WORLDS OF IF SCIENCE FICTION

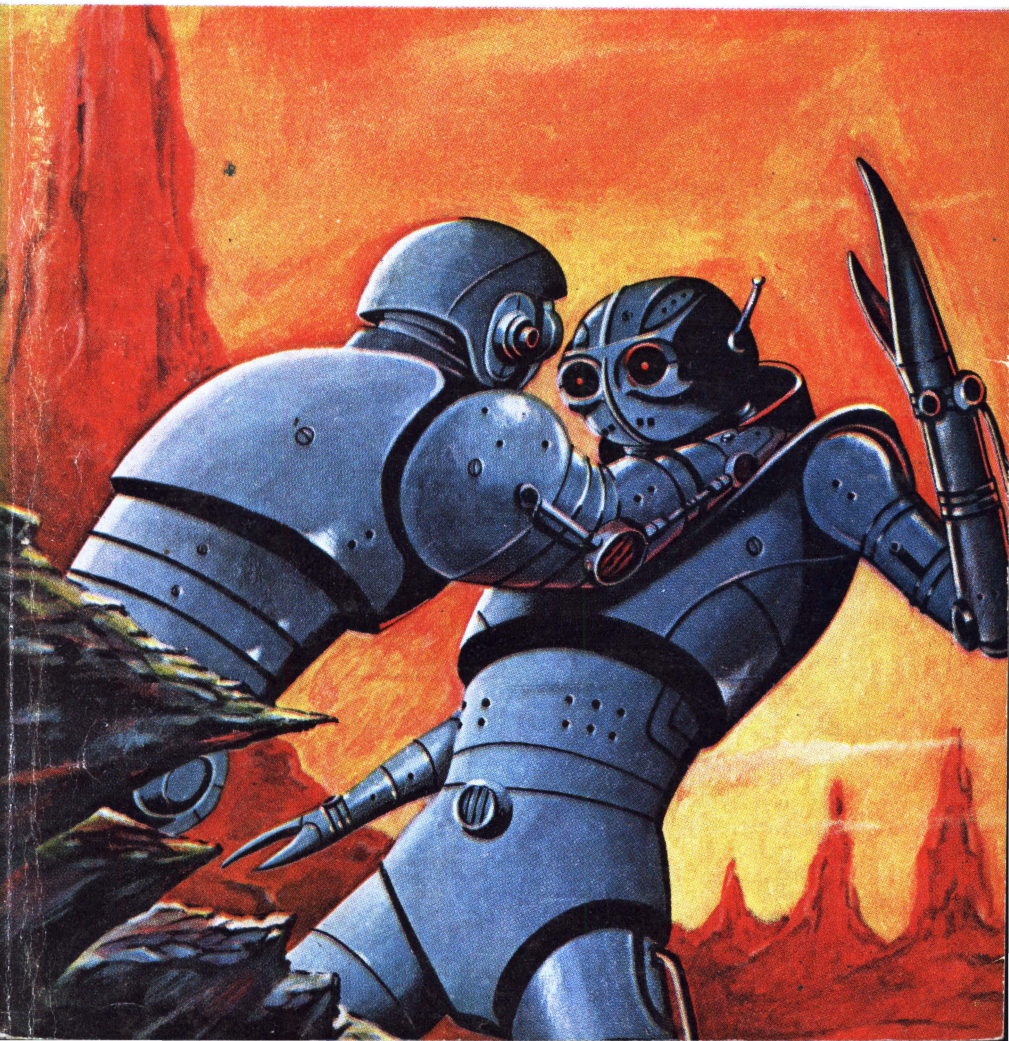
NOVEMBER 1966
50c

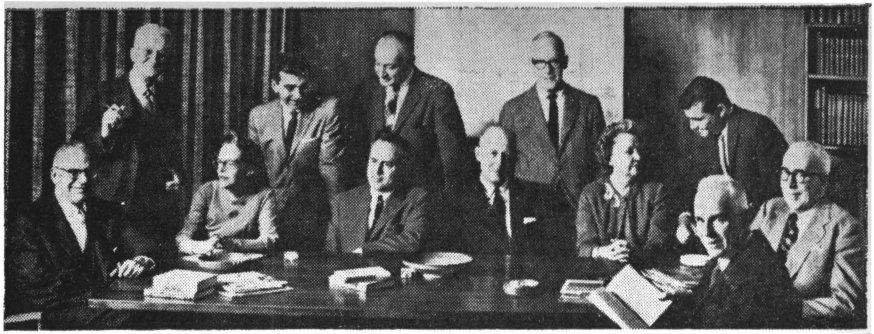
TRUCE OR CONSEQUENCES by **KEITH LAUMER**

HALFWAY HOUSE by **ROBERT SILVERBERG**

A CODE FOR SAM by **LESTER DEL RAY**

And Stories by McIntosh, MacApp and others!





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WORLDS OF IF SCIENCE FICTION

ALL NEW STORIES

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NOVELETTES
TRUCE OR CONSEQUENCES 8
by Keith Laumer
AT THE CORE 29
by Larry Niven
THE SIGN OF GREE 50
by C. C. MacApp
A CODE FOR SAM 78
by Lester del Rey

SERIAL
SNOW WHITE AND THE GIANTS 110
by J. T. McIntosh

SHORT STORIES
THE BABE IN THE OVEN 95
by John T. Sladek
HALFWAY HOUSE 100
by Robert Silverberg
HAIRRY 144
by Mike Hill
THE BOAT IN THE BOTTLE 152
by Thurlow Weed

FEATURES
EDITORIAL 4
by Frederik Pohl
SCIENCE-FICTION FANWAYS 46
by Lin Carter
HUE AND CRY 161

Cover by ADKINS from A CODE FOR SAM

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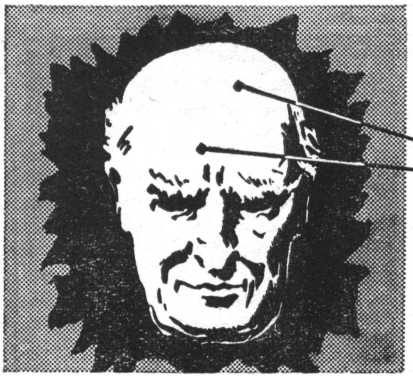
ABOUT SCIENTISTS

In the official organ of the Science Fiction Writers of America there's an article by a scientist, commenting on the descriptions of how scientists think, talk and act in science-fiction stories. (You'll be glad to know we came off pretty well — particularly such scientists as Doc Smith's "Skylark" Seaton, who gets high marks as a representative of the breed.)

Probably sf readers know a lot more than the general public about what scientists are all about, if only because so many of them are scientists (or, if still undergraduates, proto-scientists) themselves. But a batch of new books that have come across our desk recently give some interesting additional lights. Science-fiction writers will find them invaluable; the rest of us will find them just fascinating readering.

Scientists in government. Ralph E. Lapp's *The New Priesthood* (Harper & Row) has a lot to tell us about the Manhattan Project and its later ramifications. Not surprisingly, the burden of the message has to do with the failure of communication between scientists and politicians. (Were Einstein, Szilard and the other instigators of the atomic-bomb research project anxious to create a new super-weapon? Apparently not. Lapp's book makes it clear that their primary concern was that Nazi Germany might develop the weapon, and their urging of a U.S. program was viewed as a counter-measure. When the war against Germany ended they lost much of their steam, even though Japan was still fighting — since Japan was only a conventional military enemy, not likely to come up with nuclear weapons. . . . But the government officials, of course, took a simpler view: a weapon was a weapon, and the purpose of it was to employ it in warfare.) From this lack of mutual understanding arose endless troubles. Scientists disliked and were ingenious in trying to find ways around the barriers of secrecy. To the military in charge of the atomic project, this was dangerous and irreligious behavior; but the scientists were at least as unhappy with the necessity for it — Leo Szilard thought the bomb would have been operational as early as the spring of 1944 without the rigid secrecy that kept people in one laboratory from learning that people in another laboratory had already solved their problem. Even after the war, scientists and politicians still were unable to communicate. Scientists were shocked when General Groves ordered three captured Japanese research cyclotrons dumped into the Pacific Ocean — they knew the difference between a laboratory tool and an armament plant, and couldn't see why everyone else didn't know it too. When U.S. scientists



STRANGE *things happen here!*

The Dark Continents of Your Mind

DO YOU struggle for balance? Are you forever trying to maintain *energy, enthusiasm* and the *will to do?* Do your personality and power of accomplishment ebb and flow—like a stream controlled by some unseen valve? Deep within you are minute organisms. From their function spring your emotions. They govern your *creative ideas* and *moods*—yes, even your enjoyment of life. Once they were thought to be the mysterious seat of the soul—and to be left unexplored. Now cast aside superstition and learn to direct intelligently these *powers of self.*

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detected the first Russian nuclear explosion a special group of their most famous men briefed President Truman on it — and did it so badly that even years later, Truman was still in doubt as to whether the explosion had ever happened.

A couple decades later in the story, we find Daniel Lang's *An Inquiry into Enoughness* (McGraw-Hill). The dialogue is broadened here, and we find that the problems of communcation between scientists and politicians in America are matched by the problems of communication between both classes in this country and their opposite numbers on the other side of the Iron Curtain. Lang attended one of the Pugwash conferences in Dubrovnik, Yugoslavia, where U.S. and U.S.S.R. scientists, impatient with the failures of their political leaders, tried to get together on nuclear disarmament plans. But they made little headway, even on so simple a part of the problem as settling on a reasonable number of on-site inspections to enforce a test ban. A Russian named Artsimovich reported how —

> — a small group of Russian and American scientists had gone off by themselves, determined to lick the problem on a strictly scientific basis. But it hadn't worked. The Russians' calculations had led them to the conclusion that one inspection annually would be sufficient; the Americans had come up with fifty as their figure. Both answers could be defended scientifically, Artsimovich said, depending on how suspicious one considered "suspicious events". If one wanted each and every suspicious event investigated, he explained, that would mean from fifty to seventy inspections, but if one assumed, as most scientists did, that only a *series* of underground tests could have military significance, then the number of inspections need be nowhere near that high. "There is no simple relationship between the number of inspections, on the one hand, and the number of suspicious events, on the other," Artsimovich told Working Group 5. "That is what the scientific point of view shows us. Everything depends not on jointly improving detection techniques but on trust and confidence."

But in Lang's book, as indeed in Lapp's, there are signs that the opposing parties are beginning, however haltingly, to learn each other's language. "Trust and confidence" are abstractions, but the scientists are learning to quantify them — even to buttress them by technology. In that view, the "hardening" of our missile installations, marking them near-invulnerable to enemy attack, is in fact a contribution to "trust and confidence" because there is nothing like the knowledge that an opponent can retaliate to cause sober second thoughts before rash action. Lang quotes an official of the Defense Department in that connection: "Our gain in security doesn't necessarily imply a concomitant Soviet loss. That is the great distinction of all arms-control measures that aren't phony. They make for a mutual security. And if the Russians achieve survivability of their strategic mis-

siles, which might be in the next few years, the arms race may be further stabilized."

Of course, this is the stability that Oppenheimer compared to "two scorpions in a bottle" . . . but if "trust and confidence" are enhanced it seems likely enough that it is enough stability to keep us all alive.

Scientists in history. William C. Vergara's *Science, the Never-Ending Quest* (Harper & Row) starts with Eratosthenes and ends with Rutherford and Fermi; that's two thousands years and a bit, or roughly five years to a page, and naturally some of the by-ways of the march of science have got smoothed over or overlooked. But surprisingly little is left out, at that, in this account of the changes in men's scientific thought in the Age of Science, and of the men who made the great discoveries.

Written to a smaller compass, but correspondingly rich in detail (and blessed with a graceful prose style and a knack for description), Barbara Lovett Cline's *The Questioners* (Crowell) is one of the most rewarding books we've seen in some time. This is the story of the physicists whose joint monument is the quantum theory — Bohr and Pauli, Rutherford and Planck, Einstein and Heisenberg. The time is half a century ago, when the world seemed simpler and scientists were certainly poorer (their usual mode of transportation, Miss Cline records, was third-class rail carriages; they lived in small rooms and dormitories; their chief amusement was talk). Miss Cline is successful in describing what these men thought and how their views changed the face of physics, but for most of us what will stand out is the personalities involved — Dirac, who when asked if he took sugar in his tea was surprised to be further asked how many spoonsful: "sugar" was a quantum unit to him, implying *one* spoonful. Or Pauli, picking out scientific flaws in Jules Verne's early sf novels and telling his instructors they were idiots. Or Niels Bohr, skiing in Norway and brooding over Schrodinger's wave equations on the slopes. Or Gamow's practical jokes and cartoons, or Rutherford excitedly proclaiming the virtues of "the most wonderful instrument in scientific history", Wilson's newly invented cloud chamber.

Scientists studying themselves. In a Columbia University Press book edited by Aaron W. Warner, Dean Morse and Alfred S. Teichner, *The Impact of Science on Technology*, we can get some revealing insights into what scientists think of themselves, each other and the work they do. I. I. Rabi, for example, on the space program: "Scientifically the moon is not a very interesting subject. It's nowhere near the center of science. I think it comes more under the heading of exploration. The fact is that the space program does not get the best people. It's just something which is going on in the basement. It's using a lot of material. It provides headlines. But actually, it has only peripheral scientific interest, except for astronomers."

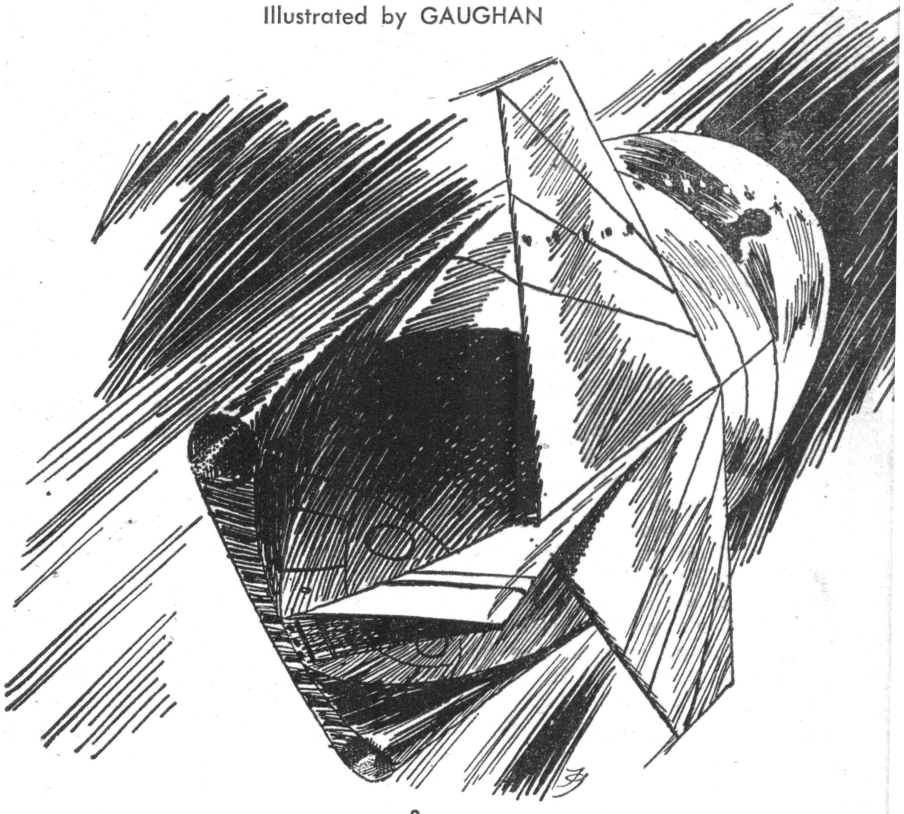
All interesting books, about interesting people, doing interesting things. We think you'll enjoy them as much as we did. . . .

