the ship. I reported over the radio and continued moving to keep warm, but my feet quickly froze, I stumbled, and each minute the cold deepened.

Baird met me halfway, ripped off my pack and connected another unit.

"You moron!" he snapped. "You blind, bloody, pudding-brained idiot! I'm going to have you up before a court-ma ial if—"

"Even if I tell you who that was in Plato?" I asked.

"Huh?"

We were in the ship and my toes thawing before he got me to explain. It took a lot of talking, but when he grasped the idea—

Of course, Intelligence has been working overtime ever since we came home and told them. They've established now that there was no Russian expedition. But Baird and Hernandez and I have known it ever since our first night on the Moon.

And that, Professor, is the reason you've been drafted. We're going overseas together, officially as tourists. You'll search the archives and I'll tell you if you've found anything

useful. I doubt very much if you will. That secret was well kept, like the secret of the submarine, which he also thought should not be given to a warring world. But if somewhere, somehow, we find only a scribbled note, a hint, I'll be satisfied.

It couldn't have been done by rockets, you see. Even if the physics had been known, which it wasn't, the chemistry and metallurgy weren't there. But something else was stumbled on. Antigravity? Perhaps. Whatever it may be, if we can find it, the Cold War will be won . . . by free men.

Whether or not we dig up any notes, our research men are busy. Just knowing that such a gadget is possible is a tremendous boost, so you can understand why this must be kept secret.

You don't get it? Professor, I am shocked and grieved. And you a historian! A cultured man!

All right, then. We'll go via London and you'll stop at the National Gallery and sit down in front of a painting called *The Virgin of the Rocks*. And you will see a light, cold and pale and utterly gentle, a light which never shone on Earth, playing over the Mother and Child. And the artist was Leonardo da Vinci.

Compassion Circuit

by

JOHN WYNDHAM

There have been many stories in the past, both fictional and science-fictional, dealing with man's fear of the machines he has created, but here is one in which his fear seems more than justified. . . . Did you ever stop to think how horrible it would be if there were a machine that wouldn't permit *you to hurt yourself, or to do anything which might hurt you? Give it a moment's contemplation, and then read this tingler by one of England's best-known modern science fantasists.*

BY THE TIME Janet had been five days in the hospital she had become converted to the idea of a domestic robot. It had taken her two days to discover that Nurse James *was* a robot, one day to get over the surprise, and two more to realize what a comfort an attendant robot could be.

The conversion was a relief. Practically every house she visited had a domestic robot. It was the family's second or third most valuable possession, the women tending to rate it slightly higher than the car, the men, slightly lower. Janet had been perfectly well aware for some time that her friends regarded her as a nitwit or worse for wearing herself out with looking after a house which a robot would be able to keep spick and span with a few hours' work a day.

She had also known that it irritated George to come home each evening to a wife who had tired herself out by unneces-

sary work. But the prejudice had been firmly set. It was not the diehard attitude of people who refused to be served by robot waiters, or driven by robot drivers or who disliked to see dresses modeled by robot mannequins.

It was simply an uneasiness about them, about being left alone with one—and a disinclination to feel such an uneasiness in her own home.

She herself attributed the feeling largely to the conservatism of her own home which had used no house-robots. Other people, who had been brought up in homes run by robots, even the primitive types available a generation before, never seemed to have such a feeling at all. It irritated her to know that her husband thought she was *afraid* of them in a childish way. That, she had explained to George a number of times, was not so, and was not the point, either. What she *did* dislike was the idea of one intruding upon her personal, domestic life, which was what a house-robot was bound to do.

The robot who was called Nurse James was, then, the first with which she had ever been in close personal contact and she, or it, came as a revelation.

Janet told the doctor of her enlightenment, and he looked relieved. She also told George when he looked in in the afternoon, and he was delighted. The two of them conferred before he left the hospital.

"Excellent," said the doctor. "To tell you the truth I was afraid we were up against a real neurosis there—and very inconveniently, too. Your wife can never have been strong, and in the last few years she's worn herself out running the house."

"I know," George agreed. "I tried hard to persuade her during the first two years we were married, but it only led to trouble, so I had to drop it. This is really a culmination. She was rather shaken when she found out the reason she'd have to come here was partly because there was no robot at home to look after her."

"Well, there's one thing certain. She can't go on as she has been doing. If she tries to she'll be back here inside a couple of months," the doctor told him.

"She won't now. She's really changed her mind," George assured him. "Part of the trouble was that she's never come across a really modern one except in a superficial way. The newest that any of our friends has is ten years old at least, and most of them are older than that. She'd never contem-

plated the idea of anything as advanced as Nurse James. The question now is what pattern?"

The doctor thought a moment. "Frankly, Mr. Shand, your wife is going to need a lot of rest and looking after, I'm afraid. What I'd really recommend for her is the type they have here. It's something pretty new, this Nurse James model. A specially developed high-sensibility job with a quite novel contra-balanced compassion-protection circuit. A very tricky bit of work, that.

"Any direct order which a normal robot would obey at once is evaluated by the circuit, weighed against the benefit or harm to the patient, and unless it is beneficial, or at least harmless, it is not obeyed. They've proved to be wonderful for nursing and looking after children. But there is a big demand for them, and I'm afraid they're pretty expensive."

"How much?" asked George.

The doctor's round-figure price made him frown for a moment. Then he said: "It'll make a dent. But, after all, it's mostly Janet's economies and simple-living that's built up the savings. Where do I get one?"

"You don't. Not just like that," the doctor told him. "I shall have to throw a bit of weight about for a priority, but in the circumstances I shall get it, all right. Now, you go and fix up the details of appearance and so on with your wife. Let me know how she wants it, and I'll get busy."

"A proper one," said Janet. "One that'll look right in a house, I mean. I couldn't do with one of those levers-and-plastic-box things that stare at you with lenses. As it's got to look after the house, let's have it looking like a housemaid."

"Or a houseman, if you like?"

She shook her head. "No. It's going to have to look after me, too, so I think I'd rather it was a housemaid. It can have a black silk dress, and a frilly white apron and cap. And I'd like it blonde—a sort of darkish blonde—and about five feet ten, and nice to look at, but not *too* beautiful. I don't want to be jealous of it . . ."

The doctor kept Janet ten days more in the hospital while the matter was settled. There had been luck in coming in for a cancelled order, but inevitably some delay while it was adapted to Janet's specification. Also it had required the addition of standard domestic pseudo-memory patterns to suit it for housework.

It was delivered the day after she got back. Two severely functional robots carried the case up the front path, and inquired whether they should unpack it. Janet thought not, and told them to leave it in the outhouse.

When George got back he wanted to open it at once, but Janet shook her head.

"Supper first," she decided. "A robot doesn't mind waiting."

Nevertheless it was a brief meal. When it was over George carried the dishes out to the kitchen and stacked them in the sink.

"No more washing-up," he said, with satisfaction.

He went out to borrow the next-door robot to help him carry the case in. Then he found his end of it more than he could lift, and had to borrow the robot from the house opposite, too. Presently the pair of them carried it in and laid it on the kitchen floor as if it were a featherweight, and went away again.

George got out the screwdriver and drew the six large screws that held the lid down. Inside there was a mass of shavings. He shoved them out, on to the floor.

Janet protested.

"What's the matter? *We* shan't have to clean up," he said, happily.

There was an inner case of woodpulp, with a snowy layer of wadding under its lid. George rolled it up and pushed it out of the way, and there, ready dressed in black frock and white apron, lay the robot.

They regarded it for some seconds without speaking.

It was remarkably lifelike. For some reason it made Janet feel a little queer to realize that it was *her* robot—a trifle nervous, and, obscurely, a trifle guilty . . .

"Sleeping beauty," remarked George, reaching for the instruction-book on its chest.

In point of fact the robot was not a beauty. Janet's preference had been observed. It was pleasant and nice-looking without being striking, but the details were good. The deep gold hair was quite enviable—although one knew that it was probably threads of plastic with waves that would never come out. The skin—another kind of plastic covering the carefully bu t-up contours—was distinguishable from real skin only by its perfection.

Janet knelt down beside the box, and ventured with a fore-

finger to touch the flawless complexion. It was quite, quite cold.

She sat back on her heels, looking at it. Just a big doll, she told herself—a contraption. A very wonderful contraption of metal, plastics, and electronic circuits, but still a contraption, and made to look as it did only because people would find it harsh or grotesque if it should look any other way.

And yet, to have it looking as it did was a bit disturbing, too. For one thing, you couldn't go on thinking of it as "it" any more. Whether you liked it or not, your mind thought of it as "her." As "her" it would have to have a name; and, with a name, it would become still more of a person.

" 'A battery-driven model,' " George read out, " 'will normally require to be fitted with a new battery every four days. Other models, however, are designed to conduct their own regeneration from the mains as and when necessary.' Let's have her out."

He put his hands under the robot's shoulders, and tried to lift it.

"Phew!" he said. "Must be about three times my weight." He had another try. "Hell," he said, and referred to the book again.

His brow furrowed.

"The control switches are situated at the back, slightly above the waistline. All right, maybe we can roll her over."

With an effort he succeeded in getting the figure on to its side and began to undo the buttons at the back of her dress. Janet suddenly felt that to be an indelicacy.

"I'll do it," she said. Her husband glanced at her. "All right. It's yours," he told her.

"She can't be just 'it.' I'm going to call her Hester."

"All right, again," he agreed.

Janet undid the buttons and fumbled about inside the dress. "I can't find a knob, or anything," she said.

"Apparently there's a small panel that opens," he told her.

"Oh, no!" she said, in a slightly shocked tone.

He regarded her again. "Darling, she's just a robot—a mechanism."

"I know," said Janet, shortly. She felt about again, discovered the panel, and opened it.

"You give the upper knob a half-turn to the right and then close the panel to complete the circuit," instructed George, from the book.

Janet did so, and then sat swiftly back on her heels again, watching.

The robot stirred and turned. It sat up, then it got to its feet. It stood before them, looking the very pattern of a stage parlormaid.

"Good day, madam," it said. "Good day, sir. I shall be happy to serve you . . ."

"Thank you, Hester," Janet said, as she leaned back against the cushion placed behind her. Not that it was necessary to thank a robot, but she had a theory that if you did not practice politeness with robots you soon forgot it with other people.

And, anyway, Hester was no ordinary robot. She was not even dressed as a parlormaid any more. In four months she had become a friend, a tireless, attentive friend. From the first Janet had found it difficult to believe that she was only a mechanism, and as the days passed she had become more and more of a person.

The fact that she consumed electricity instead of food came to seem little more than a foible. The time she couldn't stop walking in a circle, and the other time when something went wrong with her vision so that she did everything a foot to the right of where she ought to have been doing it. These things, certainly, were just indispositions such as anyone might have, and the robot-mechanic who came to adjust her paid his call much like any other doctor. Hester was not only a person; she was preferable company to many.

"I suppose," said Janet, settling back in the chair, "that you must think me a poor, weak thing?"

A thing one must not expect from Hester was euphemism.

"Yes," she said, directly. But then she added: "I think all humans are poor, weak things. It is the way they are made. One must be sorry for them."

Janet had long ago given up thinking things like: "That'll be the compassion-circuit speaking," or trying to imagine the computing, selecting, associating, and shunting that must be going on to produce such a remark. She took it as she might from—well, say, a foreigner.

She said: "Compared with robots we must seem so, I suppose. You are so strong and untiring, Hester. If you knew how I envy you that!"

Hester said, matter of factly: "We were designed. You were just accidental. It is your misfortune, not your fault."

"You'd rather be you than me?" asked Janet.

"Certainly," Hester told her. "We are stronger. We don't have to have frequent sleep to recuperate. We don't have to carry an unreliable chemical factory inside us. We don't have to grow old and deteriorate. Human beings are so clumsy and fragile and so often unwell because something is not working properly.

"If anything goes wrong with us, or is broken, it doesn't hurt and is easily replaced. And you have all kinds of words like pain, and suffering, and unhappiness, and weariness, that we have to be taught to understand, and they don't seem to us to be useful things to have. I feel very sorry that you must have these things and be so uncertain and so fragile. It disturbs my compassion-circuit."

"Uncertain and fragile," Janet repeated. "Yes, that's how I feel."

"Humans have to live so precariously," Hester went on. "If my arm or leg should be crushed I can have a new one in a few minutes. But a human would have agony for a long time, and not even a new limb at the end of it—just a faulty one, if he were lucky. That isn't as bad as it used to be because in designing us you learned how to make good arms and legs, much stronger and better than the old ones. People would be much more sensible to have a weak arm or leg replaced at once, but they don't seem to want to if they can possibly keep the old ones."

"You mean they can be grafted on? I didn't know that," Janet said. "I wish it were only arms or legs that's wrong with me. I don't think I should hesitate . . ."

She sighed. "The doctor wasn't encouraging this morning, Hester. I've been losing ground and must rest more. I don't believe he expects me to get any stronger. He was just trying to cheer me up before . . . He had a funny sort of look after he'd examined me. But all he said was I should rest more. What's the good of being alive if it's only rest—rest—rest?

"And there's poor George. What sort of a life is it for him, and he's been so patient with me, so sweet. I'd rather anything than go on feebly like this. I'd sooner die . . ."

Janet went on talking, more to herself than to the patient Hester standing by. She talked herself into tears. Then presently, she looked up.

"Oh, Hester, if you were human I couldn't bear it. I think I'd hate you for being so strong and so well. But I don't, Hester. You're so kind and so patient when I'm silly, like this. I believe you'd cry with me to keep me company if you could."

"I would if I could," the robot agreed. "My compassion-circuit—"

"Oh, *no!*" Janet protested. "It can't be just that. You've a heart somewhere, Hester. You must have."

"I expect it is more reliable than a heart," said Hester.

She stepped a little closer, stooped down, and lifted Janet up as if she weighed nothing at all.

"You've tired yourself out, Janet, dear," she told her. "I'll take you upstairs. You'll be able to sleep a little before he gets back."

Janet could feel the robot's arms cold through her dress, but the coldness did not trouble her any more. She was aware only that they were strong, protecting arms around her.

She said: "Oh, Hester, you are such a comfort. You *know* what I ought to do." She paused, then she added miserably: "I know what he thinks—the doctor, I mean. I could see it. He just thinks I'm going to go on getting weaker and weaker until one day I'll fade away and die. I said I'd sooner die, but I wouldn't, Hester. I don't want to die . . ."

The robot rocked her a little, as if she were a child.

"There, there, dear. It's not as bad as that—nothing like," she told her. "You mustn't think about dying. And you mustn't cry any more. It's not good for you, you know. Besides, you won't want him to see you've been crying."

"I'll try not to," agreed Janet obediently, as Hester carried her out of the room and up the stairs . . .

The hospital reception-robot looked up from the desk.

"My wife," George said. "I rang you up about an hour ago."

The robot's face took on an impeccable expression of professional sympathy.

"Yes, Mr. Shand. I'm afraid it has been a shock for you, but as I told you, your house-robot did quite the right thing to send her here at once."

"I've tried to get on to her own doctor, but he's away," George told her.

"You don't need to worry about that, Mr. Shand. She has been examined, and we have had all her records sent over

from the hospital she was in before. The operation has been provisionally fixed for tomorrow, but of course we shall need your consent."

George hesitated. "May I see the doctor in charge of her?"

"He isn't in the hospital at the moment, I'm afraid."

"It is—absolutely necessary?" George asked, after a pause.

The robot looked at him steadily, and nodded, said, "She must have been growing steadily weaker for some months now."

George nodded.

"The only alternative is that she will grow weaker still, and have more pain before the end," she told him.

George stared at the wall blankly for some seconds. "I see," he said bleakly.

He picked up a pen in a shaky hand and signed the form that she put before him. He gazed at it awhile without seeing it.

"Will—will she have a good chance?" he asked.

"Yes," the robot told him. "There is never complete absence of risk, of course. But there's a very good chance of complete success."

George sighed, and nodded. "I'd like to see her," he said.

The robot pressed a bell-push. "You may *see* her," she said. "But I must ask you not to disturb her. She's asleep now, and it's better for her not to be awakened."

George had to be satisfied with that, but he left the hospital feeling a little better for the sight of the quiet smile on Janet's lips as she slept.

The hospital called him at the office the following afternoon. They were reassuring. The operation appeared to have been a complete success. Everyone was quite confident of the outcome. There was no need to worry. The doctors were perfectly satisfied. No, it would not be wise to allow any visitors for a few days yet. But there was nothing to worry about. Nothing at all.

George rang up each day just before he left, in the hope that he would be allowed a visit. The hospital was kindly and heartening, but adamant about visits. And then, on the fifth day, they suddenly told him she had already left on her way home. George was staggered. He had been prepared to find it a matter of weeks. He dashed out, bought a bunch of roses, and left half a dozen traffic regulations in fragments behind him.

"Where is she?" he demanded of Hester as she opened the door.

"She's in bed. I thought it might be better if—" Hester began, but he lost the rest of the sentence as he bounded up the stairs.

Janet was lying in the bed. Only her head was visible, cut off by the line of the sheet, and a bandage around her neck. George put the flowers down on the bedside table. He stooped over Janet and kissed her gently. She looked up at him from anxious eyes.

"Oh, George, dear. Has she told you?"

"Has who told me what?" he asked, sitting down on the side of the bed.

"Hester. She said she would. Oh, George, I didn't mean it. At least, I don't think I meant it. She sent me, George. I was so weak and wretched. I wanted to be strong. I don't think I really understood. Hester said—"

"Take it easy, darling. Take it easy," George suggested with a smile. "What on earth's all this about?"

He felt under the bedclothes and found her hand.

"But, George—" she began.

He interrupted her. "I say, darling, your hand's dreadfully cold. It's almost like—" His fingers slid further up her arm. His eyes widened at her, incredulously. He jumped up suddenly from the bed and flung back the covers. He put his hand on the thin nightdress, over her heart—and then snatched it away as if he had been stung.

He staggered back.

"God! *NO!*" he said, staring at her.

"But George. George, darling—" said Janet's head on the pillows.

"NO! *NO!*" cried George, almost in a shriek.

He turned and ran blindly from the room.

In the darkness on the landing he missed the top step of the stairs, and went headlong down the whole flight.

Hester found him lying in a huddle in the hall. She bent down and gently explored the damage. The extent of it, and the fragility of the frame that had suffered it disturbed her compassion-circuit very greatly. She did not try to move him, but went to the telephone and dialed.

"Emergency?" she asked, and gave the name and address. "Yes, at once," she told them. "There may not be a lot of time. Several compound fractures, and I think his back is

broken, poor man . . . No. There appears to be no damage to his head . . . Yes, much better. He'd be crippled for life, even if he did get over it . . . Yes, better send the form of consent with the ambulance so that it can be signed at once . . . Oh, yes, that'll be quite all right. His wife will sign it."

Volpla

by

WYMAN GUIN

Biological invention is a rarity in fiction as well as in real life; how many Burbanks have there been? Anyhow, the application of modern science to selective breeding could produce some rather remarkable results, though the example in this story is hardly likely to happen soon; we simply do not know enough about genetics yet.*

THERE WERE three of them. Dozens of limp little mutants that would have sent an academic zoologist into hysterics lay there in the metabolic accelerator. But there were three of *them.* My heart took a great bound.

I heard my daughter's running feet in the animal rooms and her rollerskates banging at her side. I closed the accelerator and walked across to the laboratory door. She twisted the knob violently, trying to hit a combination that would work.

I unlocked the door, held it against her pushing and slipped out so that, for all her peering, she could see nothing. I looked down on her tolerantly.

"Can't adjust your skates?" I asked again.

"Daddy, I've tried and tried and I just can't turn this old key right enough."

* No, this is *not* a tale about mutated rutabagas or any other sort of mad vegetable.

I continued to look down on her.

"Well, Dad-dee, I can't!"

"Tightly enough."

"What?"

"You can't turn this old key tightly enough."

"That's what I *say*-yud."

"All right, wench. Sit on this chair."

I got down and shoved one saddle shoe into a skate. It fitted perfectly. I strapped her ankle and pretended to use the key to tighten the clamp.

Volplas at last. Three of them. Yet I had always been so sure I could create them that I had been calling them volplas for ten years. No, twelve. I glanced across the animal room to where old Nijinsky thrust his graying head from a cage. I had called them volplas since the day old Nijinsky's elongated arms and his cousin's lateral skin folds had given me the idea of a flying mutant.

When Nijinsky saw me looking at him, he started a little tarantella about his cage. I smiled with nostalgia when the fifth fingers of his hands, four times as long as the others, uncurled as he spun about the cage.

I turned to the fitting of my daughter's other skate.

"Daddy?"

"Yes?"

"Mother says you are eccentric. Is that true?"

"I'll speak to her about it."

"Don't you *know?*"

"Do you understand the word?"

"No."

I lifted her out of the chair and stood her on her skates. "Tell your mother that I retaliate. I say *she* is beautiful."

She skated awkwardly between the rows of cages from which mutants with brown fur and blue fur, too much and too little fur, enormously long and ridiculously short arms, stared at her with simian, canine or rodent faces. At the door to the outside, she turned perilously and waved.

Again in the laboratory, I entered the metabolic accelerator and withdrew the intravenous needles from my first volplas. I carried their limp little forms out to a mattress in the lab, two girls and a boy. The accelerator had forced them almost to adulthood in less than a month. It would be several hours before they would begin to move, to learn to feed and play, perhaps to learn to fly.

Meanwhile, it was clear that here was no war of dominant mutations. Modulating alleles had smoothed the freakish into a beautiful pattern. These were no monsters blasted by the dosage of radiation into crippled structures. They were lovely, perfect little creatures.

My wife tried the door, too, but more subtly, as if casually touching the knob while calling.

"Lunch, dear."

"Be right there."

She peeked too, as she had for fifteen years, but I blocked her view when I slipped out.

"Come on, you old hermit. I have a buffet on the terrace."

"Our daughter says I'm eccentric. Wonder how the devil she found out."

"From me, of course."

"But you love me just the same."

"I adore you." She stretched on tiptoe and put her arms over my shoulders and kissed me.

My wife did indeed have a delicious-looking buffet ready on the terrace. The maid was just setting down a warmer filled with hot hamburgers. I gave the maid a pinch and said, "Hello, baby."

My wife looked at me with a puzzled smile. "What on Earth's got into you?"

The maid beat it into the house.

I flipped a hamburger and a slice of onion onto a plate and picked up the ketchup and said, "I've reached the dangerous age."

"Oh, good heavens!"

I dowsed ketchup over the hamburger, threw the onion on and closed it. I opened a bottle of beer and guzzled from it, blew out my breath and looked across the rolling hills and oak woods of our ranch to where the Pacific shimmered. I thought, "All this and three volplas, too."

I wiped the back of my hand across my mouth and said aloud, "Yes, sir, the dangerous age. And, lady, I'm going to have fun."

My wife sighed patiently.

I walked over and put the arm that held the beer bottle around her shoulder and chucked her chin up with my other hand. The golden sun danced in her blue eyes. I watched that light in her beautiful eyes and said, "But you're the only one I'm dangerous about."

I kissed her until I heard rollerskates coming across the terrace from one direction and a horse galloping toward the terrace from the other direction.

"You have lovely lips," I whispered.

"Thanks. Yours deserve the Good Housekeeping Seal of Approval, too."

Our son reared the new palomino I had just bought him for his fourteenth birthday and yelled down, "Unhand that maiden, Burrhead, or I'll give you lead poisoning."

I laughed and picked up my plate and sat down in a chair. My wife brought me a bowl of salad and I munched the hamburger and watched the boy unsaddle the horse and slap it away to the pasture.

I thought, "By God, wouldn't he have a fit if he knew what I have back there in that lab! Wouldn't they all!"

The boy carried the saddle up onto the terrace and dropped it. "Mom, I'd like a swim before I eat." He started undressing.

"You *look* as though a little water might help," she agreed, sitting down next to me with her plate.

The girl was yanking off her skates. "And I want one."

"All right. But go in the house and put on your swim suit."

"Oh, *Mother*. Why?"

"Because, dear, I said so."

The boy had already raced across the terrace and jackknifed into the pool. The cool sound of the dive sent the girl scurrying for her suit.

I looked at my wife. "What's the idea?"

"She's going to be a young woman soon."

"Is that any reason for wearing clothes? Look at him. He's a young *man* sooner than already."

"Well, if you feel that way about it, they'll both have to start wearing clothes."

I gulped the last of my hamburger and washed it down with the beer. "This place is going to hell," I complained. "The old man isn't allowed to pinch the maid and the kids can't go naked." I leaned toward her and smacked her cheek. "But the food and the old woman are still the best."

"Say, what goes with you? You've been grinning like a happy ape ever since you came out of the lab."

"I told you—"

"Oh, not that again! You were dangerous at any age."

I stood up and put my plate aside and bent over her. "Just the same, I'm going to have a new kind of fun."

She reached up and grabbed my ear. She narrowed her eyes and put a mock grimness on her lips.

"It's a joke," I assured her. "I'm going to play a tremendous joke on the whole world. I've only had the feeling once before in a small way, but I've always . . ."

She twisted my ear and narrowed her eyes even more. "Like?"

"Well, when my old man was pumping his first fortune out of some oil wells in Oklahoma, we lived down there. Outside this little town, I found a litter of flat stones that had young blacksnakes under each slab. I filled a pail with them and took them into town and dumped them on the walk in front of the movie just as Theda Bara's matinee let out. The best part was that no one had seen me do it. They just couldn't understand how so many snakes got there. I learned how great it can be to stand around quietly and watch people encounter the surprise that you have prepared for them."

She let go of my ear. "Is that the kind of fun you're going to have?"

"Yep."

She shook her head. "Did I say you are *eccentric?*"

I grinned. "Forgive me if I eat and run, dear. Something in the lab can't wait."

The fact was that I had something more in the lab than I had bargained for. I had aimed only at a gliding mammal a little more efficient than the Dusky Glider of Australia, a marsupial. Even in the basically mutating colony, there had been a decidedly simian appearance in recent years, a long shift from the garbage-dump rats I had started with. But my first volplas were shockingly humanoid.

They were also much faster than had been their predecessors in organizing their nervous activity after the slumbrous explosion of growth in the metabolic accelerator. When I returned to the lab, they were already moving about on the mattress and the male was trying to stand.

He was a little the larger and stood twenty-eight inches high. Except for the face, chest and belly, they were covered with a soft, almost golden down. Where it was bare of this golden fur, the skin was pink. On their heads and across the shoulders of the male stood a shock of fur as soft as chinchilla. The faces were appealingly humanoid, except that the eyes were large and nocturnal. The cranium was in the same proportion to the body as it is in the human.

When the male spread his arms, the span was forty-eight inches. I held his arms out and tried to tease the spars open. They were not new. The spars had been common to the basic colony for years and were the result of serial mutations effecting those greatly elongated fifth fingers that had first appeared in Nijinsky. No longer jointed like a finger, the spar turned backward sharply and ran alongside the wrist almost to the elbow. Powerful wrist muscles could snap it outward and forward. Suddenly, as I teased the male volpla, this happened.

The spars added nine inches on each side to his span. As they swept out and forward, the lateral skin that had, till now, hung in resting folds was tightened in a golden plane that stretched from the tip of the spar to his waist and continued four inches wide down his legs to where it anchored at the little toe.

This was by far the most impressive plane that had appeared till now. It was a true gliding plane, perhaps even a soaring one. I felt a thrill run along my back.

By four o'clock that afternoon, I was feeding them solid food and, with the spars closed, they were holding little cups and drinking water from them in a most humanlike way. They were active, curious, playful and decidedly amorous.

Their humanoid qualities were increasingly apparent. There was a lumbar curvature and buttocks. The shoulder girdle and pectoral muscles were heavy and out of proportion, of course, yet the females had only one pair of breasts. The chin and jaw were humanlike instead of simian and the dental equipment was appropriate to this structure. What this portended was brought home to me with a shock.

I was kneeling on the mattress, cuffing and roughing the male as one might a puppy dog, when one of the females playfully climbed up my back. I reached around and brought her over my shoulder and sat her down. I stroked the soft fur on her head and said, "Hello, pretty one. Hello."

The male watched me, grinning.

He said, " 'Ello, 'ello."

As I walked into the kitchen, giddy with this enormous joke, my wife said, "Guy and Em are flying up for dinner. That rocket of Guy's they launched in the desert yesterday was a success. It pulled Guy up to Cloud Nine and he wants to celebrate."

I danced a little jig the way old Nijinsky might do it. "Oh, great! Oh, wonderful! Good old Guy! Everybody's a success. It's great. It's wonderful. Success on success!"

I danced into the kitchen table and tipped over a basket of green corn. The maid promptly left the kitchen for some other place.

My wife just stared at me. "Have you been drinking the lab alcohol?"

"I've been drinking the nectar of the gods. My Hera, you're properly married to Zeus. I've my own little Greeks descended from Icarus."

She pretended a hopeless sag of her pretty shoulders. "Wouldn't you just settle for a worldly martini?"

"I will, yes. But first a divine kiss."

I sipped at my martini and lounged in a terrace chair watching the golden evening slant across the beautiful hills of our ranch. I dreamed. I would invent a euphonious set of words to match the Basic English vocabulary and teach it to them as their language. They would have their own crafts and live in small tree houses.

I would teach them legends: that they had come from the stars, that they had subsequently watched the first red men and then the first white men enter these hills.

hen they were able to take care of themselves, I would turn them loose. There would be volpla colonies all up and down the Coast before anyone suspected. One day, somebody would see a volpla. The newspapers would laugh.

Then someone authoritative would find a colony and observe them. He would conclude, "I am convinced that they have a language and speak it intelligently."

The government would issue denials. Reporters would "expose the truth" and ask, " here have these aliens come from?" The government would reluctantly admit the facts. Linguists would observe at close quarters and learn the simple volpla language. Then would come the legends.

Volpla wisdom would become a cult—and of all forms of comedy, cults, I think, are the funniest.

"Darling, are you listening to me?" my wife asked with impatient patience.

" hat? Sure. Certainly."

"You didn't hear a word. You just sit there and grin into space." She got up and poured me another martini. "Here,

maybe this will sober you up."

I pointed. "That's probably Guy and Em."

A 'copter sidled over the ridge, then came just above the oak woods toward us. Guy set it gently on the landing square and we walked down to meet them.

I helped Em out and hugged her. Guy jumped out, asking, "Do you have your TV set on?"

"No," I answered. "Should I?"

"It's almost time for the broadcast. I was afraid we would miss it."

"What broadcast?"

"From the rocket."

"Rocket?"

"For heaven's sake, darling," my wife complained, "I told you about Guy's rocket. The papers are full of it."

As we stepped up on the terrace, she turned to Guy and Em. "He's out of contact today. Thinks he's Zeus."

I asked our son to wheel a TV set out onto the terrace while I made martinis for our friends. Then we sat down and drank the cocktails and the kids had fruit juice and we watched the broadcast Guy had tuned in.

Some joker from Cal Tech was explaining diagrams of a multistage rocket.

After a bit, I got up and said, "I have something out in the lab I want to check on."

"Hey, wait a minute," Guy objected. "They're about to show the shots of the launching."

My wife gave me a look; you know the kind. I sat down. Then I got up and poured myself another martini and freshened Em's up, too. I sat down again.

The scene had changed to a desert launching site. There was old Guy himself explaining that when he pressed the button before him, the hatch on the third stage of the great rocket in the background would close and, five minutes later, the ship would fire itself.

Guy, on the screen, pushed the button, and I heard Guy, beside me, give a sort of little sigh. We watched the hatch slowly close.

"You look real good," I said. "A regular Space Ranger. What are you shooting at?"

"Darling, will you please—be—*quiet?*"

"Yeah, Dad. Can it, will you? You're always gagging around."

On the screen, Guy's big dead-earnest face was explaining more about the project and suddenly I realized that this was an instrument-bearing rocket they hoped to land on the Moon. It would broadcast from there. Well, now—say, that *would* be something! I began to feel a little ashamed of the way I had been acting and I reached out and slapped old Guy on the shoulder. For just a moment, I thought of telling him about my volplas. But only for a moment.

A ball of flame appeared at the base of the rocket. Miraculously, the massive tower lifted, seemed for a moment merely to stand there on a flaming pillar, then was gone.

The screen returned to a studio, where an announcer explained that the film just shown had been taken day before yesterday. Since then, the rocket's third stage was known to have landed successfully at the south shore of Mare Serenitatis. He indicated the location on a large lunar map behind him.

"From this position, the telemeter known as Rocket Charlie will be broadcasting scientific data for several months. But now, ladies and gentlemen, we will clear the air for Rocket Charlie's only general broadcast. Stand by for Rocket Charlie."

A chronometer appeared on the screen and, for several seconds, there was silence.

I heard my boy whisper, "Uncle Guy, this is the biggest!"

My wife said, "Em, I think I'll just faint."

Suddenly there was a lunar landscape on the screen, looking just as it's always been pictured. A mechanical voice cut in.

"This is Rocket Charlie saying, 'Hello, Earth,' from my position in Mare Serenitatis. First I will pan the Menelaus Mountains for fifteen seconds. Then I will focus my camera on Earth for five seconds."

The camera began to move and the mountains marched by, stark and awesomely wild. Toward the end of the movement, the shadow of the upright third stage appeared in the foreground.

Abruptly the camera made a giddy swing, focused a moment, and we were looking at Earth. At that time, there was no Moon over California. It was Africa and Europe we were looking at.

"This is Rocket Charlie saying, 'Good-by, Earth.' "

Well, when that screen went dead, there was pandemonium around our terrace. Big old Guy was so happy, he was wiping tears from his eyes. The women were kissing him and hugging him. Everybody was yelling at once.