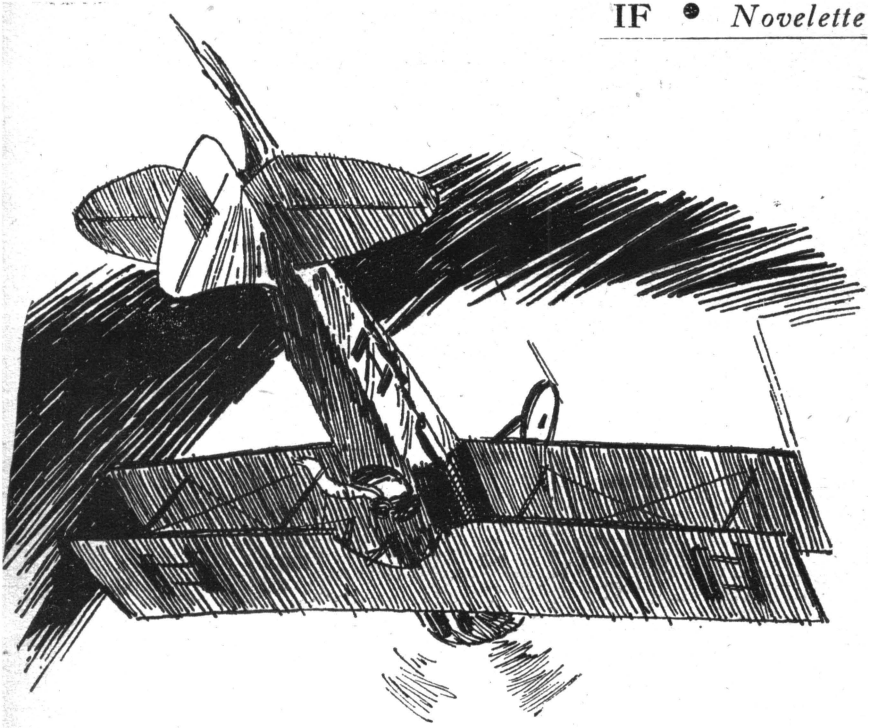
— The Editor

Truce or Consequences

by KEITH LAUMER

Illustrated by GAUGHAN





The war couldn't be stopped; Earth's diplomats couldn't be saved . . . but nobody had explained that to Retief!

I

First Secretary Jame Retief of the Terran Embassy pushed open the conference room door and ducked as a rain of plaster chips clattered down from the ceiling. The chandelier, a baroque construction of Yalcan glasswork, danced on its chain and then fell with a crash on the center of the polished greenwood table. Across the room, drapes fluttered at glassless windows which rattled in their frames in resonance with the distant *crump-crump!* of gunfire.

"Mr. Retief, you're ten minutes late for staff meeting!" a voice

sounded from somewhere. He stooped, glanced under the table. A huddle of eyes stared back.

"Ah, there you are, Mr. Ambassador, gentlemen," Retief greeted the Chief of Mission and his staff. "Sorry to be tardy, but there was a brisk little aerial dogfight going on just over the Zoological Gardens. The Gloys are putting up a hot resistance to the Blort landings this time."

"And no doubt you paused to hazard a wager on the outcome," Ambassador Biteworse snapped. "Your mission, sir, was to deliver a sharp rebuke to the Foreign Office regarding the latest violations of the Embassy! What have you to report?"

"The Foreign Minister sends his regrets. He was just packing up to leave. It looks as though the Blorts will be reoccupying the capital about dinner time."

"What, again? Just as I'm on the verge of re-establishing a working rapport with his Excellency?"

"Oh, but you have a dandy rapport with his Blortian Excellency, too." The voice of Counsellor of Embassy Magnan sounded from his position well to the rear of the group sheltered under the long board. "Remember, you were just about to get him to agree to a limited provisional preliminary symbolic partial ceasefire covering left-handed bloop guns of calibre .25 and below!"

"I'm aware of the status of the peace talks!" Biteworse cut him off. The peppery diplomat emerged, rose and dusted off the knees of his pink and green-striped satin knee-breeches, regulation early afternoon semi-informal dress for top three graders of the Corps Diplomatique Terrestrienne on duty on prenuclear worlds.

"Well, I suppose we must make the best of it." He glared at his advisors as they followed his lead, ranged themselves at the table around the shattered remains of the chandelier, while the chatter and rumble of gunfire continued outside. "Gentlemen, in the nine months since this Mission was accredited here on Plushnik II, we've seen the capital change hands four times. Under such conditions, the shrewdest diplomacy is powerless to bring to fruition our schemes for the pacification of the system. Nevertheless, today's dispatch from Sector HQ indicates that unless observable results are produced prior to the upcoming visit of the Inspectors, a drastic reassessment of personnel requirements may result — and I'm sure you know what that means!"

"Ummm. We'll all be fired." Magnan brightened at a thought. "Unless, perhaps, your Excellency points out that after all, as Chief of Mission, you're the one . . ." He paused as he noted the expression on the Biteworse features. "The one who suffered most," he finished weakly.

"I need not remind you," the Ambassador bored on relentlessly, "that alibis fail to impress visiting inspection teams! Results, gentlemen! Those are what count! Now, what proposals do I hear for new approaches to the problem of ending this fratricidal war which even now . . . "

The Ambassadorial tones were drowned by the deep-throated snarl of a rapidly approaching internal combustion engine. Glancing out the window, Retief saw a bright blue, twin-winged aircraft coming in from the northwest at tree-top level, a vivid darting form outlined against the sky-filling disc of the planet's sister world, Plushnik I. The late-afternoon sun glinted from the craft's polished wooden propeller blades. Its cowl-mounted machine guns sparkled as they hosed a stream of tracers into the street below.

"Take cover!" the military attache barked and dived for the table. At the last instant, the fighter plane banked sharply up, executed a flashy slow roll and shot away, out of sight behind the chipped tile dome of the Temple of Erudition across the park.

"This is too much!" Biteworse shrilled from his position behind a bullet-riddled filing cabinet. "That was an open, overt attack on the Chancellery! A flagrant violation of interplanetary law!"

"Actually, I think he was after a Gloian armored column in the park," Retief said. "All we got was the overkill."

"Inasmuch as you happen to be standing up, Mr. Retief," Biteworse called, "I'll thank you to put a call through on the hot line to Lib Glip at the Secretariat. I'll lodge a protest that will make his caudal cilia stand on end!"

Retief pressed buttons on the compact CDT-issue field rig which had been installed to link the Embassy to the local governmental offices. Behind him, Ambassador Biteworse addressed the staff:

"Now, while it's necessary to impress on the Premier the impropriety of shooting up a Terran Mission, we must hold something in reserve for future atrocities. I think we'll play the scene using a modified Formula Nine image: Kindly Indulgence tinged with Latent Firmness, which may at any moment crystallize into Reluctant Admonition, with appropriate overtones of Gracious Condescension."

"How would you feel about a dash of Potential Impatience, with maybe just a touch of Appropriate Reprisals?" the Military Attache suggested.

"We don't want to antagonize anyone with premature saber-rattling, Colonel," Biteworse frowned a rebuke.

"Hmm." Magnan pulled at his lower lip. "A masterful approach as you've outlined it, your Excellency. But I wonder if we mightn't add just the teeniest hint of Agonizing Reappraisal?"

Biteworse nodded approvingly. "Yes. An element of the traditional might be quite in order."

A moment later the screen cleared to reveal a figure lolling in an easy chair, splendidly clad in an iridescent Bromo-seltzer blue tunic, open over an exposed framework of leathery-looking ribs from which gaily-be-jeweled medals dangled in rows. From the braided collar, around which a leather strap was slung supporting a pair of heavy Japanese-made binoculars, a stout

neck extended, adorned along its length with varicolored patches representing auditory, olfactory and radar organs, as well as a number of other senses the nature of which was still unclear to Terran physiologists. At the tip of the stem, a trio of heavy-lidded eyes stared piercingly at the diplomats.

"General Barf!" Biteworse exclaimed. "But I was calling the Premier! How — what —"

"Evening, Hector," the general said briskly. "I made it a point to seize the Secretariat first, this trip." He brought his vocalizing organ up on the end of its tentacle to place it near the audio pick-up. "I've been meaning to give you a ring, but I'll be damned if I could remember how to operate this thing."

"General," Biteworse cut in sharply. "I've grown accustomed to a certain amount of glass breakage during these, ah, readjustment periods, but —"

"I warned you against flimsy construction," the general countered. "And I assure you, I'm always careful to keep that sort of thing at a minimum. After all, there's no telling who'll be using the facilities next, eh?"

"But this is an entirely new category of outrage!" Biteworse bored on. "I've just been bombed and strafed by one of your aircraft! The scoundrel practically flew into the room! It's a miracle I survived!"

"Now, Hector, you know there are no such things as miracles," the Blortian officer chuckled easily. "There's a perfectly natural explanation of your survival, even if it does seem a bit hard to understand at first glance."

"This is no time to haggle over metaphysics!" Biteworse shook a finger at the screen. "I demand an immediate apology, plus assurances that nothing of the sort will occur again until after my transfer!"

"Sorry, Hector," the general said calmly. "I'm afraid I can't guarantee that a few wild rounds won't be coming your way during the course of the night. This isn't a mere Commando operation this time. Now that I've secured my beachhead, I'm ready to launch my full-scale Spring Offensive for the recovery of our glorious homeland. Jumpoff will be in approximately eight hours from now; so if you'd care to synchronize chronometers —"

"An all-out offensive? Aimed at this area?"

"You have a fantastic grasp of tactics," Barf said admiringly. "I intend to occupy the North Continent first, after which I'll roll up the Gloian Divisions like carpets in all directions."

"But — my Chancellery is situated squarely in the center of the capital! You'll be carrying your assault directly across the Embassy grounds!"

"Well, Hector, I seem to recall it was you who selected the site for your quarters."

"I asked for neutral ground!" Biteworse shrilled. "I was assigned the most fought-over patch on the planet!"

"What could be more neutral than no man's land?" General Barf inquired in a reasonable tone.

II

"Gracious," Magnan whispered to Retief. "Barf sounds as though he may be harboring some devious motivation behind that open countenance."

"Maybe he has a few techniques of his own," Retief suggested. "This might be his version of the Number Twenty-three Leashed Power gambit, with a side order of Imminent Spontaneous Rioting."

"Heavens, do you suppose . . .? But he hasn't had time to learn the finer nuances. He's only been in the business for a matter of months."

"Perhaps it's just a natural aptitude for diplomacy."

"That's possible. I've observed the instinctive fashion in which he distinguishes the bonded whiskey at cocktail parties."

". . . immediate cessation of hostilities!" the Ambassador was declaring. "Now, I have a new formula, based on the battle lines of the tenth day of the third week of the Moon of Limitless Imbibing, as modified by the truce team's proposals of the second week of the Moon of Ceaseless Complaining, up-dated in accordance with Corps Policy Number 746358-b, as amended —"

"That's thoughtful of you, Hector." Barf held up a tactile member in a restraining gesture. "But as it happens, inasmuch as this will be the final campaign of the War for Liberation of the Homeland, peacemaking efforts become nugatory."

"I seem to recall similar predictions at the time of the Fall Campaign, the pre-Winter Offensive, the Winter Counter-offensive, the Post-Winter Anschluss and the Pre-Spring Push." Biteworse retorted. "Why don't you reconsider, General, before incurring a new crop of needless casualties?"

"Hardly needless, Hector. You need a few casualties to sharpen up discipline. And in any case, this time things will be different. I'm using a new technique of saturation leaflet bombing followed by intensive Victory parades, guaranteed to crumble all resistance. If you'll just sit tight —"

"Sit tight, and have the building blown down about my ears?" Biteworse cut in. "I'm leaving for the provinces at once."

"I think that would be unwise, Hector, with conditions so unsettled. Better stay where you are. In fact, you may consider that an order, under the provisions of martial law. If this seems a trifle harsh, remember, it's all in a good cause. And now I have to be moving along, Hector. I have a new custom-built VIP model armored car with air and music that I'm dying to test drive. Ta-ta." The screen blanked abruptly.

"This is fantastic!" The Ambassador stared around at his staff for corroboration of his assessment of the situation. "In the past, the opposing armies have at least made a pretense of respecting diplomatic privilege. Now they're openly proposing to make us the center of a massive combined land, sea and air strike!"

"We'll have to contact Lib Glip at once," the Political Officer said

urgently. "Perhaps we can convince him that the capital should be declared an open city."

"Sound notion, Oscar," the Ambassador agreed. He mopped at his forehead with a large monogrammed tissue. "Retief, keep trying until you reach him."

Half a minute later, the circular visage of the Gloian Foreign Minister appeared on the screen, against a background of passing shopfronts seen through a car window. Two bright black eyes peered through a tangle of thick tendrils not unlike a tangerine-dyed oil mop, capped by a leather Lindy cap with goggles.

"Hi, fellows," he greeted the Terrans airily. "Sorry to break our lunch date, Biteworse, but you know how foreign affairs are. Here today and gone to dinner, as the saying goes, I think. But never mind that. What I really called you about was —"

"It was I who called *you*!" the Ambassador broke in. "See here, Lib Glip. A highly placed confidential source has advised me that the capital is about to become the objective of an all-out Blort assault. Now, I think it only fair that your people should relinquish the city peaceably, so as to avoid a possible interplanetary incident."

"Oh, that big-mouth Barf has been at you again, eh? Well, relax, fellows. Everything's going to be okay. I have a surprise in store for those indigo indigents."

"You've decided to propose a unilateral cease-fire?" Biteworse blurted. "A magnificent gesture —"

"Are you kidding, Biteworse? Show the white feather while those usurpers are still in full possession of our hallowed mother world?" The Gloian leaned into the screen. "I'll let you in on a little secret. The retreat is just a diversionary measure to suck Barf into over extending his lines. As soon as he's poured all his available reinforcements into this dry run — whammo! I hit him with a nifty hidden-ball play around left end and land a massive expeditionary force on Blort! At one blow, I'll regain the cradle of the Gloian race and end the war once and for all!"

"I happen to be directly in the path of your proposed dry run!" Biteworse keened. "I remind you, sir, this compound is neither Gloian nor Blortian soil, but Terran!" A patch of plaster fell with a clatter as if to emphasize the point.

"Oh, we won't actually bombard the Chancellery itself. At least not intentionally. Unless, that is, Barf's troops try to use it as a sanctuary. I suggest you go down into the sub-basement; some of you may come through with hardly a scratch."

"Wait! We'll evacuate! I hereby call upon you for safe-conduct —"

"Sorry. I'll be too busy checking out on the controls of my new hand-tooled pursuit craft to arrange transport to the South Pole just now. However, after the offensive —"

"You — you'll be manning a fighter personally?"

"Yes, indeed! A beaut. Everything on it but a flush john. I handle the portfolio of Defense Minister in the War Cabinet personally, you know. And a leader's place is with his

troops at the front. Maybe not actually *at* the front," he amended. "But in the general area, you know."

"Isn't that a little dangerous?"

"Not if my G-4 reports are on the ball. Besides, I said this was an all-out effort."

"But that's what you said the last time, when you were learning how to operate that leather-upholstered tank you had built!"

"True. But this time it will be *all-out* all-out. And now I have to scoot or I'll have to flip my own prop. You won't hear from me again until after the victory, since I'm imposing total communications silence now for the duration. *Ciao.*" The alien broke the connection.

"Great galloping galaxies!" Biteworse sank into a plaster-dusted chair. "This is catastrophic! The Embassy will be devastated, and we'll be buried in the rubble!"