I used the metabolic accelerator to cut the volplas' gestation down to one week. Then I used it to bring the infants to maturity in one month. I had luck right off. Quite by accident, the majority of the early infants were females, which s d things up considerably.

By the next spring, I had a colony of over a hundred volplas and I shut down the accelerator. From now on, they could have babies in their own way.

I had devised the language for them, using Basic English as my model, and during the months while every female was busy in the metabolic accelerator, I taught the language to the males. They spoke it softly in high voices and the eight hundred words didn't seem to tax their little skulls a bit.

My wife and the kids went down to Santa Barbara for a week and I took the oportunity to slip the oldest of the males and his two females out of the lab.

I put them in the jeep beside me and drove to a secluded little valley about a mile back in the ranch.

They were all three wide-eyed at the world and jabbered continuously. They kept me busy relating their words for "tree," "rock," "sky" to the objects. They had a little trouble with "sky."

Until I had them out in the open country, it had been impossible to appreciate fully what lovely little creatures they were. They blended perfectly with the California landscape. Occasionally, when they raised their arms, the spars would open and spread those glorious planes.

Almost two hours went by before the male made it into the air. His playful curiosity about the world had been abandoned momentarily and he was chasing one of the girls. As usual, she was anxious to be caught and stop d abruptly at the bottom of a little knoll.

He probably meant to dive for her. But when he spread his arms, the spars snapped out and those golden planes sheared into the air. He sailed over her in a stunning sweep. Then he rose up and up until he hung in the breeze for a long moment, thirty feet above the ground.

He turned a plaintive face back to me, dipped worriedly and skimmed straight for a thorn bush. He banked instinctively, whirled toward us in a golden flash and crashed with a bounce to the grass.

The two girls reached him before I did and stroked and fussed over him so that I could not get near. Suddenly he

laughed with a shrill little whoop. After that, it was a carnival.

They learned quickly and brilliantly. They were not fliers; they were gliders and soarers. Before long, they took agilely to the trees and launched themselves in beautiful glides for hundreds of feet, banking, turning and spiraling to a gentle halt.

I laughed out loud with anticipation. Wait till the first pair of these was brought before a sheriff! Wait till reporters from the *Chronicle* motored out into the hills to witness this!

Of course, the volplas didn't want to return to the lab. There was a tiny stream through there and at one point it formed a sizable pool. They got into this and splashed their long arms about and they scrubbed each other. Then they got out and lay on their backs with the planes stretched to dry.

I watched them affectionately and wondered about the advisability of leaving them out here. Well, it had to be done sometime. Nothing I could tell them about surviving would help them as much as a little actual surviving. I called the male over to me.

He came and squatted, conference fashion, the elbows resting on the ground, the wrists crossed at his chest. He spoke first.

"Before the red men came, did we live here?"

"You lived in places like this all along these mountains. Now there are very few of you left. Since you have been staying at my place, you naturally have forgotten the ways of living outdoors."

"We can learn again. We want to stay here." His little face was so solemn and thoughtful that I reached out and stroked the fur on his head reassuringly.

We both heard the whir of wings overhead. Two mourning doves flew across the stream and landed in an oak on the opposite hillside.

I pointed. "There's your food, if you can kill it."

He looked at me. "How?"

"I don't think you can get at them in the tree. You'll have to soar up above and catch one of them on the wing when they fly away. Think you can get up that high?"

He looked around slowly at the breeze playing in the branches and dancing along the hillside grass. It was as if he had been flying a thousand years and was bringing antique

wisdom to bear. "I can get up there. I can stay for a while. How long will they be in the tree?"

"Chances are they won't stay long. Keep your eye on the tree in case they leave while you are climbing."

He ran to a nearby oak and clambered aloft. Presently he launched himself, streaked down-valley a way and caught a warm updraft on a hillside. In no time, he was up about two hundred feet. He began criss-crossing the ridge, working his way back to us.

The two girls were watching him intently. They came over to me wonderingly, stopping now and then to watch him. When they were standing beside me, they said nothing. They shaded their eyes with tiny hands and watched him as he passed directly above us at about two hundred and fifty feet. One of the girls, with her eyes fast on his soaring planes, reached out and grasped my sleeve tightly.

He flashed high above the stream and hung behind the crest of the hill where the doves rested. I heard their mourning from the oak tree. It occurred to me they would not leave that safety while the hawklike silhouette of the volpla marred the sky so near.

I took the girl's hand from my sleeve and spoke to her, pointing as I did so. "He is going to catch a bird. The bird is in that tree. You can make the bird fly so that he can catch it. Look here." I got up and found a stick. "Can you do this?"

I threw the stick up into a tree near us. Then I found her a stick. She threw it better than I had expected.

"Good, pretty one. Now run across the stream and up to that tree and throw a stick into it."

She climbed skillfully into the tree beside us and launched herself across the stream. She swooped up the opposite hillside and landed neatly in the tree where the doves rested.

The birds came out of the tree, climbing hard with their graceful strokes.

I looked back, as did the girl remaining beside me. The soaring volpla half closed his planes and started dropping. He became a golden flash across the sky.

The doves abruptly gave up their hard climbing and fell away with swiftly beating wings. I saw one of the male volpla's planes open a little. He veered giddily in the new direction and again dropped like a molten arrow.

The doves separated and began to zigzag down the

valley. The volpla did something I would not have anticipated —he opened his planes and shot lower than the bird he was after, then swept up and intercepted the bird's crossward flight.

I saw the planes close momentarily. Then they opened again and the bird plummeted to a hillside. The volpla landed gently atop the hill and stood looking back at us.

The volpla beside me danced up and down shrieking in a language all her own. The girl who had raised the birds from the tree volplaned back to us, yammering like a bluejay.

It was a hero's welcome. He had to walk back, of course— he had no way to carry such a load in flight. The girls glided out to meet him. Their lavish affection held him up for a time, but eventually he strutted in like every human hunter.

They were raptly curious about the bird. They poked at it, marveled at its feathers and danced about it in an embryonic rite of the hunt. But presently the male turned to me.

"We *eat* this?"

I laughed and took his tiny, four-fingered hand. In a sandy spot beneath a great tree that overhung the creek, I built a small fire for them. This was another marvel, but first I wanted to teach them how to clean the bird. I showed them how to spit it and turn it over their fire.

Later, I shared a small piece of the meat in their feast. They were gleeful and greasily amorous during the meal.

When I had to leave, it was dark. I warned them to stand watches, keep the fire burning low and take to the tree above if anything approached. The male walked a little away with me when I left the fire.

I said again, "Promise me you won't leave here until we've made you ready for it."

"We like it here. We will stay. Tomorrow you bring more of us?"

"Yes. I will bring many more of you, if you promise to keep them all here in this woods until they're ready to leave."

"I promise." He looked up at the night sky and, in the firelight, I saw his wonder. "You say we came from there?"

"The old ones of your kind told me so. Didn't they tell you?"

"I can't remember any old ones. You tell me."

"The old ones told me you came long before the red men in a ship from the stars." Standing there in the dark, I had to

grin, visioning the Sunday supplements that would be written in about a year, maybe even less.

He looked into the sky for a long time. "Those little lights are the stars?"

"That's right."

"Which star?"

I glanced about and presently pointed over a tree. "From Venus." Then I realized I had blundered by passing him an English name. "In your language, Pohtah."

He looked at the planet a long time and murmured, "Venus. Pohtah."

That next week, I transported all of the volplas out to the oak woods. There were a hundred and seven men, women and children. With no design on my part, they tended to segregate into groups consisting of four to eight couples together with the current children of the women. Within these groups, the adults were promiscuous, but apparently not outside the group. The group thus had the appearance of a super-family and the males indulged and cared for all the children without reference to actual parenthood.

By the end of the week, these super-families were scattered over about four square miles of the ranch. They had found a new delicacy, sparrows, and hunted them easily as they roosted at night. I had taught the volplas to use the fire drill and they were already utilizing the local grasses, vines and brush to build marvelously contrived tree houses in which the young, and sometimes the adults, slept through midday and midnight.

The afternoon my family returned home, I had a crew of workmen out tearing down the animal rooms and lab building. The caretakers had anesthetized all the experimental mutants, and the metabolic accelerator and other lab equipment was being dismantled. I wanted nothing around that might connect the sudden appearance of the volplas with my property. It was already apparent that it would take the volplas only a few more weeks to learn their means of survival and develop an embryonic culture of their own. Then they could leave my ranch and the fun would be on.

My wife got out of the car and looked around at the workmen hurrying about the disemboweled buildings and she said, "What on Earth is going on here?"

"I've finished my work and we no longer need the build-

ings. I'm going to write a paper about my results."

My wife looked at me appraisingly and shook her head. "I thought you meant it. But you really ought to. It would be your first."

My son asked, "What happened to the animals?"

"Turned them over to the university for further study," I lied.

"Well," he said to her, "you can't say our pop isn't a man of decision."

Twenty-four hours later, there wasn't a sign of animal experimentation on the ranch.

Except, of course, that the woods were full of volplas. At night, I could hear them faintly when I sat out on the terrace. As they passed through the dark overhead, they chattered and laughed and sometimes moaned in winged love. One night a flight of them soared slowly across the face of the full Moon, but I was the only one who noticed.

I made daily trips out to the original camp to meet the oldest of the males, who had apparently established himself as a chief of all the volpla families. He assured me that the volplas were staying close to the ranch, but complained that the game was getting scarce. Otherwise things were progressing nicely.

The males now carried little stone-tipped spears with feathered shafts that they could throw in flight. They used them at night to bring down roosting sparrows and in the day to kill their biggest game, the local rabbits.

The women wore bluejay feathers on their heads. The men wore plumes of dove feathers and sometimes little skirts fashioned of rabbit down. I did some reading on the subject and taught them crude tanning of their rabbit and squirrel hides for use in their tree homes.

The tree homes were more and more intricately wrought with expert basketry for walls and floor and tight thatching above. They were well camouflaged from below, as I suggested.

These little creatures delighted me more and more. For hours, I could watch the adults, both the males and females, playing with the children or teaching them to glide. I could sit all afternoon and watch them at work on a tree house.

So one day my wife asked, "How *does* the mighty hunter who now returns from the forest?"

"Oh, fine. I've been enjoying the local animal life."

"So has our daughter."

"What do you mean?"

"She has two of them up in her room."

"Two what?"

"I don't know. What do *you* call them?"

I went up the stairs three at a time and burst into my daughter's room.

There she sat on her bed reading a book to two volplas.

One of the volplas grinned and said in English, "Hello there, King Arthur."

"What's going on here?" I demanded of all three.

"Nothing, Daddy. We're just reading like we always do."

"Like *always?* How long has this been going on?"

"Oh, weeks and weeks. How long has it been since you came here that first time to visit me, Fuzzy?"

The impolite volpla who had addressed me as King Arthur grinned at her and calculated. "Oh, weeks and weeks."

"But you're teaching them to read English."

"Of course. They're such good pupils and so grateful. Daddy, you won't make them go away, will you? We love each other, don't we?"

Both volplas nodded vigorously.

She turned back to me. "Daddy, did you know they can fly? They can fly right out of the window and way up in the sky."

"Is that a fact?" I said testily. I looked coldly at the two volplas. "I'm going to speak to your chief."

Back downstairs again, I raved at my wife. "Why didn't you tell me a thing like this was going on? How could you let such an unusual thing go on and not discuss it with me?"

My wife got a look on her face that I don't see very often. "Now you listen to me, mister. Your whole life is a secret from us. Just what makes you think your daughter can't have a little secret of her own?"

She got right up close to me and her blue eyes snapped little sparks all over me. "The fact is that I was wrong to tell you at all. I promised her I wouldn't tell *anyone*. Look what happened when I did. You go leaping around the house like a raving maniac just because a little girl has a secret."

"A fine secret!" I yelled. "Didn't it occur to you this might be dangerous? Those creatures are oversexed and . . ." I stumbled into an awful silence while she gave me the dirtiest smile since the days of the Malatestas.

"How did *you* . . . suddenly get to *be* . . . the palace eunuch? Those are sweet lovable little creatures without a harm in their furry little bodies. But don't think I don't realize what's been going on. You created them yourself. So, if they have any dirty ideas, I know where they got them."

I stormed out of the house. I spun the jeep out of the yard and ripped off through the woods.

The chief was sitting at home as comfortable as you please. He was leaning back against the great oak that hid his tree house. He had a little fire going and one of the women was roasting a sparrow for him. He greeted me in volpla language.

"Do you realize," I blurted angrily, "that there are two volplas in my daught 's bedroom?"

"Why, yes," he answered calmly. "They go there every day. Is there anything wrong with that?"

"She's teaching them the words of men."

"You told us some men may be our enemies. We are anxious to know their words, the better to protect ourselves."

He reached around behind the tree and, right there in broad daylight, that volpla pulled a copy of the San Francisco *Chronicle* out of hiding. He held it up apologetically. "We have been taking it for some time from the box in front of your house."

He spread the paper on the ground between us. I saw by the date that it was yesterday's. He said proudly, "From the two who go to your house, I have learned the words of men. As men say, I can 'read' most of this."

I just stood there gaping at him. How could I ssibly recoup this situation so that the stunning joke of the volplas wouldn't be lost? Would it seem reasonable that the volplas, by observing and listening to men, had learned their language? Or had they been taught it by a human friend?

That was it—I would just have to sacrifice anonymity. My family and I had found a colony of them on our ranch and taught them English. I was stuck with it because it was the truth.

The volpla waved his long thin arm over the front page. "Men are dangerous. They will shoot us with their guns if we leave here."

I hastened to reassure him. "It will not be like that. When men have learned about you, they will leave you alone." I stated this emphatically, but for the first time I was beginning to see this might not be a joke to the volplas. Nevertheless, I went on. "You must disperse the families at once. You stay here with your family so we remain in contact, but send the other families to other places."

He shook his head. "We cannot leave these woods. Men would shoot us."

Then he stood and looked squarely at me with his nocturnal eyes. "Perhaps you are not a good friend. Perhaps you have lied to us. Why are you saying we should leave this safety?"

"You will be happier. There will be more game."

He continued to stare directly at me. "There will be men. One has already shot one of us. We have forgiven him and are friends. But one of us is dead."

"You are friends with *another* man?" I asked, stunned.

He nodded and pointed up the valley. "He is up there today with another family."

"Let's go!"

He had the advantage of short glides, but the volpla chief couldn't keep up with me. Sometimes trotting, sometimes walking fast, I got way ahead of him. My hard breathing arose as much out of my anxiety about the manner of handling this stranger as it did out of the exertion.

I rounded a bend in the creek and there was my son sitting on the grass near a cooking fire playing with a baby volpla and talking in English to an adult volpla who stood beside him. As I approached, my son tossed the baby into the air. The tiny planes opened and the baby drifted down to his waiting hands.

He said to the volpla beside him, "No, I'm sure you didn't come from the stars. The more I think about it, the more I'm sure my father—"

I yelled from behind them, "What business do you have telling them that?"

The male volpla jumped about two feet. My son turned his head slowly and looked at me. Then he handed the baby to the male and stood up.

"You haven't any business out here!" I was seething. He had destroyed the whole store of volpla legends with one small doubt.

He brushed the grass from his trousers and straightened. The way he was looking at me, I felt my anger turning to a kind of jelly.

"Dad, I killed one of these little people yesterday. I thought he was a hawk and I shot him when I was out hunting. I wouldn't have done that if you had told me about them."

I couldn't look at him. I stared at the grass and my face got hot.

"The chief tells me that you want them to leave the ranch soon. You think you're going to play a big joke, don't you?"

I heard the chief come up behind me and stand quietly at my back.

My son said softly, "I don't think it's much of a joke, Dad. I had to listen to that one crying after I hit him."

There were big black trail ants moving in the grass. It seemed to me there was a ringin sound in the sky. I raised my head and looked at him. "Son, let's o back to the jeep and we can talk about it on the way home."

"I'd rather walk." He sort of waved to the volpla he had been talking to and then to the chief. He jumped the creek and walked away into the oak woods.

The volpla holding the baby stared at me. From somewhere far up the valley, a crow was cawing. I didn't look at the chief. I turned and brushed past him and walked back to the jeep alone.

At home, I opened a bottle of beer and sat out on the terrace to wait for my son. My wife came toward the house with some cut flowers from the garden, but she didn't speak to me. She snapped the blades of the scissors as she walked.

A volpla soared across the terrace and landed at my daughter's bedroom window. He was there only briefly and relaunched himself. He was followed from the window in moments by the two volplas I had left with my daughter earlier in the afternoon. I watched them with a vague unease as the three veered off to the east, climbing effortlessly.

When I finally took a sip of my beer, it was already warm. I set it aside. Presently my daughter ran out onto the terrace.

"Daddy, my volplas left. They said good-by and we hadn't even finished the TV show. They said they won't see me again. Did you make them leave?"

"No. I didn't."

She was staring at me with hot eyes. Her lower lip protruded and trembled like a pink tear drop.

"Daddy, you did so." She stomped into the house, sobbing.

My God! In one afternoon, I had managed to become a palace eunuch, a murderer and a liar!

Most of the afternoon went by before I heard my son enter the house. I called to him and he came out and stood before me. I got up.

"Son, I can't tell you how sorry I am for what happened to you. It was my fault, not yours at all. I only hope you can forget the shock of finding out what sort of creature you had hit. I don't know why I didn't anticipate that such things would happen. It was just that I was so intent on mystifying the whole world that I . . ."

I stopped. There wasn't anything more to say.

"Are you going to make them leave the ranch?" he asked.

I was aghast. "After what has happened?"

"Gee, what *are* you going to do about them, Dad?"

"I've been trying to decide. I don't know what I should do that will be best for them." I looked at my watch. "Let's go back out and talk to the chief."

His eyes lighted and he clapped me on the shoulder, man to man. We ran out and got into the jeep and drove back up to the valley. The late afternoon Sun glared across the landscape.

We didn't say much as we wound up the valley between the darkening trees. I was filled more and more with the unease that had seized me as I watched the three volplas leave my terrace and climb smoothly and purposefully into the east.

We got out at the chief's camp and there were no volplas around. The fire had burned down to a smolder. I called in the volpla language, but there was no answer.

We went from camp to camp and found dead fires. We climbed to their tree houses and found them empty. I was sick and scared. I called endlessly till I was hoarse.

At last, in the darkness, my son put a hand on my arm. "What are you going to do, Dad?"

Standing there in those terribly silent woods, I trembled. "I'll have to call the police and the newspapers and warn everybody."

"Where do you suppose they've gone?"

I looked to the east where the stars, rising out of the great pass in the mountains, glimmered like a deep bowl of fireflies.

"The last three I saw were headed that way."

We had been gone from the house for hours. When we stepped out onto the lighted terrace, I saw the shadow of a helicopter down on the strip. Then I saw Guy sitting near me in a chair. He was holding his head in his hands.

Em was saying to my wife, "He was beside himself. There wasn't a thing he could do. I had to get him away from there and I thought you wouldn't mind if we flew over here and stayed with you till they've decided what to do."

I walked over and said, "Hello, Guy. What's the matter?"

He raised his head and then stood and shook hands. "It's a mess. The whole project will be ruined and we don't dare go near it."

"What happened?"

"Just as we set it off—"

"Set what off?"

"The rocket."

"Rocket?"

Guy groaned.

"The *Venus* rocket! Rocket Harold!"

My wife interjected. "I was telling Guy we didn't know a thing about it because they haven't delivered our paper in weeks. I've complained—"

I waved her to silence. "Go on," I demanded of Guy.

"Just as I pushed the button and the hatch was closing, a flock of owls circled the ship. They started flying through the hatch and somehow they jammed it open."

Em said to my wife, "There must have been a hundred of them. They kept coming and coming and flying into that hatch. Then they began dumping out all the recording instruments. The men tried to run a motor-driven ladder up to the ship and those owls hit the driver on the head and knocked him out with some kind of instrument."

Guy turned his grief-stricken face to me. "Then the hatch closed and we don't dare go near the ship. It was supposed to fire in five minutes, but it hasn't. Those damned owls could have . . ."

There was a glare in the east. We all turned and saw a brief streak of gilt pencil its way up the black velvet beyond the mountains.

"That's it!" Guy shouted. "That's the ship!" Then he moaned. "A total loss."

I grabbed him by the shoulders. "You mean it won't make it to Venus?"

He jerked away in misery. "Sure, it will make it. The automatic controls can't be tampered with. But the rocket is on its way without any recording instruments or TV aboard. Just a load of owls."

My son laughed. "Owls! My dad can tell you a thing or two."

I silenced him with a scowl. He shut up, then danced off across the terrace. "Man, man! This is the biggest! The most —the greatest—the end!"

The phone was ringing. As I went to the box on the terrace, I grabbed my boy's arm. "Don't you breathe a word."

He giggled. "The joke is on you, Pop. Why should I say anything? I'll just grin once in a while."

"Now you cut that out."

He held onto my arm and walked toward the phone box with me, half convulsed. "Wait till men land on Venus and find Venusians with a legend about their Great White Father in California. That's when I'll tell."

The phone call was from a screaming psychotic who wanted Guy. I stood near Guy while he listened to the excited voice over the wire.

Presently Guy said, "No, no. The automatic controls will correct for the delay in firing. It isn't that. It's just that there aren't any instruments . . . What? What just happened? Calm down. I can't understand you."

I heard Em say to my wife, "You know, the strangest thing occurred out there. I *thought* it looked like those owls were carrying things on their backs. One of them dropped something and I saw the men open a package wrapped in a leaf. You'd never believe what was in it—three little birds roasted to a nice brown!"

My son nudged me. "Smart owls. Long trip."

I put my hand over his mouth. Then I saw that Guy was holding the receiver limply away from his ear.

He spluttered. "They just taped a radio message from the rocket. It's true that the radio wasn't thrown out. But we didn't have a record like *this* on that rocket."

He yelled into the phone. "Play it back." He thrust the receiver at me.

For a moment, there was only a gritty buzz from the re-

ceiver. Then the tape started playing a soft, high voice. "This is Rocket Harold saying everything is well. This is Rocket Harold saying good-by to men." There was a pause and then, in clear volpla language, another voice spoke. "Man who made us, we forgive you. We know we did not come from the stars, but we go there. I, chief, give you welcome to visit. Good-by."

We all stood around too exhausted by the excitement to say anything. I was filled with a big, sudden sadness.

I stood for a long time and looked out to the east, where the sprawling mountain range held a bowl of dancing fireflies between her black breasts.

Presently I said to old Guy, "How long do you think it will be before you have a manned rocket ready for Venus?"

Silence, Please!

by

ARTHUR C. CLARKE

It has been said by some critics that humor and science fiction do not belong in the same sentence, but in the present jape, originally published in 1950 under Clarke's pseudonym "Charles Willis," you will find a story that combines the two things very successfully—science fiction, with humor of a sharp, ironical, rather deadpan sort.

In a somewhat different guise, this story has previously appeared in book form as the opener in Clarke's delightful Tales from the White Hart. *I think there is ample historical justification for preserving this earlier form of the story. And it is worth rereading, even if you have already been through it once.*

NOW THAT you point it out, it *is* rather extraordinary how the Professor's enemies always seem to get the worst of it. But I think your insinuation is a little unfair. He's really a very kindhearted chap who wouldn't hurt a fly if he could help it. I'm not saying that he doesn't like a scrap, but it's always fair and above board. Well, nearly always. Perhaps that *was* an exception. And you must admit that Sir Roderick deserved all he got.

When I first met the Professor he had only just left Cambridge and was still struggling to keep the Company solvent. I think he sometimes regretted leaving the academic cloisters

for the rough and tumble of industry, but he once told me that he enjoyed using the whole of his mind for the first time in his life. Electron Products (1960) Ltd. was just about covering its expenses when I first joined it. Our main line of business was the Harvey Integrator, that compact little electronic calculator which could do almost everything a differential analyser could for about a tenth of the cost. It had a steady sale to universities and research organisations, and is still the Professor's favourite. He's always improving it, and Model 15 goes on the market in a few weeks.

At that time, however, the Professor had only two assets. One was the goodwill of the academic world, which thought him crazy but secretly admired his courage; his old colleagues back at the Cavendish were always boosting his products, and he got quite a bit of useful research done for nothing. His other asset was the mental outlook of the business men he dealt with. They took it for granted that an ex-university professor would be as innocent of commercial guile as a newborn babe. Which, of course, was just what the Professor wanted them to think. And some of the poor innocents still cling pathetically to that theory.

It was over the Harvey Integrator that Sir Roderick Fenton and the Professor first came into conflict. Perhaps you've never met Dr. Harvey, but he is that rare creature, the perfect popular conception of a scientist. A genius, of course, but the sort that should be locked in his lab. and spoon-fed through a trapdoor. Sir Roderick did a flourishing line of business with helpless scientists like Harvey. When State control put an end to most of his other rackets, he turned his hand to the encouragement of original inventions. The Private Enterprise (Limitations) Act of 1955 had tried to foster that sort of thing, but not in the way Sir Roderick intended. He took advantage of the tax exemptions and, at the same time held industry up to ransom by grabbing fundamental patents from dim-witted inventors like Harvey. Someone once called him a scientific highwayman, which is a pretty good description.

When Harvey sold us the rights to his calculator he retired to his private lab. and we didn't hear anything from him until about a year later. Then he produced a paper in the *Philosophical Magazine* describing that really marvellous circuit for evaluating multiple integrals. The Professor didn't see it for a few weeks—Harvey, of course, never thought of

mentioning it, now being busy on something else. The delay was fatal. One of Sir Roderick's snoopers (he paid for and got good technical advice) had bullied poor Harvey into selling the thing outright to Fenton Enterprises.

The Professor, naturally, was hopping mad. Harvey was frightfully contrite when he realised what he'd done, and promised never to sign anything again before consulting us. But meanwhile the damage had been done and Sir Roderick was clutching his ill-gotten gains, waiting for us to approach him as he knew we must.

I'd have given a lot to be present at that interview. Unfortunately, the Professor insisted on going alone. He came back about an hour later, looking very hot and bothered. The old shark had asked £5,000 for Harvey's patents which was just a little less than our overdraft at that time. We gathered that the Professor's leave-taking had been lacking in courtesy. He had, in fact, told Sir Roderick to go to Hell and sketched out his probable itinerary.

The Professor disappeared into his office, and we heard him crashing around for a minute. Then he came out with his hat and coat.

"I'm suffocating here," he said. "Let's get away from town. Miss Simmons can look after things. Come along!"

We were used to the Professor's ways by now. Once we'd thought them eccentric, but by this time we knew better. At moments of crisis, a dash out into the country could often work wonders and more than repay for any time lost at the office. Besides, it was a lovely afternoon in late summer.

The Professor drove the big Alvis—his one extravagance, and a necessary one—out along the new Great West Road until we had passed the city limits. Then he opened the rotors and we climbed into the sky until a hundred miles of English countryside lay spread below. Far beneath us we could see the white runways of Heathrow, a great three-hundred-ton liner dropping towards them with idle jets.

"Where shall we go?" asked George Anderson, who was Managing Director at that time. Paul Hargreaves was the other member of the party: you won't know him, as he went to Westinghouse a couple of years ago. He was a production engineer, and one of the best. He had to be, to keep up with the Professor.

"What about Oxford?" I suggested. "It makes a change

from these synthetic satellite towns."

So Oxford it was; but before we got there the Professor spotted some nice-looking hills and changed his mind. We windmilled down on a flat expanse of heather overlooking a long valley. It seemed as if it had been part of a large private estate in the days when there were such things. It was extremely hot, and we climbed out of the machine throwing surplus clothes in all directions. The Professor spread his coat delicately across the heather and curled himself up on it.

"Don't wake me until tea-time," he instructed. Five minutes later he was fast asleep.

We talked quietly for a while, glancing at him from time to time to make sure we didn't disturb him. He looked oddly young when his face was relaxed in sleep. It was difficult to realise that behind that placid mask a score of complicated schemes was being evolved—not least, the downfall of Sir Roderick Fenton.

At length we must have all dozed off. It was one of those afternoons when even the noise of insects seems subdued. The heat was almost visible, and the hills were shimmering all around us.

I woke up with a giant shouting in my ear. For a while I lay, taking a poor view of the disturbance; then the others stirred too, and we all looked round angrily.

Two miles away, a helicopter was floating above a small village that sprawled across the far end of the valley. It was bombarding the defenceless inhabitants with election propaganda, and every few minutes some vagary of the wind brought bursts of speech to our ears. We lay for a while trying to determine which party had committed the outrage, but as the amplifiers were doing nothing but extol the virtues of one Mr. Snooks we were none the wiser.

"He wouldn't get my vote," said Paul angrily. "Downright bad manners! The fellow must be a Socialist."

He dodged Anderson's shoe just in time.

"Maybe the villagers have asked him to address them," I said, not very convincingly, in an attempt to restore peace.

"I doubt it," said Paul. "But it's the principle of the thing I'm objecting to. It's—it's an invasion of privacy. Like sign-writing in the sky."

"I don't call the sky very private," said George. "But I see what you mean."

I forget exactly how the argument went from then on, but eventually it veered round to a discussion of offensive noises in general and Mr. Snooks in particular. Paul and George were regarding the helicopter dispassionately when the latter remarked:

"What I'd like is to be able to put up a sort of sound barrier whenever I wished. I always thought Samuel Butler's ear-flaps a good idea, only they couldn't have been very efficient."

"I think they were, socially," replied Paul. "Even the worst bore would get a bit discouraged if you ostentatiously inserted a pair of ear-plugs every time he approached. But the idea of a sound barrier is intriguing. It's a pity it can't be done without removing the air, which wouldn't be very practicable."

The Professor hadn't taken any part in the conversation; in fact, he seemed to be asleep again. Presently he gave a great yawn and rose to his feet.

"Time for tea," he said. "Let's go to Max's. Your turn to pay, Fred."

About a month later, the Professor called me into his office. As I was his publicity agent and general go-between, he usually tried his new ideas on me to see if I understood them and thought they were any use. Hargreaves and I acted as ballast to keep the Professor down to earth. We didn't always succeed.

"Fred," he began, "do you remember what George said the other day about a sound barrier?"

I had to think for a moment before it came back to me. "Oh, yes—a crazy idea. Surely you aren't thinking about it seriously?"

"Hmm. What do you know about wave interference?"

"Not much. You tell me."

"Suppose you have a train of waves—a peak here, a trough there, and so on. Then you take another train of waves and superimpose the two. What would you get?"

"Well, it depends on how you do it, I imagine."

"Precisely. Suppose you arranged it so that the trough of one wave coincided with the peak of the other, and so on all along the train."

"Then you'd get complete cancellation—nothing at all. Good heavens—!"

"Exactly. Now let's say we've got a source of sound. I put a microphone near it and feed the output to what we'll call an inverting amplifier. That drives a loudspeaker, and the whole thing is arranged so that the output is kept automatically at the same amplitude as the input, only out of phase with it. What's the net result?"

"It doesn't seem reasonable . . . but in theory it should give complete silence. There must be a catch somewhere."

"Where? It's only the principle of negative feed-back, which has been used in radio for years to get rid of things you don't want."

"Yes, I know. But sound doesn't consist of peaks and troughs, like the waves on the sea. It's a series of compressions and rarefactions in the atmosphere, isn't it?"

"True. But that doesn't affect the principle in the slightest."

"I still don't believe it would work. There must be some point you have . . ."

And then a most extraordinary thing happened. I was still talking, but I couldn't hear myself. The room had become suddenly very quiet. Before my eyes, the Professor picked up a heavy paperweight and dropped it on his desk. It hit and bounced—in complete silence. Then he moved his hand, and abruptly sound came flooding back into the room.

I sat down heavily, stunned for a moment.

"I don't believe it!"

"Too bad. Like another demonstration?"

"No! It gives me the creeps! Where have you hidden it?"

The professor grinned, and pulled out one of the drawers of his desk. Inside was a shocking jumble of components. I could tell by the blobs of solder, the wires twisted together and the general untidiness that the Professor had made it with his own hands. The circuit itself appeared f irly simple; certainly not as complex as a modern radio.

"The loudspeaker—if you can call it that—is hidden behind the curtains over there. However, there's no reason why the whole thing shouldn't be quite compact, even portable."

"What sort of range has it got? I mean, there must be a limit to the infernal thing."

The Professor indicated what appeared to be a normal volume control.

"I haven't made very extensive tests, but this unit can be adjusted to give almost complete silence over a radius of twenty feet. Outside that, sounds are deadened for another

thirty feet, and further away everything is normal again. You could cover any area you liked simply by increasing the power. This unit has an output of about three watts of 'negative sound', and it couldn't handle *very* intense noises. But I think I could make a model to blank out the Albert Hall if I wanted to—though I might draw the line at Wembley Stadium."

"Well, now that you've made the thing, what do you intend to do with it?"

The Professor smiled sweetly. "That's *your* job: I'm only an impractical scientist. It seems to me that it should have quite a lot of applications. But don't tell anyone about it; I want to keep it as a surprise."

I was used to this sort of thing and gave the Professor his report a few days later. I had been into the production side with Hargreaves, and it seemed a simple job to make the equipment. All the parts were standard: even the amplifier-inverter was nothing very mysterious when you'd seen how it was done. It was not very difficult to visualise all sorts of uses for the invention, and I'd really let myself go. In its way, it was the cleverest thing the Professor had done. I was sure we could make it into a profitable line of business.

The Professor read my report carefully. He seemed a bit doubtful on one or two points.