There was a discreet tap at the conference room door; it opened, and an apologetic junior officer peered in. "Ah . . . Mr. Ambassador. A person is here, demanding to see you at once. I've explained to him —"

"Step aside, junior," a deep voice growled. A short, thick-set man in wrinkled blues thrust through the door.

"I've got an Operational Instantaneous Utter Top Secret dispatch for somebody." He stared around at the startled diplomats. "Who's in charge?"

"I am," Biteworse barked. "These are my staff, Captain. What's this dispatch all about?"

"Beats me. I'm Merchant Service. Some Navy brass hailed me and asked me to convoy it in. Said it was important." He extracted a pink emergency message-form from a pouch and passed it across to Biteworse.

"Captain, perhaps you're unaware that I have two emergencies and a crisis on my hands already!" Biteworse looked indignant.

The sailor glanced around the room. "From the looks of this place, I'd say you had a problem, all right, Mister," he agreed. "I ran into a few fireworks myself, on the way in here. Looks like Chinese New Year out there."

"What's the nature of the new emergency?" Magnan craned to read the paper in Biteworse's hand.

"Gentlemen, this is the end," Biteworse said hollowly, looking up from the message - form. "The Inspectors are ahead of schedule. They'll be here first thing in the morning."

"My, just in time to catch the action," Magnan said.

"Don't sound so complacent, you imbecile!" Biteworse yelped. "That will be the final straw! An inspection team, here to assess the effectiveness of my pacification efforts, will be treated to the sight of a full-scale battle raging about my very doorstep!"

"Maybe we could tell them it's just the ~~l~~ocal Water Festival."

"Silence!" Biteworse screeched. "Time is running out, sir! Unless we find a solution before dawn our careers will end in ignominy!"

"If you don't mind sharing space

with a cargo of Abalonian blue-fish eggs, you can come with me," the merchantman offered over a renewed rumble of artillery. "It will only be for a couple of months, until I touch down at Adobe. I hear they've got a borax mining camp there where you can work out your board until the Spring barge convoy shows up."

"Thank you," Biteworse said coldly. "I shall keep your offer in mind."

"Don't wait too long. I'm leaving as soon as I've off-loaded."

"All right, gentlemen," the Ambassador said in an ominous tone after the captain had departed in search of coffee. "I'm ordering the entire staff to the cellars for the duration of the crisis. No one is to attempt to leave the building, of course. We must observe Barf's curfew. We'll be burning the midnight fluorescents tonight. And if by sunrise we haven't evolved a brilliant scheme for ending the war, you may all compose suitable letters of resignation — those of you who survive!"

III

In the corridor, Retief encountered his local clerk-typist, just donning a floppy beret dyed a sour orange as an expression of his political alignment.

"Hi, Mr. Retief," he greeted the diplomat glumly. "I was just leaving. I guess you know the Blorts are back in town."

"So it appears, Dil Snop. How about a stirrup cup before you go?"

"Sure. They won't have the streets cordoned off for a while yet."

In Retief's office, the clerk parked his bulging briefcase and accepted a three-finger shot of black Bacchus brandy, which he carefully poured into a pocket like a miniature marsupial's pouch. He heaved a deep sigh. "Say, Mr. Retief, when that Blue incompetent shows up, tell him not to mess with the files. I've just gotten them straightened out from the last time."

"I'll mention your desires," Retief said. "You know, Snop, it seems strange to me that you Gloians haven't been able to settle your differences with the Blorts peaceably. This skirmishing back and forth has been going on for quite a while now, with no decisive results."

"Hundreds of years, I guess," Snop nodded. "But how can you settle your differences with a bunch of treacherous, lawless, immoral, conscienceless, crooked, planet- stealing rogues like those Blorts?" Dil Snop looked amazed, an effect he achieved by rapidly entertwining the tendrils around his eyes.

"They seem harmless enough to me," Retief commented. "Just what did they do that earns them that description?"

"What haven't they done?" Dil Snop waved a jointed member. "Look at this office — a diplomatic mission! Bullet holes all over the place, shrapnel scars on the walls—"

"The shrapnel scars were made by your boys in orange the last time they took over," Retief reminded him.

"Oh. Well, these little accidents will happen in the course of foiling

the enemy's efforts to ravish our foster home — and this, mind you, sir, after they've invaded the hallowed soil of Plushnik I, swiped the entire planet and left us to scrabble for ourselves on this lousy world!"

"Seems like a pretty fair planet to me," Retief said. "And I was under the impression *this* was your homeland."

"Heck, no! This place? Pah! That —" Dil Snop pointed through the window at the looming disk of the nearby sister planet — "is my beloved ancestral stamping ground."

"Ever been there?"

"I've been along on a few invasions, during summer vacations. Just between us," he lowered his voice, "it's a little too cold and wet for my personal taste."

"How did the Blorts manage to steal it?"

"Carelessness on our part," Snop conceded. "Our forces were all over here, administering a drubbing to them, and they treacherously slipped over behind our backs and entrenched themselves."

"What about the wives and little ones?"

"Oh, an exchange was worked out. After all, they'd left their obnoxious brats and shrewish mates here on Plushnik II."

"What started the feud at first?"

"Beats me. I guess that's lost in the mists of antiquity or something." The Gloian put down his glass and rose. "I'd better be off now, Mr. Retief. My reserve unit's been called up, and I'm due at the armory in half an hour."

"Well, take care of yourself, Dil Snop. I'll be seeing you soon, I expect."

"I wouldn't guarantee it. Old Lib Glip's taken personal command, and he burns troops like joss sticks." He tipped his beret and went out. A moment later, the narrow face of Counsellor Magnan appeared at the door.

"Come along, Retief. The Ambassador wants to say a few words to the staff; everyone's to assemble in the subcellar in five minutes."

"I take it he feels that darkness and solitude will be conducive to creative thinking."

"Don't disparage the efficacy of the Deep-think technique. Why, I've already evolved half a dozen proposals for dealing with the situation."

"Will any of them work?"

Magnan looked grave. "No. But they'll look quite impressive in my personnel file during the hearings."

"A telling point, Mr. Magnan. Well, save a seat for me in a secluded corner. I'll be along as soon as I've run down a couple of obscure facts."

Retief employed the next quarter hour in leafing through back files of classified dispatch binders. As he finished, a Blort attired in shapeless blues and a flak helmet thrust his organ cluster through the door.

"Hello, Mr. Retief." he said listlessly. "I'm back."

"So you are, Kark," Retief greeted the lad. "You're early. I didn't expect you until after breakfast."

"I got shoved on the first convoy; as soon as we landed I sneaked

off to warn you. Things are going to be hot tonight."

"So I hear, Kark." A deafening explosion just outside bathed the room in green light. "Is that a new medal you're wearing?"

"Yep." The youth fingered the turquoise ribbon anchored to his third rib. "I got it for service above and beyond the call of nature." He went to the table at the side of the room, opened the drawer.

"Just what I expected," he said. "That Gloian creep didn't leave any cream for the coffee. I always leave a good supply, but does he have the same consideration? Not him. Just like an Orange."

"Kark, what do you know about the beginning of the war?"

"Eh?" The clerk looked up from his coffee preparations. "Oh, it has something to do with the founding fathers. Care for a cup? Black, of course."

"No, thanks. How does it feel to be back on good old Plushnik II again?"

"Good old? Oh, I see what you mean. Okay, I guess. Kind of hot and dry, though." The building trembled to a heavy shock. The snarl of heavy armor passing in the street shook the pictures on the walls.

"Well, I'd better be getting to work, sir. I think I'll start with the breakage reports. We're three invasions behind."

"Better skip the paperwork for now, Kark. See if you can round up a few members of the sweeping staff and get some of this glass cleaned up. We're expecting several varieties of VIP about daybreak, and we wouldn't want them to get the impression we throw wild parties."

"You're not going out, sir?" Kark looked alarmed. "Better not try it; there's a lot of loose metal flying around out there, and it's going to get worse!"

"I thought I'd take a stroll over toward the Temple of Higher Learning."

"But that's forbidden territory to any non-Plushnik." Kark looked worried, as evidenced by the rhythmic waving of his eyes.

Retief nodded. "I suppose it's pretty well guarded?"

"Not during the battle. The Gloian have called up everybody but the inmates of the amputees' ward. They're planning another of their half-baked counter-invasions. But Mr. Retief — if you're thinking what I think you're thinking, I don't think—"

"I wouldn't think of it, Kark." Retief gave the Blortian a cheery wave and went out into the deserted hall.

IV

In the twilit street, Retief glanced up at the immense orb of Plushnik I, barely 4,000 miles distant, a celestial relief map occluding half the visible sky. A slim crescent of the near-by world sparkled in full sunlight. The remainder was a pattern of lighted cities gleaming in the murk of the shadow cast as its twin transited between it and the primary.

The route of the Blortian invasion

fleet was clearly visible as a line of tiny, winking fires stretching in a loose catenary curve from the major staging areas on the neighbor world across the not quite airless void. As Retief watched, the giant disc sank visibly toward the horizon, racing in its two-hour orbit around the system's common center.

A quarter of a mile distant across the park, the high, peach-colored dome of the university library pushed up into the evening sky. The darting forms of fighter planes were silhouetted beyond it, circling each other with the agility of combative gnats. At the far end of the street, a column of gaily caparisoned Gloian armored cars raced past, in hot pursuit of a troop of light tanks flying the Blortian pennant. The sky to the north and west winked and flickered to the incessant duelling of Blue and Orange artillery. There was a sharp, descending whistle as a badly aimed shell dropped half a block away, sending a gout of pavement chips hurtling skyward. Retief waited until the air was momentarily clear of flying fragments to cross the street and head across the park.

The high walls of the Center of Learning, inset with convoluted patterns in dark-colored mosaic tile, reared up behind a dense barrier of wickedly thorned shark trees. Retief used a small pocket beamer to slice a narrow path through into the grounds, where a flat expanse of deep green lawn extended a hundred yards to the windowless structure. Retief crossed it, skirted a neatly trimmed rose bed where a stuffed dust-owl lay staring up into the night with red glass eyes. Above, a ragged scar showed in the brickwork of the sacrosanct edifice. There were dense vines on the wall at that point.

It was an easy two-minute climb to the opening, beyond which shattered glass cases and a stretch of hall were visible. Retief gave a last glance at the searchlight-swept sky and stepped inside. Dim light glowed in the distance. He moved silently along the corridor, pushed through a door into a vast room filled with racks containing the books favored by both Gloians and Blorts.

As he did, a light stabbed out and flicked across his chest, fixed on the center button of his dark green early-evening blazer.

"Don't come any farther," a reedy voice quavered. "I've got this light right in your eye and a bloop gun aimed at where I estimate your vitals to be."

"The effect is blinding," Retief said. "I guess you've got me." Beyond the feeble glow, he made out the fragile figure of an aged Gloian draped in zebra-striped academic robes.

"I suppose you sneaked in here to make off with a load of Plushniki historical treasures," the oldster charged.

"Actually I was just looking for a shady spot to load my Brownie," Retief said soothingly.

"Ah-hah! Photographing cultural secrets, eh? That's two death penalties you've earned so far. Make a false move, and it's three and out."

"You're just too sharp for me, Professor," Retief conceded.

"Well, I do my job." The ancient snapped off the light. "I think we can do without this. It gives me a splitting flurg-ache. Now, you better come along with me to the bomb shelter. Those rascally Blorts have been dropping shells into the Temple grounds, and I wouldn't want you to get hurt before the execution."

"Certainly. By the way, since I'm to be nipped in the bud for stealing information, I wonder if it would be asking too much to get a few answers before I go?"

"Hmmm. Seems only fair. What would you like to know?"

"A number of things," Retief said. "To start with, how did this war begin in the first place?"

The curator lowered his voice. "You won't tell anybody?"

"It doesn't look as though I'll have the chance."

"That's true. Well, it seems it was something like this . . ."

"And they've been at it ever since," the ancient Gloian concluded his recital. "Under the circumstances, I guess you can see that the idea of a cessation of hostilities is unthinkable."

"This has been very illuminating," Retief agreed. "By the way, during the course of your remarks, I happened to think of a couple of little errands that need attending to. I wonder if we couldn't postpone the execution until tomorrow?"

"Well — it's a little unusual. But with all this shooting going on outside, I don't imagine we could stage a suitable ceremony in any case. I suppose I could accept your parole; you seem like an honest chap, for a foreigner. But be back by lunchtime, remember. I hate these last-minute noose adjustments." His hand came up suddenly; there was a sharp zopp! and a glowing light bulb across the room *poof*!ed and died.

"All the same, it's a good thing you asked." The old curator blew across the end of his pistol barrel and tucked the weapon away.

"I'll be here," Retief assured the elder. "Now if you'd just show me the closest exit, I'd better be getting started."

The Gloian tottered along a narrow passage, opened a plank door letting onto the side garden. "Nice night," he opined, looking at the sky where the glowing vapor trails of fighter planes looped across the constellations. "You couldn't ask for a better one for — say, what *are* these errands you've got to run?"

"Cultural secrets." Retief laid a finger across his lips and stepped out into the night.

It was a brisk ten-minute walk to the Embassy garages, where the small official fleet of high-powered CDT vehicles was stored. Retief selected a fast-moving, one-man courier boat; a moment later the lift deposited the tiny craft on the roof. He checked over the instruments, took a minute to tune the tightbeam finder set to the personal code of the Gloian Chief of State and lifted off.

V

Rocketing along at fifteen hundred feet, Retief had a superb view of the fireworks below. The Blor-

tian beachhead north of town had been expanded into a wide curve of armored units poised ready for the dawn assault that was to sweep the capital clear. To the west, Gloian columns were massing for the counterstrike. At the point of juncture of the proposed assault lines, the lights of the Terran Embassy glowed.

Retief corrected course a degree and a half, still climbing rapidly, watching the quivering needles of the seek-and-find beam. The emerald and ruby glow of a set of navigation lights appeared a mile ahead, moving erratically at an angle to his course. He boosted the small flyer to match altitudes, swung in on the other craft's tail. Close now, he could discern the bright-doped, fabric-covered wings, the taut rigging wires, the brilliant Orange blazon of the Gloian national colors on the fuselage, and below them the ornate personal emblem of Marshal Lib Glip. He could even make out the goggled features of the warrior Premier gleaming faintly in the greenish light from the instrument faces, his satsuma-toned scarf streaming bravely behind him.

Retief maneuvered until he was directly above the unsuspecting craft, then peeled off and hurtled past it on the left close enough to rock the light airplane violently in the buffeting slip-stream. He came around in a hairpin turn, shot above the biplane as it banked right, did an abrupt left to pass under it, and saw a row of stars appear across the plastic canopy beside his head as the Gloian ace turned inside him, catching him with a burst from his machine guns.

Retief put the nose of the flier down, dived clear of the stream of lead, swung back and up in a tight curve, rolled out on the airplane's tail. Lib Glip, no mean pilot, put his ship through a series of vertical eights, snaprolls, immelmans and falling leaves, to no avail. Retief held the courier boat glued to his tail almost close enough to brush the wildly wig-wagging control surfaces.

After fifteen minutes of frantic evasive tactics, the Gloian ship settled down to a straight speed run. Retief loafed alongside, pacing the desperate flyer. When Lib Glip looked across at him, Retief made a downward motion of his hand and pointed at the ground. Then he eased over, placed himself directly above the bright-painted plane and edged downward.

Below, he could see Lib Glip's face, staring upward. He lowered the boat another foot. The embattled Premier angled his plane downward. Retief stayed with him, forcing him down until the racing craft was racketing along barely above the tops of the celery-shaped trees. A clearing appeared ahead. Retief dropped until his keel almost scraped the fuel tank atop Lib Glip's upper wing. The Gloian, accepting the inevitable, throttled back, settled his ship into a bumpy landing and rolled to a stop just short of a fence. Retief dropped in and skidded to a halt beside him.

The enraged Premier was already out of his cockpit, waving a large clip-fed hand-gun, as Retief popped the hatch of the boat.

"What's the meaning of this?" the Gloian yelled. "Who are you! How . . ." He broke off. "Hey, aren't you What's-his-name, from the Terry Embassy?"

"Correct." Retief nodded. "I congratulate your Excellency on your acute memory."

"What's the idea of this piece of unparalleled audacity?" the Gloian leader shrilled. "Don't you know there's a war on? I was in the middle of leading a victorious air assault on those Blortian blue-bellies—"

"Really? I had the impression your squadrons were several miles to the north, tangling with an impressive armada of Blortian bombers and what seemed to be a pretty active fighter cover."

"Well, naturally I have to stand off at a reasonable distance in order to get the Big Picture," Lib Glip explained. "That still doesn't tell me why a Terry diplomat had the unvarnished gall to interfere with my movements! I've got a good mind to blast you full of holes and leave the explanations to my Chief of Propaganda!"

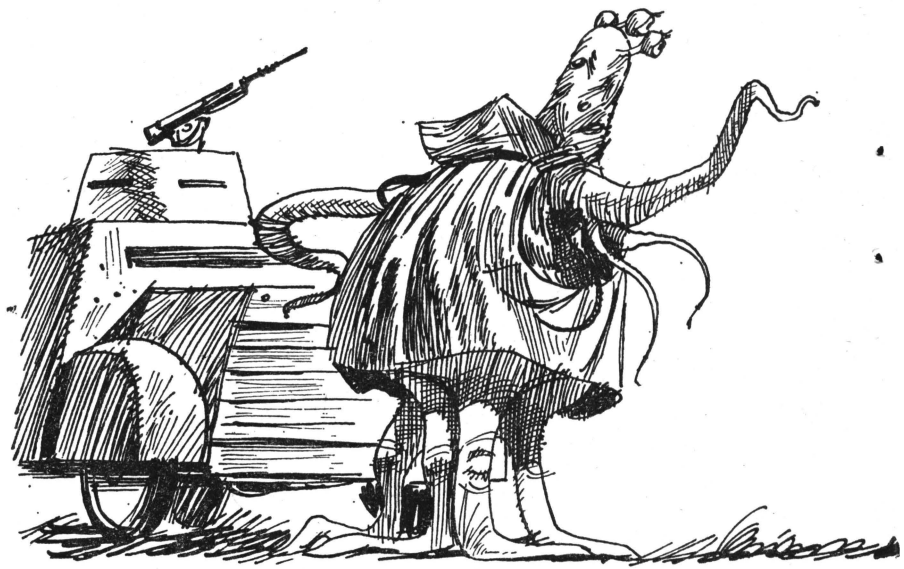
"I wouldn't," Retief suggested. "This little thing in my hand is a tight-beam blaster. Not that there's any need for such implements among friendly associates."

"Armed diplomacy?" Lib Glip choked. "I've never heard of such a thing!"

"Oh, I'm off duty," Retief said. "This is just a personal call. There's a little favor I'd like to ask of you."

"A . . . favor? What is it?"

"I'd like a ride in your airplane."



"You mean you forced me to the ground just to . . . to . . ."

"Right. And there's not much time, so I think we'd better be going."

"I've heard of airplane fanciers, but this is fantastic! Still, now that you're here, I may as well point out to you she has a sixteen cylinder V-head mill, swinging a twenty-four lamination sword-wood prop, synchronized 9mm lead-spitters, twin spotlights, low pressure tires, foam rubber seats, real instruments — no idiot lights — and a ten-coat hand-rubbed lacquer job. Sharp, eh? And wait till you see the built-in bar."

"A magnificent craft, your Excellency." Retief admired the machine. "I'll take the rear cockpit and tell you which way to steer."

"You'll tell *me* —"

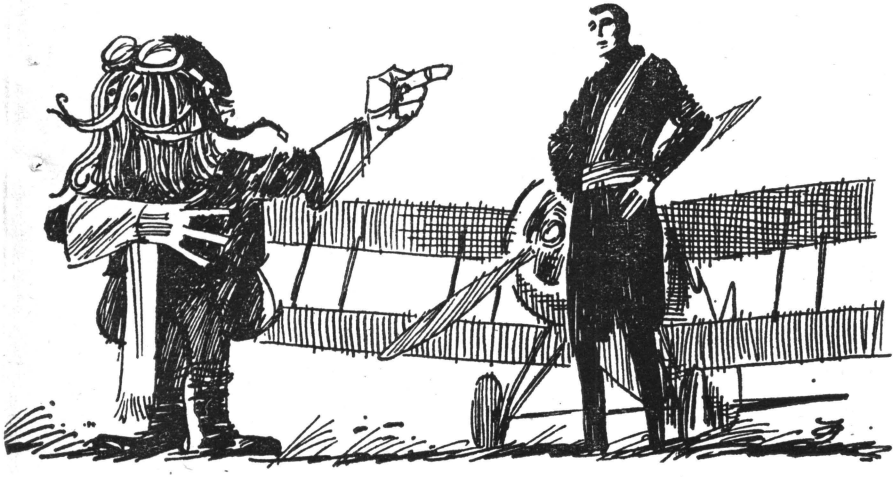
"I have the blaster, remember?"

Lib Glip grunted and climbed into his seat. Retief strapped in behind him. The Premier started up, taxied to the far end of the field, gunned the engine, and lifted off into the tracer-streaked sky.

VI

"That's him." Retief pointed to a lone vehicle perched on a hilltop above a lively fire-fight, clearly visible now against a landscape bathed in the bluish light of the newly risen crescent of Plushnik I, the lower curve of which was at the horizon, the upper almost at Zenith.

"See here, this is dangerous," Lib Glip called over the whine of air thrumming through the rigging wires as the plane glided down in a wide



spiral. "That car packs plenty of firepower, and—"

He broke off and banked sharply as vivid flashes of blue light stuttered suddenly from below. The brililant light of Plushnik I glinted from the armored car's elevated guns as they tracked the descending craft.

"Put a short burst across his bow," Retief said. "But be careful not to damage him."

"Why, that's Barf's personal car!" the Gloian burst out. "I can't fire on him, or he might — that is, we have a sort of gentleman's agreement —"

"Better do it," Retief said, watching the stream of tracers from below arc closer as Barf found the range. "Apparently he feels that at this range the agreement's not in effect."

Lib Glip angled the nose of the craft toward the car and activated the twin lead-spitters. A row of pockmarks appeared in the turf close beside the car as the plane shot low over it.

"That'll teach him to shoot without looking," Lib Glip commented.

"Circle back and land," Retief called. The Premier grumbled but complied. The plane came to a halt a hundred feet from the armored car, which turned to pin the craft down in the beams of its headlights. Lib Glip rose, holding both hands overhead, and jumped down.

"I hope you realize what you're doing," he said bitterly. "Forcing me to place myself in the hands of this barbarian is flagrant interference in Plushniki internal affairs! See here, if he's been crooked enough to offer you a bribe, I give you my word as a statesman that I'm even crookeder. I'll up his offer —"

"Now, now, your Excellency, this is merely a friendly get-together. Let's go over and relieve the general's curiosity now, before he decides to clear his guns again."

As Retief and the Gloian came up, a hatch opened at the top of the heavy car and the eye-stalk of the Blortian emerged cautiously. The three eyes looked over the situation; then the medal-hung chest of the officer appeared.

"Here, what's all this shooting?" he inquired in an irritated tone. "Is that you, Glip? Come out to arrange surrender terms, I suppose. Could have gotten yourself hurt —"

"Surrender my maternal great-aunt Bunny!" the Gloian shrilled. "I was abducted by armed force and brought here at gun-point!"

"Eh?" Barf peered at Retief. "I thought you'd brought Retief along as an impartial witness to the very liberal amnesty terms I'm prepared to offer."

"Gentlemen, if you'll suspend hostilities for just a moment or two," Retief put in, "I believe I can explain the purpose of this meeting. I confess the delivery of invitations may have been a trifle informal, but when you hear the news, I'm sure you'll agree it was well worth the effort."

"What news?" both combatants echoed.

Retief drew a heavy, fan-shaped paper from an inner pocket. "The war news," he said crisply. "I happened to be rummaging through

some old papers and came across a full account of the story behind the present conflict. I'm going to give it to the press first thing in the morning, but I felt you gentlemen should get the word first, so that you can realign your war aims accordingly."

"Realign?" Barf said cautiously.

"Story?" Lib Glip queried.

"I assume, of course, that you gentlemen are aware of the facts of history?" Retief paused, paper in hand.

"Why, ah, as a matter of fact —" Barf said.

"I don't believe I actually, er . . ." the Gloian Premier harrumphed.

"But of course, we Blort don't need to delve into the past to find cause for the present crusade for the restoration of the national honor," Barf pointed out.

"Gloy has plenty of up-to-date reasons for her determination to drive the invaders from the fair soil of her home planet," Lib Glip snorted.

"Of course. But this will inspire the troops," Retief pointed out. "Imagine how morale will zoom, Mr. Premier," he addressed the Gloian, "when it becomes known that the original Blortians were a group of government employees from Old Plushnik, en route to the new settlements here on Plushnik I and II."

"Government employees, eh?" Barf frowned. "I suppose they were high-ranking civil servants, that sort of thing?"

"No," Retief demurred. "As a matter of fact, they were prison guards, with a rank of GB 19."

"Prison guards? GB 19?" Barf growled. "Why, that's the lowest rank in the entire government payroll!"

"Certainly there can be no charge of snobbery there," Retief said in tones of warm congratulation.

A choking sound issued from Lib Glip's speaking aperture. "Pardon my mirth," he gasped. "But after all the tripe we've heard — eek-eek — about the glorious past of Blort . . ."

"And that brings us to the Gloians," Retief put in smoothly. "They, it appears, were travelling on the same vessel at the time of the outbreak — or should I say breakout?"

"Same vessel?"

Retief nodded. "After all, the guards had to have something to guard."

"You mean . . .?"

"That's right," Retief said cheerfully. "The Gloians' founding fathers were a consignment of criminals sentenced to transportation for life."

General Barf uttered a loud screech of amusement and slapped himself on the thigh.

"I don't know why I didn't guess that intuitively!" he chortled. "How right you were, Retief, to dig out this charming intelligence!"

"See here!" Lib Glip shrilled. "You can't publish defamatory information of that sort! I'll take it to court!"

"And give the whole galaxy a good laugh over the breakfast trough," Barf agreed. "A capital suggestion, my dear Glip!"

"Anyway, I don't believe it! It's a tissue of lies! A bunch of malarkey! A dirty, lousy falsehood, and a base canard!"

"Look for yourself." Retief offered the documents. Lib Glip fingered the heavy parchment, peered at the complicated characters.

"It's printed in Old Plushnik," he grumbled. "I'm afraid I never went in for dead languages."

"General?" Retief handed over the papers. Barf glanced at them and handed them back, still chuckling. "No, sorry. I'll have to take your word for it — and I do."

"Fine, then," Retief said. "There's just one other little point. You gentlemen have been invading and counter-invading now for upwards of a thousand years. Naturally in that length of time the records have grown a trifle confused. However, I believe both sides are in agreement that the original home planets have changed hands and that the Blortians are occupying Gloy territory, while the Gloians have taken over the original Blort world."

Both belligerents nodded.

"That's nearly correct," Retief said, "with just one minor correction. It isn't the planets that have changed hands. It's the identities of the participants in the war."

"Eh?"

"What did you say?"

"It's true, gentlemen," Retief said solemnly. "You and your troops, General, are descendants of the original Gloians. And your people—" he inclined his head to the Gloian Premier — "inherit the mantle of Blortship."

VII

"But this is ghastly," General Barf groaned. "I've devoted half a lifetime to instilling a correct attitude toward Gloians in my chaps. How can I face them now!"

"Me, a Blort?" Lib Glip shuddered. "Still," he said as if to himself, "we *were* the guards, not the prisoners. I suppose on the whole we'll be able to console ourselves with the thought that we aren't representatives of the criminal class."

"Criminal class!" Barf snorted. "By Pud, sir, I'd rather trace my descent from an honest victim of the venal lackeys of a totalitarian regime than to claim kinship with a pack of hireling turnkeys!"

"Lackeys, eh? I suppose that's what a pack of butter-fingered pickpockets would think of a decent servant of law and order!"

"Now, gentlemen, I'm sure these trifling differences can be settled peaceably," Retief put in.

"Ah-hah, so *that*'s it!" Barf crowed. "You've dug the family skeletons out of the closet in the mistaken belief it would force us to suspend hostilities!"

"By no means, General," Retief said blandly. "Naturally, you'll want to exchange supplies of propaganda leaflets and go right on with the crusade. But of course you'll have to swap planets, too."

"How's that?"

"Certainly. The CDT can't stand by and see the entire populations of two worlds condemned to live on, in exile on a foreign planet. I'm sure I can arrange for a fleet of

Corps transports to handle the transfer of population—"

"Just a minute," Lib Glip cut in. "You mean you're going to repatriate all us, er, Blortians to Plushnik I and give Plushnik II to those rascally, ah, Gloians?"

"Minus the slanted adjectives, a very succinct statement of affairs."

"Now, just a minute," Barf put in. "You don't expect me to actually settle down on this dust-ball full time, do you? With *my* sinus condition?"

"Me live in the midst of *that* swamp?" Lib Glip hooked a thumb skyward at the fully risen disk of the gibbous planet, where rivers and mountains, continents and seas gleamed cheerfully, reflecting the rays of the distant sun. "Why, my asthma would kill me in three weeks! That's why I've always stuck to lightning raids instead of long, drawn-out operations!"

"Well, gentlemen, the CDT certainly doesn't wish to be instrumental in undermining the health of two cooperative statesmen."

"Ah . . . how do you mean, cooperative?" Barf voiced the question.

"You know how it is, General," Retief said. "When one has impatient superiors breathing down one's neck, it's a little hard to really achieve full rapport with even the most laudable aspirations of others. However, if Ambassador Biteworse were in a position to show the inspectors a peaceful planet in the morning, it might very well influence him to defer the evacuation until further study of the question."

"But . . . my two-pronged panzer thrust," the general faltered. "The crowning achievement of my military career!"

"My magnificently coordinated one-two counterstrike!" Lib Glip wailed. "It cost me two weeks' golf to work out those logistics!"

"I might even go so far as to hazard a guess," Retief pressed on, "that in the excitement of the announcement of the armistice, I might even forget to publish my historical findings."

"Hmmm." Barf eyed his colleague. "It might be a trifle tricky, at that, to flog up the correct degree of anti-Blort enthusiasm on such short notice."

"Yes, I can foresee a certain amount of residual sympathy for Gloian institutions lingering on for quite some time," Lib Glip nodded.

"I'd still have the use of my car, of course," the general mused. "As well as my personal submarine, my plushed-up transport and my various copters, hoppers, unicycles and sedan chairs for use on rough terrain."

"I suppose it would be my duty to keep the armed forces at the peak of condition with annual War Games," Lib Glip commented. He glanced at the general. "In fact, we might even work out some sort of scheme for joint maneuvers, just to keep the recruits sharpened up."

"Not a bad idea, Glip. I might try for the single-engine pursuit trophy myself."

"Ha! Nothing you've got can touch my little beauty when it comes to close-in combat work!"

"I'm sure we can work out the

details later, gentlemen," Retief said. "I must be getting back to the Embassy now. I hope your formal joint announcement will be ready soon."

"Well . . ." Barf looked at Lib Glip. "Under the circumstances . . ."

"I suppose we can work out something," the latter assented glumly.