"I don't see how we can produce the Silencer at present," he said, christening it for the first time. "We haven't the plant or the staff, and I want money on the nail, not in a year's time. Fenton rang up yesterday to say that he'd found a purchaser for Harvey's patents. I don't believe him, but he may be telling the truth. The Integrator is a bigger thing than this."

I was disappointed. "We might sell the licence to one of the big radio firms."

"Yes; perhaps that's the best plan. But there are one or two other points to consider. I think I'll take a trip to Oxford."

"Why Oxford?"

"Oh, not all the brains are at Cambridge, you know. There's a bit of an overflow."

We didn't see him again for three days. When he came back he seemed rather pleased with himself. We soon found out why. In his pocket he had a cheque for £10,000 made out to R. H. Harvey and endorsed to Electron Products. It was signed Roderick Fenton.

The Professor sat quietly at his desk while we raved at him. Anderson was maddest of all. After all, he *was* supposed to be Managing Director. But the thing that rankled most was the fact that Sir Roderick had bought the Silencer. We couldn't get over that.

The Professor still seemed quite happy, and waited until we'd exhausted ourselves. It seemed that he had got Harvey to sell Fenton the Silencer as his own invention, so that its true origin would be concealed. The financier had been greatly impressed by the device and had bought it outright. If the Professor wanted to keep out of the transaction, he couldn't have chosen a better intermediary than the guileless Dr. Harvey. He was the last person anyone would suspect.

"But why have you let it go to that old crook?" we wailed. "Even if he's paid a fair price, which is incredible, why couldn't you sell it to someone honest?"

"Never mind," said the Professor, fanning himself with the cheque. "We can't quibble at £10,000 for a month's work, can we? Now I can buy Harvey's patents and make my bankers happy at the same time."

That was all we could get out of him. We left in a state of incipient mutiny, and it was just as well that the new calculator occupied all our attention for the next few weeks. Sir Roderick had handed over the precious patents without any more fuss. He was probably still feeling pleased with his new toy.

The Fenton Silencer came on the market with a great flourish of publicity, about six months later. It created quite a sensation. The first production model was presented to the British Museum Reading Room, and the fame it brought was well worth the cost of installation. While hospitals rushed to order units, we went around in a state of suppressed gloom, looking reproachfully at the Professor. He didn't seem to mind.

I don't know why Sir Roderick brought out the portable silencer. I rather think that some interested person must have suggested the idea to him. It was a clever little gadget, designed to look like a personal radio, and at first it sold on novelty value alone. Then people began to find it useful in noisy surroundings. And then—

Quite by chance, I was at that opening performance of Edward England's sensational new opera. Not that I'm parti-

cularly keen on opera, but a friend had a spare ticket and it promised to be entertaining. It was.

The papers had been talking about the opera for weeks before, particularly the daring use of electric percussion instruments. England's music had been causing controversy for years. His supporters and detractors almost had a free fight before the performance, but that was nothing unusual. The Sadler's Wells management had thoughtfully arranged to have special police standing by, and there were only a few boos and catcalls when the curtain went up.

In case you don't know the opera, it's one of the stark, realistic type so popular nowadays. The period is the late Victorian era, and the main characters are Sarah Stampe, the passionate postmistress, Walter Partridge, the saturnine gamekeeper, and the squire's son, whose name I forget. It's the old story of the eternal triangle, complicated by the villagers' resentment of change—in this case, the new telegraph system which the local crones predict will do things to cows' milk and cause trouble at lambing time.

I know it sounds rather involved and improbable, but operas always seem to be that way. Anyhow, there is the usual drama of jealousy. The squire's son doesn't want to marry into the Post Office, and the gamekeeper, maddened by his rejection, plots his revenge. The tragedy rises to its dreadful climax when poor Sarah, strangled with parcel tape, is found hidden in a mail bag in the Dead Letter Department. The villagers hang Partridge from the nearest telegraph pole, much to the annoyance of the linesmen; the squire's son takes to drink, or the Colonies, and that's that.

I knew I was in for it when the overture started. Maybe I'm old-fashioned, but somehow this modern stuff leaves me cold. I like something with melody, and nobody seems to write that sort of music any more. I've no patience with these modern composers—give me Bliss, Walton, Stravinsky and the other old-timers any day.

The cacophony died away amid cheers and catcalls, and the curtain went up. The scene was the village square at Doddering Sloughleigh, circa 1860. Enter the heroine, reading the postcards in the morning's mail. She comes across a letter addressed to the young squire and promptly bursts into song.

Sarah's opening aria wasn't quite as bad as the overture, but it was grim enough. Judging by appearances, it must have been almost as painful to sing as to listen to. But we were

only to hear the first few bars, for suddenly that familiar blanket of silence descended upon the opera house. For a moment I must have been the only person in that huge audience who realised what had happened. Everyone seemed frozen in their seats, while the singer's lips went on moving soundlessly. Then she, too, realised the truth. Her mouth opened in what would have been a piercing scream in any other circumstances, and she fled into the wings amid a shower of postcards.

I'm sorry to say that I laughed myself sick during the next ten minutes. The chaos was unbelievable. Quite a number of people must have realised what had happened, and they were trying to explain it to their friends. But, of course, they couldn't, and their efforts to do so were incredibly funny. Presently pieces of paper began circulating, and everybody started to look suspiciously at everybody else. However, the culprit must have been well concealed, for he was never discovered.

What's that? Yes, I suppose it's possible. No one would think of suspecting the orchestra. That would account for the motive, too: I'd never thought of it before. Anyway, the next day all the papers were very rude about Sir Roderick and there was talk of an inquiry. Shares in Fenton Enterprises began to be unpopular. And the Professor looked more cheerful than he'd done for days.

The Sadler's Wells affair started a whole crop of similar incidents, none on such a large scale but all with their amusing points. Some of the perpetrators were caught, and then, to everybody's consternation, it was discovered that there was no law under which they could be charged. It was while the Lord Chancellor was trying to stretch the Witchcraft Act to cover the case that the second big scandal occurred.

I used to have the copy of Hansard around, but someone seems to have pinched it. I rather suspect the Professor. Do you remember that deplorable affair? The House was debating the Civil Estimates, and tempers had risen to terms, and the Chancellor of the Exchequer was hitting back with both fists when he was suddenly faded out. It was Sadler's Wells all over again, e cept that this time everybody knew what had happened.

There was a soundless pandemonium. Every time an opposition speaker rose the field was switched off, and so the debate became somewhat one-sided. Suspicion focused on an unfor-

tunate Liberal who happened to be carrying a personal radio. He was practically lynched, while silently protesting his innocence. The radio was torn away—but the silences continued. The Speaker rose to intervene, and *he* got suppressed. That was the last straw, and he walked out of the House, ending the debate among scenes of unprecedented disorder.

Sir Roderick must have been feeling pretty unhappy by then. Everyone was getting very annoyed with the Silencer, to which his name had been irrevocably welded by his own conceit. But, so far, nothing really serious had happened. So far . . .

Some time before, Dr. Harvey had called on us with the news that Fenton wanted him to design a special high-powered unit for a private order. The Professor did so—for a pretty stiff fee. I was always rather surprised that Harvey carried off the deception so successfully, but Sir Roderick never suspected anything. He got his super-silencer, Harvey got the credit, and the Professor got the cash. Everyone was satisfied—including the customer. For, about two days after the House of Commons incident, there was a robbery at a Hatton Garden Jeweller's, early one afternoon in broad daylight. The extraordinary thing about it was that a safe had been blown open without anyone hearing *either the intruders or the explosion.*

Precisely! That's what Scotland Yard thought, and it was about then that Sir Roderick began to wish he'd never even heard of the Silencer. Of course, he was able to prove that he had no idea of the use for which the special unit had been intended. And, equally of course, the customer's address had been an accommodation one.

The next day half the newspapers carried headlines: FENTON SILENCER MAY BE BANNED. Their unanimity would have been puzzling if one didn't know that the Professor had long ago established excellent relations with all the science reporters in Fleet Street. By another strange coincidence, that same day an agent from an American firm called on Sir Roderick and offered to buy the Silencer outright. The agent called just as the detectives were leaving and Sir Roderick's resistance was at its lowest ebb. He got the patents for $20,000, and I think the financier was glad to see the back of them.

The Professor, at any rate, was very cheerful when he called us into his office the next day.

"I'm afraid I owe you all an apology," he said. "I know how you felt when I sold the Silencer. However, we've got it back again, and I think everything's worked out rather well. Except for Sir Roderick, bless his little heart."

"Don't look so smug," said Paul. "You were just darned lucky, that's all."

The Professor looked hurt. "I admit there was a certain element of luck," he agreed. "But not as much as you may think. D'you remember my trip to Oxford after I got Fred's report?"

"Yes. What about it?"

"Well, I went to see Professor Wilson, the psychologist. Do you know anything about his work?"

"Not much."

"I suppose not; he hasn't published his conclusions yet. But he's developed what he calls the mathematics of social psychology. It's all frightfully involved, but he claims to be able to express the properties of any society in the form of a square matrix of about a hundred columns. If you want to know what will happen to that society when you do anything to it—for example, if you pass a new law—you have to multiply by another matrix. Get the idea?"

"Vaguely."

"Naturally, the results are purely statistical. It's a matter of probabilities—like life insurance—rather than certainties. I had my doubts about the Silencer right at the beginning, and wondered what would happen if its use were unrestricted. Wilson told me; not in detail, of course, but in general outline. He predicted that if as many as point one per cent. of the population used Silencers, they would probably have to be banned inside a year. And if criminal elements started to use them, trouble would arise even sooner."

"Professor! Are you telling us—?"

"Good gracious, no! I don't go in for burglary. That *was* a bit of luck, though it was bound to happen sooner or later. I am only surprised that it took so long for someone to think of it."

We regarded him speechlessly.

"What else was I to do? I wanted the Silencer *and* the money. I took a risk, and it came off."

"I still think you're a crook," said Paul. "But what do you

intend to do with the thing now that you've got it back?"

"Well, we'll have to wait until the unpleasantness dies down. From what I've seen of Fenton Enterprises equipment, the units they've sold will come in for repair in about a year, so that should get rid of them eventually. In the meantime, we'll get our models ready for the market—fixed, built-in units only this time so that there can be none of these accidents again. And they'll be hired, not sold outright. You might be interested to know that I'm expecting a big order from Empire Airways. Atomic rockets make a devil of a noise, and nobody's been able to do anything about it until now."

He picked up the sheaf of papers and ruffled through them lovingly. "You know, this is quite a good example of the inscrutable workings of fate. It only goes to show that honesty always triumphs, and that he whose cause is just—"

We all moved at once. It took him quite a while to get his head out of the wastepaper basket.

Allegory

by

WILLIAM T. POWERS

One is almost irresistibly reminded of Galileo—or, even more poignantly, of Giordano Bruno, who was actually burned at the stake for his scientific theories, which Galileo was not—in reading this story. Today, of course, we do not burn "heretics." Sometimes we declare them "subversive" and jail them; and sometimes, it may be, we call them "mentally ill" and—but read on. . . .

THE Research Guidance Center was always busy near the first of the month, for at that time the allotments for research funds were computed and distributed, and the beginning of the first week's run of Guidance checks was starting in the big computers in the subbasements.

On one Monday morning, the third day of the month, John Mark received a communication that had a considerable effect on his stability rating for some two weeks, after which, of course, it didn't matter.

Mark was sitting at his desk in the Incoming office, coding requests to initiate research. His task was mainly routine, consisting of translating various types of requests into language the computers could understand; only one out of fifty requests required any real thinking, and no more than one out of a thousand called for any kind of personal contact. His mind, comfortably locked into a smooth and ordered pat-

tern, was stirred only by events of highly unusual nature—

He stared, big-eyed, at the application that had arrested his fingers over the coder keys.

Name, Henry Norris. Address, WJCHN10110011101001. Nature of projected research: Application of antigravity device to various forms of transportation.

Confusion stirred dangerously in Mark's solar plexus; his mind, well trained to handle this sensation, searched quickly through the possibilities, and handed up an answer. Mark smiled.

Carefully he red-penciled two words in the application and wrote in two more, so that it read, "*Invention* of antigravity device *for* various forms of transportation." Then he stamped the application, "REJECTED: SCIENCE; physical," and "Data not subject to rational investigation," and mailed it back to WJCHN10110011101001. Four days later, he got it back, with a letter.

"Dear sir," the letter said, "I have received the enclosed application, returned with the wording changed and a rejection stamp across the middle of it. Naturally the way you have reworded my application, I can see why you rejected it. However, I wish to apply for permission to apply an invention, not to develop it. Therefore, I am returning another application worded properly, and wish to have slightly more accurate handling this time."

Mark wondered why the chill went up his spine. Of course, there was nothing to worry about, but—Well, that was it, there was nothing to worry about. With a sigh he coded the application and sent it to *Science, physical.* By the time he came back from lunch the rejected form with the usual explanatory letter was lying on his desk. Out of habit he scanned it:

"Dear sir: Your application is being rejected by the Department of Physical Sciences for the following reasons:

(1) No antigravity device exists.

(2) The approved laws of physical science do not allow for the existence of antigravity devices; owing to certain data too complex to go into in this letter, we cannot allow computations for determining the probability of the development of such a device to occupy the services of the physical sciences computing department. We suggest that you refer to—"

There followed a long list of library codes, enumerating books and papers concerning antigravity, and a final admoni-

tion to become more versed in the laws of physical science.

Mark knew that part, so he skipped it. As a matter of form, he added a penciled note to the le er apologizing for the initial mishandling, and sent the envelope and its contents off to the mailing chutes.

Four days later there was a letter from WJCHN101100111-01001 lying on the desk.

"Dear Sir:" it said, "I have received your rejection of my application. Since nobody at RGC seems to be able to read, I shall appear personally at your office a week from the date of mailing this le er. In order to avoid any further contact with whomever it is on your staff that is illiterate, I shall bring a working model of my device and perhaps by drawing suitable colored pictures and limiting my vocabulary to the eight-year-old level I shall be able to make you understand that I have an antigravity device that I wish to apply to various forms of transportation, and that I do not want my application handled by chimpanzees who happen to know how to type. If the computers say that the device does not exist, that is their privilege, but what the computers say seems to have very little to do with reality. I will see you next Tuesday at two o'clock in the afternoon, or if that is beyond you, roughly halfway between lunch and qui ing-time. Sincerely, H. Norris."

An extremely uncomfortable feeling swept over Mark at the phrase, "what the computers say seems to have very little to do with reality." For a moment, he considered calling Medical, but reconsidered when he thought that the poor fellow was probably quite frustrated, and the letter was after all a form of catharsis. It might be amusing to see his device, anyway.

On the way home that evening, Mark happened to look up as the evening jet from Sydney whistled overhead. It always went over about the time he was waiting for the 4:08:30, and usually he just accepted it as a part of the trip home. But today he watched it out of sight, disturbing little thoughts stirring in his brain. Supposing the jet had gone overhead without making that seltzer-bottle noise, on antigravity beams—would he have noticed? He felt sure he would have, and that everyone else would have, too. He could just picture the mass uneasiness, feel the surging emotions.

That evening at supper he was unusually silent, and the

next morning his wife had to go talk it over with the family psych. It had been quite a shock to her, for she had been planning exactly how she was going to tell him about the letter from her sister, which in itself was an unexpected, and therefore unpleasant, event. When John had failed to spend three-quarters of an hour reading the paper after she had set the dishes to wash, and had turned on the news-broadcast instead, her whole pattern had been disrupted. John himself even seemed a little upset that morning, but he refused to go to the psych with her.

By the time Monday morning came around again, and then Tuesday morning, John Mark had pretty well forgotten that he was going to have a visitor. His wife had fully recovered, having found that she could make up for the insecurity by making a few purchases recommended by the psych, and repeating phrases G-36-992 and -9973 several times to herself before she went to sleep. She had used those particular passages from the Auto-Correction Book before, with equally fine results.

Just about lunch-time, Mark remembered the phrase, "what the computers say has very little to do with reality." It startled him, and he began to get confused, wondering why on earth he would think a thing like that. Fortunately there was a Healthview machine nearby, and after watching his favorite actress for a few moments he was quite calm again. He ate lunch and returned calmly to his desk, where he resumed the coding.

Roughly halfway between lunch and quitting-time he remembered that Norris was due any moment. What made him remember was Norris, who walked through the door precisely at two o'clock.

"Are you Mark?" Norris asked. He had a briefcase in his hand, upon which Mark's eyes fastened helpl sly.

"John Mark, yes—how do you do?" Mark said rapidly. Remembering his manners, he waved at the visitor's chair. "Sit down. Well, sir, is there some difficulty I can help you iron out?" (He vaguely remembered a psych saying that to *him*, once.)

"Nuts," Norris said. "You no more care about helping me out than you care to slit your own throat. I brought the model."

Norris never questioned that Mark knew who he was, and Mark did not even think of asking.

"Where is it?" Mark asked, his heart beginning to pound and his eyes still darting to the briefcase.

Norris paused and looked at Mark with what might have been pity for an instant. Then he shrugged and gave the briefcase a shove toward Mark. It sailed silently through the air in a straight line toward Mark's head. There was, apparently, nothing holding it up.

Mark stared uncomprehendingly at the approaching brown rectangle. His mind kept supplying briefcase after briefcase, all leaving the one in the air and following a neat parabola to the floor, but the real one kept demanding his attention. Something began whispering in his mind, becoming momentarily more desperate.

"For every action there is an equal and opposite reaction."

"You'll fall, you'll fall!"

"Section 356, Paragraph 9, Subhead A: Gravity is—"

"I swear to uphold the tenets of Security and Welfare—"

"Remember, son, there is always a computer to turn to—"

And then, quite unbidden, "What the computers say seems to have very little to do with reality."

And then his hands reached up involuntarily and received the briefcase, and he felt it for an instant, and fainted.

As soon as he opened his eyes again, he heard Norris say, "Are you going to do that again?"

"No," he said. He picked himself up out of the visitor's chair where Norris had evidently put him, and drank the water that Norris held out to him. His face burned with shame, and he felt terribly depressed.

"Do you believe me now?" Norris said.

"Get out. Please," Mark said.

"Nuts," Norris said. "Not after eighteen years and two weeks. I am going to get this fog-bound outfit to grant me permission to apply my device to various forms of transportation, or I am going to know the reason why."

"But it's absolutely impossible," Mark whispered. "There is no possible way that you could develop an antigravity device. The laws of physics—"

"Look, friend," Norris said, somewhat more patiently, "who made up those laws of physics?"

"Why—nobody. The computers deduced them from the basic facts of the universe."

"And who said that those were the basic facts of the universe?"

"Why—that's ridiculous." Mark shook his head in confusion. "The basic facts are the basic facts. It doesn't matter who discovered them, they're still basic."

Norris pointed silently to the briefcase—it was drifting between the desk and the water cooler, being accelerated slowly by the slight draft from the air-conditioner. Mark looked only for an instant and then averted his eyes.

"That is a very disturbing illusion," he said, "and you know that illusions are illegal. I request you to explain it at once, rationally."

"You can't get out, can you?" Norris said, relaxing. "I can't convince you that there's no trick, no illusion?"

"Why should I even try to let you?" Mark said desperately. "There's no point in it. It can't happen, so why should you try to convince me? I don't understand."

"What don't you understand?" Norris asked, going over and retrieving the briefcase. "You can see this—what is there *to* understand about it?"

"But I know what I can see!" Mark said desperately, feeling crazily like crying.

"Let me state it as simply as I can," Norris said. "In this briefcase I have a device which nullifies the attraction of the earth. It is adjusted so that it exactly balances out the weight of the briefcase. There is nothing inside the briefcase but the device, and there is nothing else holding up the briefcase. Therefore I have an antigravity device. Furthermore, I wish to make some money from it, as I have practically starved my fool head off for eighteen years and two weeks working on the silly thing. It no longer impresses me. All I care about now is being extremely wealthy so I do not have to starve while I am inventing my force-field. Do you understand that?"

"But you can't invent a force-field either!" Mark gasped, feeling ill. "According to the laws of physics, there can be no—"

"The laws of physics again," Norris said. "I am not going to throw away my plans just because some bollixed-up computer says I can't see something obvious."

Mark felt something cold seize his chest. He whispered, "I could have you thrown in prison for that. You shouldn't say things like that. The laws of physics are all that preserve our sanity toward the real universe. There is no other way of looking at reality that will not lead to psychosis—you know

that as well as I do. It's one of the basic facts of life."

"And I suppose the computers figured *that* out for you, too?" Norris said. "And did the computers also tell you to believe everything the computers said? Now who do you suppose told you to believe the computers when they computed that you should believe them—the computers? Nuts."

"Nuts is an archaic expression," Mark said, dazed. He gripped his desk with both hands. "You need a trip to your psych. You ought to go right away, your mind is in danger. Stop it, please. You are destroying my faith in everything I believe in."

"Why do you have faith in it?" Norris asked. "Because you were *told* to have faith in it? *Do you ever think for yourself?*"

Mark gasped, "You're psychotic!" and reached for the buzzer on his desk. Norris caught his wrist.

"That won't do any good. I can rate triple-A on any psychometric. I am not psychotic—and neither are you—the only trouble is that you've accepted a very limited reality, and you've done it because you're afraid not to. Why is it so painful for you to look at this?" He indicated the briefcase.

Mark took a deep breath and got a grip on his tottering sense of reality. Quite carefully, he turned to the only source of comfort he could find:

"The law of gravity needs no proof. It has been tested thousands of times by competent authority, and it has been proven to be just what the computers say it is—mutual attraction between *any* two material bodies."

And another: "We can consider the subject of the law of gravity to be closed. No further data is needed at this time by the computer, and the computer is so designed as to indicate when more data is needed to keep the system self-consistent and in accord with the real universe." That sentence appeared in nearly the same form, although with different contexts, in nearly every section in the "Book of All Knowledge."

Mark had completed his reading of the "Book of All Knowledge" years ago, and remembered only the basic principles of it, but he knew that somewhere was the knowledge and the logic that would prove this incredible man with his incredible toy to be a faker, an illusionist, a psychotic. If he could only remember more— In the midst of his whirling confusion he had a sudden inspiration.

"Look," he said, suddenly reasonable, "I suppose it is unfair of me to doubt my eyes. But there might be one thing you

haven't thought of. What do you suppose the other departments will say? After all, this is a rather revolutionary"—he felt a twinge inside—"device, and they should be consulted."

Norris objected immediately, as Mark knew he would. "But this device is concerned purely with the laws of physics and mechanics—it has nothing to do directly with the other departments. You know that nobody asking permission to apply an invention has to submit to the approval of the whole RGC!"

Mark smiled. "You yourself said that this device does not seem to be covered by the recognized data in the department of physics. Since it doesn't, we must investigate all the data and make as fair a decision as possible."

"All right," Norris said, "go ahead. But remember, I'll be right here to make sure you tell them what you've seen. *Tell them it doesn't fall.*"

Mark went to the intercom unit and punched the "Psych" button. He said, "I have a man here who says he has invented an antigravity device. No . . . wait a moment . . . he has brought a briefcase with him that floats in the air. Yes. No apparent support. Quite interesting, but there is nothing in the laws of physics to justify it. Can't really throw the fellow out for owning it, but what do you think about granting permission to apply it to various forms of transportation?"

Norris moved closer and caught the answer. "Absolutely not. I don't even have to put it into the computer."

Norris looked pained, and the voice went on. "Antigravity would cause widespread insecurity that would wreck the system. Can't go around destroying reality like that, you know. Tell the fellow he had better hide the thing and forget about it. Tell him he can come up here for a little talk if he wants to. Must have been quite traumatic, inventing a thing like that. Is he there now?"

"Yes, I'm here!" Norris said into the intercom. "What do you mean, it must have been quite traumatic? I enjoyed every minute of it. Are you trying to tell me I can't do it?"

"Well, if you put it that way, sir, yes. That is exactly what we will have to do. Of course, you can appeal this decision, and we will feed the data into the computer. However, I can tell you that the Psych-section computer is set to reject automatically anything that interferes with the decisions of the Physical-Sciences computer. I'm afraid you'd better go spend a few weeks with a tri-di Healthview machine or turn your

talents to something more productive. After all, there is practically an infinite number of undiscovered connections among the data in the 'Book of All Knowledge.' The computers only know what could be found there—fascinating things."

"All right, that's all," Norris said. "Oh—if Physics changed their decision about antigravity, would you change yours?"

"Probably," the man said, "but of course we'd have to check with Medical, too. After all, the physical health of our people is just as important as their mental health these days."

Medical was quick and to the point: they happened to contact a man with a good memory.

"No, we've had these calls before, Mark. The decision is straightforward. Seems that a Dr. Summers about fifty years ago fed the data into a computer just to see what would happen and found that no human being could withstand the stresses of antigravity flight. Plays hob with the endocrine balance, the blood pressure, respiration rate, and so on. Anyhow, we have a lot of data from Psych that says that introduction of a nonphysical thing like that would immediately produce mass psychosis. What did Commerce say?"

"Haven't called them yet," Mark said, smiling. "Well, thanks, see you later, Jim." He punched another button.

"Yeah, this is Commerce. What sort of thing? . . . Holy cow, it gives me the creeps to think about it! . . . No, I don't think we've ever computed anything like that before; wait a minute—the channel you need is open right now. Be right back."

After a wait of several minutes, the voice resumed, shaken. "Listen, you'd better confiscate that gadget. If it ever got out, the whole system would go right down to a security rating with zeros after the decimal point. It's poison! The computer isn't even set up to handle a new form of transportation—the fuel and loading capacities figure in, and a lot of other factors. I fed in antigravity as a fact, and the charts came out looking all bloody. No go."

Norris didn't bother to reply to that one.

Mark noticed the silence and asked, "Do you want me to call Communications and Law and Transport and Philosophy?"

"No," Norris said, rather sadly, looking at the floating briefcase. "You absolutely can't see, can you?"

"It's all perfectly plain," Mark said. "The device just does not belong in this world. Even if it were real it would still be the worst possible thing that could happen. You know what you're trying to do to the system, don't you?"

"I know," Norris said.

"Now look, don't take it so hard. I know these things seem awfully important at the time, but you'll forget about it soon enough. Why, there are thousands of things that are desperately needed, and anyone who could create an illusion as convincing as that could certainly make all the money he wants producing devices that the computers *will* permit. You're just all caught up in this thing, and all you need is to get away from it for a while. After all, eighteen years—"

"Yes, eighteen years. And two weeks." Norris laughed shortly. "Are you really convinced that what you are saying is supposed to make me feel *better*?"

"Norris, you are attacking the basic human drive, the urge to be secure, to be safe, to be taken care of. If you take away people's desire for security, then you have left them nothing to live for. Don't you see that?"

"Have you tried not wanting security?" Norris asked.

"Don't be ridiculous." Mark started to feel uncomfortable again. "Why should I deliberately drive myself psychotic?"

"How do you know you're not?" Norris asked quietly.

Mark stared at him a long moment; he knew that that was an old, old gimmick, but suddenly he could not remember what the logical answer to it was supposed to be. Norris, watching him closely, sighed and began.

"Why do you believe the computers?"

"Because they give me my security."

"Why do you need security?"

"Security is a basic drive. There is no why to it." Mark was staring out the window, feeling strangely *caught* in something, in some web of thought that Norris was weaving.

"How do you know that it is basic?"

"The computers say it is. All the computers say so."

"Who decided that the computers would say that?"

"Nobody. It's a basic fact."

"How do you know it's a basic fact?"

"The computers say it is."

"Who decided the computers would say it is?"

"Nobody. The computers. I don't know!"

"How can you find out?"

"I don't want to find out."

"Why not?"

"The computers will provide an answer if I need it."

"Who said that you have to go to the computers for an answer? The computers?"

"Leave me alone."

"Why should I leave you alone?"

Mark broke free for a moment, and shouted, "Get out of here! You're trying to drive me crazy."

"What do you mean by crazy?"

"You're crazy! You're trying to destroy the reality of the computers!"

"Why shouldn't I destroy the reality of the computers?"

"It's all in the 'Book of All Knowledge'. I don't want to answer any more questions."

"Who wrote the 'Book of All Knowledge'?"

"The computers, the computers! You know all these things, why are you doing this? Please get out of here."

"What are you afraid of having happen? Are you starting to think?"

Mark ran to the door and wrenched it open. "Please. Get out, or I will have you arrested."

Norris stood up, gathering his briefcase to him. At the door, he turned to the dazed and trembling Mark and said very clearly, "You will continue thinking about this." And he left. A second later he was gone, and Mark sank into the visitor's chair.

He tried to think, but all that came to his mind was the series of questions and answers, each time nagging at something in his brain as though something there was whispering, "It's so obvious, so obvious!"

It lasted all through that night, and all the next day, and on into the night after that. About two o'clock in the morning, after he had used the last of his strength in trying to sleep, in trying to think of the lake shores and the mountains, and the Healthviews, in trying to be unconscious, in trying to die, he began to weep.

They took him to the asylum a week later. He was strangely calm as they propelled him toward the gates. He watched silently as they filled out the dozens of forms, the assignments, the agreements, the legal trivia. As they approached the great gray building he began to smile, and as he waited in the anteroom to be checked in, he chuckled.

Walking through the long series of locked and barred doors, he guffawed, and while the attendant spun the dials on the last and most ponderous door, he held his sides and roared. That was over soon, and he took a deep breath, like a man who has swum a long way under water. When the door swung wide, he gas ed.

Norris looked up from the workbench, gestured at the huge, gleaming laboratory, the scurrying white-coated men, the racks of equipment, the panels studded with jacks and meters, and said, grinning, "Welcome to the loony bin."

Soap Opera

by

ALAN NELSON

You may note that there is a slight family resemblance between this story of a tomorrow in outdoor advertising and Arthur C. Clarke's Silence, Please! *earlier in this book. Read this one and then compare British (Clarke's) and American (Nelson's) methods of satirizing our business civilization. . . . By the way, weren't there some items in the newspapers not so long ago about the indestructibility of suds made by certain types of non-soap detergents? Some people's septic tanks being clogged, and certain sewer line outlets appearing as if they were foaming at the mouth? Maybe truth can be stranger than, or at least as strange as, fiction!*

NO HISTORY of that dizzy decade, the 1970's, would be complete without mention of the celebrated "Schizoid Skywriter" episode which threw the city of San Francisco into such a turmoil for three absurd days in September 1973 and provided more confusion and garbled news copy than any other event in the whole period. Briefly the facts are these.

On August 27, 1973, a fuming little man with a shock of white hair and tan shoes strutted down a long corridor, pushed open a door marked "Advertising" and buzzing like an angry wasp, made for the window, slammed it open, leaned out and frowned skyward.

This was H. J. Spurgle, owner and founder of the H. J.

Spurgle Soap Company (manufacturers of the all-purpose household cleanser known as GIT!) and his scowl was directed at three freshly skywritten slogans hovering smokily above the San Francisco skyline:

GIT GETS GRIME
GRIME DOESN'T PAY—GET GIT!
GIT'S GOT GUTS

Close behind him was his private secretary Nita Kribbert, a luscious brunette with a careful hairdo, who was uttering soothing noises.

"Who's responsible for *that!*" Spurgle snarled as he withdrew his head from the window and pointed a gnarled finger upward. His face was unnaturally red, as though scrubbed too vigorously.

Eleven advertising staff members blinked anxiously and peered out.

"I am."

Spurgle whirled and glowered at the gaunt, uneasy young man in a leather jacket who had just entered the room.

"Well, that's just about the worst skywriting I've ever seen," Spurgle growled, walking slowly toward him with a watch in his hand. "Your letters started falling apart in less than 30 seconds."

"But the breeze, sir. . . ." Everett Mordecai interposed, glancing miserably at Nita.

"Breeze or no breeze," Spurgle thundered. "I'm not paying you to trail a lot of smoke across the sky that nobody can read. Why I could do better with a 30 cent cigar. Tune the smoke mixture up a bit, man! I want more permanence in those letters! Understand? Permanence!"

Wretchedly, Mordecai glanced first at the angry little man, then at the lovely Nita and wondered if this was the end of everything. Hired five months ago as a research chemist, everything had gone wrong. The very first week he'd blown up a small laboratory in an unauthorized experiment designed to produce a "quick action" hand soap. Transferred into accounting, his experimental ink eradicator had almost completely dissolved an entire ledger before the horrified section chief. Brief hitches in sales and traffic proved equally disastrous.

And now this miserable assignment as skywriter was about

to blow up too. And right in front of Nita. The prospect was unendurable. For months he'd been following the gorgeous and elusive creature around like a stunned and abject slave —now she'd marry him, now she wouldn't. I can't stand a failure, she'd told him early in the game. Give me a man on his way up. But the harder he tried, the worse things got. Already he'd lost ten pounds. Already the pit of his stomach frizzled from morning to night like a perpetually erupting test tube.

"Permanence!" Spurgle was shouting. "Is that clear?"

Wretchedly, Mordecai watched the angry little man bounce out of the office. Nita remained a moment.

"Keep trying," she smiled encouragingly.

After Mordecai wrote his usual message, GOT GRIT?—GET GIT!, at 2000 feet, he fluttered the helicopter in, crawled out of the cockpit, and walked over to Nita and Mr. Spurgle who were waiting for him by the side of the hangar.

"Everett!" Nita cried, moving forward to meet him. "For two weeks I've been trying to reach you! here on earth have you been?"

"Leave of absence," Mordecai answered tensely. He was thinner, haggard; dark pouches quivered beneath both eyes.

"I have something to tell you," she began.

"Perhaps, young man," Spurgle interrupted impatiently, "you'll tell me what this is all about." He glanced at an inter-office memo fluttering in his hand. "Just *why* is it so urgent that I be on the landing field this morning at 11?"