"I'll give you a lift back in my car, Retief," General Barf offered. "Just wait till you see how she handles!"

In the pink, light of dawn, Ambassador Biteworse and his staff waited on the breeze-swept ramp to greet the portly officials descending from the Corps lighter.

"Well, Hector," the senior member of the inspection team commented, looking around the immaculate environs of the port. "It looks as though perhaps some of those rumors we heard as to a snag in the disarmament talks were a trifle exaggerated."

Biteworse smiled blandly. "A purely routine affair."

"Actually, I think it's about time we began considering you for a more substantive post, Hector."

"That was a dirty trick, Retief, getting a pardon directly from young Lib Glip. I don't get much excitement over there in the stacks."

"Things will be better from now on," Retief assured the oldster. "I think you can expect to see the library opened to the public soon."

"Oh, boy!" the curator exclaimed. "Just what I've been urging for years! Plenty of snazzy young coeds coming in, eager to butter an old fellow up in return for a guaranteed crib-sheet! Thanks, lad!"

"Retief." Magnan plucked at his sleeve. "I've heard a number of fragmentary rumors regarding events leading up to the truce. I trust your absence from the Chancellery for an hour or two early in the evening was in no way connected with the various kidnappings, thefts, trespasses, assaults, blackmailings, breakings and enterings and other breaches of diplomatic usage said to have occurred."

"Mr. Magnan, what a suggestion!" Retief took out a fan-folded paper, began tearing it into strips.

"Sorry, Retief. By the way, isn't that a Old Plushniki manuscript you're destroying?"

"This? Why, no. It's an old Chinese menu I came across tucked in the Classified Dispatch binder." He dropped the scraps in a refuse bin.

"Oh. Well, why don't you join me in a quick bite before this morning's briefing for the inspectors? The Ambassador plans to give them his standard five-hour introductory chat, followed by a quick run-through of the voucher files —"

"No, thanks. I have an appointment with Lib Glip to check out in one of his new model pursuit ships."

"Well, I suppose you have to humor him, inasmuch as he's Premier." Magnan cocked an eye at Retief. "I confess I don't understand how it is you get on such familiar terms with these bigwigs, restricted as your official duties are to preparation of reports in quintiplicate."

"I think it's merely a sort of informal manner I adopt in meeting them," Retief said. He waved and headed across the runway to where the little ship waited. END

AT THE CORE

by LARRY NIVEN

Illustrated by ADKINS

Puppeteers never made bad bargains. If they offered a high price for a job, a wise man would turn it down!

I

I couldn't decide whether to call it a painting, a relief mural, a sculpture or a hash; but it was the prize exhibit in the Art Section of the Institute of Knowledge on Jinx. The Kdatlyno must have strange eyes, I thought. My own were watering. The longer I looked at "FTL-SPACE", the more blurred it got.

I'd tentatively decided that it was *supposed* to look blurred when a set of toothy jaws clamped gently on my arm. I jumped a foot in the air. A soft, thrilling contralto voice said, "Beowulf Shaeffer, you are a spendthrift."

That voice would have made a singer's fortune. And I thought I recognized it — but it couldn't be; *that* one was on We Made It, light-years distant. I turned.

The puppeteer had released my arm. It went on: "And what do you think of Hrodenu?"

"He's ruining my eyes."

"Naturally. The Kdatlyno are

blind to all but radar. 'FTLSPACE' is meant not to be seen but to be touched. Run your tongue over it."

"My tongue? No, thanks." I tried running my hand over it. If you want to know what it felt like, hop a ship for Jinx; the thing's still there. I flatly refuse to describe the sensation.

The puppeteer cocked its heads dubiously. "I'm sure your tongue is more sensitive. No guards are near."

"Forget it. You know, you sound just like the regional president of General Products on We Made It."

"It was he who sent me your dossier, Beowulf Shaeffer. No doubt we had the same English teacher. I am the regional president on Jinx, as you no doubt recognized from my mane."

Well, not quite. A puppeteer is best described as a three legged centaur with two flat, brainless heads mounted on long, sinuous necks. The mouths also function as hands, and very well, too. The mane, which runs from the tail forward to become an auburn mop over the brain case between the necks, is supposed to show caste once you learn to discount variations of mere style. To do that you have to be a puppeteer. Instead of admitting my ignorance, I asked, "Did that dossier say I was a spendthrift?"

"You have spent more than a million stars in the past four years."

"And loved it."

"Yes. You will shortly be in debt again. Have you thought of doing more writing? I admired your article on the neutron star BVS-1. 'The pointy bottom of a gravity well' . . . 'blue starlight fell on me like intangible sleet' . . . lovely."

"Thanks. It paid well, too. But I'm mainly a spaceship pilot."

"It is fortunate, our meeting here. I had thought of having you found. Do you wish a job?"

That was a loaded question. The last and only time I took a job from a puppeteer, the puppeteer blackmailed me into it, knowing it would probably kill me. It almost did. I didn't hold that against the regional president of We Made It. In fact, I blackmailed him back when he let it slip that the puppeteer home planet has no moon. The puppeteers, constitutional cowards all, go to great lengths to keep the galaxy-at-large from finding that world. But to let them have another crack at me —? "I'll give you a conditional Maybe. Do you have the idea I'm a professional suicide pilot?"

"Not at all. If I show details, do you agree that the information shall be confidential?"

"I do," I said formally, knowing it would commit me. A verbal contract is as binding as the tape it's recorded on.

"Good. Come." He pranced toward a transfer booth.

The transfer booth let us out somewhere in Jinx's vacuum regions. It was night. High in the sky, Sirius B was a painfully bright pinpoint casting vivid blue moonlight on a ragged lunar landscape. I looked up and didn't see Binary, Jinx's bloated orange companion planet, so we must have been in the Farside End.

But there was something hanging over us.

A #4 General Products hull is a transparent sphere a thousand-odd feet in diameter. No bigger ship has been built anywhere in the known galaxy. It takes a government to buy one, and they are used for colonization projects only. But this one could never have been so used. It was all machinery. Our transfer booth stood between two of the landing legs, so that the swelling flank of the ship looked down on us as an owl looks down at a mouse. An access tube ran through vacuum from the booth to the airlock.

I said, "Does General Products build complete spacecraft nowadays?"

"We are thinking of branching out. But there are problems."

From the viewpoint of the puppeteer-owned company, it must have seemed high time. General Products makes the hulls for ninety-five per cent of all ships in space, mainly because nobody else knows how to build an indestructible hull. But they'd made a bad start with this ship. The only room I could see for crew, cargo or passengers was a few cubic yards of empty space right at the bottom, just above the airlock. And it seemed to be just big enough for a pilot.

"You'd have a hard time selling that," I said.

"True. Do you notice anything else?"

"Well . . . ." The hardware which filled the transparent hull was very tightly packed. The effect was as if a race of ten-mile-tall giants had striven to achieve miniaturization. I saw no sign of access tubes; hence there could be no in-space repairs. Four reaction motors poked their appropriately huge nostrils through the hull, angled outward from the bottom. No small attitude jets; hence, oversized gyros inside. Otherwise . . . . "Most of it looks like hyperdrive motors. But that's silly. Unless you've thought of a good reason for moving moons around?"

"At one time you were a commercial pilot for Nakamura Lines. How long was the run from Jinx to We made It?"

"Twelve days if nothing broke down." Just long enough to get to know the prettiest passenger aboard, while the autopilot did everything for me but wear my uniform.

"Sirius to Procyon is a distance of four light-years. Our ship would be able to make the trip in five minutes."

"You've lost your mind."

"No."

But — that was almost a light-year per minute! I couldn't visualize it. Then suddenly I did visualize it, and my mouth fell open, for what I saw was the galaxy opening before me. We know so little beyond our own small neighborhood of the galaxy. But with a ship like that —!

"That's goddam fast."

"As you say. But the equipment is bulky, as you note. It cost seven billion stars to build that ship, discounting centuries of research, but it will only move one man. As is, the ship is a failure. Shall we go inside and take a look?"

II

The lifesystem was two circular rooms, one above the other, with a small airlock to one side. The lower room was the control room, with banks of switches and dials and blinking lights dominated by a huge spherical mass pointer. The upper room was bare walls, transparent, through which I could see air- and food-producing equipment.

"This will be the relaxroom," said the puppeteer. "We decided to let the pilot decorate it himself."

"Why me?"

"Let me further explain the problem." The puppeteer began to pace the floor. I hunkered down against the wall and watched. Watching a puppeteer move is a pleasure. Even in Jinx's gravity the deerlike body seemed weightless, the tiny hooves tapping the floor at random. "The human sphere of colonization is some thirty light-years across, is it not?"

"Maximum. It's not exactly a sphere —"

"The puppeteer region is much smaller. The Kdatlyno sphere is half the size of yours, and the kzinti is fractionally larger. These are the important space-traveling species. We must discount the Outsiders since they do not use ships. Some spheres coincide, naturally. Travel from one sphere to another is nearly nil except for ourselves, since our sphere of influence extends to all who buy our hulls. But add all these regions, and you have a region sixty light-years across. This ship could cross it in seventy-five minutes. Allow six hours for takeoff and six for landing, assuming no traffic snarls near the world of destination, and we have a ship which can go anywhere in thirteen hours but nowhere in less than twelve, carrying one pilot and no cargo, costing seven billion stars."

"How about exploration?"

"We puppeteers have no taste for abstract knowledge. And how should we explore?" Meaning that whatever race flew the ship would gain the advantages thereby. A puppeteer wouldn't risk his necks by flying it himself. "What we need is a great deal of money and a gathering of intelligences, to design something which *may* go slower but *must* be less bulky. General Products does not wish to spend so much on something that may fail. We will require the best minds of each sentient species and the richest investors. Beowulf Shaeffer, we need to attract attention."

"A publicity stunt?"

"Yes. We wish to send a pilot to the center of the galaxy and back."

"Ye . . . gods! Will it go *that* fast?"

"It would require some twenty-five days to reach the center and an equal time to return. You can see the reasoning behind —"

"It's perfect. You don't need to spell it out. Why me?"

"We wish you to make the trip and then write of it. I have a list of pilots who write. Those I have approached have been reluctant. They say that writing on the ground is safer than testing unknown ships. I follow their reasoning."

"Me too."

"Will you go?"

"What am I offered?"

"One hundred thousand stars for the trip. Fifty thousand to write the story, in addition to what you sell it for."

"Sold."

From then on, my only worry was that my new boss would find out that someone had ghostwritten that neutron star article.

Oh, I wondered at first why General Products was willing to trust me. The first time I worked for them I tried to steal their ship, for reasons which seemed good at the time. But the ship I now called *Long Shot* really wasn't worth stealing. Any potential buyer would know it was hot; and what good would it be to him? *Long Shot* could have explored a globular cluster; but her only other use was publicity.

Sending her to the Core was a masterpiece of promotion.

Look: it was twelve days from We Made It to Jinx by conventional craft, and twelve hours by *Long Shot.* What's the difference? You spent twelve years saving for the trip. But the Core! Ignoring refueling and reprovisioning problems, my old ship could have reached the galaxy's core in three hundred years. No known species had ever *seen* the Core! It hid behind layer on layer of tenuous gas and dust clouds. You can find libraries of literature on those central stars, but they all consist of generalities and educated guesses based on observation of other galaxies, like Andromeda.

Three centuries dropped to less than a month! There's something anyone can grasp. And with pictures!

The lifesystem was finished in a couple of weeks. I had them leave the control room walls transparent and paint the relaxroom solid blue, no windows. When they finished I had entertainment tapes and everything it takes to keep a man sane for seven weeks in a room the size of a large closet.

On the last day the puppeteer and I spoke the final version of my contract. I had four months to reach the galaxy's center and return. The outside cameras would run constantly; I was not to interfere with them. If the ship suffered a mechanical failure I could return before reaching the center, otherwise, no. There were penalties. I took a copy of the tape to leave with a lawyer.

"There is a thing you should know," the puppeteer said afterward. "The direction of thrust opposes the direction of hyperdrive."

"I don't get it."

The puppeteer groped for words. "If you turned on the reaction motors and the hyperdrive together, the flames would precede your ship through hyperspace."

I got the picture then. Backward into the unknown. With the control room at the ship's bottom, it made sense. To a puppeteer, it made sense.

III

And I was off.

I went up under two standard gees because I like my comfort. For twelve hours I used only the reaction motors. It wouldn't do to be too deep in a gravity well when I

used a hyperdrive, especially an experimental one. Pilots who do that never leave hyperspace. The relaxroom kept me entertained until the bell rang. I slipped down to the control room, netted myself down againss free fall, turned off the motors, rubbed my hands briskly together, and turned on the hyperdrive.

It wasn't quite like I'd expected.

I couldn't see out, of course. When the hyperdrive goes on it's like your blind spot expanding to take in all the windows. It's not just that you don't see anything; you forget that there's anything to see. If there's a window between the kitchen control bank and your print of Dali's "Spain", your eye and mind will put the picture right next to the kitchen bank, obliterating the space between. It takes getting used to, in fact it has driven people insane, but that wasn't what bothered me. I've spent thousands of man-hours in hyperspace. I kept my eye on the mass pointer.

The mass pointer is a big transparent sphere with a number of blue lines radiating from the center. The direction of the line is the direction of a star; its length shows the star's mass. We wouldn't need pilots if the mass pointer could have been hooked into an autopilot, but it can't. Dependable as it is, accurate as it is, the mass pointer is a psionic device. It needs a mind to work. I'd been using mass pointers for so long that those lines were like real stars.

A star came toward me, and I dodged around it. I thought that another line that didn't point *quite* straight ahead was long enough to show dangerous mass, so I dodged. That put a blue dwarf right in front of me. I shifted fast and looked for a throttle. I wanted to slow down.

Repeat, *I wanted to slow down.*

Of course there was no throttle. Part of the puppeteer research project would be designing a throttle. A long, fuzzy line reached for me: a protosun . . . .

Put it this way: imagine one of Earth's freeways. You must have seen pictures of them from space, a tangle of twisting concrete ribbons, empty and abandoned but never torn down. Some lie broken; others are covered with houses. People use the later rubberized ones for horseback riding. Imagine the way one of these must have looked about six o'clock on a week night in, say, nineteen seventy. Groundcars from end to end.

Now, let's take all these cars and remove the brakes. Further, let's put governors on the accelerators, so that the maximum speeds are between sixty and seventy miles per hour, not all the same. Let something go wrong with all the governors at once, so that the maximum speed also becomes the minimum. You'll begin to see signs of panic . . . .

Ready? Okay. Get a radar installed in your car, paint your windshield and windows jet black, and get out on that freeway.

It was like that.

It didn't seem so bad at first. The stars kept coming at me, and I kept dodging, and after awhile it settled down to a kind of routine. From experience I could tell at a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glance whether a star was heavy enough and close enough to wreck me. But in Nakamura Lines I'd only had to take that glance every six hours or so. Here I didn't dare look away. As I grew tired the near-misses came closer and closer. After three hours of it I had to drop out.

The stars had a subtly unfamiliar look. With a sudden jar I realized that I was entirely out of known space. Sirius, Antares — I'd never recognize them from here; I wasn't even sure they were visible. I shook it off and called home.

"*Long Shot* calling General Products, *Long Shot* calling —"

"Beowulf Shaeffer?"

"Have I ever told you what a lovely, sexy voice you have?"

"No. Is everything going well?"

"I'm afraid not. In fact, I'm not going to make it."

A pause. "Why not?"

"I can't keep dodging these stars forever. One of them's going to get me if I keep on much longer. The ship's just too goddam fast."

"Yes. We must design a slower ship."

"I hate to give up that good pay, but my eyes feel like peeled onions. I ache all over. I'm turning back."

"Shall I play your contract for you?"

"No. Why?"

"Your only legal reason for returning is a mechanical failure. Otherwise you forfeit twice your pay. Jinx has recently adopted the debtor's prison."

I said, "Mechanical failure?" There was a tool box somewhere in the ship, with a hammer in it ....

"I did not mention it before, since it did not seem polite, but two of the cameras are in the lifesystem. We had thought to use films of you for purposes of publicity, but —"

"I see. Tell me one thing, just one thing. When the regional president of We Made It sent you my name, did he mention that I'd discovered your planet has no moon?"

"Yes, he did mention that matter. You accepted one million stars for your silence. He naturally has a recording of the bargain."

"I see." So that's why they'd picked Beowulf Shaeffer, well known author. "The trip'll take longer than I thought."

"You must pay a penalty for every extra day over four months. Two thousand stars per day late."

"Your voice has acquired an unpleasant grating sound. Good-by."

I went on in. Every hour I shifted to normal space for a ten-minute coffee break. I dropped out for meals, and I dropped out for sleep. Twelve hours per ship's day I spent traveling, and twelve trying to recover. It was a losing battle.

By the end of day two I knew I wasn't going to make the four month limit. I might do it in six months, forfeiting one hundred and twenty thousand stars, leaving me almost where I started. Serve me right for trusting a puppeteer!

Stars were all around me, shining through the floor and between the banked instruments. I sucked coffee, trying not to think. The milky way shone ghostly pale between my feet. The stars were thick now; they'd get

thicker as I approached the Core, until finally one got me.

An idea! And about time, too.

The golden voice answered immediately. "Beowulf Shaeffer?"

"There's nobody else here, honey. Look, I've thought of something. Would you send —"

"Is one of your instruments malfunctioning, Beowulf Shaeffer?"

"No, they all work fine, as far as they go. Look —"

"Then what could you possibly have to say that would require my attention?"

"Honey, now is the time to decide. Do you want revenge, or do you want your ship back?"

A small silence. Then, "You may speak."

"I can reach the Core must faster if I first get into one of the spaces between the arms. Do we know enough about the galaxy to know where our arm ends?"

"I will send to the Institute of Knowledge to find out."

"Good."

Four hours later I was dragged from a deathlike sleep by the ringing of the hyperphone. It was not the president, but some flunky. I remembered calling the puppeteer Honey last night, tricked by my own exhaustion and that seductive voice, and wondered if I'd hurt his puppeteer feelings. "He" might be male; a puppeteer's sex is one of his little secrets. The flunky gave me a bearing and distance for the nearest gap between stars.

It took me another day to get there. When the stars began to thin out I could hardly believe it. I turned off the hyperdrive, and it was true. The stars were tens and hundreds of light-years apart. I could see part of the Core peeking in a bright rim above the dim flat cloud of mixed dust and stars.

IV

From then on it was better. I was safe if I glanced at the mass pointer every ten minutes or so. I could forget the rest breaks, eat meals and do isometrics while watching the pointers. For eight hours a day I slept, but during the other sixteen I moved. The gap swept toward the Core in a narrowing curve, and I followed it.

As a voyage of exploration the trip would have been a fiasco. I saw nothing; I stayed well away from anything worth seeing. Stars and dust, anomalous whispy clusters shining in the dark of the gap, invisible indications that might have been stars — my cameras picked them up from a nice, safe distance, showing tiny blobs of light. In three weeks I moved seventeen thousand light-years toward the Core.

The end of those three weeks was the end of the gap. Before me was an uninteresting wash of stars backed by a wall of opaque dust clouds. I still had thirteen thousand light-years to go before I reached the center of the galaxy.

I took some pictures and moved in.

Ten minute breaks, mealtimes that grew longer and longer for the rest they gave, sleep periods that left my eyes red and burning. The stars were

thick, and the dust was thicker, so that the mass pointer showed a blur of blue broken by sharp blue lines. The lines began to get less sharp. I took breaks every half hour . . . .

Three days of that.

It was getting near lunchtime on the fourth day. I sat watching the mass pointer, noting the fluctuations in the blue blur which showed the changing density of the dust around me. Suddenly it faded out completely. Great! Wouldn't it be nice if the mass pointer went out on me? But the sharp starlines were still there, ten or twenty of them pointing in all directions. I went back to steering. The clock chimed to indicate a rest period. I sighed happily and dropped into normal space.

The clock showed I had half an hour to wait for lunch. I thought about eating anyway, decided against it. The routine was all that kept me going. I wondered what the sky looked like, reflexively looked up so I wouldn't have to look down at the transparent floor. That big an expanse of hyperspace is hard even on trained eyes. I remembered I wasn't in hyperspace and looked down.

For a time I just stared. Then, without taking my eyes off the floor, I reached for the hyperphone.

"Beowulf Shaeffer?"

"No, this is Albert Einstein. I stowed away when the *Long Shot* took off, and I've decided to turn myself in for the reward."

"Giving misinformation is an implicit violation of contract. Why have you called?"

"I can see the Core."

"That is not a reason to call. It was implicit in your contract that you would see the Core."

"Dammit, don't you care? Don't you want to know what it looks like?"

"If you wish to describe it now, as a precaution against accident, I will switch you to a dictaphone. However, if your mission is not totally successful, we cannot use your recording."

I was thinking up a really searing answer when I heard the click. Great, my boss had hooked me into a dictaphone. I said one short sentence and hung up.

The Core.

Gone were the obscuring masses of dust and gas. A billion years ago they must have been swept up for fuel by the hungry, crowded stars. The Core lay before me like a great jeweled sphere. I'd expected it to be a gradual thing, a thick mass of stars thinning out into the arms. There was nothing gradual about it. A clear ball of multicolored light five or six thousand light-years across nestled in the heart of the galaxy, sharply bounded by the last of the dust clouds. I was ten thousand four hundred light-years from the center.

The red stars were the biggest and brightest. I could actually pick some of them out as individuals. The rest was a finger painting in fluorescent green and blue. But those red stars . . . they would have sent Aldebaran back to kindergarten.

It was all so *bright*. I needed the telescope to see black between the stars . . . .

I'll *show* you how bright it was.

Is it night where you are? Step outside and look at the stars. What color are they? Antares may show red, if you're near enough; in the System, so will Mars. Sirius may show bluish. But all the rest are white pinpoints. Why? Because it's *dark*. Your day vision is in color, but at night you see black-and-white, like a dog.

The Core suns were bright enough for color vision.

I'd pick a planet here! Not in the Core itself, but right out here, with the Core on one side and on the other, the dimly starred dust clouds forming their strange convoluted curtain. Man, what a view! Imagine that flaming jeweled sphere rising in the east, hundreds of times as big as Binary shows on Jinx, but without the constant feeling Binary gives you, the fear that the orange world will fall on you; for the vast, twinkling Core is only starlight, lovely and harmless. I'd pick my world *now* and stake a claim. When the puppeteers got their drive fixed up, I'd have the finest piece of real estate in the known universe! If I could only find a habitable planet.

If only I could find it twice.

Hell, I'd be lucky to find my way *home* from here. I shifted into hyperspace and went back to work.

V

An hour and fifty minutes, one lunch break and two rest breaks, and fifty light-years later, I noticed something peculiar in the Core.

It was even clearer then, if not much bigger; I'd passed through the almost transparent wisps of the last dust cloud. Not too near the center of the sphere was a patch of white, bright enough to make the green and blue and red look dull around it. I looked for it again at the next break, and it was a little brighter. It was brighter again at the next break ....

"Beowulf Shaeffer?"

"Yah. I —"

"Why did you use the dictaphone to call me a cowardly, two-headed, monster?"

"You were off the line. I *had* to use the dictaphone."

"That is sensible. Yes. We puppeteers have never understood your attitude toward a natural caution." My boss was peeved, though you couldn't tell from his voice.

"I'll go into that if you like, but it's not why I called."

"Explain, please."

"I'm all for caution. Discretion is the better part of valor, and like that. You can even be good businessmen, because it's easier to survive with lots of money. But you're so damn concerned with various kinds of survival that you aren't even interested in something that isn't a threat. Nobody but a puppeteer would have turned down my offer to describe the Core."

"You forget the kzinti."

"Oh, the kzinti." Who expects rational behavior from kzinti? You whip them when they attack, you reluctantly decide not to exterminate them, you wait till they build up their strength, and when they attack you whip 'em again. Meanwhile you sell them food-stuffs and buy their

metals and employ them where you need good games theorists. It's not as if they were a real threat. They'll *always* attack before they're ready.

"The kzinti are carnivores. Where we are interested in survival, carnivores are interested in meat alone. They conquer because subject peoples can supply them with food. They cannot do menial work. Animal husbandry is alien to them. They must have slaves or be barbarians roaming the forests for meat. Why should they be interested in what you call abstract knowledge? Why should any thinking being, if the knowledge has no chance of showing a profit? In practice, your description of the Core would attract only an omnivore."

"You'd make a good case, if it were not for the fact that most sentient races are omnivores."

"We have thought long and hard on that."

Ye cats. I was going to have to think long and hard on *that.*

"Why did you call. Beowulf Shaeffer?"

Oh, yeah. "Look I know you don't want to know what the Core looks like, but I see something that might represent personal danger. You have access to information I don't. May I proceed?"

"You may."

Hah! I was learning to think like a puppeteer. Was that good? I told my boss about the blazing, strangely shaped white patch in the Core. "When I turned the telescope on it, it nearly blinded me. Grade two sunglasses don't give any details at all. It's just a shapeless white patch, but so bright that the stars in front look like black dots with colored rims. I'd like to know what's causing it."

"It sounds very unusual." Pause. "Is the white color uniform? Is the brightness uniform?"

"Just a sec." I used the scope again. "The color is, but the brightness isn't. I see dimmer areas inside the patch. I think the center is fading out."

"Use the telescope to find a nova star. There ought to be several in such a large mass of stars."

I tried it. Presently I found something: a blazing disk of a peculiar blue-white color with a dimmer, somewhat smaller red disc half in front of it. That *had* to be a nova. In the core of Andromeda galaxy, and in what I'd seen of our own Core, the red stars were the biggest and brightest.

"I've found one."

"Comment."

A moment more and I saw what he meant. "It's the same color as the patch. Something like the same brightness, too. But what could make a patch of supernovas go off all at once?"

"You have studied the Core. The stars of the Core are an average of half a light-year apart. They are even closer near the center, and no dust clouds dim their brightness. When stars are that close they shed enough light on each other to materially increase each other's temperature. Stars burn faster and age faster in the Core."

"I see that."

"Since the Core stars age faster, a much greater portion are near the supernova stage than in the arms. Also, all are hotter considering their respective ages. If a star were a few millenia from the supernova stage, and a supernova exploded half a light-year away, estimate the probabilities."

"They might both blow. Then the two could set off a third, and the three might take a couple more . . ."

"Yes. Since a supernova lasts on the order of one human standard year, the chain reaction would soon die out. Your patch of light must have occurred in this way."

"That's a relief. Knowing what did it, I mean. I'll take pictures going in."

"As you say." Click.

The patch kept expanding as I went in, still with no more shape than a veil nebula, getting brighter and bigger. It hardly seemed fair, what I was doing. The light which the patch novas had taken fifty years to put out, I covered in an hour, moving down the beam at a speed which made the universe itself seem unreal. At the fourth rest period I dropped out of hyperspace, looked down through the floor while the cameras took their pictures, glanced away from the patch for a moment, and found myself blinded by tangerine afterimages. I had to put on a pair of grade one sunglasses, out of the packet of twenty which every pilot carries for working near suns during takeoff and landing.

It made me shiver, to think that the patch was still nearly ten thousand light-years away. Already the radiation must have killed all life in the Core, if there ever had been life there.

My instruments on the hull showed radiation like a solar flare.

At the next stop I needed grade two sunglasses. Somewhat later, grade three. Then four. The patch became a great bright amoeba reaching twisting tentacles of fusion fire deep into the vitals of the Core. In hyperspace the sky was jammed bumper to bumper, so to speak; but I never thought of stopping. As the Core came closer the Patch grew like something alive, something needing ever more food. I think I knew, even then.

Night came. The control room was a blaze of light. I slept in the relaxroom, to the tune of the laboring temperature control. Morning, and I was off again. The radiation meter snarled its death song, louder during each rest break. If I'd been planning to go outside I would have dropped that plan. Radiation couldn't get through a General Products hull. Nothing else does, either, except visible light.

I spent a bad half hour trying to remember whether one of the puppeteers' customers saw X rays. I was afraid to call up and ask.

The mass pointer began to show a faint blue blur. Gases thrown outward from the patch. I had to keep changing sunglasses . . .

Sometime during the morning of the next day, I stopped.

There really was no point in going further.

"Beowulf Shaeffer, have you become attached to the sound of my voice? I have other work than supervising your progress."

"I would like to deliver a lecture on abstract knowledge!

"Surely it can wait until your return."

"The galaxy is exploding."

There was a strange noise. Then: "Repeat, please."

"Have I got your attention?"

"Yes."

"Good. I think I know the reason so many sentient races are omnivores. Interest in abstract knowledge is a symptom of pure curiosity. Curiosity must be a survival trait."

"Must we discuss this? Very well. You may well be right. Others have made the same suggestion, including puppeteers. But how has our species survived at all?"

"You must have some substitute for curiosity. Increased intelligence, maybe. You've been around long enough to develop it. Our hands can't compare with your mouths for tool building. If a watchmaker had taste and smell in his hands, he still wouldn't have the strength of your jaws or the delicacy of those knobs around your lips. When I want to know how old a sentient race is, I watch what he uses for hands and feet."

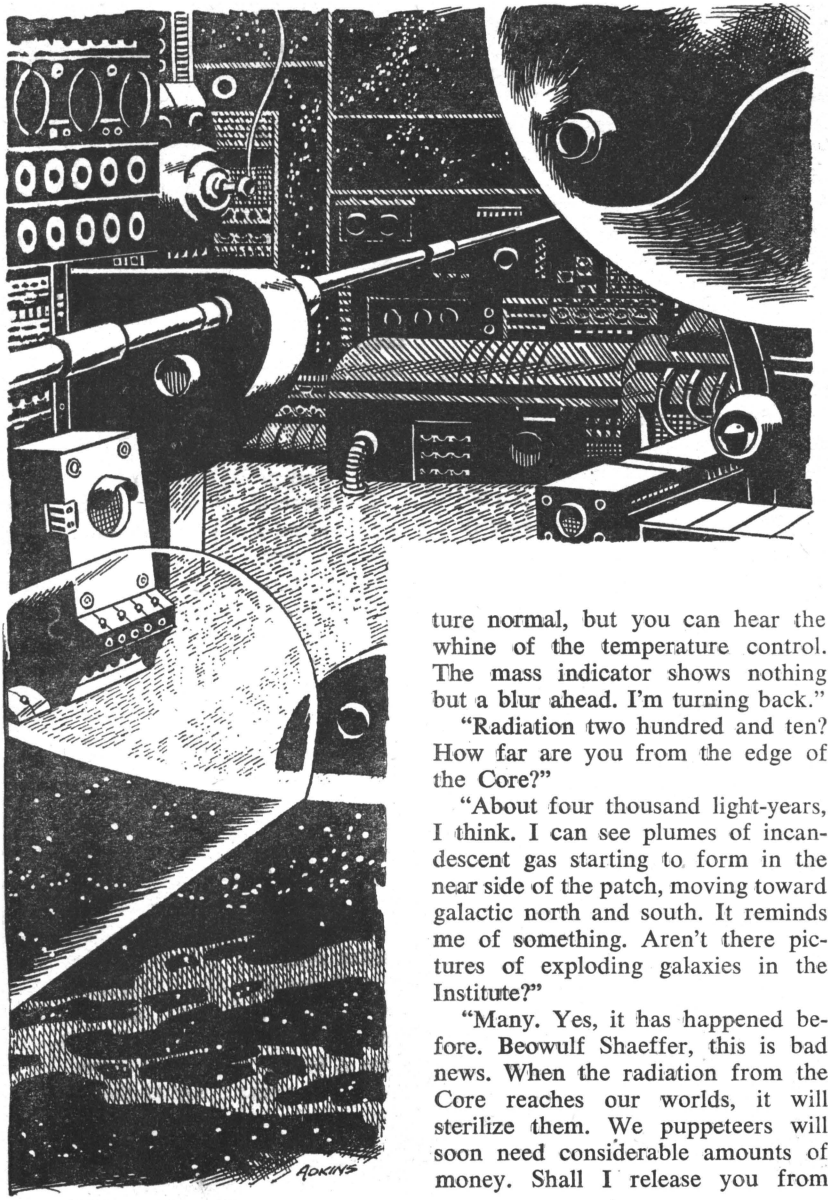
"Yes. Human feet are still adapting to their task of keeping you erect. You proppose, then, that our intelligence has grown sufficiently to insure our survival without depending on your hit-or-miss method of learning everything you can for the sheer pleasure of learning."