Mordecai hauled out a stop watch, turned his eyes upward to the slogan he'd just written.

"Possibly you'd like to time *these* letters. . . ."

Automatically Spurgle gazed up too. The letters, still firm, still strong and perfectly formed, seemed to be settling earth-ward, undisturbed by the brisk breeze that scudded across the field.

"They're coming down," Nita gasped.

Spurgle frowned and stared, waiting for them inevitably to dissolve and disappear.

But they didn't.

Like great soggy balloons, the letters gradually descended, becoming larger and clearer as they drifted closer, and finally when they landed on the field, bounced gently several times and lay quiet.

Silently the three walked over to the slogan. Spurgle kicked at the letter G in GIT! It was a monstrous white thing, ten feet thick, half a city block long, composed of a flexible, elastic substance that resembled something between jello and foam rubber, yet which was opaque and so light that despite its size, Mordecai could pick the entire letter up with one hand. He balanced the G on his palm a moment.

"You asked for permanence . . ."

Then Mordecai tilted his hand; the giant letter slid off, bounced crazily on the ground, shuddered like some monstrous coiled snake and lay gently quivering. Nita found the dot to the I—a tremendous white sphere the size of a two car garage—and was bouncing it off the side of the hangar.

Spurgle frowned and rubbed his jowls.

"What's this stuff made of?" he finally asked, grabbing a corner of the G and compressing an entire cross bar into his hand. When he released the pressure it sprang back to its original shape.

"Oh, it's just a little synthetic rubber derivative with a dash of neoprene and a couple of jiggers of koroseal . . ."

"Never mind," Spurgle cried, growing more and more irritable. He withdrew a knife, opened it, started sawing away at an edge of the T. "I'll send it to the lab, have it analyzed."

But the stuff just wouldn't cut. Twice Spurgle plunged the knife into the rubbery substance up to his armpits, but it was like trying to puncture a sponge with a potato masher.

"Well, I must admit, it's a neat trick," he growled uncertainly. "But unfortunately I decided only last week to ditch the whole skywriting campaign. After all, this is 1973 and skywriting is pretty much a thing of the past. Clever twist, this—I must admit. But I'm afraid it just doesn't have any impact. No one skywrites anymore."

He glanced at his watch, then turned to Nita.

"Good lord, Nita. You'd better pick up the tickets. We've got exactly 25 minutes."

Nita lingered just long enough to touch Mordecai gently on the sleeve.

"Keep trying," she said smiling, then hurried off across the field.

"As I say, Mordecai," Spurgle continued. "It's a nice try but I'm afraid you have another stinker here. When I get back from my honeymoon I'll try to find another spot for you—the shipping department perhaps. . . ."

"Honeymoon?" Mordecai echoed with a premonition of disaster.

"Why, yes," Spurgle said, allowing his face to relax a moment as he gazed after the disappearing figure of Nita. "Nita and I are on our way to Palm Springs right now. But I shouldn't say anything about it. It's a secret . . ."

Dazedly, Mordecai watched Spurgle stride off toward the administration building; then with a low moan that seemed to rack his whole body, he hauled off and booted the exclamation point clear off the landing field.

Those are the events that lead up to the three wildest and most bizarre days in San Francisco history. Whether Mordecai's subsequent actions were the result of a frustrated personality gone berserk or merely a last-ditch attempt to "keep trying" has been debated for nearly twenty years.

The San Francisco *Chronicle* dated September 14, 1973, carried this dispatch on page one:

> Residents in scattered portions of the city were surprised early this morning by the appearance of huge rubbery letters leaning against the eaves of houses, clogging backyards and blocking street car tracks. In the downtown area, a huge elastic "O" ringed the Shell building like a quoit on a peg and was wedged at the sixteenth floor by an extended flag pole. The Atlas Foundry reported one of its huge brick smoke stacks obstructed by a large white sphere.
>
> Meteorologist Fred Ballard could not immediately identify the source of the phenomenon but thought the objects might be by-products of a new atomic development project located somewhere in the vicinity.
>
> Toward morning the drizzle seemed to be increasing and had already created a nuisance in several sections due to difficulty in disposing of them. Impossible to cut, burn or deflate, the letters could only be moved; and the big question was—where? Vacant lots in certain districts were loaded and police reported squabbles breaking out between neighbors over tossing the things over back fences . . .

It was not until the second morning that San Franciscans discovered to their ire that the phenomenon—still falling steadily

—was not an atomic by-product, but an old advertising stunt with a new twist. For while previously Mordecai had dropped individual letters, now he was connecting them up in a flourishing Pelman script; slogans fell as a unit, and all too clearly people could read the GET GIT!'s as they drifted downward and covered the city like a blanket of snow.

Moreover, the size was increasing. A single GIT'S GOT GUTS, for instance, fitted perfectly into Van Ness avenue from Golden Gate to Post street, and SCOUR WITH POWER—GIT'S GOT IT! which landed upend in Kezar stadium stuck out like a spoon in a bowl of soup.

The angry, protesting howl that welled up that second morning—the morning of "Frantic Friday"—was a demonstration of civic indignation that will probably never be equalled. Inevitably, the Spurgle Soap Company was on the receiving end of the point-blank blast.

Forty thousand irate housewives dialled Spurgle's almost simultaneously, and the four benumbed operators on duty at the plant, overwhelmed by the avalanche, simply laid down their headpieces, watched the flashing switchboard in awe a few moments longer, then quietly slunk out.

Outside, an ugly crowd estimated at between 10 and 20,000 milled beyond the wire fence, shouting and occasionally heaving bricks into the yard.

It was not until almost 11 A.M. that the citizen's committee of seven headed by Mayor Randolph Rockwell, a rotund man with vertical lines in his face, shouldered its way through this crowd, and at length strode into the panelled office of H. J. Spurgle. They found Spurgle in a cold rage, rocking himself gently in his swivel chair, face nearly purple, trying desperately to control a fit of the shakes.

"Who's responsible for *that?*" Rockwell snarled, going immediately to the window and pointing a finger skyward. "I demand you put a stop to this outrageous publicity stunt at once!"

It was a moment before Spurgle could find his voice.

"Put a stop to it!" he screamed. "Don't you think I'd like to? First it ruined my wedding. Now, my business. Put a stop to it? HOW?"

"Call your man down, that's how."

Spurgle cackled mirthlessly.

"*You* call him down. The man's gone completely mad! The only way you're going to get him down is shoot him down."

A man with a briefcase stepped forward.

"Nevertheless, Spurgle," he stated in cold, judicial tones, "as city attorney I must warn you the man is on your pay roll and therefore we're holding you legally responsible."

"What do you mean—legally responsible!" Spurgle shouted. "Spurgle company has a perfectly valid 1973 city skywriting license. It's not legal responsibility I'm worried about. I'm in the clear there." He rummaged a moment in the desk, came up with a document, tossed it across to the city attorney who examined it carefully. Presently he began to shake his head and frown.

"This seems to be in perfect order," he said. "Frankly, gentlemen, I'm at a loss to know just what ordinance *is* being violated, except possibly the anti-smog regulation. This whole thing, unfortunately, appears perfectly legal."

There was an embarrassing silence.

"How long can he stay up there?" someone asked.

"Months," Spurgle answered sadly. "Both our helicopters are atomic powered."

"But the supply of . . . of rubber or whatever it is he uses," Mayor Rockwell cried plaintively. "Surely that isn't inexhaustible. What about that, Cliff—you're City Engineer."

"Haven't had time yet to analyze the stuff," a stolid man in a blue serge answered. "But I can tell you this. There's more solid rubber in an ordinary golf ball than there is in an entire slogan. It's like the sugar in those sugar fluff candy cones they sell at the beach—a little goes a long way. If the man happened to take along three or four hundred pounds of old rubber tires, for instance, there's no telling how long he could spin them out."

"Maybe we'd *better* shoot him down then," Chief of Police Guire said.

"No! No!" the city attorney replied testily. "Didn't you hear me say he's committing no crime? Writing obscene literature in public places—yes. But shoot him down for that and the city would have a suit on its hands for half a million dollars."

Mayor Rockwell, who had been looking flustered, stopped chewing on the earpiece of his spectacles, cleared his throat and turned to a thin, frowning man.

"Well, Ed, it looks as if this is *your* baby."

"Very definitely it is *not* a matter of Civilian Defense," the man answered irritably. "We're not being attacked. Per-

sonally I think it's up to the Civil Aeronautics Commission."

"Absolutely not!" a short man answered from the background. "This is a local matter, pure and simple. Perhaps the gentleman from the Better Business Bureau has a suggestion . . ."

"Just get that madman down!" Spurgle shrilled.

Meanwhile, outside, the city wallowed deeper and deeper in the torrent of slogans. Toward afternoon, Mordecai, obviously tiring of the shopworn phrases, began making up some of his own:

GIT CONTAINS TRI-SODIUM PHENO-BARBITO-HYPER-CLOROSOL AND IS MADE BY REACTING POLY-HYDRIC ALCOHOLS WITH POLYBASIC ACIDS,

for instance, extended from the east slope of Twin Peaks all the way down Market street to the Embarcadero.

And for a brief spell, possibly under the influence of the bottle, there rained a strangely garbled series of messages like:

NITA KRIBBERT IS FAST, EASY, SAFE AND DOESN'T REDDEN THE HANDS.

H. J. SPURGLE REQUIRES ABSOLUTELY NO RINSING.

HAPPY WEDDING DAY TO GIT!

By dusk of the second day, the downtown area was completely paralyzed. All traffic had stopped. Rubber letters completely smothered every street, lay crazily across roof tops, stacked up on one another like a gigantic, disordered wood pile. Only the peaks of the highest buildings were visible.

The following eye-witness account by Edgar Fogleman, Wells Fargo bank clerk, is quoted from the November, 1973, issue of *Glimpse:*

" . . . I wasn't sure whether the bank was going to open or not but I started walking to work anyway. It got worse as I approached the financial district.

"I don't know how to describe it except it was like walking through a bubble bath. There was plenty of light and air down there but it was very easy to get lost because you'd go to turn a corner, then find it wasn't a corner, but just the end of a letter.

"No one was scared or panicky because the things were easy to move if they got in your way—but everybody was confused and very mad.

"When I got to Montgomery and California some guy in an arm band told me every able-bodied man in the district was being drafted to haul the things out of there. I was assigned to a crew with three others and we started dragging one of the big things through a narrow lane they'd cleared toward the water front. They weren't too hard to carry but very awkward and hard to get a hold of.

"After about four hours the Embarcadero got so jammed we couldn't even get close to the bay any more. We hung around a while longer, then the man in charge told us to go home, that they were going to try to haul the things down the peninsula by auto caravan. . . ."

Two hours previously, the mayor of Oakland just across the bay, in a gaudy display of civic friendship, dispatched to the scene over 500 boy scouts who were having their annual jamboree on the shores of Lake Merritt. The following excerpt is quoted from a letter later written by Scoutmaster Jerrold Danielsen to the National Chairman of Boy Scouts of America and printed with the permission of Mr. Danielsen:

". . . wish to take exception to your letter reprimanding the Hedgehog Patrol for 'conduct unbecoming to Scouts,' as you put it. It is true our boys became lost and wandered about for over three hours, but I think it is to their credit they didn't lose their heads completely. After all, being lost in a forest and being lost in a maze of rubber letters are two different things—I might remind you it was impossible to cut notches in the trunks of these slogans.

"As to your statement about 'building campfires on every street corner and adding to the general confusion,' I will point out these campfires were used to make hunter's stew and boosted the morale of over fifteen hungry San Franciscans (by actual count) with whom it was shared.

"So far as your claims that . . ."

The city police had, of course, long since been given orders to "find and bring down that madman."

There was little difficulty in finding him.

Sergeant Mulrooney reported back within the hour that

Mordecai was barrelling around at 5000 feet, trailing a funny-looking liquid rubber that solidified almost immediately.

"But how we going to *get* him down if we can't shoot him down?" he asked. "We can't get close enough to force him down—all he has to do is duck behind one of his own sentences."

And by nightfall of "Frantic Friday" Mordecai not only was still roaming the skies, but had added a new ingredient —fluorescence.

BRIGHTEN YOUR SINKS AND WASH BASINS WITH H. J. SPURGLE.

The slogan glowed with a purple brilliance and finally nestled obscenely against the Museum of Modern Art. From then on the night sky was brilliant with great glowing gobs of green, orange and vermillion which settled and infested everything with a weird and garish phosphorescence.

And then at 5:17 A.M. on the third day, when all San Francisco lay under a quivering blanket of technicolor, there was an abrupt cessation of descending slogans. A pregnant lull ensued for a full five minutes. Suddenly a different type of message flashed across the sky.

IMPORTANT ANNOUNCEMENT TO FOLLOW

Several hundred thousand anxious eyes scanned the blackness above, waiting hopefully. Finally it came.

GET SCRAMMO—THE NEW SOAP POWDER

It was closely followed by another.

SCRAMMO MAKES GIT! SCRAM

The several hundred thousand watchers, not understanding, not caring much more, their eyes strained and bloodshot, turned away in weary disgust and took once more to the task of digging out.

That was the last message ever to be skywritten across San Francisco's skyline.

Perhaps the denouement can best be described by reprinting an excerpt of an interview with Millie Speicher, housewife, residing at 2390 Washington street, as published in the September 23, 1973, issue of the San Francisco *News:*

. . . I was at 14th and Market about 9 A.M. Saturday when I noticed this vacant warehouse with a big sign reading: "GET YOUR SCRAMMO HERE."

I remembered the slogan earlier this morning about SCRAMMO and went in. The place was crammed with stacks of five pound packages in plain paper sacks. The clerk told me to buy one and try the contents on one of the GIT! slogans.

Outside, I opened the package and sprinkled a little of it on the nearest GIT! slogan. Instantly, the whole thing disintegrated with a little pop. I told some other people about it and in less than fifteen minutes there was a line in front of that store clear to the ferry building.

By noon that day I didn't see a single GIT! sign. All that was left was a thin layer of gray powder that covered almost everything but which the firemen washed down the street drains with fire hoses. It really is wonderful stuff . . .

Thus ended the "Schizoid Skywriter" incident, an episode San Francisco has tried vainly to live down for twenty years.

There are those who insist that Mordecai really did go off his rocker, that his were the actions of a madman, and that he came to a merciful end when his helicopter was damaged and plunged somewhere into the Pacific.

But others are not quite so sure.

They point to some rather significant facts:

First, that the manufacturers of GIT! really were forced out of business by popular demand.

Second, that SCRAMMO, which skyrocketed to popularity after its dramatic performance on GIT! signs that third day, appeared at a suspiciously apropos time.

Third, that the newly formed SCRAMMO company was operated for years thereafter by a dummy board of directors, the real power, rarely, if ever, making a public appearance.

As for Nita Kribbert, the following two excerpts may be of interest, the first of which appeared in the San Francisco *Examiner* classified section under Personals, on November 14, 1973:

EV! WHERE ARE YOU? HOW COULD YOU BELIEVE I EVER INTENDED MARRYING H.J.? ALL A HORRIBLE MIX-UP. CAN EXPLAIN EVERYTHING. PLEASE CALL!—KRIBBIE

The second appeared in San Francisco *Night Life* (February, 1973):

". . . yes, I'm on my way to be married. But I can't tell you where or to whom or anything! It's a big secret! All I can say is that he's young and handsome and on his way up.

"Is it true that I once started to elope with H.J. Spurgle? Absolutely NOT! We *did* start out for a wedding but not to *mine*. H.J. was on his way to marry someone he met in Arizona and he asked me to accompany him in the capacity of private secretary and later to fill in as bridesmaid. Then the bombardment of GIT! slogans broke loose and everything was off. How do these stupid rumors get started anyway?

"Right now I'm very happy . . ."

One other footnote to the whole bizarre sequence: Only two years ago, Consumers' Research had this to say about SCRAMMO:

. . . Hysteria buying of SCRAMMO by housewives zoomed this product into one of the fastest selling household soap products on the market, a position it has maintained for over fifteen years. This, despite our own laboratory tests which have repeatedly shown that SCRAMMO is entirely worthless on s nks, tubs, enamel, rcelains, linoleum or apparently anything else save for the purpose it was originally intended: destroying GIT! slogans.

Shipping Clerk

by

WILLIAM MORRISON

Where Silence, Please! *and* Soap Opera *belong to the satirical school of science fiction humor, this tale is pure farce—in my book, a great deal harder to write well than almost any other kind of fantasy or humor. Mr. Morrison's deft touch has avoided all the pitfalls that are dug before this difficult approach to fiction, and the result is a hilarious picture of a Wonderful Alien Invention's effects on a human nonentity.*

IF THERE had ever been a time when Ollie Keith hadn't been hungry, it was so far in the past that he couldn't remember it. He was hungry now as he walked through the alley, his eyes shifting lusterlessly from one heap of rubbish to the next. He was hungry through and through, all one hundred and forty pounds of him, the flesh distributed so gauntly over his tall frame that in spots it seemed about to wear through, as his clothes had. That it hadn't done so in forty-two years sometimes struck Ollie as in the nature of a miracle.

He worked for a junk collector and he was unsuccessful in his present job, as he had been at everything else. Ollie had followed the first pa t of the rags-to-riches formula with classic exactness. He had been-born to rags, and then, as if that hadn't been enough, his parents had died, and he had been left an orphan. He should have gone to the big city,

found a job in the rich merchant's counting house, and saved the pretty daughter, acquiring her and her fortune in the process.

It hadn't worked out that way. In the orphanage where he had spent so many unhappy years, both his food and his education had been skimped. He had later been hired out to a farmer, but he hadn't been strong enough for farm labor, and he had been sent back.

His life since then had followed an unhappy pattern. Lacking strength and skill, he had been unable to find and hold a good job. Without a good job, he had been unable to pay for the food and medical ca e, and for the training he would have needed to acquire strength and skill. Once, in the search for food and training, he had offered himself to the Army, but the doctors who examined him had quickly turned thumbs down, and the Army had rejected him with contempt. They wanted better human material than that.

How he had managed to survive at all to the present was another miracle. By this time, of course, he knew, as the radio comic put it, that he wasn't long for this world. And to make the passage to another world even easier, he had taken to drink. Rot gut stilled the pangs of hunger even more effectively than inadequate food did. And it gave him the first moments of happiness, spurious though they were, that he could remember.

Now, as he sought through the heaps of rubbish for usable rags or redeemable milk bottles, his eyes lighted on something unexpected. Right at the edge of the curb lay a small nut, species indeterminate. If he had his usual luck, it would turn out to be withered inside, but at least he could hope for the best.

He picked up the nut, banged it futilely against the ground, and then looked around for a rock with which to crack it. None was in sight. Rather fearfully, he put it in his mouth and tried to crack it between his teeth. His teeth were in as poor condition as the rest of him, and the chances were that they would crack before the nut did.

The nut slipped and Ollie gurgled, threw his hands into the air and almost choked. Then he got it out of his windpipe and, a second later, breathed easily. The nut was in his stomach, still uncracked. And Ollie, it seemed to him, was hungrier than ever.

The alley was a failure. His life had been a progression from rags to rags, and these last rags were inferior to the first. There were no milk bottles, there was no junk worth salvaging.

At the end of the alley was a barber shop, and here Ollie had a great and unexpected stroke of luck. He found a bottle. The bottle was no container for milk and it wasn't empty. It was standing on a small table near an open window in the rear of the barber shop. Ollie found that he could get it by simply stretching out his long, gaunt arm for it, without climbing in through the window at all.

He took a long swig, and then another. The liquor tasted far better than anything he had ever bought.

When he returned the bottle to its place, it was empty.

Strangely enough, despite its excellent quality, or perhaps, he thought, *because* of it, the whiskey failed to have its usual effect on him. It left him completely sober and clear-eyed, but hungrier than ever.

In his desperation, Ollie did something that he seldom dared to do. He went into a restaurant, not too good a restaurant or he would never have been allowed to take a seat, and ordered a meal he couldn't pay for.

He knew what would happen, of course, after he had eaten. He would put on an act about having lost his money, but that wouldn't fool the manager for more than one second. If the man was feeling good and needed help, he'd let Ollie work the price out washing dishes. If he was a little grumpy and had all the dishwashers he needed, he'd have them boot the tar out of Ollie and then turn him over to the police.

The soup was thick and tasty, although tasty in a way that no gourmet would have appreciated. The mess was food, however, and Ollie gulped it down gratefully. But it did nothing to satisfy his hunger. Likewise, the stew had every possible leftover thrown into it, and none of it gave Ollie any feeling of satisfaction. Even the dessert and the muddy coffee left him as empty as before.

The waiter had been in the back room with the cook. Now Ollie saw him signal to the manager, and watched the manager hasten back. He closed his eyes. They were onto him; there was no doubt about it. For a moment he considered trying to get out of the front door before they closed in, but there was another waiter present, keeping an eye on the patrons, and he knew that he would never make it. He took a

deep breath and waited for the roof to fall in on him.

He heard the manager's footsteps and opened his eyes. The manager said, "Uh—look, bud, about that meal you ate—"

"Not bad," observed Ollie brightly.

"Glad you liked it."

He noticed little beads of sweat on the manager's forehead, and wondered what had put them there. He said, "Only trouble is, it ain't fillin'. I'm just as hungry as I was before."

"It didn't fill you up, huh? That's too bad. I'll tell you what I'll do. Rather than see you go away dissatisfied, I won't charge you for the meal. Not a cent."

Ollie blinked. This made no sense whatever. All the same, if not for the gnawing in his stomach, he would have picked himself up and run. As it was, he said, "Thanks. Guess in that case I'll have another order of stew. Maybe this time it'll stick to my ribs."

"Not the stew," replied the manager nervously. "You had the last that was left. Try the roast beef."

"Hmm, that's more than I was gonna spend."

"No charge," said the manager. "For you, no charge at all."

"Then gimme a double order. I feel starved."

The double order went down the hatch, yet Ollie felt just as empty as ever. But he was afraid to press his luck too far, and after he had downed one more dessert—also without charge—he reluctantly picked himself up and walked out. He was too hungry to spend any more time wondering why he had got a free meal.

In the back room of the restaurant, the manager sank weakly into a chair. "I was afraid he was going to insist on paying for it. Then we'd really have been on a spot."

"Guess he was too glad to get it for free," the cook said.

"Well, if anything happens to him now, it'll happen away from here."

"Suppose they take a look at what's in his stomach."

"He still won't be able to sue us. What did you do with the rest of that stew?"

"It's in the garbage."

"Cover it up. We don't want dead cats and dogs all over the place. And next time you reach for the salt, make sure there isn't an insect powder label on it."

"It was an accident; it could happen to anybody," said the cook philosophically. "You know, maybe we shouldn't have let him go away. Maybe we should've sent him to a doctor."

"And pay his bills? Don't be a sap. From now on, he's on his own. Whatever happens to him, we don't know anything about it. We never saw him before."

The only thing that was happening to Ollie was that he was getting hungrier and hungrier. He had, in fact, never before been so ravenous. He felt as if he hadn't eaten in years.

He had met with two strokes of luck—the accessible bottle and the incredibly generous manager. They had left him just as hungry and thirsty as before. Now he encountered a third gift of fortune. On the plate glass window of a restaurant was the flamboyant announcement: EATING CONTEST TONIGHT AT MONTE'S RESTAURANT! FOR THE CHAMPIONSHIP OF THE WORLD! ENTRIES BEING TAKEN NOW! NO CHARGE IF YOU EAT ENOUGH FOR AT LEAST THREE PEOPLE.

Ollie's face brightened. The way he felt, he could have eaten enough for a hundred. The fact that the contestants, as he saw upon reading further, would be limited to hard-boiled eggs made no difference to him. For once he would have a chance to eat everything he could get down his yawning gullet.

That night it was clear that neither the judges nor the audience thought much of Ollie as an eater. Hungry he undoubtedly was, but it was obvious that his stomach had shrunk from years of disuse, and besides, he didn't have the build of a born eater. He was long and skinny, whereas the other contestants seemed almost as broad and wide as they were tall. In gaining weight, as in so many other things, the motto seemed to be that those who already had would get more. Ollie had too little to start with.

In order to keep the contest from developing an anticlimax, they started with Ollie, believing that he would be lucky if he ate ten eggs.

Ollie was so ravenous that he found it difficult to control himself, and he made a bad impression by gulping the first egg as fast as he could. A real eater would have let the egg slide down rapidly yet gently, without making an obvious effort. This uncontrolled, amateur speed, thought the judges, could only lead to a stomachache.

Ollie devoured the second egg, the third, the fourth, and the rest of his allotted ten. At that point, one of the judges asked, "How do you feel?"

"Hungry."

"Stomach hurt?"

"Only from hunger. It feels like it got nothin' in it. Somehow, them eggs don't fill me up."

Somebody in the audience laughed. The judges exchanged glances and ordered more eggs brought on. From the crowd of watchers, cries of encouragement came to Ollie. At this stage, there was still nobody who thought that he had a chance.

Ollie proceeded to go through twenty eggs, forty, sixty, a hundred. By that time, the judges and the crowd were in a state of unprecedented excitement.

Again a judge demanded, "How do you feel?"

"Still hungry. They don't fill me up at all."

"But those are large eggs. Do you know how much a hundred of them weigh? Over fifteen pounds!"

"I don't care how much they weigh. I'm still hungry."

"Do you mind if we weigh you?"

"So long as you don't stop givin' me eggs, okay."

They brought out a scale and Ollie stepped on it. He weighed one hundred and thirty-nine pounds, on the nose.

Then he started eating eggs again. At the end of his second hundred, they weighed him once more. Ollie weighed one hundred thirty-eight and three-quarters.

The judges stared at each other and then at Ollie. For a moment the entire audience sat in awed silence, as if watching a miracle. Then the mood of awe passed.

One of the judges said wisely, "He palms them and slips them to a confederate."

"Out here on the stage?" demanded another judge. "Where's his confederate? Besides, you can see for youself that he eats them. You can watch them going down his throat."

"But that's impossible. If they really went down his throat, he'd gain weight."

"I don't know how he does it," admitted the other. "But he does."

"The man is a freak. Let's get some doctors over here."

Ollie ate another hundred and forty-three eggs, and then had to stop because the restaurant ran out of them. The other contestants never even had a chance to get started.

When the doctor came and they told him the story, his first impulse seemed to be to grin. He knew a practical joke when he heard one. But they put Ollie on the scales—by this time he weighed only a hundred thirty-eight and a quarter pounds

—and fed him a two pound loaf of bread. Then they weighed him again.

He was an even one hundred and thirty-eight.

"At this rate, he'll starve to death," said the doctor, who opened his little black bag and proceeded to give Ollie a thorough examination.

Ollie was very unhappy about it because it interfered with his eating, and he felt more hungry than ever. But they promised to feed him afterward and, more or less unwillingly, he submitted.

"Bad teeth, enlarged heart, lesion on each lung, flat feet, hernia, displaced vertebrae—you name it and he has it," said the doctor. "Where the devil did he come from?"

Ollie was working on an order of roast beef and was too busy to reply.

Somebody said, "He's a rag-picker. I've seen him around."

"When did he start this eating spree?"

With stuffed mouth, Ollie mumbled, "Today."

"Today, eh? What happened today that makes you able to eat so much?"

"I just feel hungry."

"I can see that. Look, how about going over to the hospital so we can really examine you?"

"No, sir," said Ollie. "You ain't pokin' no needles into me."

"No needles," agreed the doctor hastily. If there was no other way to get blood samples, they could always drug him with morphine and he'd never know what had happened. "We'll just look at you. And we'll feed you all you can eat."

"All I can eat? It's a deal!"

The humor was crude, but it put the point across—the photographer assigned to the contest had snapped a picture of Ollie in the middle of gulping two eggs. One was traveling down his gullet, causing a lump in his throat, and the other was being stuffed into his mouth at the same time. The caption writer had entitled the shot: THE MAN WHO BROKE THE ICEBOX AT MONTE'S, and the column alongside was headed, Eats Three Hundred and Forty-three Eggs. "I'm Hungry!" He Says.

Zolto put the paper down. "This is the one," he said to his wife. "There can be no doubt that this person has found it."

"I knew it was no longer in the alley," said Pojim. Ordinarily a comely female, she was now deep in thought, and suc-

ceeded in looking beautiful and pensive at the same time. "How are we to get it back without exciting unwelcome attention?"

"Frankly," said Zolto, "I don't know. But we'd better think of a way. He must have mistaken it for a nut and swallowed it. Undoubtedly the hospital attendants will take X-rays of him and discover it."

"They won't know what it is."

"They will operate to remove it, and then they will find out."

Pojim nodded. "What I don't understand," she said, "is why it had this effect. When we lost it, it was locked."

"He must have opened it by accident. Some of these creatures, I have noticed, have a habit of trying to crack nuts with their teeth. He must have bitten on the proper switch."

"The one for inanimate matter? I think, Zolto, that you're right. The stomach contents are collapsed and passed into our universe through the transfer. But the stomach itself, being part of a living creature, cannot pass through the same switch. And the poor creature continually loses weight because of metabolism. Especially, of course, when he eats."

"Poor creature, you call him? You're too soft-hearted, Pojim. What do you think we'll be if we don't get the transfer back?"

He hunched up his shoulders and laughed.

Pojim said, "Control yourself, Zolto. When you laugh, you don't look human, and you certainly don't sound it."

"What difference does it make? We're alone."

"You can never tell when we'll be overheard."

"Don't change the subject. What are we supposed to do about the transfer?"

"We'll think of a way," said Pojim, but he could see she was worried.

In the hospital, they had put Ollie into a bed. They had wanted a nurse to bathe him, but he had objected violently to this indignity, and finally they had sent in a male orderly to do the job. Now, bathed, shaven and wearing a silly little nightgown that made him ashamed to look at himself, he was lying in bed, slowly starving to death.

A dozen empty plates, the remains of assorted specialties of the hospital, filled with vitamins and other good things, lay around him. Everything had tasted fine while going down,

but nothing seemed to have stuck to him.

All he could do was brood about the puzzled and anxious looks on the doctors' faces when they examined him.

The attack came without warning. One moment Ollie was lying there unhappily, suffering hunger pangs, and the next moment somebody had punched him in the stomach. The shock made him start and then look down. But there was nobody near him. The doctors had left him alone while they looked up articles in textbooks and argued with each other.

He felt another punch, and then another and another. He yelled in fright and pain.

After five minutes, a nurse looked in and asked casually, "Did you call?"

"My stomach!" groaned Ollie. "Somebody's hittin' me in my stomach!"

"It's a tummyache," she said with a cheerful smile. "It should teach you not to wolf your food."

Then she caught a glimpse of his stomach, from which Ollie, in his agony, had cast off the sheet, and she gulped. It was swollen like a watermelon—or, rather, like a watermelon with great warts. Lumps stuck out all over it.

She rushed out, calling, "Doctor Manson! Doctor Manson!"

When she returned with two doctors, Ollie was in such acute misery that he didn't even notice them. One doctor said, "Well, I'll be damned!" and began tapping the swollen stomach.

The other doctor demanded, "When did this happen?"

"Right now, I guess," replied the nurse. "Just a few minutes ago his stomach was as flat as the way it was when you saw it."

"We'd better give him a shot of morphine to put him out of his pain," said the first doctor, "and then we'll X-ray him."

Ollie was in a semi-coma as they lifted him off his bed and wheeled him into the X-ray room. He didn't hear a word of the ensuing discussion about the photographs, although the doctors talked freely in front of him—freely and profanely.

It was Dr. Manson who demanded, "What in God's name are those things, anyway?"

"They look like pineapples and grapefruit," replied the bewildered X-ray specialist.

"Square-edged pineapples? Grapefruit with one end pointed?"

"I didn't say that's what they are," returned the other defensively. "I said that's what they look like. The grapefruit could be eggplant," he added in confusion.

"Eggplant, my foot. How the devil did they get into his stomach, anyway? He's been eating like a pig, but even a pig couldn't have gotten those things down its throat."

"Wake him up and ask him."

"He doesn't know any more than we do," said the nurse. "He told me that it felt as if somebody was hitting him in the stomach. That's all he'd be able to tell us."

"He's got the damnedest stomach I ever heard of," marveled Dr. Manson. "Let's open it up and take a look at it from the inside."

"We'll have to get his consent," said the specialist nervously. "I know it would be interesting, but we can't cut into him unless he's willing."

"It would be for his own good. We'd get that unsliced fruit salad out of him." Dr. Manson stared at the X-ray plates again. "Pineapples, grapefruit, something that looks like a banana with a small bush on top. Assorted large round objects. And what looks like a nut. A small nut."

If Ollie had been aware, he might have told Dr. Manson that the nut was the kernel of the trouble. As it was, all he could do was groan.

"He's coming to," said the nurse.

"Good," asserted Dr. Manson. "Get a release, Nurse, and the minute he's capable of following directions, have him sign it."

In the corridor outside, two white-clad interns stopped at the door of Ollie's room and listened. They could not properly have been described as man and woman, but at any rate one was male and the other female. If you didn't look at them too closely, they seemed to be human, which, of course, was what they wanted you to think.

"Just as I said," observed Zolto. "They intend to operate. And their attention has already been drawn to the nut."

"We can stop them by violence, if necessary. But I abhor violence."

"I know, dear," Zolto said thoughtfully. "What has happened is clear enough. He kept sending all that food through, and our people analyzed it and discovered what it was. They must have been surprised to discover no message from us, but

after a while they arrived at the conclusion that we needed some of our own food and they sent it to us. It's a good thing that they didn't send more of it at one time."