"Not quite. Our method is better. If you hadn't sent me to the Core for publicity you'd never have known about this."

"You say the galaxy is exploding."

"Rather, it finished exploding some nine thousand years ago. I'm wearing grade twenty sunglasses, and it's still too bright. A third of the Core is gone already. The patch is spreading at nearly the speed of light. I don't see that anything can stop it until it hits the gas clouds beyond the Core."

There was no comment. I went on. "A lot of the inside of the patch has gone out, but all of the surface is new novas. And remember, the light I'm seeing is nine thousand years old. Now, I'm going to read you a few instruments. Radiation, two hundred and ten. Cabin tempera-



ture normal, but you can hear the whine of the temperature control. The mass indicator shows nothing but a blur ahead. I'm turning back."

"Radiation two hundred and ten? How far are you from the edge of the Core?"

"About four thousand light-years, I think. I can see plumes of incandescent gas starting to form in the near side of the patch, moving toward galactic north and south. It reminds me of something. Aren't there pictures of exploding galaxies in the Institute?"

"Many. Yes, it has happened before. Beowulf Shaeffer, this is bad news. When the radiation from the Core reaches our worlds, it will sterilize them. We puppeteers will soon need considerable amounts of money. Shall I release you from

your contract, paying you nothing?"

I laughed. I was too surprised even to get mad. "No."

"Surely you do not intend to enter the Core?"

"No. Look, why do you —"

"Then by the conditions of our contract, you forfeit."

"Wrong again. I'll take pictures of these instruments. When a court sees the readings on the radiation meter and the blue blur in the mass indicator, they'll *know* something's wrong with them."

"Nonsense. Under evidence drugs you will explain the readings."

"Sure. And the court will know you tried to get me to go right to the center of that holocaust. You know what they'll say to that?"

"But how can a court of law find against a recorded contract?"

"The point is they'll want to. Maybe they'll decide that we're both lying, and the instruments really did go haywire. Maybe they'll find a way to say the contract was illegal. But they'll find against you. Want to make a side bet?"

"No. You have won. Come back."

VI

The Core was a lovely multicolored jewel when it disappeared below the lens of the galaxy. I'd have liked to visit it some day; but there aren't any time machines.

I'd penetrated nearly to the Core in something like a month. I took my time coming home, going straight up along galactic north and flying above the lens where there were no stars to bother me, and still made it in two. All the way I wondered why the puppeteer had tried to cheat me at the last. *Long Shot's* publicity would have been better than ever; yet the regional president had been willing to throw it away just to leave me broke. I couldn't ask why, because nobody was answering my hyperphone. Nothing I knew about puppeteers could tell me. I felt persecuted.

My come-hither brought me down at the base in the Farside End. Nobody was there. I took the transfer booth back to Sirius Mater, Jinx's biggest city, figuring to contact General Products, turn over the ship and pick up my pay.

More surprises awaited me.

1) General Products had paid one hundred and fifty thousand stars into my account in the Bank of Jinx. A personal note stated that whether I wrote my article was solely up to me.

2) General Products has disappeared. They are selling no more spacecraft hulls. Companies with contracts have had their penalty clauses paid off. It all happened two months ago, simultaneously on all known worlds.

3) The bar I'm in is on the roof of the tallest building in Sirius Mater, more than a mile above the streets. Even from here I can hear the stock market crashing. It started with the the collapse of spacecraft companies with no hulls to build ships. Hundreds of others have followed. It takes a long time for an interstellar market to come apart at the seams, but, as with the Core novas. Nothing can stop the chain reaction.

4) The secret of the indestructible General Products hull is being advertised for sale. General Products' human representatives will collect bids for one year, no bid to be less than one trillion stars. Get in on the ground floor, folks.

5) Nobody knows anything. That's what's causing most of the panic. It's been a month since a puppeteer was seen on any known world. Why did they drop so suddenly out of interstellar affairs?

I know.

In twenty thousand years a flood of radiation will wash over this region of space. Thirty thousand light-years may seem a long, safe distance, but it isn't, not with this big an explosion. I've asked. The Core explosion will make this galaxy uninhabitable to any known form of life.

Twenty thousand years *is* a long time. It's four times as long as human written history. We'll all be less than dust before things get dangerous, and I for one am not going to worry about it.

But the puppeteers are different. They're scared. They're getting out right now. Paying off their penalty clauses and buying motors and other equipment to put in their industructible hulls will take so much money that even confiscating my puny salary would have been a step to the good. Interstellar business can go to hell; from now on the puppeteers will have no time for anything but running.

Where will they go? Well, the galaxy is surrounded by a halo of small globular clusters. The ones near the rim might be safe. Or the puppeteers may even go as far as Andromeda. They have the *Long Shot* for exploring, if they come back for it, and they can build more. Outside the galaxy is space empty enough even for a puppeteer pilot, if he thinks his species is threatened.

It's a pity. This galaxy will be dull without puppeteers. Those two-headed monsters were not only the most dependable faction in interstellar business; they were like water in a wasteland of more-or-less humanoids. It's too bad they aren't brave, like us.

But is it?

I never heard of a puppeteer refusing to face a problem. He may merely be deciding how fast to run, but he'll never pretend the problem isn't there. Sometime within the next twenty millenia, we humans will have to move a population which already numbers forty-three billion. How? To where? When *should* we start thinking about this? When the glow of the Core begins to shine through the dust clouds?

Maybe men are the cowards — at the core. END

SCIENCE-FICTION FANWAYS

by LIN CARTER

Our Man in Fandom gives us another short couse in How to Be Fannish!

More Nutty Fannish Slang

Last month, this column was devoted to science fiction's answer to the National Trivia Test, the fannish lingo. If you're still with us after that guided tour through the brain-wringing byways of science-fiction slang, get set for some more of the same.

Fans have always been prone to picking up catch-phrases and intriguing terms from their favorite reading matter. The late E.E. Smith ("Doc" Smith to his thousands of friends) was a fertile source for this sort of thing. In one or another of the six books that make up his supernovel, the "Lensman" series, Kimball Kinnison and his chums used a sort of "future slang" that was probably the first such ever attempted in science fiction. Remember? — "QX" (okay); "she was a blinding flash and a deafening retort — a real seven-sector call-out" (she was a rather attractive young woman); "let's flit, ace" (shall we go, pal?); "by Klono's iridium intestines!" (gee whiz); "I check you to nineteen decimals" (you are correct); and much more.

Other terms were picked up from the science-fiction writers. In last month's installment of this column, I discussed L. Sprague de Camp and Fletcher Pratt's "Yngvi is a louse!" a catchy nonsense-phrase from their famous fantasy novel, *The Incomplete Enchanter.* Popular British science-fiction writer, Eric Frank Russell, has also contributed to the fannish slanguage . . . or slannish fanguage, whichever you prefer. In this novel *Dreadful Sanctuary,* one major scene hinges on the interesting and sort of philosophical phrase "How do you know you're sane?" which promptly turned up in fanzines for years and years as a put-down or a one-up.

But nonsense, or *seeming* non-

sense, remains the most popular form of fan slang. Old time sf writer Miles J. Breuer wrote a story around the phrase "The Gostak distims the doshes." This phrase was never explained in Breuer's charming little Lewis Carroll type story, so the fans rushed in where Breuer feared to tread. The *Fancyclopedia* — which is just what it sounds like it is — defined this Breuerism for all time:

Gostak: that by which the doshes are distimmed.
distimming: that which characterizes the relation of the Gostak to the doshes (*q.v.*)
doshes: those which are distimmed by the Gostak.

So much for "real" nonsense. Now for that which just *seems* to be nonsensical, but actually makes sense if you are In. For example, *dyktawo?* — which sounds like it ought to be a word in High Barsoomian, but isn't. This is naught but a simple acronym. ("Acronym" — that's not a specimen of fan slang, gang, but a word you can look up in a "real" dictionary.)

Twenty-some years ago, back during the late, unlamented Unpleasantness, when fans trying to buy mimeograph paper, stencils and other necessities of life found themselves smack up against the paper shortage, their howls of frustrated fanac (fan activity — like, say, publishing fanzines) came up against the bland wartime store owners': "Don't you know there's a war on?" As the Duration wore on — and on — this simple but maddening phrase became so noisomely familiar it was condensed into the acronym *dyktawo?*, which became an all-purpose answer to just about any complaint. So convenient was this unanswerable answer to all plaints, that its use continued even after the war ended — with a minor variant in meaning — as, "Don't you know there's a war *over?*"

Another acronym is *yhos.* It may sound like one of Lovecraft's evil gods, but it derives from the old-style closing of a letter, just before the signature: "Your humble, obedient servant," and the fans used it as a synonym for "me."

Twonk's Disease, and other Afflictions

Then there's the word *gafia* — a psychic ill to which most fanzine publishers are prone. A fan who has not published an issue of his fanzine for quite some time is said to have fallen prey to this loathesome disease, namely *gafiation.* Oh, I guess it's not really as bad as it sounds, for someone who is *gafiating* is merely succumbing to a desire to "get away from it all" — another smarty-pants acronym! In recent years, it has given rise to the fannish farewell, "See ya later, gafiator!"

Another fannish disease, to which the skills of Dr. Spock, Dr. Salk and the Mayo Clinic combined could find no cure, is *snearyism.* This prevalent ill gained its name from its foremost proponent, a witty and lovable fan named Rick Sneary out in South Gate who ust to rite lettors to the science fictian magga-

zins thet wer spelt lik this. His misspellings were so constant and so unpredictable that a movement was once afoot to raise a fund and buy him a dictionary. Rick replied, affably: "I done need a dictonary. Whot I need is a secratery."

And then, of course, there's the most horrendous of all ills — Twonk's Disease. Nobody knows what it is, exactly, but it's the ultimate of all human (including fannish) afflictions.

Two other afflictions rival even Twonk's Disease in their magnitude and horrendousness. These are called *Neohood* and *Completism.*

Completism sometimes strikes an aged or elderly fan. You never know just when the condition may arise. There you are, going merrily along reading and collecting the science-fiction magazines and purchasing an occasional hardcover book . . . and all of a sudden your eyes glaze, your hands begin to twitch with uncontrollable greed . . . and you realize you yearn to have EVERYTHING in your collection. Every single sf paperback and hardcover ever published . . . a copy of every single issue of every single last science-fiction or fantasy magazine ever printed, in America or England or wherever . . . *gakk! You are a Completist . . .* poor slob!

Neohood is worse in some ways, but it's curable in that you eventually outgrow it, whereas the collector's lust toward Completism is never satisfied. This ailment strikes at young, over-enthusiastic *neofans,* who are (as the term implies) new come to the fan ranks. They tend to be boisterous and boresome, frantically collecting autographs and writing endless (and pointless) letters to people of stellar magnitude, like Robert Heinlein and Arthur C. Clarke, for no better reason than to boast to their friends they have received letters from Robert Heinlein and Arthur C. Clarke. Oh, well, I guess it's a step up from collecting bubble gum cards.

The Great Staple War, and Others

Way back in 1934, when we were very young, a chap with the unlikely name of "Bob Tucker" announced the formation of a Society For The Prevention of Wire Staples in Science Fiction Magazines. Recruits flocked to the banner of the Cause . . . well, they got 35 members, anyway. This organization, which was known rather bafflingly as the SWPSSTFM (I say "bafflingly" because the initials just don't match the name)*, launched some ingenious idea like substituting *rubber* staples in place of the wire variety, or sticking the science-fiction magazines together with chewing gum (a different flavor for each month . . . and if the magazine is so crummy you can't read it, by golly you can chew it.) The SWPSSTFM published propaganda fanzines devoted to their Cause, some of which were held together by brads, others were sewn with white

* No, no Lin! It's SPWSSTFM, not SWPSSTFM . . . and if you remember that the old abbreviation for science fiction was "stf" (short for "scientifiction") it all comes out right.—**Editor.**

silk thread, and so on — including one issue of Tucker's magazine which was fastened with a strip of gummy black bicycle tape up the left side.

At last the superfan of the hour, Don Wollheim, could endure no more. He founded a counter-organization yclept the International and Allied Organizations for the Purpose of Upholding and Maintaining the Use of Metallic Fasteners in Science Fiction Publications in the United States of America, Unlimited. This was known as the IAOPUMUMFP-USA, Unltd, for short.

Thus, with the roll of drums and the flourish of trumpets, was launched The First Great Staple War. With Wollheim as Grand High Cocolorum and crony Kenneth Sterling as Exalted Grand Booleywag of the IAOPetc, the conflict was joined. A military force was formed, called the Ultra-Violet Shirt Shocked Troops, which published their official propaganda publication, known as *The Polymorphanucleated Leucocyte,* which denounced the policies advocated by Tucker as Dictator of the SWPSetc and his second officer, Robert W. Lowndes (since editor of several science-fiction magazines), who rejoiced in the title of Royal Pill Roller.

Wollheim issued proposals which went beyond mere advocacy of the use of humdrum *wire* staples. He actually suggested The Platinum Plan, under which system the sf magazines were urged to use staples fashioned of pure platinum, the idea being that after the reader had finished with an issue he could then pry out the precious staples and sell the metal for many times what he paid for the magazine. This scheme, of course, would make for a science-fiction boom as soon as The General Public caught on. Countless thousands would storm the newstands to buy science-fiction magazines, which in no time at all would be outselling even the *Reader's Digest* from coast to coast.

Then there was another conflict called the Great Stationery Duel, but this was a "local" war between two fans only. Jack Speer and Dick Wilson challenged each other to a contest in which each was to write to the other using a different letterhead or kind of stationery in each letter, and the first who gave out was defeated.

Both fans are said to have developed very specialized forms of advanced kleptomania during the course of the war, snitching letterhead from motels, hotels, offices and so on. They worked out a fantastically elaborate code of rules as to just what was "a different type of stationery". The code forbade the *purchase* of stationery for duelling uses. For a time they bombarded each other with curt missives written on the letterhead of this or that plumber, sanitary engineer, junk collector or dentist, until eventually one member of the contest gave out (I can't say whether he succumbed to an attack of *gafia* or what); whereupon the survivor (Speer) was challenged to a continuation of the battle by Harry Warner, Jr., and for all I know the fearful combat may still be blazing away via the courtesy of the U.S. Mail. END

THE SIGN OF GREE

by C. C. MacAPP

Illustrated by MORROW

Who were these enemies of Gree who battled even more fiercely against Gree's desperate foes?