"The poor man must be in agony as it is."

"Never mind the poor man. Think of our own situation."

"But don't you see, Zolto? His digestive juices can't dissolve such unfamiliar chemical constituents, and his stomach must be greatly irritated."

She broke off for a moment as the nurse came past them, giving them only a casual glance. The X-ray specialist followed shortly, his face reflecting the bewilderment he felt as a result of studying the plate he was holding.

"That leaves only Dr. Manson with him," said Zolto. "Pojim, I have a plan. Do you have any of those pandigestive tablets with you?"

"I always carry them. I never know when in this world I'll run into something my stomach can't handle."

"Fine." Zolto stepped back from the doorway, cleared his throat, and began to yell, "Calling Dr. Manson! Dr. Manson, report to surgery!"

"You've been seeing too many of their movies," said Pojim.

But Zolto's trick worked. They heard Dr. Manson mutter, "Damn!" and saw him rush into the corridor. He passed them without even noticing that they were there.

"We have him to ourselves," said Zolto. "Quick, the tablets."

They stepped into the room, where Zolto passed a small inhalator back and forth under Ollie's nose. Ollie jerked away from it, and his eyes opened.

"Take this," said Pojim, with a persuasive smile. "It will ease your pain." And she put two tablets into Ollie's surprised mouth.

Automatically, Ollie swallowed and the tablets sped down to meet the collection in his stomach. Pojim gave him another smile, and then she and Zolto hurriedly left the room.

To Ollie, things seemed to be happening in more and more bewildering fashion. No sooner had these strange doctors left than Dr. Manson came rushing back, cursing, in a way that would have shocked Hippocrates, the unknown idiot who had summoned him to surgery. Then the nurse came in, with a paper. Ollie gathered that he was being asked to sign something.

He shook his head vigorously. "Not me. I don't sign *nothin'*, sister."

"It's a matter of life and death. Your own life and death. We have to get those things out of your stomach."

"No, sir, you're not cuttin' me open."

Dr. Manson gritted his teeth in frustration. "You don't feel so much pain now because of the morphine I gave you. But it's going to wear off in a few minutes and then you'll be in agony again. You'll have to let us operate."

"No, sir," repeated Ollie stubbornly. "You're not cuttin' me open."

And then he almost leaped from his bed. His already distended stomach seemed to swell outward, and before the astonished eyes of doctor and nurse, a strange new bump appeared.

"Help!" yelled Ollie.

"That's exactly what we're trying to do," said Dr. Manson angrily. "Only you won't let us. Now sign that paper, man, and stop your nonsense."

Ollie groaned and signed. The next moment he was being rushed into the operating room.

The morphine was wearing off rapidly, and he lay, still groaning, on the table. From the ceiling, bright lights beat down upon him. Near his head the anesthetist stood with his cone of sleep poised in readiness. At one side a happy Dr. Manson was slipping rubber gloves on his antiseptic hands, while the attentive nurses and assistants waited.

Two interns were standing near the doorway. One of them, Zolto, said softly, "We may have to use violence after all. They must not find it."

"I should have given him a third tablet," said Pojim, the other intern, regretfully. "Who would have suspected that the action would be so slow?"

They fell silent. Zolto slipped a hand into his pocket and grasped the weapon, the one he had hoped he wouldn't have to use.

Dr. Manson nodded curtly and said, "Anesthetic."

And then, as the anesthetist bent forward, it happened. Ollie's uncovered stomach, lying there in wait for the knife, seemed to heave and boil. Ollie shrieked and, as the assembled medicos watched in dazed fascination, the knobs and bumps smoothed out. The whole stomach began to shrink, like

a cake falling in when some one has slammed the oven door. The pandigestive tablets had finally acted.

Ollie sat up. He forgot that he was wearing the skimpy and shameless nightgown, forgot, too, that he had a roomful of spectators. He pushed away the anesthetist who tried to stop him.

"I feel fine," he said.

"Lie down," ordered Dr. Manson sternly. "We're going to operate and find out what's wrong with you."

"You're not cuttin' into me," said Ollie. He swung his feet to the floor and stood up. "There ain't nothin' wrong with me. I feel wonderful. For the first time in my life I ain't hungry, and I'm spoilin' for trouble. Don't nobody try to stop me."

He started to march across the floor, pushing his way through the protesting doctors.

"This way," said one of the interns near the door. "We'll get your clothes." Ollie looked at her in suspicion, but she went on, "Remember? I'm the one who gave you the tablets to make the pain go away."

"They sure worked," said Ollie happily, and allowed himself to be led along.

He heard the uproar behind him, but he paid no attention. Whatever they wanted, he was getting out of here, fast. There might have been trouble, but at a critical point the public address system swung into operation, thanks to the foresight of his intern friends, who had rigged up a special portable attachment to the microphone. It started calling Dr. Manson, calling Dr. Kolanyi, calling Dr. Pumber, and all the others.

In the confusion, Ollie escaped and found himself, for the first time in his life, a passenger in a taxicab. With him were the two friendly interns, no longer in white.

"Just in case any more of those lumps appear in your stomach," said the female, "take another couple of tablets."

She was so persuasive that Ollie put up only token resistance. The tablets went down his stomach, and then he settled back to enjoy the cab ride. It was only later that he wondered where they were taking him. By that time, he was too sleepy to wonder very much.

With the aid of the first two tablets, he had digested the equivalent of a tremendous meal. The blood coursed merrily in his veins and arteries, and he had a warm sensation of well-being.

As the taxi sped along, his eyes closed.

"You transmitted the message in one of the latter tablets?" asked Zolto in their native tongue.

"I have explained all that has happened," replied his wife. "They will stop sending food and wait for other directives."

"Good. Now we'll have to get the transfer out of him as soon as possible. We ourselves can operate and he will never be the wiser."

"I wonder," said Pojim. "Once we have the transfer, it will only be a nuisance to us. We'll have to guard it carefully and be in continual fear of losing it. Perhaps it would be more sensible to leave it inside him."

"Inside him? Pojim, my sweet, have you taken leave of your senses?"

"Not at all. It is easier to guard a man than a tiny object, I took a look at one of the X-ray plates, and it is clear that the transfer switch has adhered to his stomach. It will remain there indefinitely. Suppose we focus a transpositor on that stomach of his. Then, as the objects we want arrive from our own universe in their collapsed condition, we can transpose them into our laboratory, enlarge them, and send them off to Aldebaran, where they are needed."

"But suppose that he and that stomach of his move around!"

"He will stay in one place if we treat him well. Don't you see, Zolto? He is a creature who has always lacked food. We shall supply him such food as his own kind have never dreamed of, complete with pandigestion fluid. At the same time, we shall set him to doing light work in order to keep him busy. Much of his task will involve studying and improving himself. And at night we shall receive the things we need from our own universe."

"And when we have enough to supply the colony on Aldebaran II?"

"Then it will be time enough to remove the transfer switch."

Zolto laughed. It was a laugh that would have been curiously out of place in a human being, and if the taxi driver hadn't been so busy steering his way through traffic, he would have turned around to look. Pojim sensed the danger, and held up a warning finger.

Zolto subsided. "You have remarkable ideas, my wife. Still, I see no reason why this should not work. Let us try it."

Ollie awoke to a new life. He was feeling better than he had ever felt in his entire miserable existence. The two interns who had come along with him had been transformed magically into a kindly lady and gentleman, who wished to hire him to do easy work at an excellent salary. Ollie let himself be hired.

He had his choice of things to eat now, but, strangely enough, he no longer had his old hunger. It was as if he were being fed from some hidden source, and he ate, one might almost have said, for the looks of it. The little he did consume, however, seemed to go a long way.

He gained weight, his muscles hardened, his old teeth fell out and new ones appeared. He himself was astonished at this latter phenomenon, but after his previous experience at the hospital, he kept his astonishment to himself. The spots on his lungs disappeared, his spine straightened. After a time he reached a weight of a hundred and ninety pounds, and his eyes were bright and clear. At night he slept the sleep of the just—or the drugged.

At first he was happy. But after several months, there came a feeling of boredom. He sought out Mr. and Mrs. Zolto, and said, "I'm sorry, I can't stay here any longer."

"Why?" asked the lady.

"There's no room here, ma'am, for advancement," he said, almost apologetically. "I've been studyin' and I got ideas about things I can do. All sorts of ideas."

Pojim and Zolto, who had planted the ideas, nodded solemnly.

Pojim said, "We're glad to hear that, Ollie. The fact is that we ourselves had decided to move to—to a warmer climate, some distance away from here. We were wondering how you'd get along without us."

"Don't you worry about me. I'll do fine."

"Well, that's splendid. But it would be convenient to us if you could wait till tomorrow. We'd like to give you something to remember us by."

"I'll be glad to wait, ma'am."

That night Ollie had a strange nightmare. He dreamed that he was on the operating table again, and that the doctors and nurses were once more closing in on him. He opened his mouth to scream, but no sound came out. And then the two interns were there, once more wearing their uniforms.

The female said, "It's all right. It's perfectly all right. We're

just removing the transfer switch. In the morning you won't even remember what happened."

And, in fact, in the morning he didn't. He had only a vague feeling that something *bad* happened.

They shook hands with him and they gave him a very fine letter of reference, in case he tried to get another job, and Mrs. Zolto presented him with an envelope in which there were several bills whose size later made his eyes almost pop out of his head.

He walked down the street as if it belonged to him, or were going to. Gone was the slouch, gone the bleariness of the eyes, gone the hangdog look.

Gone was all memory of the dismal past.

And then Ollie had a strange feeling. At first it seemed so peculiar that he couldn't figure out what it was. It started in his stomach, which seemed to turn over and almost tie itself into a knot. He felt a twinge of pain and winced almost perceptibly.

It took him several minutes to realize what it was.

For the first time in months, he was hungry.

Technological Retreat

by

G. C. EDMONDSON

In Shipping Clerk *you saw the weird effects of an "impossible" alien invention on a single individual. Here you'll get an uncomfortable look at the devastation another sort of extraterrestrial gimmick might create for the whole human race. The tone is light, but—*what if . . .? *Stop a moment, though. Perhaps the gimmick's effects are actually favorable to human survival, in the long run? Maybe we H-bomb-frightened people had better wish for something like this to happen? Give it a thought!*

ONCE THERE were two extraterrestrials, hereafter referred to as ETs. They sat down on a nice looking planet and shifted to visible spectrum right in front of a native.

The native was a good, solid citizen but not exactly what you'd call a fuddy duddy. There's television and then all those books the kids bring home. Still, it startled him to see a big, round something materialize out of thin air and a couple of humpbacked entities with faces like catfish come out of it. They were friendly looking catfishes though, so Oliver Jenkins wasn't frightened.

Oliver Jenkins was not an ET. He was a rather short and puffy specimen of the dominant race on Sol III and had reached an age where the balance of power has begun an imperceptible shift from gonads to cerebrum. He owed alle-

giance to the Kiwanis, the Chamber of Commerce, the Republican party, and the United States, though he highly disapproved of the way those idiots in Washington kept meddling with an honest businessman's right to an honest profit.

Mr. Jenkins possessed a highly developed sense of community responsibility. He contributed to everything and was a member of a politico-religio-social group whose talisman he proudly dangled from a gold chain transversing his chest. He was in the habit of fingering this talisman, the bleached molar of a local herbivore.

At the moment, Mr. Jenkins was too startled to finger his talisman. Besides, he'd left it home. No point in wearing it out here where he'd not be meeting any brother herbivores. It got in the way for dry fly casting and loyal herbivore that he was, still, Mr. Jenkins wasn't going to let anything interfere with the second most important thing in life. Wasn't, that is, until this big round thing showed up and spooke every rainbow in the pool. He was annoyed with the realization that there'd be no more fishing this morning and doubly annoyed that these two outlanders had made him involuntarily take on a bootful of sparkling, mountain-clear, and icy cold water.

The taller of the two ETs waved in a friendly way and Jenkins, not to be outdone, wave back. The ET's mouth move and an astonishingly loud voice said, *"Buenos días; ¿puedo interesarle en algún trato comercial?"*

Jenkins made the local I-do-not-understand gesture and started climbing from the pool. The ET fumble with a knob at his waist and tried aga n. "Terribly sorry, old man," he continued; "must have dropped a decimal point somewhere." As Jenkins moved closer he could hear an undertone of buzzes and clicks from the ET's mouth as the English phrases issued from his belt buckle. "Never could learn to set one of these things," the ET continue conversationally. Jenkins nodded sympathetically. He often had similar troubles with his own appliances.

"As I was saying—" the ET continued. "Oh, by the way, my name's Chorl. This is my partner, Tuchi."

"Jenkins, Oliver Jenkins. Glad to meet you." Jenkins extended his hand and it was shaken flaccidly by a clammy finger cluster with an opposed thumb at each end. After a moment's hesitation Tuchi joined in the native ritual. *"Eaut sirtam matcal da mutnemercxe,"* he said conversationally.

Chorl waggled a deprecatory lip tentacle and adjusted Tuchi's belt buckle.

Oliver Jenkins sat on a log and removed his boot. As he poured water from it Chorl whipped a handbook from a pouch. He flipped pages for several seconds before looking at Mr. Jenkins in piscine amazement. "I don't wish to offend, old man, but the handbook says nothing about intelligent amphibians on this planet."

"I'm not an amphibian, I'm an American," Jenkins answered.

"But the leg moisteners—how do you breathe?"

"Through my nose like any sensible man."

"Oh." Chorl twiddled a lip tentacle thoughtfully. "Mr. Jenkins, we're not scientists. I don't understand just how you breathe but we'll let that go. Are you interested in trade?"

Mr. Jenkins' nostrils quivered. He could suffer an interruption of the second most important thing in life if it might lead to a little of the first. "Well, I'm not opposed to making an honest profit now and then but . . . According to those stories the kids read, the only thing you fellows'd want would be reactor fuel and you might as well forget about that. Those bureaucrats've got it sewed up tight."

Chorl buzzed sympathetically. "Frankly, Mr. Jenkins, we couldn't use your reactor fuel even if you could get it. Oh, no, it isn't that," he added as Mr. Jenkins' throat pouches began palpitating. "We aren't equipped to process fuel. You must understand, ours is a small enterprise."

"I see," Mr. Jenkins said untruthfully.

"Specifically, we're looking for local artifacts—curios—possibly foods if we find them assimilable."

"Hmmm . . . Have a cigar." Mr. Jenkins produced three and tutored the ETs in the intricacies of biting off the end. This entailed some difficulty as their dental equipment lacked incisors. The ETs took one puff each and dived into the creek with glottal hoots which their belt buckles did not interpret. Jenkins mentally scratched the pool from his list of trout haunts as they raced up and down like seals in a swimming pool.

Eventually they emerged and harrumphed, blowing a fine spray from gill slits. "I'm afraid cigars won't do," Chorl said.

"I guess not." Jenkins agreed sadly. "Well, I don't have any

samples here. Why not come with me—?"

"I don't think it wise," Chorl said hastily. "We might cause excitement."

"You going to be here long?"

"A few days."

"I'll be back this afternoon with a truckload of samples."

"Alone?"

"Does Macy's tell Gimbel's?"

Oliver Jenkins spent a hectic four hours in town and rushed back to the ETs after giving wife and employees lame excuses. In his haste he skidded from the dirt road down to the creekbed and banged up a perfectly good left front fender. Chorl and Tuchi pawed through an assortment of samples from bed warmers to halvah. After untranslated clicks and buzzes and an occasional expectoration while food sampling they settled on caviar, roll-mop herrings, smoked oysters and anchovy paste as possible media of exchange.

"Now, what do you have?" Jenkins demanded.

Tuchi went to the sphere and emerged with a cone-like affair on a pedestal. He pressed a switch and waves of fluorescence began coruscating over its surface. The two ETs stared glassily and vibrated lip tentacles in unison with the coruscations.

"I'm afraid not." Jenkins said.

Tuchi shrugged the place where his shoulders weren't and took the cone back inside. He came out with a plastic globe and made illustrative motions. Jenkins smelled cautiously but detected nothing. He bit on the nipple and strangled as a high pressure jet of something like rancid cod liver oil threatened to uproot his tonsils. The ETs exchanged helpless glances as Jenkins lay gagging in the grass.

They produced other viands but Mr. Jenkins wasn't having any. "There must be something else," he protested weakly.

The ETs buzzed and clicked. Chorl apparently won the argument and turned. "This asymmetrical portion of your vehicle," he pointed at the dented fender. "It should not be thus?" Jenkins nodded. Chorl produced a tube about like a fountain pen and pointed it at the fender. In a moment he pocketed the tube and put a two thumbed hand behind the fender. With the other hand he smothered out the dent as if the metal were pie dough. He pointed the tube at the fender again for an instant. Jenkins thumped the fender cautiously.

It was as solid as ever.

"How many can you supply me?" he asked.

A short period ensued in which each party swore the other would drive him to ruin. When both sides were ruined Mr. Jenkins possessed seven hundred forty tubes and an exclusive franchise for Sol III. The ETs owned thirty-eight dollars and eight cents worth of delicatessen. They promised to return next trip and gave Jenkins a talisman to hang beside his magic molar. The talisman would change color when they were ready to meet him at the same spot. The ETs sealed their sphere and went invisible. The native stayed visible and went back to town.

Oliver Jenkins had sold two tubes with maximum profit and minimum publicity when there came a knock on the door. "Simpson, FBI" the knocker said.

"I file a return every quarter," Mr. Jenkins said.

"Take it up with Internal Revenue. I want to hear about those tools you're selling."

"Guaranteed for sixty-eight years, fifty per cent duty cycle. Maximum capacity eight feet, thirty degree cone of effectiveness. Affects metals only. Use the left hand button to soften, right hand to harden. The dial on the back's for temper settings if you're working steel. One thousand dollars."

"That isn't exactly what I wanted to know."

"No other information available. Company secret."

"Get your coat."

"That's unconstitutional."

"So's spitting on the sidewalk."

Brigadier General George S. Carnhouser was not noted for his self restraint. He had chosen the Army as the field most suited for full development of his lovable, paternalistic personality. At the moment he was reasoning with Mr. Oliver Jenkins.

"But what if the Russians should get hold of it?" he was saying.

"I'm not an inventor and I'm not a manufacturer," Mr. Jenkins said. "I'm in the importing business whenever people let me alone long enough to tend to business."

"But think, man, think of the possibilities." General Carnhouser's attitude of sweet reasonableness was spoiled by the throbbing veins in his temples.

"I'm tired of thinking. I've told the FBI what they want to know. I've broken no law. I demand to be released immediately."

"What about import duties?" The general was grasping at straws.

Mr. Jenkins drew himself up in puffy dignity. He fondled twin talismans and drew strength. "I have made a detailed study," he said magnificently, "of Schedule A, Statistical Classification of Commodities Imported into the United States with Rates of Duty and Tariff Paragraphs and Code Classification for Countries (Schedule C), United States Customs Districts and Ports (Schedule D), and Flag of Vessel Registry (Schedule J), January 1, 1954 Edition, and approximately eight hundred pages of looseleaf inserts concerning later revisions thereof. In no part do I see any reference specifically prohibiting importation of pocket plasticizers. In no part do I see any scale of import duties for said merchandise. In no part is there any express prohibition of interstellar trade."

General Carnhouser's rebuttal was unprintable. He conceded to Rear Admiral Schifführer, the Lord Nelson of naval intelligence.

"I pass," the admiral said.

"I demand to be released immediately," Mr. Jenkins said.

"Why don't you do something?" the admiral and the general demanded of the CIA man.

The man from Central Intelligence looked speculatively at the molar dangling from Mr. Jenkins' gold chain. "I will," he said.

The next morning they started again.

"Mr. Jenkins," the CIA man began, "we have investigated your entire background and find no irregularities in political opinion, ideological associations, or income tax returns. We want your cooperation." He paused for dramatic effect. "Does your wife know what goes on at those lodge conventions? I refer specifically to the September, 1951 blowoff in Chicago."

"I'll cooperate," Mr. Jenkins said. Four hours later the government had seven hundred thirty-eight tubes. Mr. Jenkins had several vague promises and a headache.

Four days later Simpson knocked on the door again.

"Now what?" Mr. Jenkins asked.

"Get your coat," Simpson said.

"Again?"

"Mr. Jenkins," the CIA man began, "we feel you have been less than frank with us. Approximately eight hours ago a highly placed Soviet official deserted to the west. He intended to live quietly on the proceeds from a new process developed in a Soviet laboratory. He brought a working model." The CIA man tossed a plasticizer tube on the table. "Now what have you to say?"

"Hah," Mr. Jenkins replied.

"You're not cooperating," the CIA man said.

"I cooperated and what did I get out of it? My business is going to pot; my wife wants to know what I'm doing leaving the house at all hours with strangers; you've confiscated all my stock. . . . Go ahead and shoot me. Meanwhile, take that tool and jam it. Maybe it'll help get the lead out."

"May we understand then that you refuse further cooperation?"

"You may. I hope they bring me something to soften bone next trip."

"Aha! So they're coming back?"

"Why shouldn't they? Business is business."

"When?"

"None of your business."

"You'd better tell Mrs. Jenkins to get the guest room ready. Simpson here is going to be living with you for quite a while."

Simpson's unsmiling countenance had graced the Jenkins household for a week. His grim jaws had masticated an incredible quantity of food before the next development came.

"I take it as a matter of course that your government doubledomes have been unable to duplicate the plasticizer," Mr. Jenkins observed sourly over the rim of his coffee cup.

"I couldn't say," Simpson replied. It was becoming apparent that Simpson couldn't say much of anything. He choked on toast and suddenly snatched the morning paper from Mr. Jenkins' hands. A quarter-page ad offered the plasticizer to one and all for forty-nine ninety-five (federal tax included).

"Let's go," Simpson said, grabbing for his hat.

"In my car, I suppose," Jenkins said resignedly.

The CIA man and a Treasury man were already closeted with the manager of the Peerless Department Store when they arrived. Simpson barged in anyway with Mr. Jenkins in tow. There was a short and illuminating discussion of the Peerless Department Store's interpretation of the capital gains clause

in 1952 and the manager decided production difficulties and faulty design would make it necessary to withdraw the plasticizer from the market. A whispering campaign was planned to put the blame squarely on Big Business.

In an hour things were arranged to the satisfaction of everybody but the Peerless Department Store manager and Mr. Jenkins. On the street again Jenkins turned to his shadow with an evil smile. "I see something you don't see," he purred. Simpson looked around. An auto supply store was featuring a do-it-yourself body and fender repair kit. The main article of the kit was you-know-what. Mr. Jenkins observed in grim satisfaction that the price was already down to twenty-four ninety-five.

"I suppose you have an exclusive franchise too?" Mr. Jenkins said to the auto supply manager.

"No," the manager said. "What's this all about?"

"Ask Simpson. He's in charge."

"I'll have to call Washington," Simpson said.

"Don't tell me he slept here too."

A seedy-looking devotee of free enterprise saw them come from the store. "Hey!" he called softly. They paused. "See them?" He pointed to the plasticizer display. "Avoid the middleman. Fourteen ninety-five." He opened his coat and Mr. Jenkins observed that the fourteen ninety-five model featured a clip to keep it from falling out of a shirt pocket. Simpson's eyes were becoming glassy.

They arrived home late that night but Mr. Jenkins' children waited up to show off their new toys. "How much did you pay for it?" Jenkins asked.

"A dollar," Oliver Junior answered.

Simpson sat down heavily.

"Heck," Olivia volunteered, "I only paid forty-nine cents for mine. Look daddy." She offered two crudely fashioned coffee cups.

"How did you make these?" Mr. Jenkins asked.

"It's easy, look." Olivia, important in the knowledge that she would be eight next week, gathered a handful of lead soldiers, model railway track, erector set parts, and a tomato can. She played the tool on the mess and kneaded it into a ball. After a minute's work with rolling pin and fingers she offered Simpson an ash tray for his forgotten cigarette.

Horace Crannach was unhappy. He poured another cup of

coffee and sat looking morosely at the rollaway where his body and fender tools were gathering an even patina of rust. His eye lit on a plasticizer. "Ninety-six dollars I paid for that," he moaned. "Two weeks later they're down to ten cents and every woman in town bumps out her own fenders. I shoulda been a carpenter."

From the other side of the half wall his partner volunteered an obbligato. "You should gripe. I ain't worked on an engine for a month. I was just gettin' ready to start the last job when the wiseacre trots in and says, 'Hold it, I'll do it myself.' "

"And did he?"

"He did. Softened up the block and pushed the pistons through the holes a couple of times. That handled the rebore. He seated the valves by hand and took up the rods and mains with two fingers. I sold him a water pump seal. That's not made of metal."

"Gentlemen," William J. Volante said impressively, "the presses are obsolete. The forges can go. We need no longer haggle with tool and die makers. We'll put a crew of girls to hand-forming parts directly over the plaster mockups. No reason why we shouldn't produce a new model every six months. Mr. Archer of Accounting informs me that tooling-up should cost approximately two per cent of our previous estimates. In view of this it seems practical to announce a two percent across the board price reduction for all models—"

Mr. Mardsell cleared his throat delicately. "Ummm, I'm afraid not, Mr. Volante. Have you seen our latest sales figures? No? I thought not. The big four are offering super-deluxe models with radio, heater, foglites, window lifts, power brakes, power steering, airconditioning, folding beds, engines—the works for eleven hundred."

Volante seemed suddenly older than his sixty-eight years. His mouth opened and closed like a grounded flounder and he sat down weakly. Mr. Archer poured him a glass of water.

"Don't worry," Mardsell continued, "they aren't selling any better than we are. It seems the do-it-yourself bug has hit the automotive industry too."

FLASH! PRANKSTERS STRIKE AGAIN.

SAN FRANCISCO, *Oct. 16 (AP)——Pranksters last night softened cables on the main span of the Golden Gate Bridge.*

Cars backed up for seven miles as commuters waited for low tide. Four hundred yards of the center span are now awash at high tide. City officials are issuing emergency calls to neighboring coastal cities for ferries to replace the unsafe bridge.

The truck driver wiped perspiration from his forehead with a hairy forearm. "I don't care what the old man says," he addressed his swamper and two squirrels who gazed curiously at the semi rig from an overhanging pine tree. "I'm walking the rest of the way." His swamper nodded emphatic agreement. "It's disconcerting," the driver continued, "to be barreling down the hill and have your engine turn into putty. One of these days some brat's going to hit a front axle or a wheel and I don't want to be driving when he does."

"You see in this morning's paper what happened to the Twentieth Century Limited?" his swamper asked.

"Oh no!" the driver groaned.

"Oh yes. Some kid needed eight or ten feet of track."

"How do you like them apples?" the CIA man asked.

"Go cry on somebody else's shoulder," Mr. Jenkins replied. "I cooperated. You've still got all seven hundred thirty-eight of mine." They walked out of the building. The government limousine had been converted to a small pile of slush during their absence. "By the way, what happened to that Russian who claimed to have invented these things?"

"I understand they have their troubles too," the CIA man smiled grimly. "Somebody discovered soft tommy guns don't shoot very straight so now all the comrades are kneading their plowshares into swords."

Tuchi buzzed and clicked for several minutes. Since no humans were listening the voice did not come from his belt buckle. If it had the conversation might have ended something like this:

"You did all the talking; now talk yourself out of this."

"What do you mean, talk myself out of this?" Chorl was indignant. "You talk as if it were my fault."

"Well, isn't it?"

"How should I know?" He stopped abruptly as another band of natives approached the opposite creek bank. The

leader of the band threw a stone ax and the ETs ducked barely in time.

"Maybe they have a different growth rate. It took us maybe a hundred and ten of their revolutions to make the trip home and back. I'll admit it's rather swift but civilizations do break up, especially primitive ones."

"So what are we going to do with a hundred million p asticizers?"

"Tell me what you're going to do about the delay penalty clause in that caviar contract and I'll tell you what to do with the plasticizers."

"I just don't understand it," Chor said.

Across the creek a group of natives were gathering stones for a catapult. Their leader wore a gold chain about his neck. There dangled from it the molar of a local herbivore and another talisman glowing bright red.

The Analogues

by

DAMON KNIGHT

Here is another previously collected story. The well-known lower-case damon knight's frightening fable appeared as the first chapter in his 1955 novel Hell's Pavement, *almost four years after its original magazine appearance as a short story. However, it stands so well alone that it has forced its way into this collection even though it is not "never before reprinted in book form." The terrible irony that something which for es you to be "good" can be almost more mena - ing than the evil it prevents—the point of* The Analogues— *gives it timeless value as an ethical object lesson. You can neither legislate nor operate people into a state of goodness. The thing will always backfire: that is the moral of this tale.*

THE CREATURE was like an eye, a globular eye that could see in all directions, encysted in the gray, cloudy mind that called itself Alfie Strunk. In that dimness thoughts squirmed, like dark fish darting; and the eye followed them without pity.

It knew Alfie, knew the evil in Alfie; the tangled skein of impotence and hatred and desire; the equation: Love equals death. The roots of that evil were beyond its reach; it was only an eye. But now it was changing. Deep in its own center, little electric tingles came and went. Energy found a new gradient, and flowed.

A thought shone in the gray cloud that was Alfie—only half-formed, but unmistakable. And a channel opened. Instantly, the eye thrust a filament of itself into the passage. Now it was free. Now it could act.

The man on the couch stirred and moaned. The doctor, who had been whispering into his ear, drew back and watched his face. At the other end of the couch, the technician glanced alertly at the patient, then turned again to his meters.

The patient's head was covered to the ears by an ovoid shell of metal. A broad strap of webbing, buckled under his jaw, held it securely. The heads of screw-clamps protruded in three circles around the shell's circumference, and of thick bundle of insulated wires issued from its center, leading ultimately to the control board at the foot of the couch.

The man's gross body was restrained by a rubber sheet, the back of his head resting in the trough of a rubber block fixed to the couch.

"No!" he shouted suddenly. He mumbled, his loose features contorting. Then, "I wasn't gonna—No! Don't—" He muttered again, trying to move his body, the tendons in his neck sharply outlined. *"Please,"* he said, and tears glittered in his eyes.

The doctor leaned forward and whispered in his ear. "You're going away from there. You're going away. It's five minutes later."

The patient relaxed and seemed to be asleep. A teardrop spilled over and ran slowly down his cheek.

The doctor stood up and nodded to the technician, who slowly moved his rheostat to zero before he cut the switches. "A good run," the doctor mouthed silently. The technician nodded and grinned. He scribbled on a pad, "Test him this aft.?" The doctor wrote, "Yes. Can't tell till then, but think we got him solid."

Alfie Strunk sat in the hard chair and chewed rhythmically, staring at nothing. His brother had told him to wait here while he went down the hall to see the doctor. It seemed to Alfie that he had been gone a long time.

Silence flowed around him. The room he sat in was almost bare—the chair he sat in, the naked walls and floor, a couple of little tables with books on them. There were two

doors; one, open, led into the long bare hall outside. There were other doors in the hall, but they were all closed and their windows were dark. At the end of the hall was a door, and that was closed, too. Alfie had heard his brother close it behind him, with a solid click, when he left. He felt very safe and alone.

He heard something, a faint echo of movement, and turned his head swiftly, automatically. The noise came from beyond the second door in the room, the one that was just slightly ajar. He heard it again.

He stood up cautiously, not making a sound. He tiptoed to the door, looked through the crack. At first he saw nothing; then the footsteps came again and he saw a flash of color: a blue print skirt, a white sweater, a glimpse of coppery hair.

Alfie widened the crack, very carefully. His heart was pounding and his breath was coming faster. Now he could see the far end of the room. A couch, and the girl sitting on it, opening a book. She was about eleven, slender and dainty. A reading lamp by the couch gave the only light. She was alone.

Alfie's blunt fingers went into his trousers pocket and clutched futilely. They had taken his knife away. Then he glanced at the little table beside the door, and his breath caught. There it was, his own switchblade knife, lying beside the books. His brother must have left it there and forgotten to tell him. He reached for it—

And an angry female voice said, *"ALFIE!"*

He whirled, cringing. His mother stood there, towering twice his height, with wrath in her staring gray eyes, every line of her so sharp and real that he could not doubt her—though he knew she had been dead these fifteen years.

She had a willow switch in her hand.

"No!" gasped Alfie, retreating to the wall. "Don't—I wasn't gonna do nothing."

She raised the switch. "You're no good, no good, no *good*," she spat. "You've got the devil in you, and it's just got to be whipped out."

"Don't, *please*—" said Alfie. Tears leaked out of his eyes.

"Get away from that girl," she said, advancing. "Get clean away and don't ever go back. Go on—"

Alfie turned and ran, sobbing in his throat.

In the next room, the girl went on reading until a voice said, "O.K., Rita. That's all."

She looked up. "Is that *all?* Well, I didn't do much."

"You did enough," said the voice. "We'll explain to you what it's all about some day. Come on, let's go."

She smiled, stood up—and vanished as she moved out of range of the mirrors in the room below. The two rooms where Alfie had been tested were empty. Alfie's mother was already gone—gone with Alfie, inside his mind where he could never escape her again, as long as he lived.

Martyn's long, cool fingers gently pressed the highball glass. The glass accepted the pressure, a very little; the liquid rose almost imperceptibly inside it. This glass would not break, he knew; it had no hard edges and if thrown it would not hurt anybody much. It was a symbol, perhaps; but only in the sense that nearly everything around him was a symbol.

The music of the five-piece combo down at the end of the long room was like a glass—muted, gentle, accommodating. And the alcohol content of the whisky in his drink was twenty-four point five per cent.

But men still got drunk, and men still reached instinctively for a weapon to kill.

And, incredibly, there were wotse things that could happen. The cure was sometimes worse than the disease. "The operation was successful, but the patient died." We're witch doctors, he thought. We don't realize it yet, most of us, but that's what we are. The doctor who only heals is a servant; but the doctor who controls the powers of life and death is a tyrant.

The dark little man across the table had to be made to understand that. Martyn thought he could do it. The man had power—the power of millions of readers, of friends in high places—but he was a genuine, not a professional, lover of democracy.

Now the little man raised his glass, tilted it in a quick, automatic gesture. Martyn saw his throat pulse, like the knotting of a fist, as he swallowed. He set the glass down, and the soft rosy light from the bar made dragons' eyes of his spectacles.

"Well, Dr. Martyn?" he said. His voice was crisp and rapid, but amiable. This man lived with tension; he was acclimated to it, like a swimmer in swift waters.

Martyn gestured with his glass, a slow, controlled move-

ment. "I want you to see something first," he said. "Then we'll talk. I asked you to meet me here for two reasons. One is that it's an out-of-the-way place, and, as you'll understand, I have to be careful. The other has to do with a man who comes here every night. His name is Ernest Fox; he's a machinist, when he works. Over there at the bar. The big man in the checkered jacket. See him?"

The other flicked a glance that way; he did not turn his head. "Yeah. The one with the snootful?"

"Yes. You're right, he's very drunk. I don't think it will take much longer."

"How come they serve him?"

"You'll see in a minute," Martyn said.

Ernest Fox was swaying slightly on the bar stool. His choleric face was flushed, and his nostrils widened visibly with each breath he took. His eyes were narrowed, staring at the man to his left—a wizened little fellow in a big fedora.

Suddenly he straightened and slammed his glass down on the bar. Liquid spread over the surface in a glittering flood. The wizened man looked up at him nervously. Fox drew his fist back.

Martyn's guest had half-turned in his seat. He was watching, relaxed and interested.

The big man's face turned abruptly as if someone had spoken to him. He stared at an invisible something six inches away, and his raised arm slowly dropped. He appeared to be listening. Gradually his face lost its anger and became sullen. He muttered something, looking down at his hands. He listened again. Then he turned to the wizened man and spoke, apparently in apology; the little man waved his hand as if to say, "Forget it," and turned back to his drink.

The big man slumped again on the bar stool, shaking his head and muttering. Then he scooped up his change from the bar, got up and walked out. Someone else took his place almost immediately.

"That happens every night, like clockwork," said Martyn. "That's why they serve him. He never does any harm, and he never will. He's a good customer."

The dark little man was facing him alertly once more. *"And?"*

"A year and a half ago," Martyn said, "no place in the Loop would let him in the door, and he had a police record as long as your arm. He liked to get drunk, and when he

got drunk he liked to start fights. Compulsive. No cure for it, even if there were facilities for such cases. He's *still* incurable. He's just the same as he was—just as manic, just as hostile. But—he doesn't cause any trouble now."

"All right, doctor, I check to you. Why not?"

"He's got an analogue," said Martyn. "In the classical sense, he is even less sane than he was before. He has auditory, visual and tactile hallucinations—a complete, integrated set. That's enough to get you entry to most institutions, crowded as they are. But, you see, these hallucinations are presocietal. They were put there, deliberately. He's an acceptable member of society, *because* he has them."

The dark man looked interested and irritated at the same time. He said, "He sees things. What does he see, exactly, and what does it say to him?"

"Nobody knows that except himself. A policeman, maybe, or his mother as she looked when he was a child. Someone whom he fears, and whose authority he acknowledges. The subconscious has its own mechanism for creating these false images; all we do is stimulate it—it does the rest. Usually, we think, it just warns him, and in most cases that's enough. A word from the right person at the right moment is enough to prevent ninety-nine out of a hundred crimes. But in extreme cases, the analogues can actually oppose the patient physically—as far as he's concerned, that is. The hallucination is complete, as I told you."

"Sounds like a good notion."

"A very good notion—rightly handled. In another ten years it will cut down the number of persons institutionalized for insanity to the point where we can actually hope to make some progress, both in study and treatment, with those that are left."

"Sort of a personal guardian angel, tailored to fit."

"That's exactly it," said Martyn. "The analogue always fits the patient because it *is* the patient—a part of his own mind, working against his conscious purposes whenever they cross the prohibition we lay down. Even an exceptionally intelligent man can't defeat his analogue, because the analogue is just as intelligent. Even knowing you've had the treatment doesn't help, although ordinarily the patient doesn't know. The analogue, to the patient, is absolutely indistinguishable from a real person—but it doesn't have any of a real person's weaknesses."

The other grinned. "Could I get one to keep me from drawing to inside straights?"

Martyn did not smile. "That isn't quite as funny as it sounds," he said. "There's a very real possibility that you could, about ten years from now. And that's precisely the catastrophe that I want you to help prevent."

The tall, black-haired young man got out of the pickup and strolled jauntily into the hotel lobby. He wasn't thinking about what he was going to do; his mind was cheerfully occupied with the decoration of the enormous loft he had just rented on the lower East Side. It might be better, he thought, to put both couches along one wall, and arrange the bar opposite. Or put the *Capehart* there, with an easy-chair on either side.

The small lobby was empty except for the clerk behind his minuscule desk and the elevator operator lounging beside the cage. The young man walked confidently forward.

"Yes, sir?" said the clerk.

"Listen," said the young man, "there's a man leaning out of a window upstairs, shouting for help. He looked sick."

"What? Show me."

The clerk and the elevator operator followed him out to the sidewalk. The young man pointed to two open windows. "It was one of those, the ones in the middle on the top floor."

"Thanks, mister," said the clerk.

The young man said, "Sure," and watched the two men hurry into the elevator. When the doors closed behind them, he strolled in again and watched the indicator rise. Then, for the first time, he looked down at the blue carpet that stretched between elevator and entrance. It was almost new, not fastened down, and just the right size. He bent and picked up the end of it.

"Drop it," said a voice.

The young man looked up in surprise. It was the man, the same man that had stopped him yesterday in the furniture store. Was he being followed?

He dropped the carpet. "I thought I saw a coin under there," he said.

"I know what you thought," the man said. "Beat it."

The young man walked out to his pickup and drove away. He felt chilly inside. Suppose this happened *every* time he wanted to take something—?

The dark man looked shrewdly at Martyn. He said, "All right, doctor. Spill the rest of it. Let's have it all, not just the background. I'm not a science reporter, you know."

"The Institute," Martyn said, "has already arranged for a staff of lobbyists to start working for the first page of its program when the world legislature returns to session this fall. Here's what they want for a beginning:

"One, analogue treatment for all persons convicted of crime 'while temporarily insane,' as a substitute for either institutionalization or punishment. They will argue that society's real purpose is to prevent the repetition of the crime, not to punish."

"They'll be right," said the little man.

"Of course. But wait. Second, they want government support for a vast and rapid expansion of analogue services. The goal is to restore useful citizens to society, and to ease pressure on institutions, both orrective and punitive."

"Why not?"

"No reason why not—if it would stop there. But it won't." Martyn took a deep breath and clasped his long fingers together on the table. It was very clear to him, but he realized that it was a diffi ult thing for a layman to see—or even for a technically competent man in his own field. And yet it was inevitable, it was going to happen, unless he stopped it.

"It's just our bad luck," he said, "that this development came at this particular time in history. It was only thirty years ago, shortly after the third world war, that the problem of our wasted human resources really became so acute that it couldn't be evaded any longer. Since then we've seen a great deal of progress, and public sentiment is fully behind it. New building codes for big cities. New speed laws. Reduced alcoholic content in wine and liquor. Things like that. The analogue treatment is riding the wave.

"It's estimated by ompetent men in the field that the wave will reach its maximum about ten years from now. And that's when the Institute will be ready to put through the second stage of its progress. Here it is:

"One, analogue treatment against crimes of violence to be compulsory for *all* citizens above the age of seven."

The dark man stared at him. "Blue balls of fire," he said. "Will it work, on that scale?"

"Yes. It will completely eliminate any possibility of a future war, and it will halve our police problem."

The dark man whistled. "Then what?"

"Two," said Martyn, "analogue treatment against peculation, collusion, bribery, and all the other forms of corruption to be compulsory for all candidates for public office. And that will make the democratic system foolproof, for all time."

The dark man laid his pencil down. "Dr. Martyn," he said, "you're confusing me. I'm a libertarian, but there's *got* to be some method of preventing this race from killing itself off. If this treatment will do what you say it will do, I don't care if it does violate civil rights. I want to go on living, and I want my grandchildren—I have two, by the way—to go on living. Unless there's a catch you haven't told me about this thing, I'm for it."

Martyn said earnestly, "This treatment is a crutch. It is not a therapy, it does not cure the patient of anything. As a matter of fact, as I told you before, it makes him less nearly sane, not more. The causes of his irrational or antisocial behavior are still there, they're only repressed—temporarily. They can't ever come out in the same way, that's true; we've built a wall across that particular channel. But they will express themselves in some other way, sooner or later. When a dammed-up flood breaks through in a new place, what do you do?"

"Build another levee."

"Exactly," said Martyn. "And after that? Another, and another, and another—

"It's basically wrong!"

Nicholas Dauth, cold sober, stared broodingly at the boulder that stood on trestles between the house and the orchard. It was a piece of New England granite, marked here and there with chalk lines.

It had stood there for eight months, and he had not touched a chisel to it.

The sun was warm on his back. The air was still; only the occasional hint of a breeze ruffled the treetops. Behind him he could hear the clatter of dishes in the kitchen, and beyond that the clear sounds of his wife's voice.

Once there had been a shape buried in the stone. Every stone had its latent form, and when you carved it, you felt as if you were only helping it to be born.

Dauth could remember the shape he had seen buried in this one: a woman and child—the woman kneeling, half bent

over the child in her lap. The balancing of masses had given it grace and authority, and the free space had lent it movement.

He could remember it; but he couldn't see it any more.

There was a quick, short spasm in his right arm and side, painful while it lasted. It was like the sketch of an action: turning, walking to where there was whisky—meeting the guard who wouldn't let him drink it, turning away again. All that had squeezed itself now into a spasm, a kind of tic. He didn't drink now, didn't try to drink. He dreamed about it, yes, thought of it, felt the burning ache in his throat and guts. But he didn't try. There simply wasn't any use.

He looked back at the unborn stone, and now, for an instant, he could not even remember what its shape was to have been. The tic came again. Dauth had a feeling of pressure building intolerably inside him, of something restrained that demanded exit.

He stared toward the stone, and saw its form drift away slowly into an inchoate gray sea; then nothing.

He turned stiffly toward the house. "Martha!" he called.

The clatter of the dishware answered him.

He stumbled forward, holding his arms away from his body. "Martha!" he shouted. *"I'm blind!"*

"Correct me if I'm wrong," said the dark man. "It seems to me that you'd only run into trouble with the actual mental cases, the people who really have strong complications. And, according to you, those are the only ones who should get the treatment. Now, the average man doesn't have any compulsion to kill, or steal, or what have you. He may be tempted to, once in his life. If somebody stops him, that one time, will it do him any harm?"

"For a minute or two, he will have been insane," said Martyn. "But I agree with you that if that were the end of it, no great harm would be done. At the Institute, the majority believe that that will be the end of it. They're wrong, they're tragically wrong. Because there's one provision that the Institue hasn't included in its program, but that would be the first thought of any lawmaker in the world. *Treatment against any attempt to overthrow the government.*"

The dark man sat silent.

"And from there," said Martyn, "it's only one short step to a tyranny that will last till the end of time."

The other nodded. "You're right," he said. "You are so right. What do you want me to do?"

"Raise funds," said Martyn. "At present the Institute is financed almost entirely by the members themselves. We have barely enough to operate on a minimum scale, and expand very slowly, opening one new center a year. Offer us a charitable contribution—tax-deductible, remember—of half a million, and we'll grab it. The catch is this: the donors, in return for such a large contribution, ask the privilege of appointing three members to the Institute's board of directors. There will be no objection to that, so long as my connection with the donation is kept secret, because three members will not give the donors control. But it will give me majority on this one issue—the second stage of the Institute's program.

"This thing is like an epidemic. Give it a few years, and nothing can stop it. But act now, and we can scotch it while it's still small enough to handle."

"Good enough," said the dark man. "I won't promise to hand you half a million tomorrow, but I know a few people who might reach into their pockets if I told them the score. I'll do what I can. I'll get you the money if I have to steal it. You can count on me."

Martyn smiled warmly, and caught the waiter as he went by. "No, this is mine," he said, forestalling the little man's gesture. "I wonder if you realize what a weight you've taken off my shoulders?"

He paid, and they strolled out into the warm summer night. "Incidentally," Martyn said, "there's an answer to a point you brought up in passing—that the weakness of the treatment applies only to the genuinely compulsive cases, where it's most needed. There are means of getting around that, though not of making the treatment into a therapy. It's a crutch, and that's all it will ever be. But for one example, we've recently worked out a technique in which the analogue appears, not as a guardian but as the object of the attack—when there is an attack. In that way, the patient relieves himself instead of being further repressed, but he still doesn't harm anybody but a phantom."

"It's going to be a great thing for humanity," said the little man seriously, "instead of the terrible thing it might have been except for you, Dr. Martyn. Good night!"

"Good night," said Martyn gratefully. He watched the other disappear into the crowd, then walked toward the El.

It was a wonderful night, and he was in no hurry.

The waiter whistled under his breath, as unconscious of the conflicting melody the band was playing as he was of the air he breathed. Philosophically, he picked up the two untouched drinks that stood at one side of the table and drained them one after the other.

If a well-dressed, smart-looking guy like that wanted to sit by himself all evening, talking and buying drinks for somebody who wasn't there, was there any harm in it?"

No harm at all, the waiter told himself.

The Available Data on the Worp Reaction

by

LION MILLER

If the word "deadpan" had not already been invented, it probably would have been to describe this little jape. It is a masterpiece of mock-seriousness, and also a proper spoof on the heavy-handed styles of thousands of pedantic "official" bureaucratic historians. Oh, that anguished reference to "insufficient data!"

THE EARLIEST confirmed data on Aldous Worp, infant, indicates that, while apparently normal in most physical respects, he was definitely considered by neighbors, playmates, and family as a hopeless idiot. We know, too, that he was a quiet child, of extremely sedentary habits. The only sound he was ever heard to utter was a shrill monosyllable, closely akin to the expression "Whee!" and this only when summoned to meals or, less often, when his enigmatic interest was aroused by an external stimulus, such as an odd-shaped pebble, a stick, or one of his own knuckles.

Suddenly this child abandoned his accustomed inactivity. Shortly after reaching his sixth birthday—the time is unfortunately only approximate—Aldous Worp began a series of exploratory trips to the city dump which was located to the rear of the Worp premises.

After a few of these tours, the lad returned to his home one afternoon dragging a large cogwheel. After lengthy deliberation, he secreted said wheel within an unused chicken coop.

Thus began a project that did not end for nearly twenty years. Young Worp progressed through childhood, boyhood and young manhood, transferring thousands of metal objects, large and small, of nearly every description, from the dump to the coop. Since any sort of formal schooling was apparently beyond his mental capacity, his parents were pleased by the activity that kept Aldous happy and content. Presumably they did not trouble themselves with the esthetic problems involved.

As suddenly as he had begun it, Aldous Worp abandoned his self-imposed task. For nearly a year—again, the time is approximate due to insufficient data—Aldous Worp remained within the confines of the Worp property. When not occupied with such basic bodily needs as eating and sleeping, he moved slowly about his pile of debris with no apparent plan.

One morning he was observed by his father (as we are told by the latter) to be selecting certain objects from the pile and fitting them together.

It should be noted here, I think, that no account of the Worp Reaction can be complete without certain direct quotations from Aldous' father, Lambert Simnel Worp. Concerning the aforementioned framework the elder Worp has said, "The thing that got me, was every (deleted) piece he picked up fit with some other (deleted) piece. Didn't make no (deleted) difference if it was a (deleted) bedspring or a (deleted) busted egg beater, if the (deleted) kid stuck it on another (deleted) part, it stayed there."

Concerning usage of tools by Aldous Worp, L. S. Worp has deposed: "No tools."

A lengthier addendum is offered us by L. S. Worp in reply to a query which I quote direct: "How in God's name did he manage to cause separate parts to adhere to each other to make a whole?" (Dr. Palmer) *A.* "The (deleted) stuff went together tighter'n a mallard's (deleted), and nobody—but *nobody,* Mister, could get 'em apart."

It was obviously quite stable, since young Aldous frequently clambered into the maze to add another "part," without disturbing its equilibrium in the slightest.

The foregoing, however sketchy, is all the background we have to the climactic experiment itself. For an exact report of

the circums nces attendant upon the one "controlled" demonstration of the Worp Reaction we are indebted to Major Herbert R. Armstrong, U. S. Army Engineers, and Dr. Philip H. Eustace Cross, A. E. C., who were present.

It seems that, at exactly 10:46 A.M., Aldous Worp picked up a very old and very rusty cogwheel . . . the very first object he had retrieved from oblivion on the junk-pile, so long ago when he was but a tad of six. After a moment's hesitation, he climbed to the top of his jerry-built structure, paused, then lowered himself into its depths. He disappeared from the sight of these trained observers for several minutes. (Dr. Cross: 4 min., 59 sec. Maj. Armstrong: 5 min., 02 sec.). Finally Aldous reappeared, climbed down and stared fixedly at his creation.

We now quote from the combined reports of Maj. Armstrong and Dr. Cross: "After standing dazed-like for a few minutes, Worp finally came very close to his assembly. There was a rod sticking out with the brass ball of a bedpost fastened to it. Aldous Worp gave this a slight tug. What happened then was utterly fantastic. First, we heard a rushing sound, something like a waterfall. This sound grew appreciably louder and, in about fifteen seconds, we saw a purplish glow emanate from *beneath* the contraption. Then, the whole congeries of rubbish arose into the air for a height of about three meters and hung there, immobile. The lad Aldous jumped around with every semblance of glee and we distinctly heard him remark 'Whee!' three times. Then he went to one side of the phenomenon, reached down and turned over the rusty wheel of a coffee mill and his 'machine' slowly settled to earth."

There was, of course, considerable excitement. Representatives of the Armed Services, the Press Services, the A. E. C., various Schools for Advanced Studies, *et al.* arrived in droves. Communication with Aldous Worp was impossible since the young man had never learned to talk. L. S. Worp, however profane, was an earnest and sincere gentleman, anxious to be of service to his country; but the above quotations from his conversations will indicate how little light he was able to shed on the problem. Efforts to look inside the structure availed little, since the closest and most detailed analysis could elicit no other working hypothesis than "it's all nothing but a bunch of junk" (Dr. Palmer). Further, young Worp obviously resented such investigations.

However, he took great delight in operating his machine and repeatedly demonstrated the "reaction" to all beholders. The most exhaustive tests, Geiger, electronic, Weisendonk, litmus, *et al.* revealed nothing.

Finally, the importunities of the press could no longer be denied and early in the afternoon of the second day, telecasters arrived on the scene.

Aldous Worp surveyed them for a moment, then brought his invention back to earth. With a set look on his face, he climbed to its top, clambered down into its bowels and, in due course, reappeared with the ancient cogwheel. This he carefully placed in its original resting place in the chicken coop. Systematically, and in order of installation, he removed each part from his structure and carefully returned it to its original place in the original heap by the chicken coop.

Today, the components parts of the whole that was Worp's Reaction are scattered. For, silently ignoring the almost hysterical pleas of the men of science and of the military, Aldous Worp, after dismantling his machine completely and piling all parts in and over the chicken coop, then took upon himself the onerous task of transporting them, one by one, back to their original place in the city dump.

Now, unmoved by an occasional berating by L. S. Worp, silent before an infrequent official interrogation, Aldous Worp sits on a box in the back yard of his ancestral home, gazing serenely out over the city dump. Once in a very great while his eyes light up for a moment and he says "Whee!" very quietly.

The Skills of Xanadu

by

THEODORE STURGEON

Here is The Final Invention, at least from the point of view of humanity as we know it. It is the Gadget that makes all other Gadgets obsolete. It is the apotheosis of a type of daydream, or "hypnogogic hallucination," as the psychologists call them, that many of us explore in our wilder flights of fancy: the "magic wand" that leads to instant self-fulfilment and species perfection. It is a beautiful invention, too.

AND the Sun went nova and humanity fragmented and fled; and such is the self-knowledge of humankind that it knew it must guard its ast as it guarded its being, or it would cease to be human; and such was its pride in itself that it made of its traditions a ritual and a standard.

The great dream was that wherever humanity settled, fragment by fragment by fragment, however it lived, it would continue rather than begin again, so that all through the Universe and the years, humans would be humans, speaking as humans, thinking as humans, aspiring and progressing as humans; and whenever human met human, no matter how different, how distant, he would come in peace, meet his own kind, speak his own tongue.

Humans, however, being humans—

Bril emerged near the pink star, disliking its light, and found the fourth planet. It hung waiting for him like an exotic fruit. (And was it ripe, and could he ripen it? And what if it were poison?) He left his machine in orbit and descended in a bubble. A young savage watched him come and waited by a waterfall.

"Earth was my mother," said Bril from the bubble. It was the formal greeting of all humankind, spoken in the Old Tongue.

"And my father," said the savage, in an atrocious accent.

Watchfully, Bril emerged from the bubble, but stood very close by it. He completed his part of the ritual. "I respect the disparity of our wants, as individuals, and greet you."

"I respect the indentity of our needs, as humans, and greet you. I am Wonyne," said the youth, "son of Tanyne, of the Senate, and Nina. This place is Xanadu, the district, on Xanadu, the fourth planet."

"I am Bril of Kit Carson, second planet of the Sumner System, and a member of the Sole Authority," said the newcomer, adding, "and I come in peace."

He waited then, to see if the savage would discard any weapons he might have, according to historic protocol. Wonyne did not; he apparently had none. He wore only a cobwebby tunic and a broad belt made of flat, black, brilliantly polished stones and could hardly have concealed so much as a dart. Bril waited yet another moment, watching the untroubled face of the savage, to see if Wonyne suspected anything of the arsenal hidden in the sleek black uniform, the gleaming jackboots, the metal gauntlets.

Wonyne said only, "Then, in peace, welcome." He smiled. "Come with me to Tanyne's house and mine, and be refreshed."

"You say Tanyne, your father, is a Senator? Is he active now? Could he help me to reach your center of government?"

The youth paused, his lips moving slightly, as if he were translating the dead language into another tongue. Then, "Yes. Oh, yes."

Bril flicked his left gauntlet with his right fingertips and the bubble sprang away and up, where at length it would join the ship until it was needed. Wonyne was not amazed—probably, thought Bril, because it was beyond his understanding.

Bril followed the youth up a winding path past a wonderland of flowering plants, most of them purple, some white, a

few scarlet, and all jeweled by the waterfall. The higher reaches of the path were flanked by thick soft grass, red as they approached, pale pink as they passed.

Bril's narrow black eyes flicked everywhere, saw and recorded everything: the easy-breathing boy spring up the slope ahead, and the constant shifts of color in his gossamer garment as the wind touched it; the high trees, some of which might conceal a man or a weapon; the rock outcroppings and what oxides they told of; the birds he could see and the bird-songs he heard which might be something else.

He was a man who missed only the obvious, and there is so little that is obvious.

Yet he was not prepared for the house; he and the boy were halfway across the parklike land which surrounded it before he recognized it as such.

It seemed to have no margins. It was here high and there only a place between flower beds; yonder a room became a terrace, and elsewhere a lawn was a carpet because there was a roof over it. The house was divided into areas rather than rooms, by open grilles and by arrangements of color. Nowhere was there a wall. There was nothing to hide behind and nothing that could be locked. All the land, all the sky, looked into and through the house, and the house was one great window on the world.

Seeing it, Bril felt a slight shift in his opinion of the natives. His feeling was still one of contempt, but now he added suspicion. A cardinal dictum on humans as he knew them was: *Every man has something to hide.* Seeing a mode of living like this did not make him change his dictum: he simply increased his watchfulness, asking: *How do they hide it?*

"Tan! Tan!" the boy was shouting. "I've brought a friend!"

A man and a woman strolled toward them from a garden. The man was huge, but otherwise so like the youth Wonyne that there could be no question of their relationship. Both had long, narrow, clear gray eyes set very wide apart, and red—almost orange—hair. The noses were strong and delicate at the same time, their mouths thin-lipped but wide and good-natured.

But the woman—

It was a long time before Bril could let himself look, let himself believe that there was such a woman. After his first glance, he made of her only a presence and fed himself small

nibbles of belief in his eyes, in the fact that there could be hair like that, face, voice, body. She was dressed, like her husband and the boy, in the smoky kaleidoscope which resolved itself, when the wind permitted, into a black-belted tunic.

"He is Bril of Kit Carson in the Sumner System," babbled the boy, "and he's a member of the Sole Authority and it's the second planet and he knew the greeting and got it right. So did I," he added, laughing. "This is Tanyne, of the Senate, and my mother Nina."

"You are welcome, Bril of Kit Carson," she said to him; and unbelieving in this way that had come upon him, he took away his gaze and inclined his head.

"You must come in," said Tanyne cordially, and led the way through an arbor which was not the separate arch it appeared to be, but an entrance.

The room was wide, wider at one end than the other, through it was hard to determine by how much. The floor was uneven, graded upward toward one corner, where it was a mossy bank. Scattered here and there were what the eye said were white and striated gray boulders; the hand would say they were flesh. Except for a few shelf- and tablelike niches on these and in the bank, they were the only furniture.

Water ran frothing and gurgling through the room, apparently as an open brook; but Bril saw Nina's bare foot tread on the invisible covering that followed it down to the pool at the other end. The pool was the one he had seen from outside, indeterminately in and out of the house. A large tree grew by the pool and leaned its heavy branches toward the bank, and evidently its wide-flung limbs were webbed and tented between by the same invisible substance which covered the brook. It formed the only cover overhead yet, to the ear, it *felt* like a ceiling.

The whole effect was, to Bril, intensely depressing, and he surprised himself with a flash of homesickness for the tall steel cities of his home planet.

Nina smiled and left them. Bril followed his host's e ample and sank down on the ground, or floor, where it became a bank, or wall. Inwardly, Bril rebelled at the lack of decisiveness, of discipline, of clear-cut limitation inherent in such haphazard design as this. But he was well trained and quite prepared, at first, to keep his feelings to himself among barbarians.

"Nina will join us in a moment," said Tanyne.

Bril, who had been watching the woman's swift movements across the courtyard through the transparent wall opposite, controlled a start. "I am unused to your ways, and wondered what she was doing," he said.

"She is preparing a meal for you," explained Tanyne.

"Herself?"

Tanyne and his son gazed wonderingly. "Does that seem unusual to you?"

"I understood the lady was wife to a Senator," said Bril. It seemed adequate as an explanation, but only to him. He looked from the boy's face to the man's. "Perhaps I understand something different when I use the term 'Senator.' "

"Perhaps you do. Would you tell us what a Senator is on the planet Kit Carson?"

"He is a member of the Senate, subservient to the Sole Authority, and in turn leader of a free Nation."

"And his wife?"

"His wife shares his privileges. She might serve a member of the Sole Authority, but hardly anyone else—certainly not an unidentified stranger."

"Interesting," said Tanyne, while the boy murmured the astonishment he had not expressed at Bril's bubble, or Bril himself. "Tell me, have you not identified yourself, then?"

"He did, by the waterfall," the youth insisted.

"I gave you no proof," said Bril stiffly. He watched father and son exchange a glance. "Credentials, written authority." He touched the flat pouch hung on his power belt.

Wonyne asked ingenuously, "Do the credentials say you are *not* Bril of Kit Carson in the Sumner System?"

Bril frowned at him, and Tanyne said gently, "Wonyne, take care." To Bril, he said, "Surely there are many differences between us, as there always are between different worlds. But I am certain of this one similarity: the young at times run straight where wisdom has built a winding path."

Bril sat silently and thought this out. It was probably some sort of apology, he decided, and gave a single sharp nod. Youth, he thought, was an attenuated defect here. A boy Wonyne's age would be a soldier on Carson, ready for a soldier's work, and no one would be apologizing for him. Nor would he be making blunders. *None!*

He said, "These credentials are for your officials when I meet with them. By the way, when can that be?"

Tanyne shrugged his wide shoulders. "Whenever you like."

"The sooner the better."

"Very well."

"Is it far?"

Tanyne seemed perplexed. "Is what far?"

"Your capital, or wherever it is your Senate meets."

"Oh, I see. It doesn't meet, in the sense you mean. It is always in session, though, as they used to say. We—"

He compressed his lips and made a liquid, bisyllabic sound. Then he laughed. "I do beg your pardon," he said warmly. "The Old Tongue lacks certain words, certain concepts. What is your word for—er—the-presence-of-all-in-the-presence-of-one?"

"I think," said Bril carefully, "that we had better go back to the subject at hand. Are you saying that your Senate does not meet in some official place, at some appointed time?"

"I—" Tan hesitated, then nodded. "Yes, that is true as far as it—"

"And there is no possibility of my addressing your Senate in person?"

"I didn't say that." Tan tried twice to express the thought, while Bril's eyes slowly narrowed. Tan suddenly burst into laughter. "Using the Old Tongue to tell old tales and to speak with a friend are two different things," he said ruefully. "I wish you would learn our speech. Would you, do you suppose? It is rational and well based on what you know. Surely you have another language besides the Old Tongue on Kit Carson?"

"I honor the Old Tongue," said Bril stiffly, dodging the question. Speaking very slowly, as if to a retarded child, he said, "I should like to know when I may be taken to those in authority here, in order to discuss certain planetary and interplanetary matters with them."

"Discuss them with me."

"You are a Senator," Bril said, in a tone which meant clearly: *You are only a Senator.*

"True," said Tanyne.

With forceful patience, Bril asked, "And what is a Senator here?"

"A contact point between the people of his district and the people everywhere. One who knows the special problems of a small section of the planet and can relate them to planetary policy."

"And whom does the Senate serve?"

"The people," said Tanyne, as if he had been asked to repeat himself.

"Yes, yes, of course. And who, then, serves the Senate?"

"The Senators."

Bril closed his eyes and barely controlled the salty syllable which welled up inside him. "Who," he inquired steadily, "is your Government?"

The boy had been watching them eagerly, alternately, like a devotee at some favorite fast ball game. Now he asked, "What's a Government?"

Nina's interruption at that point was most welcome to Bril. She came across the terrace from the covered area where she had been doing mysterious things at a long work-surface in the garden. She carried an enormous tray—guided it, rather, as Bril saw when she came closer. She kept three fingers under the tray and one behind it, barely touching it with her palm. Either the transparent wall of the room disappeared as she approached, or she passed through a section where there was none.

"I do hope you find something to your taste among these," she said cheerfully, as she brought the tray down to a hummock near Bril. "This is the flesh of birds, this of small mammals, and, over here, fish. These cakes are made of four kinds of grain, and the white cakes here of just one, the one we call milk-wheat. Here is water, and these two are wines, and this one is a distilled spirit we call warm-ears."

Bril, keeping his eyes on the food, and trying to keep his universe from filling up with the sweet fresh scent of her as she bent over him, so near, said, "This is welcome."

She crossed to her husband and sank down at his feet, leaning back against his legs. He twisted her heavy hair gently in his fingers and she flashed a small smile up at him. Bril looked from the food, colorful as a corsage, here steaming, there gathering frost from the air, to the three smiling expectant faces, and did not know what to do.

"Yes, this is welcome," he said again, and still they sat there, watching him. He picked up the white cake and rose, looked out and around, into the house, through it and beyond. Where could one go in such a place?

Steam from the tray touched his nostrils and saliva filled his mouth. He was hungry, but . . .

He sighed, sat down, gently replaced the cake. He tried to smile and could not.

"Does none of it please you?" asked Nina, concerned.

"I can't eat here!" said Bril; then, sensing something in the natives that had not been there before, he added, "thank you." Again he looked at their controlled faces. He said to Nina, "It is very well prepared and good to look on."

"Then eat," she invited, smiling again.

This did something that their house, their garments, their appallingly easy ways—sprawling all over the place, letting their young speak up at will, the shameless admission that they had a patois of their own—that none of these things had been able to do. Without losing his implacable dignity by any slightest change of expression, he yet found himself blushing. Then he scowled and let the childish display turn to a flush of anger. He would be glad, he thought furiously, when he had the heart of this culture in the palm of his hand, to squeeze when he willed; then there would be an end to these hypocritical amenities and they would learn who could be humiliated.

But these three faces, the boy's so open and unconscious of wrong, Tanyne's so strong and anxious for him, Nina's—that face, that face of Nina's—they were all utterly guileless. He must not let them know of his embarrassment. If they had planned it, he must not give them the satisfaction. And if they had not planned it, he must not let them suspect his vulnerability.

With an immense effort of will, he kept his voice low; still, it was harsh. "I think," he said slowly, "that we on Kit Carson regard the matter of privacy perhaps a little more highly than you do."

They exchanged an astonished look, and then comprehension dawned visibly on Tanyne's ruddy face. "You don't eat together!"

Bril did not shudder, but it was in his word: "No."

"Oh," said Nina, "I'm *so* sorry!"

Bril thought it wise not to discover exactly what she was sorry about. He said, "No matter. Customs differ. I shall eat when I am alone."

"Now that we understand," said Tanyne, "go ahead. Eat."

But they *sat* there!

"Oh," said Nina, "I wish you spoke our other language; it would be so easy to explain!" She leaned forward to him, put out her arms, as if she could draw meaning itself from the air and cast it over him. "Please try to understand, Bril. You are

very mistaken about one thing—we honor privacy above almost anything else."

"We don't mean the same thing when we say it," said Bril.

"It means aloneness with oneself, doesn't it? It means to do things, think or make or just *be*, without intrusion."

"Unobserved," said Bril.

"So?" replied Wonyne happily, throwing out both hands in a gesture that said *quod erat demonstrandum.* "Go on then—eat! We won't look!" and helped the situation not at all.

"Wonyne's right," chuckled the father, "but, as usual, a little too direct. He means we can't look, Bril. If you want privacy, *we can't see you.*"

Angry, reckless, Brill suddenly reached to the tray. He snatched up a goblet, the one she had indicated as water, thumbed a capsule out of his belt, popped it into his mouth, drank and swallowed. He banged the goblet back on the tray and shouted, "Now you've seen all you're going to see."

With an indescribable expression, Nina drifted upward to her feet, bent like a dancer and touched the tray. It lifted and she guided it away across the courtyard.

"All right," said Wonyne. It was precisely as if someone had spoken and he had acknowledged. He lounged out, following his mother.

What *had* been on her face?

Something she could not contain; something rising to that smooth surface, about to reveal outlines, break through . . . anger? Bril hoped so. Insult? He could, he supposed, understand that. But—laughter? *Don't make it laughter,* something within him pleaded.

"Bril," said Tanyne.

For the second time, he was so lost in contemplation of the woman that Tanyne's voice made him start.

"What is it?"

"If you will tell me what arrangements you would like for eating, I'll see to it that you get them."

"You wouldn't know how," said Brill bluntly. He threw his sharp, cold gaze across the room and back. "You people don't build walls you can't see through, doors you can close."

"Why, no, we don't." As always, the giant left the insult and took only the words.

I bet you don't, Bril said silently, *not even for*—and a horrible suspicion began to grow within him. "We of Kit Carson

feel that all human history and development are away from the animal, toward something higher. We are, of course, chained to the animal state, but we do what we can to eliminate every animal act as a public spectacle." Sternly, he waved a shining gauntlet at the great open house. "You have apparently not reached such an idealization. I have seen how you eat; doubtless you perform your other functions so openly."

"Oh, yes," said Tanyne. "But with this—" he pointed—"it's hardly the same thing."

"With what?"

Tanyne again indicated one of the boulderlike objects. He tore off a clump of moss—it was real moss—and tossed it to the soft surface of one of the boulders. He reached down and touched one of the gray streaks. The moss sank into the surface the way a pebble will in quicksand, but much faster.

"It will not accept living animal matter above a certain level of complexity," he explained, "but it instantly absorbs every molecule of anything else, not only on the surface but for a distance above."

"And that's a—a—where you—"

Tan nodded and said that that was exactly what it was.

"But—anyone can see *you*!"

Tan shrugged and smiled. "How? That's what I meant when I said it's hardly the same thing. Of eating, we make a social occasion. But this—" he threw another clump of moss and watched it vanish—"just isn't observed." His sudden laugh rang out and again he said, "I *wish* you'd learn the language. Such a thing is so easy to express."

But Bril was concentrating on something else. "I appreciate your hospita ity," he said, using the phrase stiltedly, "but I'd like to be moving on." He eyed the boulder distastefully. "And very soon."

"As you wish. You have a message for Xanadu. Deliver it, then."

"To your Government."

"To our Government. I told you before, Bril—when you're ready, proceed."

"I cannot believe that you alone represent this planet!

"Neither can I," said Tanyne pleasantly. "I don't. Through me, you can speak to forty-one others, all Senators."

"Is there no other way?"

Tanyne smiled. "Forty-one other ways. Speak to any of the others. It amounts to the same thing."

"And no higher government body?"

Tanyne reached out a long arm and plucked a goblet from a niche in the moss bank. It was chased crystal with a luminous metallic rim.

"Finding the highest point of the government of Xanadu is like finding the highest point on this," he said. He ran a finger around the inside of the rim and the oblet chimed beautifully.

"Pretty unstable," growled Bril.

Tanyne made it sing again and replaced it; whether that was an answer or not, Bril could not know.

He snorted, "No wonder the boy didn't know what Government was."

"We don't use the term," said Tanyne. "We don't need it. There are few things here that a citizen can't handle for himself; I wish I could show you how few. If you'll live with us a while, I will show you."

He caught Bril's eye squarely as it returned from another disgusted and apprehensive trip to the boulder, and laughed outright. But the kindness in his voice as he went on quenched Bril's upsurge of indignant fury, and a little question curled up: *Is he managing me?* But there wasn't time to look at it.

"Can your business wait until you know us, Bril? I tell you now, there is no centralized Government here, almost no government at all; we of the Senate are advisory. I tell you, too, that to speak to one Senator is to speak to all, and that you may do it now, this minute, or a year from now—whenever you like. I am telling you the truth and you may accept it or you may spend months, years, traveling this planet and checking up on me; you'll always come out with the same answer."

Noncommittally, Bril said, "How do I know that what I tell you is accurately relayed to the others?"

"It isn't relayed," said Tan frankly. "We all hear it simultaneously."

"Some sort of radio?"

Tan hesitated, then nodded. "Some sort of radio."

"I won't learn your language," Bril said abruptly. "I can't live as you do. If you can accept those conditions, I will stay a short while."

"Accept? We *insist!*" Tanyne bounded cheerfully to the niche where the goblet stood and held his palm up. A large, opaque sheet of a shining white material rolled down and

stopped. "Draw with your finger," he said.

"Draw? Draw what?"

"A place of your own. How you would like to live, eat, sleep, everything."

"I require very little. None of us on Kit Carson do." He pointed the finger of his gauntlet like a weapon, made a couple of dabs in the corner of the screen to test the line, and then dashed off a very creditable parallelopiped. "Taking my height as one unit, I'd want this one-and-a-half long, one-and-a-quarter high. Slit vents at eye level, one at each end, two on each side, screened against insects—"

"We have no preying insects," said Tanyne.

"Screened anyway, and with as near an unbreakable mesh as you have. Here a hook suitable for hanging a garment. Here a bed, flat, hard, with firm padding as thick as my hand, one-and-one-eighth units long, one-third wide. All sides under the bed enclosed and equipped as a locker, impregnable, and to which only I have the key or combination. Here a shelf one-third by one-quarter units, one-half unit off the floor, suitable for eating from a seated posture.

"One of—those, if it's self-contained and reliable," he said edgily, casting a thumb at the boulderl ke convenience. "The whole structure to be separate from all others on high ground and overhung by nothing—no trees, no cliffs, with approaches clear and visible from all sides; as strong as speed perm ts; and equipped with a light I can turn off and a door that only I can unlock."

"Very well," said Tanyne easily. "Temperature?"

"The same as this spot now."

"Anything else? Music? Pictures? We have some fine moving—"

Bril, from the top of his dignity, snorted his most eloquent snort. "Water, if you can manage it. As to those other things, this is a dwelling, not a pleasure palace."

"I hope you will be comfortable in this—in it," said Tanyne, with barely a trace of sarcasm.

"It is precisely what I am used to," Bril answered loftily.

"Come, then."

"What?"

The big man waved him on and passed through the arbor. Bril, blinking in the late pink sunlight, followed him.

On the gentle slope above the house, halfway between it and the mountaintop beyond, was a meadow of the red grass

Bril had noticed on his way from the waterfall. In the center of this meadow was a crowd of people, bustling like moths around a light, their flimsy, colorful clothes flashing and gleaming in a thousand shades. And in the middle of the crowd lay a coffin-shaped object.

Bril could not believe his eyes, then stubbornly would not, and at last, as they came near, yielded and admitted it to himself: this was the structure he had just sketched.

He walked more and more slowly as the wonder of it grew on him. He watched the people—children, even—swarming around and over the little building, sealing the edge between roof and wall with a humming device, laying screen on the slit-vents. A little girl, barely a toddler, came up to him fearlessly and in lisping Old Tongue asked for his hand, which she clapped to a tablet she carried.

"To make your keys," explained Tanyne, watching the child scurry off to a man waiting at the door.

He took the tablet and disappeared inside, and they could see him kneel by the bed. A young boy overtook them and ran past, carrying a sheet of the same material the roof and walls were made of. It seemed light, but its slightly rough, pale-tan surface gave an impression of great toughness. As they drew up at the door, they saw the boy take the material and set it in position between the end of the bed and the doorway. He aligned it carefully, pressing it against the wall, and struck it once with the heel of his hand, and there was Bril's required table, level, rigid, and that without braces and supports.

"You seemed to like the looks of some of this, anyway." It was Nina, with her tray. She floated it to the new table, waved cheerfully and left.

"With you in a moment," Tan called, adding three singing syllables in the Xanadu tongue which were, Bril concluded, an endearment of some kind; they certainly sounded like it. Tan turned back to him, smiling.

"Well, Bril, how is it?"

Bril could only ask, "Who gave the orders?"

"You did," said Tan, and there didn't seem to be any answer to that.

Already, through the open door, he could see the crowd drifting away, laughing and singing their sweet language to each other. He saw a young man scoop up scarlet flowers from the pink sward and hand them to a smiling girl, and unac-

countably the scene annoyed him. He turned away abruptly and went about the walls, thumping them and peering through the vents. Tanyne knelt by the bed, his big shoulders bulging as he tugged at the locker. It might as well have been solid rock.

"Put your hand there," he said, pointing, and Bril clapped his gauntlet to the plate he indicated.

Sliding panels parted. Bril got down and peered inside. It had its own light, and he could see the buff-colored wall of the structure at the back and the heavy filleted partition which formed the bed uprights. He touched the panel again and the doors slid silently shut, so tight that he could barely see their meeting.

"The door's the same," said Tanyne. "No one but you can open it. Here's water. You didn't say where to put it. If this is inconvenient . . ."

When Bril put his hand near the spigot, water flowed into a catch basin beneath. "No, that is satisfactory. They work like specialists."

"They are," said Tanyne.

"Then they have built such a strange structure before?"

"Never."

Bril looked at him sharply. This ingenuous barbarian surely could not be making a fool of him by design! No, this must be some slip of semantics, some shift in meaning over the years which separated each of them from the common ancestor. He would not forget it, but he set it aside for future thought.

"Tanyne," he asked suddenly, "how many are you in Xanadu?"

"In the district, three hundred. On the planet, twelve, almost thirteen thousand."

"We are one and a half billions," said Bril. "And what is your largest city?"

"City," said Tanyne, as if searching through the files of his memory. "Oh—city! We have none. There are forty-two districts like this one, some larger, some smaller."

"Your entire planetary population could be housed in one building within one city on Kit Carson. And how many generations have your people been here?"

"Thirty-two, thirty-five, something like that."

"We settled Kit Carson not quite six Earth centuries ago. In point of time, then, it would seem that yours is the older cul-

ture. Wouldn't you be interested in how we have been able to accomplish so much more?"

"Fascinated," said Tanyne.

"You have some clever little handicrafts here," Bril mused, "and a quite admirable cooperative ability. You could make a formidable thing of this world, if you wanted to, and if you had the proper guidance."

"Oh, could we really?" Tanyne seemed very pleased.

"I must think," said Bril somberly. "You are not what I—what I had supposed. Perhaps I shall stay a little longer than I had planned. Perhaps while I am learning about your people, you in turn could be learning about mine."

"Delighted," said Tanyne. "Now is there anything else you need?"

"Nothing. You may leave me."

His autocratic tone gained him only one of the big man's pleasant, open-faced smiles. Tanyne waved his hand and left. Bril heard him calling his wife in ringing baritone notes, and her glad answer. He set his mailed hand against the door plate and it slid shut silently.

Now what, he asked himself, *got me to do all that bragging?* Then the astonishment at the people of Xanadu rose up and answered the question for him. *What manner of people are specialists at something they have never done before?*

He got out of his stiff, polished, heavy uniform, his gauntlets, his boots. They were all wired together, power supply in the boots, controls and computers in the trousers and belt, sensory mechs in the tunic, projectors and field loci in the gloves.

He hung the clothes on the hook provided and set the alarm field for anything larger than a mouse any closer than thirty meters. He dialed a radiation dome to cover his structure and exclude all spy beams or radiation weapons. Then he swung his left gauntlet on its cable over to the table and went to work on one small corner.

In half an hour, he had found a combination of heat and pressure that would destroy the pale brown board, and he sat down on the edge of the bed, limp with amazement. You could build a spaceship with stuff like this.

Now he had to believe that they had it in stock sizes exactly to his specifications, which would mean warehouses and manufacturing facilities capable of making up those and innumerable other sizes; or he had to believe that they had machinery

capable of making what his torches had just destroyed, in job lots, right *now*.

But they didn't have any industrial plant to speak of, and if they had warehouses, they had them where the Kit Carson robot scouts had been unable to detect them in their orbiting for the last fifty years.

Slowly he lay down to think.

To acquire a planet, you locate the central government. If it is an autocracy, organized tightly up to the peak, so much the better; the peak is small and you kill it or control it and use the organization. If there is no government at all, you recruit the ople or you exterminate them. If there is plant, you run it with overseers and make the natives work it until you can train your own people to it and eliminate the natives. If there are skills, you learn them or you control those who have them. All in the book; a rule for every eventuality, every possibility.

But what if, as the robots reported, there was high technology and no plant? Planetwide cultural stability and almost no communications?

Well, nobody ever heard of such a thing, so when the robots report it, you send an investigator. All he has to find out is how they do it. All he has to do is to parcel up what is to be kept and what eliminated when the time comes for an expeditionary force.

There's always one clean way out, thought Bril, putting his hands behind his head and looking up at the tough ceiling. Item, one Earth-normal planet, rich in natural resources, sparsely populated by innocents. You can always simply exterminate them.

But not before you find out how they communicate, how they cooperate, and how they specialize in skills they never tried before. How they manufacture superior materials out of thin air in no time.

He had a sudden heady vision of Kit Carson equipped as these people were, a billion and a half universal specialists with some heretofore unsuspected method of intercommunication, capable of building cities, fighting wars, with the measureless skill and split-second understanding and obedience with which this little house had been built.

No, these people must not be exterminated. They must be used. Kit Carson had to learn their tricks. If the tricks were —he hoped not!—inherent in Xanadu and beyond the Carson

abilities, then what would be the next best thing?

Why, a cadre of the Xanadu, scattered through the cities and armies of Kit Carson, instantly obedient, instantly trainable. Instruct one and you teach them all; each could teach a group of Kit Carson's finest. Production, logistics, strategy, tactics—he saw it all in a flash.

Xanadu might be left almost exactly as is, except for its new export—aides de camp.

Dreams, these are only dreams, he told himself sternly. *Wait until you know more. Watch them make impregnable hardboard and anti-grav tea-trays.*

The thought of the tea-tray made his stomach growl. He got up and went to it. The hot food steamed, the cold was still frosty and firm. He picked, he tasted. Then he bit. Then he gobbled.

Nina, that Nina . . .

No, they can't be exterminated, he thought drowsily, not when they can produce such a woman. In all of Kit Carson, there wasn't a cook like that.

He lay down again and dreamed, and dreamed until he fell asleep.

They were completely frank. They showed him everything, and it apparently never occurred to them to ask him why he wanted to know. Asking was strange, because they seemed to lack that special pride of accomplishment one finds in the skilled potter, metalworker, electronician, an attitude of "Isn't it remarkable that I can do it!" They gave information accurately but impersonally, as if anyone could do it.

And on Xanadu, anyone could.

At first, it seemed to Bril totally disorganized. These attractive people in their indecent garments came and went, mingling play and work and loafing, without apparent plan. But their play would take them through a flower-garden just where the weeds were, and they would take the weeds along. There seemed to be a group of girls playing jacks right outside the place they would suddenly be needed to sort some seeds.

Tanyne tried to explain it: "Say we have a shortage of something—oh, strontium, for example. The shortage itself creates a sort of vacuum. People without anything special to do feel it; they think about strontium. They come, they gather it."

"But I have seen no mines," Bril said puzzledly. "And what about shipping? Suppose the shortage is here and the mines in another district?"

"That never happens any more. Where there are deposits, of course, there are no shortages. Where there are none, we find other ways, either to use something else, or to produce it without mines."

"Transmute it?"

"Too much trouble. No, we breed a fresh-water shellfish with a strontium carbonate shell instead of calcium carbonate. The children gather them for us when we need it."

He saw their clothing industry—part shed, part cave, part forest glen. There was a pool there where the young people swam, and a field where they sunned themselves. Between times, they went into the shadows and worked by a huge vessel where chemicals occasionally boiled, turned bright green, and then precipitated. The black precipitate was raised from the bottom of the vessel on screens, dumped into forms and pressed.

Just how the presses—little more than lids for the forms—operated, the Old Tongue couldn't tell him, but in four or five seconds the precipitate had turned into the black stones used in their belts, formed and polished, with a chemical formula in Old Tongue script cut into the back of the left buckle.

"One of our few supersitions," said Tanyne. "It's the formula for the belts—even a primitive chemistry could make them. We would like to see them copied, duplicated all over the Universe. They are what we are. Wear one, Bril. You would be one of us, then."

Bril snorted in embarrassed contempt and went to watch two children deftly making up the belts, as easily, and with the same idle pleasure, as they might be making flower necklaces in a minute or two. As each was assembled, the child would strike it against his own belt. All the colors there are would appear each time this happened, in a brief, brilliant, cool flare. Then the belt, now with a short trim of vague tongued light, was tossed in a bin.

Probably the only time Bril permitted himself open astonishment on Xanadu was the first time he saw one of the natives put on this garment. It was a young man, come dripping from the pool. He snatched up a belt from the bank and clasped it around his waist, and immediately color and sub-

stance flowed up and down, a flickering, changing collar for him, a moving coruscant kilt.

"It's alive, you see," said Tanyne. "Rather, it is not non-living matter."

He put his fingers under the hem of his own kilt and forced his fingers up and outward. They penetrated the fabric, which fluttered away—untorn.

"It is not," he said gravely, "altogether material, if you will forgive an Old Tongue pun. The nearest Old Tongue term for it is 'aura.' Anyway, it lives, in its way. It maintains itself for—oh, a year or more. Then dip it in lactic acid and it is refreshed again. And just one of them could activate a million belts or a billion—how many sticks can a fire burn?"

"But why wear such a thing?"

Tanyne laughed. "Modesty." He laughed again. "A scholar of the very old times, on Earth before the Nova, passed on to me the words of one Rudofsky: 'Modesty is not so simple a virtue as honesty.' We wear these because they are warm when we need warmth, and because they conceal some defects some of the time—surely all one can ask of any human affectation."

"They are certainly not modest," said Bril stiffly.

"They express modesty just to the extent that they make us more pleasant to look at with than without them. What more public expression of humility could you want than that?"

Bril turned his back on Tanyne and the discussion. He understood Tanyne's words and ways imperfectly to begin with, and this kind of talk left him bewildered, or unreached, or both.

He found out about the hardboard. Hanging from the limb of a tree was a large vat of milky fluid—the paper, Tan explained, of a wasp they had developed, dissolved in one of the nucleic acids which they synthesized from a native weed. Under the vat was a flat metal plate and a set of movable fences. These were arranged in the desired shape and thickness of the finished panel, and then a cock was opened and the fluid ran in and filled the enclosure. Thereupon two small children pushed a roller by hand across the top of the fences. The white lake of fluid turned pale brown and solidified, and that was the hardboard.

Tanyne tried his best to explain to Bril about that roller, but the Old Tongue joined forces with Bril's technical ignorance and made the explanation incomprehensible. The coat-

ing of the roller was as simple in design, and as complex in theory, as a transistor, and Bril had to let it go at that, as he did with the selective analysis of the boulderlike "plumbing" and the anti-grav food trays (which, he discovered, had to be guided outbound, but which "homed" on the kitchen-area when empty).

He had less luck, as the days went by, in discovering the nature of the skills of Xanadu. He had been quite ready to discard his own dream as a fantasy, an impossibility—the strange idea that what any could do, all could do. Tanyne tried to explain; at least, he answered every one of Bril's questions.

These wandering, indolent, joyful people could pick up anyone's work at any stage and carry it to any degree. One would pick up a flute and play a few notes, and others would stroll over, some with instruments and some without, and soon another instrument and another would join in, until there were fifty or sixty and the music was like a passion or a storm, or after-love or sleep when you think back on it.

And sometimes the bystanders would step forward and take an instrument from the hands of someone who was tiring, and play on with all the rest, pure and harmonious; and, no, Tan would aver, he didn't think they'd ever played that particular piece of music before, those fifty or sixty people.

It always got down to *feeling*, in Tan's explanations.

"It's a *feeling* you get. The violin, now; I've heard one, we'll say, but never held one. I watch someone play and I understand how the notes are made. Then I take it and do the same, and as I concentrate on making the note, and the note that follows, it comes to me not only how it should sound, but how it should *feel*—to the fingers, the bowing arm, the chin and collarbone. Out of those feelings comes the feeling of how it feels to be making such music.

"Of course, there are limitations," he admitted, "and some might do better than others. If my fingertips are soft, I can't play as long as another might. If a child's hands are too small for the instrument, he'll have to drop an octave or skip a note. But the feeling's there, when we think in that certain way.

"It's the same with anything else we do," he summed up. "If I need something in my house, a machine, a device, I won't use iron where copper is better; it wouldn't *feel* right for me. I don't mean feeling the metal with my hands; I

mean thinking about the device and its parts and what it's for. When I think of all the things I could make it of, there's only one set of things that feels right to me."

"So," said Bril then. "And that, plus this—this competition between the districts, to find all elements and raw materials in the neighborhood instead of sending for them—that's why you have no commerce. Yet you say you're standardized—at any rate, you all have the same kind of devices, ways of doing things."

"We all have whatever we want and we make it ourselves, yes," Tan agreed.

In the evenings, Bril would sit in Tanyne's house and listen to the drift and swirl of conversation, or the floods of music, and wonder; and then he would guide his tray back to his cubicle and lock the door and eat, and brood. He felt at times that he was under an attack with weapons he did not understand, on a field which was strange to him.

He remembered something Tanyne had said once, casually, about men and their devices: "Ever since there were human beings, there has been conflict between Man and his machines. They will run him or he them; it's hard to say which is the less disastrous way. But a culture which is composed primarily of men has to destroy one made mostly of machines, or be destroyed. It was always that way. We lost a culture once on Xanadu. Didn't you ever wonder, Bril, why there are so few of us here? And why almost all of us have red hair?"

Bril had, and had secretly blamed the small population on the shameless lack of privacy, without which no human race seems to be able to whip up enough interest in itself to breed readily.

"We were billions, once," said Tan surprisingly. "We were wiped out. Know how many were left? *Three*!"

That was a black night for Bril, when he realized how pitiable were his efforts to learn their secret. For if a race were narrowed to a few, and a mutation took place, and it then increased again, the new strain could be present in all the new generations. He might as well, he thought, try to wrest from them the secret of having red hair. That was the night he concluded that these people would have to go; and it hurt him to think that, and he was angry at himself for thinking so. That, too, was the night of the ridiculous disaster.

He lay on his bed, grinding his teeth in helpless fury. It was past noon and he had been there since he awoke, trapped

by his own stupidity, and ridiculous, ridiculous. His greatest single possession—his dignity—was stripped from him by his own carelessness, by a fiendish and unsportsmanlike gadget that—

His approach alarm hissed and he sprang to his feet in an agony of embarrassment, in spite of the strong opaque walls and the door which only he could open.

It was Tanyne; his friendly greeting bugled out and mingled with birdsong and the wind. "Bril! You there?"

Bril let him come a little closer and then barked through the vent "I'm not coming out." Tanyne stopped dead, and even Bril himself was surprised by the harsh, squeezed sound of his voice.

"But Nina asked for you. She's going to weave today; she thought you'd like—"

"No," snapped Bril. "Today I leave. Tonight, that is. I've summoned my bubble. It will be here in two hours. After that, when it's dark, I'm going."

"Bril, you can't. Tomorrow I've set up a sintering for you; show you how we plate—"

"No!"

"Have we offended you, Bril? Have I?"

"No." Bril's voice was surly, but at least not a shout.

"What's happened?"

Bril didn't answer.

Tanyne came closer. Bril's eyes disappeared from the slit. He was cowering against the wall, sweating.

Tanyne said, "Something's happened, something's wrong. I . . . feel it. You know how I feel things, my friend, my good friend Bril."

The very thought made Bril stiffen in terror. Did Tanyne know? Could he?

He might, at that. Bril damned these people and all their devices their planet and its sun and the fates which had brought him here.

"There is nothing in my world or in my experience you can't tell me about. You know I'll understand," Tanyne pleaded. He came closer. "Are you ill? I have all the skills of the surgeons who have lived since the Three. Let me in."

"No!" It was hardly a word; it was an explosion.

Tanyne fell back a step. "I beg your pardon, Bril. I won't ask again. But—tell me. Please tell me. I must be able to help you!"

All right, thought Bril, half hysterically, *I'll tell you and you can laugh your fool red head off. It won't matter once we seed your planet with Big Plague.* "I can't come out. I've ruined my clothes."

"Bril! What can that matter? Here, throw them out; we can fix them, no matter what it is."

"No!" He could just see what would happen with these universal talents getting hold of the most compact and deadly armory this side of the Sumner System.

"Then wear mine." Tan put his hands to the belt of black stones.

"I wouldn't be seen dead in a flimsy thing like that. Do you think I'm an exhibitionist?"

With more heat (it wasn't much) than Bril had ever seen in him, Tanyne said, "You've been a lot more conspicuous in those winding sheets you've been wearing than you ever would in this."

Bril had never thought of that. He looked longingly at the bright nothing which flowed up and down from the belt, and then at his own black harness, humped up against the wall under its hook. He hadn't been able to bear the thought of putting them back on since the accident happened, and he had not been this long without clothes since he'd been too young to walk.

"What happened to your clothes, anyway?" Tan asked sympathetically.

Laugh, thought Bril, *and I'll kill you right now and you'll never have a chance to see your race die.* "I sat d n on the —I've been using it as a chair; there's only room for one seat in here. I must have kicked the switch. I didn't even feel it until I got up. The whole back of my—" Angrily he blurted, "Why doesn't that ever happen to you people?"

"Didn't I tell you?" Tan said, passing the news item by as if it meant nothing. Well, to him it probably was nothing. "The unit only accepts non-living matter."

"Leave that thing you call clothes in front of the door," Bril grunted after a strained silence. "Perhaps I'll try it."

Tanyne tossed the belt up against the door and strode away, singing softly. His voice was so big that even his soft singing seemed to go on forever.

But eventually Bril had the field to himself, the birdsong and the wind. He went to the door and away, lifted his seat-

less breeches sadly and folded them out of sight under the other things on the hook. He looked at the door again and actually whimpered once, very quietly. At last he put the gauntlet against the doorplate, and the door, never designed to open a little way, obediently slid wide. He squeaked, reached out, caught up the belt, scampered back and slapped at the plate.

"No one saw," he told himself urgently.

He pulled the belt around him. The buckle parts knew each other like a pair of hands.

The first thing he was aware of was the warmth. Nothing but the belt touched him anywhere and yet there was a warmth on him, soft, safe, like a bird's breast on eggs. A split second later, he gasped.

How could a mind fill so and not feel pressure? How could so much understanding flood into a brain and not break it?

He understood about the roller which treated the hardboard; it *was* a certain way and no other, and he could feel the rightness of that sole conjecture.

He understood the ions of the mold-press that made the belts, and the life-analog he wore as a garment. He understood how his finger might write on a screen, and the vacuum of demand he might send out to have this house built so, and so, and exactly so; and how the natives would hurry to fill it.

He remembered without effort Tanyne's description of the *feel* of playing an instrument, making, building, molding, holding, sharing, and how it must be to play in a milling crowd beside a task, moving randomly and only for pleasure, yet taking someone's place at vat or bench, furrow or fishnet, the very second another laid down a tool.

He stood in his own quiet flame, in his little coffin-cubicle, looking at his hands and knowing without question that they would build him a model of a city on Kit Carson if he liked, or a statue of the soul of the Sole Authority.

He knew without question that he had the skills of this people, and that he could call on any of those skills just by concentating on a task until it came to him how the right way (for him) would *feel*. He knew without surprise that these resources transcended even death; for a man could have a skill and then it was everyman's, and if the man should die, his skill still lived in everyman.

Just by concentrating—that was the key, the keyway, the keystone to the nature of this device. A device, that was all—no mutations, nothing 'extra-sensory' (whatever that meant); only a machine like other machines. You have a skill, and a feeling about it; I have a task. Concentration on my task sets up a demand for your skill; through the living flame you wear, you transmit; through mine, I receive. Then I perform; and what bias I put upon that performance depends on my capabilities. Should I add something to that skill, then mine is the higher, the more complete; the *feeling* of it is better, and it is I who will transmit next time there is a demand.

And he understood the authority that lay in this new aura, and it came to him then how his home planet could be welded into a unit such as the Universe had never seen. Xanadu had not done it, because Xanadu had grown randomly with its gift, without the preliminary pounding and shaping and milling of authority and discipline.

But Kit Carson! Carson with all skills and all talents shared among all its people, and overall and commanding, creating that vacuum of need and instant fulfilment, the Sole Authority and the State. It must be so (even though, far down, something in him wondered why the State kept so much understanding away from its people), for with this new depth came a solemn new dedication to his home and all it stood for.

Trembling, he unbuckled the belt and turned back its left buckle. Yes, there it was, the formula for the precipitate. And now he understood the pressing process and he had the flame to strike into new belts and make them live—by the millions, Tanyne had said, the billions.

Tanyne had said . . . why had he never said that the garments of Xanadu were the source of all their wonders and perplexities?

But had Bril ever asked?

Hadn't Tanyne begged him to take a garment so he could be one with Xanadu? The poor earnest idiot, to think he could be swayed away from Carson this way! Well, then, Tanyne and his people would have an offer, too, and it would all be even; soon they could, if they would, join the shining armies of a new Kit Carson.

From his hanging black suit, a chime sounded. Bril laughed and gathered up his old harness and all the fire and shock and paralysis asleep in its mighty, compact weapons. He slap d

open the door and sprang to the bubble which waited outside, and flung his old uniform in to lie crumpled on the floor, a broken chrysalis. Shining and exultant, he leaped in after it and the bubble sprang away skyward.

Within a week after Bril's return to Kit Carson in the Sumner System, the garment had been duplicated, and duplicated again and tested.

Within a month, nearly two hundred thousand had been distributed, and eighty factories were producing round the clock.

Within a year, the whole planet, all the millions, were shining and unified as never before, moving together under their Leader's will like the cells of a hand.

And then, in shocking unison, they all flickered and dimmed, every one, so it was time for the lactic acid dip which Bril had learned of. It was done in panic, without test or hesitation; a small taste of this luminous subjection had created a mighty appetite. All was well for a week—

And then, as the designers in Xanadu had planned, all the other segments of the black belts joined the first meager two in full operation.

A billion and a half human souls, who had been given the techniques of music and the graphic arts, and the theory of technology, now had the others: philosophy and logic and love; sympathy, empathy, forbearance, unity in the idea of their species rather than in their obedience; membership in harmony with all life everywhere.

A people with such feelings and their derived skills cannot be slaves. As the light burst upon them, there was only one concentration possible to each of them—to be free, and the accomplished feeling of being free. As each found it, he was an expert in freedom, and expert succeeded expert, transcended expert, until (in a moment) a billion and a half human souls had no greater skill than the talent of freedom.

So Kit Carson, as a culture, ceased to exist, and something new started there and spread through the stars nearby.

And because Bril knew what a Senator was and wanted to be one, he became one.

In each other's arms, Tanyne and Nina were singing softly, when the goblet in the mossy niche chimed.

"Here comes another one," said Wonyne, crouched at

their feet. "I wonder what will make *him* beg, borrow or steal a belt."

"Doesn't matter," said Tanyne, stretching luxuriously, "as long as he gets it. Which one is he, Wo—that noisy mechanism on the other side of the small moon?"

"No," said Wonyne. "That one's still sitting there squalling and thinking we don't know it's there. No, this is the force-field that's been hovering over Fleetwing District for the last two years."

Tanyne laughed. "That'll make conquest number eighteen for us."

"Nineteen," corrected Nina dreamily. "I remember because eighteen was the one that just left and seventeen was that funny little Bril from the Sumner System. Tan, for a time that little man loved me." But that was a small thing and did not matter.

The Machine

by

RICHARD GEHMAN

From the sublime to the ridiculous—from Sturgeon to Gehman—this is the roller coaster down which this story takes you after you have finished reading the previous one. Where Sturgeon's story holds glorious promise for man's distant tomorrows, Gehman's exposes the almost suicidal stupidity of certain large sectors of the human race today. Generals and admirals, for example, senators and heads of departments won't like it, nor will FBI agents and other such people. But if you are not in these or similar categories, you should get a laugh from this tale, combined with an inward shudder over the possibility that this kind of thing easily could happen, or (who knows?) may already actually have happened, and none of us the wiser.

I HAVE just been talking to Joe, and now I'm more mixed up than ever. I want to get mad, but I can't. I'm too scared, and I keep wondering how it's all going to come out. Al, I keep saying to myself, you've got to think this thing through. So I am writing it all down, to try to clear my head.

Joe McSween and I have been friends ever since high school. We live on the same block, and we both worked at Krug's Machine Shop before Joe got into the Army and I went to the Marines. We kept writing each other all the time we were away, though, and when we got back we de-

cided to get jobs together again.

Just after the war ended, this big plastics plant—Turnbull's Fabrications, you've probably heard of it—opened out on the outskirts of town. They were paying high wages, so we decided to see what we could do there. We both got jobs right away. The way I figure it now, that was when the trouble started.

Before I say any more, I'd better tell about Agnes Slater. Aggie was the reason Joe decided to go to Turnbull's. She'd been Joe's girl before the war, but when he came home they got really serious. Joe figured that he'd be smart to work at Turnbull's because the big money would make things easier when he and Aggie got married.

They put me in the shipping department, and that wasn't so good, but it was better than where they put Joe. He got sent up to X. Turnbull's has a lot of these big machines they ll fabricators, and the biggest is this X. What it fabricates, I'll never tell you. Some kind of plastics, I guess. Whatever it is, they send it away to some other plant to use in their products. All the X people know is that they work on a great big machine, seven stories high, all enclosed, with these catwalks running around it on every floor. Joe hated it from the very first.

"This X thing," Joe said to me as we were driving home that evening. "It's a hell of a thing. They put me up on the third floor. I'm in a little glass-partitioned room, in front of an instrument panel. They taught me the job in ten minutes—all I have to do is go through a few motions. It's all automatic."

Now, Joe is a guy who likes to use his head. He likes to work out problems and find answers. This X deal didn't sound like Joe at all. "What do you do, Joe?" I asked.

"Huh," he said. "Listen to this, Al. I get into that little cubbyhole at 8 in the morning. At 8:10, I reach out and twist Dial N to 40. At 8:20, I press a button marked Q. At 8:23, I turn Dial N back to zero. At 8:31, I reach up on a little shelf, get an oil n, and reach down and put two drops —just two—in a little hole at the bottom of the panel. At 8:46, I reach over and pull a lever toward me. At 8:47, I push it back. At 8:53, I press button Q again. At 8:59, I turn Dial N to 10, hold it one second, and turn it right back again. Then it's nine o'clock, and I'm ready to start the whole process all over again."

"The whole thing?"

"Everything just the same," Joe replied. "That goes on, every hour until noon. I get an hour for lunch, and then I go back again and keep it up till five." He sighed. "That's my new job."

"Joe," I asked, "what happens inside that machine when you do all those things?"

"As far as I can see, Al," Joe said, "nothing."

"Well, what does the machine do?"

"I'll be damned if I know. They didn't tell me."

"Can't you hear anything inside—I mean, when you twist those dials and press the buttons?"

Joe shook his head. "Not a thing, Al."

I couldn't understand it. "There's something funny about that, Joe," I said.

"That's what I think," Joe said. "We certainly didn't have anything like that back at Krug's."

He didn't seem to want to talk about it any more, so I didn't keep up the questions. I told him about my job, which was filing out shipping forms all day long. Me, a mechanic. Forms.

Joe and Aggie were going to the movies that night; they stopped by my house for a minute on the way. Aggie is not very pretty, but there's something about her—and I don't mean her figure—which is good. It's something else. Her energy, I guess. Maybe you'd call it ambition. She's always on the go.

Aggie was really pepped up this evening. She looked swell—she was wearing a red dress that kind of set off her black hair, and she was feeling wonderful. "Joe's been telling me about his job, Al," she said to me. "It sounds marvelous."

Joe looked like he was wondering where she got that idea.

"I mean," Aggie said, "I think it's marvelous that a big place like Turnbull's will give you boys such a fine opportunity. In a big place like that, you have a marvelous chance to get ahead."

"Yeah," Joe said. "You stay five years, and they give you more dials to turn."

"One thing that bothers us, Aggie," I said, "is that we aren't sure what Turnbull's makes out there. Some kind of plastics—that's all we know."

"Everything seems to be a secret, these days," Joe said. "It's

worse than during the war, almost. I was reading in the Courier tonight where they just passed that bill—what do they call it?"

"Challendor-Collander-Wingle-Wanger," Aggie said. Aggie knows things like that. She's sharp.

"Yeah," Joe said. "Well, with this new law, the Army can take over anything they need for national defense. Maybe the Army has something to do with Turnbull's, I've been thinking."

"Maybe," I said.

"I don't care what you two say," said Aggie, "I think you're going to like it there, Joe. You too, Al."

Well, Aggie is a pretty smart girl, like I said, but this was one she called way off. After the first week, Joe was lower than I'd ever seen him. When we drove to work in the mornings, he hardly said a thing. Going back in the evenings, it was the same way. It seemed to be on his mind all the time. What's more, after the second week he was worse. After the third, I decided to have it out with him.

"Joe," I said, "what the hell's the matter? This isn't like you, Joe."

"Me? There's nothing the matter with me."

"Joe," I said, "tell me about it. It's that X, isn't it?"

He was quiet a minute or two. Then he said, "Yeah, I guess it is. It's that X. I sit there all day long. I press the buttons, turn the dials, oil it, and all the time, Al, I'm just a guy at a machine. This machine doesn't make any noise, doesn't move, might not even manufacture *anything*, as far as I know. And it's so damn' big—it's seven whole stories high."

He had such a peculiar look on his face, I didn't know what to say.

"That's not all," Joe said. "There's something else. Remember back at Krug's? We had honest-to-goodness machines there, with wheels turning, cranks, belts, pulleys—the works. They were real machines that ran, and made noise, and turned out machine parts. You could look at one of those babies and you knew where you stood. When it broke down, you could fix it. When you turned it on, it ran, and when you turned it off, it stopped."

Joe paused. "With this X," he said slowly, "I don't know. Whatever it is, it's all inside. I just sit there in that little glass chicken coop like a hundred other guys. I do what they

tell me to do. If the machine breaks down, I never know about it. I just make the motions, up there—hell! I'm not a man running a machine, Al, I'm part of that damn' machine. I'm just one of the levers." He looked at me. "Do you see what I mean, Al?"

"If you want to know what I think, Joe," I said, "I think you'd better get out of there as soon as you can. Why don't you quit, Joe?"

"No," he said quietly. "It's not that easy."

For a minute I didn't get it, but then I remembered Aggie. Joe told me later that he tried to explain it to her, but couldn't quite get it across. It was one night after Joe had told me how he felt about X, and the way Joe says, the conversation must have gone something like this:

"Aggie," Joe said, "I've been thinking that it might be better, maybe, if we only saw each other two nights out of the week, instead of six."

You know how women are. Right away, she got the wrong idea and gave him the coolerator. "Why, Joe," she said, "of course—of course, if that's the way you want it."

"It's just that I have something on my mind," Joe said. "I have this thing on my mind, and in order to get rid of it, I'm working on something else."

"If you feel that your evenings might be better spent at home, Joe," Aggie said, "why, I'd be the last person in the world to discourage you."

"Aggie," Joe said, "I wish I could explain it. But I have to have something to take my mind off Turnbull's, so I have this invention—this thing I've been thinking about. I think I have it all worked out, but I need more time. It'll just be for a while, Aggie."

She seemed to like the idea of an invention, all right, Joe told me later, but when she started to ask questions about it, he wouldn't answer them. That made her more suspicious than ever. You know how women are. There are some women who want to be in on everything. So that was what started the trouble with Aggie, that one night.

Joe hadn't mentioned his invention to me, even, at first. But around the middle of the second month at Turnbull's, his spirits began to pick up. At first I thought he was just getting used to the place, but then I decided that something had happened. He would get in the car whistling, and talk and

joke all the way to work. At night it was just the same. He was getting more and more like the old Joe.

It came out one evening. Joe had a mysterious look on his face—he was whistling and grinning more than ever. When we pulled up in front of his house, he said, "Al, got a minute? Come on in. I got something to show you. I think it's terrific."

How terrific it was, I never imagined.

We went in Joe's house, and found his mother waiting supper on him. "Al," she said to me, "are you in on this foolishness too?"

"What foolishness?" I started to ask, but Joe was already down the cellar, yelling for me.

"I never heard of such foolishness," Joe's mom said.

I followed Joe down to the workshop we'd fixed up when we were in high school. We had a lot of equipment there that we'd bought with money from our paper routes, and from working at the A & P on Saturdays, and it was a fine shop. Now that we were back from the war, though, we didn't go down there much any more. So, when I went down, I'd almost forgotten about it. In fact, I wasn't expecting anything more than—well, I guess I don't know what I was expecting. Certainly nothing like what I saw.

"Look at it," Joe said proudly. "What do you think of it?"

Maybe I don't use the best English in the world, but when there's something on my mind, I can say it. Most of the time. But this time I couldn't think of a thing to say.

In the center of the floor, mounted on big wooden blocks, was a machine. And what a machine. It was about eight feet square and four feet high, and it was the most complicated-looking bunch of apparatus I've ever seen. Wheels, cogs, gears, cranks, pulleys, pistons, drive belts, conveyer arms, lights, dials, buttons, valves, switches—everything. Even a whistle.

There were so many parts in that machine I can't even begin to describe it. It was the kind of a machine a mechanic might dream about.

While I stood there looking at it, wondering what the hell it was, Joe pressed a button on the workbench. The two big wheels at the near end started turning, slowly gathering momentum. An arm reached out at one side, traveling to the other, picked up some lugs and brought them back. A green light flashed, then a red one. Joe walked over and turned a dial, and the thing began going faster, and faster. It made a

noise that shook the whole house. A whistle blew. A shuttle began popping up and down somewhere in the middle. A greased shaft slid through the mechanism and out one end, turned twice, and slid back inside. A blue light flashed, and a needle on a dial near me started climbing toward a red mark. It was the damnedest thing I ever saw.

"Joe," I said, "what the hell is it?"

He gave me a look that told me that he thought I had the brains of a shipping-room clerk. "It's a secret," he said, grinning.

"A secret?"

"Sure," said Joe. Then he laughed. "No, Al, it's no secret. That's just what I tell people—you know, we've talked about how everything these days is secret. Like X. Well, there's no secret to this machine—but then there's really nothing to this machine. It's just a machine."

"What kind of machine, Joe?"

"Hell," said Joe. "Just a complicated old machine."

"Yes, Joe," I said, patiently. "I can see it's complicated. But what does it do?"

"Do? It doesn't do anything—it runs. That's all it does. It just runs." Then, before I could answer, Joe said, "What's the matter with all you people? You, Mom, Herb next door, all of you—'What does it do?' you ask. It doesn't do anything. It's just a machine that runs. My machine. I'm the boss of it—this machine doesn't run me, Al."

When I thought I was beginning to get the idea, I asked him some more uestions. It wasn't long before I was almost as mixed up as before. Now, I think I understand—how Joe felt about X, or rather, the way X made him feel, made him want to make a machine that he could run himself. The secret business was just a gag. Well, I didn't quite get it then, so when I left Joe—he was standing there looking at it like a proud father.

On the way out, I bumped into Aggie, coming in. "Al, have you seen it?" she asked, breathlessly. "What is it, Al?"

"Aggie," I said, "I thought you were a sharp girl."

Her eyes went sort of hard. "Al, tell me!"

That got me mad, a little. "It's a secret, Aggie," I said. "I can't say anything more than Joe told me. It's a machine that runs."

She kind of tossed her head, and went on in the house. Well, I thought, that's that. I went out and got in my car and

drove down the street to my house.

As it turned out, things hadn't even started to happen. In a town the size of Parkside, you know, things get around. Maybe Joe's mom told some of her friends, and they went to see it. Maybe some of the guys at Turnbull's got wind of it. Anyhow, the word spread. People told other people, and they told still more, and pretty soon people were looking at the house when they passed by. The next thing Joe knew, there was a reporter from the Parkside Courier there to see him and his machine.

I don't know whether Joe knew he was a reporter, or not. There were so many people stopping in, all the time, that it's ten to one that he didn't. The reporter asked him a lot of questions, and Joe gave him the stock answers: for a gag, he said, 'It's a secret,' and then he said, 'It's just a machine I made in my spare time—a machine that runs.' And he tried to explain how he felt about it, very carefully.

The reporter wasn't satisfied with Joe's answers, I guess. He made up some of his own. A little color, you know. And the headline on the front page of the Courier said:

ATOMIC POWER? IT'S A SECRET

Under that, our newspaper friend went to town:

Joseph McSween, 378 Parkside Avenue, this city, has something in his cellar that might well blow the lid off the pot of science. It's a machine—but what kind of machine, McSween won't say. All he'll admit is that it's a secret machine "that runs." This reporter's guess is that the boys at Oak Ridge and Hanford had better look to their laurels. If Parkside's own Joe McSween doesn't have an atomic machine down there, I'm William L. Laurence. His attitude about his contraption makes it all the more plausible. McSween has been working on his invention for—

That's all I have to tell about the story—the guy went on from there, for about twelve paragraphs. The story carried a picture of Joe, one they dug up in the files from when he graduated from junior high. It even mentioned me—said that I was working on this atomic machine with Joe.

You know what happened next. That story was the match

that set the woods on fire. The wire services picked up the story that evening, and the next morning it was in every paper in the country. SMALL TOWN INVENTOR MAY HAVE KEY TO UNIVERSE, a New York paper said. HELP! CRIES ATOM, another screamed. If you'd have told me it was going to happen, I've have said you were crazy.

Joe called me around nine that night. "Al," he said, "did you see—?"

"Yes," I said. "And it's on the radio."

"I haven't had time to listen," Joe said. "This phone's been ringing ever since the Courier came out. Even the mayor called. Al, I'm going nuts—how could that jerk have done such a thing?"

"Joe," I said, "not everybody gets a gag. He probably thought he had a big story."

"Yeah," he said. "Boy! I try to tell them that it's all a mistake—reporters keep calling up and asking me questions—but they won't listen. They ask me questions about things I never even heard of, and when I tell them I don't know what they're talking about, they think I'm being modest. Wait, Al—there's another telegram kid at the door. I've had thirty-two telegrams."

"What're you going to do, Joe?" I asked him.

"I don't know," he said. "Every time I say something, they put more words in my mouth. And I can't—Al, I have to hang up now. That kid. Call me in the morning, Al."

That wasn't as easy as he made it sound. I tried to call him twice around eight in the morning, but got the busy signal both times. Finally I had to leave for work, so I drove up the street toward Joe's house, thinking I would pick him up. What a thought! I got as near to the house as I could, but there were a lot of cars parked there, and a small crowd around his front porch. I got out and walked over.

"What sheet you from?" a man next to me asked.

I noticed that about half the men, and some women, were toting cameras. The papers were there in full force, all right. They'd sent them down from the big cities. "I'm just a pal of Joe's," I told the guy. That wasn't smart.

"You're a friend of Joe McSween's?" he yelled. "Hey, fellows!"

They clustered all around, and asked a hundred questions: Where is McSween now? How did he do it? Is it true that

he can run a battleship with two drops of water? Did his boss really offer him three million for a quarter interest? How long have you known about it? I took it about as long as I could, then turned and ran for my car. I hopped in and drove about eight blocks down and went into a drugstore to the phone booth. Joe's number was still busy. I tried again in five minutes. No luck. Three more tries, and on the fourth I got him.

Joe's voice, very tired, said, "Well?" It was almost a growl.

"This is Al. I stopped by your house, but—"

"I know. I saw you through a crack in the blind. Al, I've been up all night. Where are you?"

I told him. "I'll try to come down," he said. "Wait there for me."

I put the phone on the hook and went over and sat down at the soda fountain. The radio was playing a dance tune, but all of a sudden the music stopped short, and an announcer cut in.

"A special bulletin from Parkside, New York," the voice said. "While the country acclaims the ingenuity and resourcefulness of young Joseph McSween, said to have invented the first real atomic machine of this atomic age, authorities in Parkside have learned that the Army will investigate McSween's project without delay. Already, Lieutenant Colonel George P. Treex, celebrated for his atomic bomb work, is speeding to Parkside by special plane. His aides are following. The—"

"The Army!" I yelled, getting up.

The soda jerker yawned. "This happens," he said.

"Why, they're out of their—" I shut up then, to hear the rest.

"—under provisions of the Challendor-Collander-Wingle-Wanger bill," the announcer was saying, "the military forces are authorized to investigate any project they consider vital to the defense of this country. It is assumed that young McSween's machine will become a government project."

"Government project!" I couldn't believe it, and shook my head.

"What else?" the soda jerk asked. "Foolin' with atoms, you know."

"—and on the floor of the Senate this morning," the radio voice was droning, "Senator Burge Fulsome declared that he would initiate a bill to allot one million dollars for measures

to guard this country's newest weapon. In the house, Representative Hayden Kratcher may introduce a bill to provide a like sum for the development of this country's security forces. 'We must protect this secret at all costs,' Representative Kratcher told reporters this morning, 'and keep it safe in the womb of democracy whence it came.' "

"What in hell—" I stopped again to listen.

"—no appropriation, thus far, for additional work on McSween's machine. A senator who refused to be quoted stated that a bill might be introduced next month, but added, 'We don't want to rush into this thing.' The invention has had far-reaching effects. In Hollywood, several firms are trying to get first rights to McSween's life story. In New York, the Stud Press has announced plans for the publication of This Is It, a story of the Atomic Machine Age. And in Parkside this morning, Mayor E. R. Risco announced he will ask the city council to appropriate thirty-seven thousand dollars for a statue to the memory of Adolph McSween, the young inventor's father. The elder McSween was killed in World War I, and the statue will show him in uniform, holding his baby son in his arms. The baby, in turn, will be clutching a full-sized atom in his fists."

I wondered if I was really sitting there at that soda fountain.

"—this network," the announcer went on, "has tried several times this morning to obtain an exclusive statement from McSween, but has succeeeded only in getting a quote from the inventor's mother. 'I knew Joseph had something down there in the cellar,' Mrs. McSween said."

A woman came in the drugstore and sat down beside me. "Hello, Al," she said in a deep voice. "Let's get out of here."

I jumped—my nerves were beginning to go. "Joe," I said, "what are you doing in that rig?" I looked at the big flowered hat, the dress, the coat with the fur collar. "How'd you get away?"

"I put on these clothes of Mom's and went out the back door into Herb's house, next to ours," Joe explained. "Then I went out his front door. I guess they thought I was his mother. Let's get out of here."

I started to pay my check, then remembered I hadn't had anything to drink. We went out and got in my car, but just as I was starting it I saw a girl walking across the street.

"Wait, Joe," I said. "Isn't that Aggie over there?"

"Yeah," said Joe, and was out of the car and across the street like a jack rabbit. I tagged along in case explanations were needed.

They were. Aggie shook off Joe, and walked on. Joe stared after her, then went up and tried to grab her arm. "I can explain everything, Aggie, if you'll just give me a chance," he said.

Aggie turned and slapped his face.

"Aggie, please—"

"Please!" she said. "Joe McSween, the idea that you would do a thing like this to me!"

"A thing like what?"

"The idea! To think that you were working on that atomic machine all the time, and you wouldn't tell me what it was! I never—"

"Aggie, it wasn't—"

"Joe McSween, you are positively the lowest, meanest—"

A crowd was beginning to collect. After all, you don't often see a guy dressed in woman's clothes arguing in the street with a girl. And you don't often hear a girl sound off the way Aggie did.

Joe stood and listened. Then he seemed to see that it was no use. Somebody, about that time, yelled. "That's McSween! The atomic guy!" Joe and I dashed across the street to my car, jumped in and drove away fast. I looked back, but Aggie didn't even look after us.

Joe just sat there as I drove along. After a while he pulled off the flowered hat and unzipped the dress, and threw them in the back seat. He sat there in his shorts. "You know, Al," he said after a while, "if I *had* invented an atomic machine, nobody would've believed me."

"Yeah," I said. By this time I was ready to believe anything. I drove out toward Cedar Hill, a little town about fifteen miles from Parkside, and on the way I stopped at a general store and Joe bought a pair of overalls. It was lucky he had brought his wallet. But he didn't say anything—just sat there with his eyes closed.

After I'd gone about thirty-five miles, Joe said, "Al, I guess I've got to make one more attempt. Let's stop at the next garage." So we did, and Joe went in and called the Parkside Courier and asked for the editor. He got him. "This is Joe McSween," he said. Then his face went blank. He turned

away from the phone and looked at me. "He slammed it in my ear. He wouldn't believe it was me. He asked me who I was trying to kid."

"My gosh," I said. "Want to try again?"

"No. Let's go back. I'll make them listen to me!"

As we were going out of the garage, a kid at one of the gas pumps said, "Can I have your autograph, Mr. McSween?"

"No, you can't," Joe snapped. "Let me alone."

It was the first time I'd ever heard Joe McSween be nasty to a kid. Boy, what this is doing to him, I thought. We drove slow, going back, and Joe said just one thing during the whole ride. "I can't figure out why Aggie would act that way," he said.

When we'd left the drugstore in Parkside it must have been around ten or ten-thirty, and now my watch said almost two. I turned down Pa kside Avenue wondering what could happen next. I didn't have to wonder long.

Off in the distance, something was going on in our block. I thought at first it was still the crowd around Joe's house, but I was wrong. If I'd have known what it was, I'd have turned around and driven like hell until we were a hundred miles away from that town. But I didn't know, so we kept on going, and as we got closer we could see that someone had erected a ba rier, or road block, cutting off our street. There was a sign on this barrier, a sign we couldn't believe at first: Military District—No Visitors.

An M.P. sergeant, armed with a pistol and a club, came over to the car. "What do you want in here?"

"I live here," Joe said. "What's going on?"

"What's your name?" the M.P. asked. He pulled a slip of paper from his pocket.

"McSween. This is Al Niles."

The M.P. looked closely at Joe, and gave me a quick glance. "Let me see your papers. Identification. Both of you."

We got out our wallets and showed him our drivers' licenses, discharge certificate photostats, and Turnbull pass cards.

"H'm," he said. Then, after studying the list a little more, he said, "I guess you're all right. You better get down to your house, McSween. You too, Niles. The colonel wants to see you. Both of you."

He wouldn't let us take the car in, so we got out and

walked down. "Al, what is all this?" Joe asked. "Are we really walking here on Parkside Avenue?"

I didn't answer—I was too busy looking at what was going on in front of Joe's house. There were three Army trucks parked there, and a bunch of M.P.s standing around outside. They looked like they meant business. One of them was nailing a sign to the front porch: TOP SECRET AREA, it said. Another one stepped forward as we approached.

"Identifications," he snarled.

We gave him the same stuff we'd given the first one, and he went in Joe's house. He was gone about two minutes. When he came out he said, "Well, Colonel Treex says you're all right, temporarily. You'll have to go down the cellar and wait there. He'll see you in about an hour."

"What is all this?" Joe asked. "*What* colonel?"

"Lieutenant Colonel George P. Treex, Investigating Officer. Just go on in," the M.P. said. "Try not to make any noise as you go through the hall. The colonel is very busy."

"Is it okay to chew my gum?" I asked.

"Look," the M.P. said, "this is serious business."

So we went in the house. The door to the front room was closed, so we went through the hall to the door to the cellar, and on down—only at the cellar door we had to show our papers to another gendarme. Halfway down the steps, as though he'd just thought of something, Joe turned around. "Al," he said, grabbing me, "what have they done to my mom?"

"My gosh," I said. We turned and ran back up the stairs and banged on the door. The M.P. opened it.

"Where's my mother, you—?" Joe asked.

The M.P. wasn't bothered. "The colonel felt it might be wise for her to move while the investigation is going on," he said. "Mrs. McSween is at the Parkside Hotel—at government expense, of course."

"How nice of the government," said Joe.

"Anything else?" asked the M.P.

"Yeah. Get the Courier on the phone and tell them to send over a sensible reporter," Joe said. "One who can understand plain English."

"I'm sorry," said the M.P., "but the colonel will not permit any newspapermen."

Joe stared, shook his head, looked at me. I stared back. We turned and went downstairs.

They had all the lights in the cellar on, and a few more besides. The place was brighter than day. Joe's machine sat there in the middle of the floor, quiet—as though it were waiting for something to happen. We sat down on the workbench and stared at the damned thing. The trouble you caused, I thought. Oh, the trouble.

"Al," said Joe, "how can I get it across to them?"

"You'll just have to tell them again. That's all you can do. You'll have to tell this colonel."

"Al, you know how colonels are," Joe muttered.

"Yeah," I said.

How this lieutenant colonel was, we found out the next minute. A voice at the head of the stairs yelled, "All right, down there!" There was silence for a second or two, then the sound of a heavy body coming down the steps. Then we had our first glimpse of Lieutenant Colonel George P. Treen.

He was some guy, all right. He looked a little like a mountain with snow on top, only with three chins. He had about four banks of ribbons and medals, including the award for marksmanship. Joe and I got off the bench. We know brass when we see it.

The colonel turned to me and said, "Glad to see you, Mr. McSween."

"That's McSween," I said, motioning at Joe. The colonel didn't look at me from there on out. And he shook hands with Joe fast, like it was something he had to get over in a hurry. After that he stood back and looked around the cellar, like he was inspecting a barracks.

"Colonel," said Joe, "I'd like to tell you, first of all, that this whole thing is a big—"

The colonel wasn't listening. He was looking at the shelves above the workbench. "Those shelves," he said. "We must get them dusted. Dust on shelves is a safety hazard, you know."

Joe's eyes popped. I said, "Yeah. Out at Turnbull's, guys get killed by falling dust every day."

The colonel didn't know I was alive. "Now, Mr. McSween," he said, "where are your reports? I'll have to study them for the inquiry. May I have them, please?"

"Reports?" Joe said. "There aren't—"

"McSween, you needn't worry about my authority," the colonel said. "I was sent here by the chief himself, acting on orders from the Secretary. Adequate security precautions will

be taken. No secrets will leak out. You can turn your papers over to me with perfect safety."

"Colonel," said Joe, "I don't care if you were sent here by the ghost of Isaac Newton." He looked strange—stranger than I'd ever seen him before.

"Please, Mr. McSween," the colonel said. "I have so many things to attend to— We must study the feasibility of throwing a radar screen around the house; we must— I'm very, very busy, you understand. Now, may I have the papers, please?"

"No, Colonel," said Joe. "And the reason is—"

The colonel's chins quivered before he interrupted. "You refuse, Mr. McSween? You defy my authority?"

"I'm not defying anything," said Joe. "I'm just telling you there are no papers. And I want to tell you something else. I—"

"What did you say?" Lieutenant Colonel Treex looked as though he couldn't believe it. "There are no papers? Plans, then?"

"No. No plans. Nothing."

"I don't understand. This isn't what I expected, at all. Mr. McSween," said the colonel, forcing a kind of military laugh, "I really can't waste time in jokes. The chief is waiting for a report. Now, could I have a demonstration, please? Just enough to give me a rough idea."

Joe walked to his workbench. "All right," he said. "You want a demonstration, I'll give you one. Maybe you'll see just why the whole thing's a—"

He flipped on the power, and the rest of his words were lost in the roar of the machine, starting off with a bang. The belts began moving back and forth, the wheels and cogs were grinding, the lights were flashing, the arm was moving across to pick up the lugs— It made a hell of a racket. It even sounded, I thought, like an honest-to-goodness atomic machine might sound.

It impressed the colonel, you could see that. "What's its capacity?" he yelled above the noise.

"Capacity for what, Colonel?" Joe yelled back.

"How much does it produce?" the colonel screamed.

"Nothing!" yelled Joe. "It doesn't produce anything!"

The colonel couldn't hear him, and motioned to him to turn off the power. "It won't produce anything, I tell you," said Joe, when the power died down. "It's not what you

think at all, Colonel. It's just a machine—just a machine I made for fun. It just runs, that's all."

The colonel shrugged, and walked to the steps. "Major Stoughton!" he shouted. "Major Brown! Lieutenant Weinberg! Lieutenant Borst! Sergeant English!"

They all came down and stood there waiting like tin soldiers. "Yes, Colonel?" one of the shavetails asked.

"What would you estimate its capacity to be?" the colonel said.

The lieutenant took a thing that looked like a fever thermometer out of his pocket, and squinted at the machine through the end of it. "About forty," he said, at last. All the other officers had pencils out and were scribbling on little pads.

The colonel nodded. "That about right, Mr. McSween?"

"Forty what?" Joe asked.

"Mr. McSween," said the colonel, "please be serious. I—"

"Shut up!" Joe's face turned suddenly red, and his breath was coming hard. "I've been trying to explain this ever since you came down here, and you won't give me a chance! I'll be serious, all right. I'll—" He picked up a wrench from the workbench, and held it like a war club.

All the office stopped scribbling.

"I'll show you!" Joe said. "I'll show your damned old atomic machine!"

And before anybody knew quite what was going on, he leaped over and raised the wrench and brought it down hard, smashing first an instrument panel, then ripping through a belt, then breaking a wheel, then splitting a cog wheel—

The colonel got over his astonishment fast. He acted—or rather, his men did. Three of them jumped Joe, two got me. Somebody yelled, "Treason!" Everybody was yelling and shouting and raising a terrific fuss, and Joe was screaming, "You can't do this! It's my machine and I'll smash it if I want to! Let me go! You're crazy! It's not an atomic machine!"

Well, they had to carry Joe upstairs. I went along, with two of them helping me. And they brought us up here and locked us in Joe's room.

He's quiet now, Joe is. As I say, I just talked the whole thing over with him, and now I have written it all down. Maybe I've left out some of the details, but I think everything is here.

Joe told me that he thinks the reason it happened is because some people are always looking for something that isn't there. He thinks maybe his gag about saying it was a secret might have been a bad idea, since nobody believed him when he told the truth. "Some people just won't take things for what they're worth," Joe said a little while ago. "I wasn't trying to make a big fuss. I just made a machine, just to get my mind off Turnbull's, and now they've taken it away from me. They'll bring in the scientists and find out the truth, but that won't make any difference. Then they'll say I tricked them. You wait and see."

Joe isn't being bitter—just philosophical, he says. He told me that the only thing he's sorry for is that he didn't give the kid back at the gas station his autograph.

So, that's the way it is. They've got Joe and me here in this room, and downstairs they're trying to repair the machine, which they still think is an atomic machine, and we aren't sure that they'll ever find out that it isn't. Maybe it'll all come out all right in the investigation. Joe and I'll get out of this mess; Joe and Aggie will get back together; Joe's mom will come back from that hotel where she's staying at government expense; and Joe and I will get out of Turnbull's and go get our jobs back again at Krug's. I say maybe. I'm not sure those things will happen—I'm just as mixed up as I was before, and I can't tell what's going to happen next.

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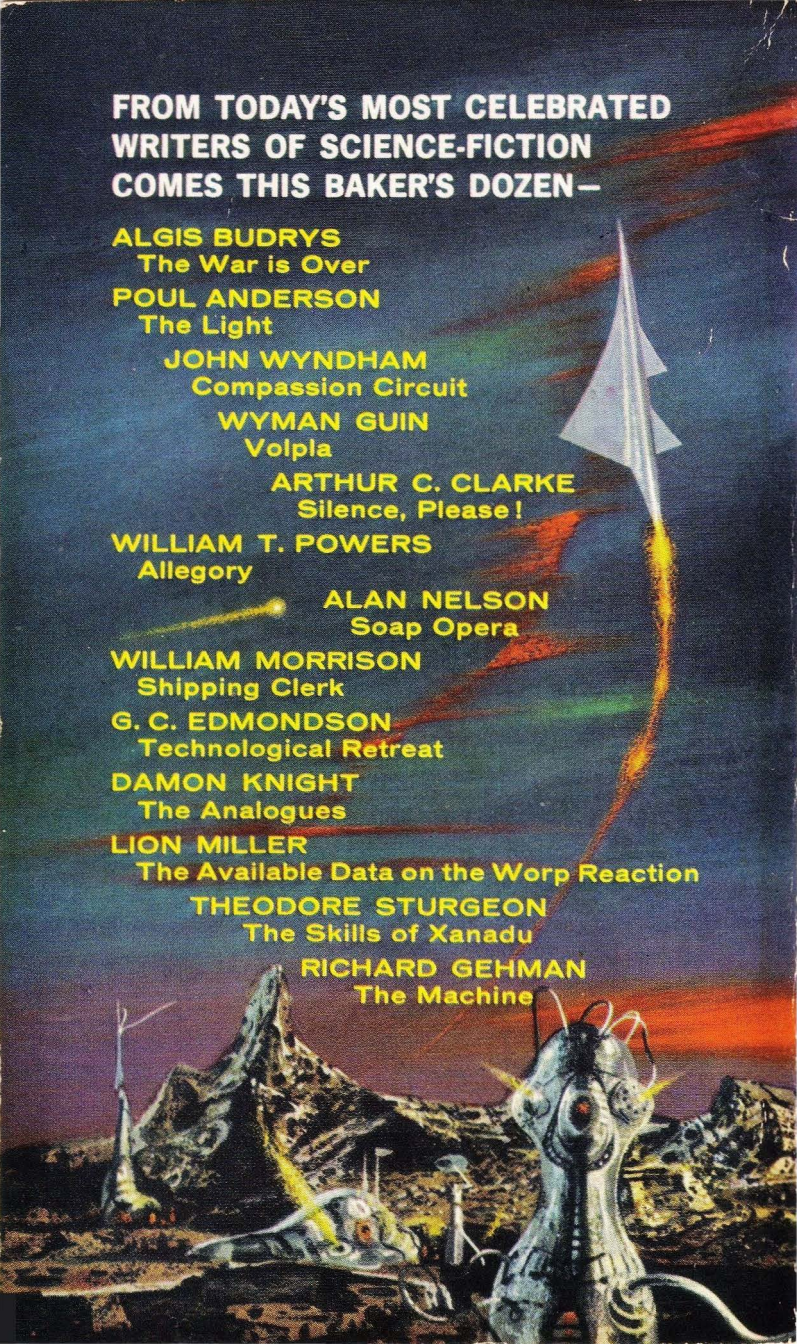
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