I

The wan bluish light of a distant sun highlighted scratches in the clear plastic of the spacebag and cast harsh shadows of the metal hubs. Steve Duke, squinting through the bag's small telescope, twisted a vernier to recenter it upon the cluster of dust motes off to one side.

They were derelicts, all right — fourteen scoutships floating in aimless paths, jagged black holes agape in their hulls. On some of them, the Sign of Gree was still resolvable — four vertical bars plus a horizontal one at the base, sticking out to one side, to represent a humanoid hand. Scattered among and about the dead hulls were tiny dots that would be spacebags like his own, each bearing a Slave Warrior survivor. Or, in some cases, dead ones.

He raised to his mouth an object like a very fat metal pencil and spoke into it. "Colonel Duke here. I was

too far away to see all I'd have liked, but the ambush was pretty much like the one Fazzool described. The Remm Task Force spaced in, launched a salvo, nulled immediately, spaced in on the opposite side, launched another and nulled again. I emphasize: they were out of, into, out of and back into null again, all within four seconds. The Gree scoutship squadrons had to sacrifice themselves to give Gree capital ships time to build up nulling charges. If the Remm had appeared again with a third salvo from another angle, they'd have really clobbered the Gree main force. Maybe they couldn't, or maybe they didn't want to risk their own ships. As it was, several Gree heavies took hits but escaped.

"Fazzool's report was correct. The Remm are able to null the same ship at least three times in quick succession. These were not, repeat not, two duplicate forces. I saw minor damage taken the first time they popped out, and it was there when they came back.

"In view of our previous disastrous attempts to contact the Remm, I'm adopting my primary plan of posing as a Gree Slave Warrior and being taken prisoner. My priorities will be as follows: One, learn how the Remm null without the delay to build up charges; Two, pinpoint the Remm home region; Three, if the Remm are reasonable beings, initiate contact.

"A fourth objective will be to learn why the Remm are skirmishing with the Gree Empire, and a fifth will be to learn, if possible, what happened to Fazzool. But these and any other intelligence will be conditional upon my getting the priority information and bringing or sending it out.

"I am going to join the Slaves now. I'll use my old name of Jen, in case I look familiar to anyone, but I won't let the Jen personality surface. Ends."

He twisted one end of the metal object, pushed it from him, and put his hands over his ears. Even so, the implosion was loud as it nulled away. Then he slewed the bag around and applied drive toward the derelicts.

Before he got there, one of the Remm ships suddenly appeared a few miles beyond, and he got his first good look at it.

It was quite impractical from the familiar standpoints of construction and repair. Instead of being an end-to-end stack of flat cylinders, like the ships of Gree or his own side, it consisted of two huge globes, fixed together at a separation of about one radius by three triangularly spaced booms or tubes. Those — if he were judging distance and size right — would be thick enough to enclose not only passageways but compartments. Nowhere upon the ship could he see weld-lines; it must have been cast integrally or poured in perfectly blending increments.

Suddenly he realized he could see stars through one of the globes. There were no outlines within; just the translucent globe, with the brighter stars beyond gleaming through it. The other globe was quite opaque.

The Gree survivors near him were making hasty hand signals back and

forth. One, a Gunner Third (the same rank Steve had attained as a Gree Slave) but a B'lant, not a human, signaled, "We could try to reach one of the derelicts and find some operable weapon."

Another of the gray-skinned, hairless humanoids replied, "Futile. We'd be incinerated before we moved ten yards. Better to be taken and tell the Goodness and Might of Gree to these foolish strangers."

Steve was happy to see the latter viewpoint prevail.

The huge ship moved slowly toward them. On one side of one globe, an opening suddenly appeared. Since it was just big enough to admit a bag comfortably, the meaning was obvious. Like well trained Slave Warriors, the drifting survivors began to maneuver their bags into a file, in rough order of rank. That made Steve hustle to take his place near the front.

There were sixty-odd in the line (other bags, holding inert bodies, drifted away) of which only two other than Steve were men. He counted seventeen of the leather-skinned B'lant. All the rest were Sabrils — tall, slope-shouldered, dark blue. Sabrils were good fighting stock, but emotional and not very logical. They seldom reached the top Slave ranks and consequently now formed the rear of the line.

The first bags were entering the huge ship. Steve, in his turn, maneuvered through the hole.

The cubicle compartment could occupy only a small sector of the vast globe; nevertheless, the spacebags floated in it without crowding. The last Sabril came in, and the opening vanished. Now there was diffuse light from several sources. Artificial gravity came on, very weak at first so that the bags settled slowly to the "floor". At the same time, Steve noticed that his bag was less rigid, which meant atmosphere was building up in the compartment. By the time he was down, the bag was quite limp.

A voice, with a liquid, unfamiliar accent but speaking fair B'lant, boomed loud enough to be heard through the plastic, "The air is breathable. Leave your bags. All weapons, including knives, must be left in them. Go, one at a time, through the door that appears, and walk along the corridor. You will be automatically photographed as you walk. By the time you are assembled again you will be over the planet where you are to be interned. If you co-operate, you will not be harmed."

Steve unsealed one hub of his bag, laid it carefully inside and squirmed out the opening. He stood, unobtrusively checking over his Gree uniform to make sure it was correct. There was a buzz of talk now, as other prisoners emerged from their bags — some of it in B'lant; some in Sabril. He met the eyes of a B'lant Gunner, Third, and to avoid talk made a gesture of resignation.

When the door appeared it was as suddenly and as unpredictably as the outside opening. He took his place in line and walked along the corridor. Near the end of that he had the mild momentary sensation of discontinuity that meant they had null-

HE SIGN OF GREE

jumped. It happened again as he emerged into a big room, and a third time a little later. The door closed behind the last of the prisoners.

The artificial gravity was steadily growing. It must be nearly one and one-third Terran G now, and the Sabrils were showing discomfort. Steve looked around him. Three walls of the room were lined by low, very broad stools — circular, a good five feet across, three-legged and roughly made from some hard wood. They looked quite new. Without waiting for invitations, he walked over and sat down opposite where the door had been. Others followed suit. He avoided looking at any of them too long. The less he talked, the better; it had been several years since he'd spent any length of time with Gree Slaves.

Twenty minutes by his chronometer passed. Then, above where the door had been, a big section of metal bulkhead vanished.

Recessed a few inches was a viewscreen showing rugged mountains, seen from above, slowly drifting. That went on for a few minutes, then the scene began to expand as if the ship were dropping. He heard from somewhere the thrumming of air on a hull.

The alien voice suddenly spoke again. "You will see your prison valley. It will not be luxurious, but you can live there until your future is decided. Escape on foot will be impossible. There is nowhere to go. When we land, you are to stay in a group apart from the prisoners already there, until we have interrogated each of you briefly. Then you will be permitted to join them."

The scene swelled and the valley became visible. It might, Steve judged, be ten miles long or more, roughly oval, with a river splitting it and a small lake at the lower end. Most of it was grassy, but thick growths of trees lined the river, and a few small tributaries, surrounded the lake and covered the lower mountain slopes around the spot.

They were still moving laterally. Now they passed over a herd of grazing animals which, judging by the size relative to the trees, must be fifteen feet long, low-built, with four pairs of legs each. They gave the impression of giant caterpillars, but looked vertebrate. Then a stretch of grass and suddenly, near the river at the valley's upper end, a cluster of huts with tiny humanoid figures about them. The grass had been cleared, as if they'd been here for some time. There were campfires — startling in their brightness, for the screen's intensity was turned up — in what seemed to be a pattern of sentry-posts around the encampment. Now that he noticed, there were virtually no shadows in the valley. It must be dawn or dusk.

The ship was down to a few hundred feet when the humanoids on the ground began to look up. Then, singly and in small groups, they drifted toward what must be the landing-spot.

The screen went off, and the wall reappeared. Now the ship settled slowly, hung, and touched down. Another wait, then an exit appeared.

Steve queued up, stepped out onto grass — no cleared field — and noted that the gravity matched the ship's. That had been deliberate, then.

The mountains around the valley were higher even than they'd looked, and the only daylight was a strong glow above them, to one side. The sky, in the other direction, was deep blue. Stars hung like multicolored lanterns. He gave a second startled look at them. Some of the reddish ones showed actual disks!

They'd nulled into a very dense star-cluster.

The alien voice warned again, "Stay in a group. You may call to the others, but if you attempt to mingle with them you will be shot."

The prisoners from the camp were still a hundred yards away, approaching slowly.

It was about that moment that Steve realized the bulk looming behind him was not the huge double-globe ship, but a much smaller cylindrical craft. It must have been inside the big one. At some time, maybe in leaving the first compartment, they'd entered it without knowing.

He turned to watch the approaching mob. A hundred or more, not counting sentries left behind at the camp — Sabrils, B'lant, a few men, in about the same proportion as his own group; plus a few thick-muscled Gjiss to whom this gravity was like home. Most wore Gree uniforms, more or less deteriorated; some wore crude leather garments. A few carried bows with nocked arrows and were alert, as if there might be dangerous animals in the valley.

His eyes fell upon a B'lant in very old boots, short trousers cut from a uniform, and a thin leather jerkin. The blunt gray features weren't much different from any B'lant's, but Steve's pulse leaped.

Fantastic — Fazzool's being here! Suspicious, even!

But maybe not. Fazzool's sketchy report had said the Remm seemed not to have much of a foothold in this part of the galaxy (if, indeed, they were a large empire anywhere). Quite possibly — almost certainly, reasoning by probability — if he and Fazzool had both been brought here, this was the only prison camp they had.

He made a small sign that Fazzool would see, then turned away.

II

The Remm voice said, "Wait." Still the captors didn't show themselves.

Now there was shouted communication between the prisoners, but Steve did not take part. He was busy studying the alien ship. Like the big one, it was of smooth metal, all in one piece. He could see no openings; not even the one from which he'd emerged. He supposed they might open weapon-ports wherever they wished.

He turned his attention to the valley. The grass was short but quite thick and green. It, or the ground, smelled slightly dank. He bent to feel of it. The ground was moist. Also, it was warm. Maybe, then, this was a hotter climate than he'd guessed from the valley's greenness. He

looked at the glow above the mountains, trying to see whether it had grown brighter or dimmer. He couldn't tell.

However — if he didn't imagine it — the glow had moved laterally.

As time passed, he was certain. That, then, was the planet's sun — but it wasn't rising or setting. He was near one of the poles. But the glow was moving pretty fast. He estimated degrees as well as he could and came up with a planetary rotation of ten or twelve hours.

The ground's warmth, then, was volcanic, or simply warmth from a hot core.

So — near a pole or not (the south one, observing the sun-glow's direction of movement) — the valley was livable, though the gravity would be a nuisance.

With that thought, his situation suddenly bothered him. If they simply dumped him here, how was he going to learn anything about them?

His orders were explicit, and the reason behind them good. He daren't reveal his true alliance, and Fazzool's, until he knew about them. So far, they'd been very trigger-happy; and the Effogan forces, hastily scraped together from inadequate bits, had a desperate enough task resisting Gree.

He had to get out of the valley, and get Fazzool out, too. Even with the B'lant patience, Fazzool was no doubt almost wild.

Like the others, he was sitting now. Then someone spotted two aircars coming down.

The new craft were grav-driven cargo types, like fifty-foot boxes with clear windshields at one end for the pilots. They landed a little beyond the spaceship. Hatches (no magic openings this time, but ordinary, mechanically controlled doors) opened. Creatures spilled out. It wasn't until Steve saw that they wore hand-guns and took up regular guard-positions that he realized these were the Remm.

They were not humanoid. He ignored the shiver along his spine and studied the nearest one.

The Remm was compact but muscular enough to weigh three times as much as a man. His body was like some bunchy feline's, except that the tail was only two feet long and rather clubby. The forelegs were wider-set and heavier than the hind ones, no doubt to carry the weight of the very thick, two-foot-high neck that thrust up above the wide chest. Maybe neck wasn't the word, for, just below the broad head, a pair of short muscular arms grew. They seemed to have more than two joints and ended in blunt strong hands of two fingers and a thumb each. The claws on the hands were trimmed, which was not true of the four feet. The wide head had a good braincase and a short muzzle that showed carnivore's teeth. The eyes were wide apart, slitted, deep-set, yellow irised, round-pupiled, intelligent. The creature had short thick fur, nearly black in the poor light, and wore nothing except a belt around the base of the neck, to carry a holstered energy-pistol.

The others looked identical and behaved like a military squad. They

hardly needed to draw the pistols — especially as they moved very easily in this valley's gravity.

A voice from one of the aircars — Remm, but speaking much better B'lant than the other one — said, "Line up by seniority and enter the rear hatch one at a time as called."

Steve let the B'lant Gunners, Third, go ahead of him. The first was only in the cargo van five minutes, then he emerged from a side door and walked in silence toward the crowd of earlier prisoners. That pattern continued until it was Steve's turn. He stepped in and halted with sudden dismay. The white-enameled door facing him bore the Sign of Gree. It was that of an Inquisition Booth.

Then he realized the Remm must have captured it and adapted it for their own interrogating. He moved forward, the door opened and he stepped in.

"*What is Gree?*"

The Voice was studiedly deep, fatherly, reassuring. Steve knew there were subtle drugs in the air of the Booth. The Jen personality in him welled up, brought a sob to his throat, tried to surface. He fought it down. This was no time to get mired in *that* bog. Suddenly, he realized this was his chance. He had to go through the Litany, of course — as any Gree Slave would — but he let his voice sound surly. "Gree is Love. Gree is Protection. Gree is Wisdom; the only Sustenance."

The Booth definitely hesitated before resuming the ritual. He made the responses listlessly, hoping the real anxiety in his mind wouldn't be mistaken for the loyal emotions. Another wait, while the mechanical perceptors probed him, then the exit door opened. In the darkness beyond, the side hatch of the cargo van yawned. Hope falling, he walked slowly toward it.

But there was a ripple of liquid syllables outside, and one of the alien guards gestured unmistakably that Steve was to precede him to the other aircar.

The rearmost compartment of this one was well lit (but with makeshift lighting) and furnished with two of the low broad stools. On one reclined a Remm. The creature gestured to the other stool. "Sit, if you wish."

Steve sat, and heard the hatch close behind him. This Remm, he thought, was the one whose voice had come from the other aircar — at least, the B'lant was as good. This one's fur was shaggier than that of the guards, touched with gray around the muzzle and the tips of the small erect ears and around the claws of all four feet. He wore no weapon. In place of the holster with a small medallion of some silvery medal.

The alien studied him a minute, glancing at the Gunner, Third, insignia below the Gree symbol on the breast of Steve's uniform. "What is your name?"

"Jen," Steve lied.

The next question startled him. "Are you one of the Overseer race?"

"Why . . . of course not. They don't look at all like me."

The Remm shifted its weight, like

some great feline. "We have never seen an Overseer. But you are no ordinary Slave; you did not respond emotionally to the Booth. Why?"

Steve tried to hide his excitement. "The Booths are a fraud. Especially when they're stolen by enemies."

The Remm's teeth showed in what might be a smile. "All the Slaves we have tested in the Booth showed the emotional response, except you. If you realize the Booths are a fraud, you must have similar ideas about some of the other nonsense."

Steve growled, "You're not going to trap me into treason."

The Remm said reasonably, "Since you've seen through the frauds, whether you admit it or not, you must realize that the whole aim of Gree is conquest, using you as dupes. Consider how readily you're sacrificed, while the Overseers are carefully guarded. The loyalty of that race has been purchased, and the payment continues. If you're worried about comrades, or about worlds that are dear to you, be assured we mean no aggressive war on the Gree Empire. We were attacked without warning, and are only raiding to learn what we need to know to defend ourselves. Help us, and we'll give you freedom. Luxury. Even deliver you to some free world if it's within our power to do so. The alternative is this prison valley. You'll find it very dull."

Steve avoided the alien's eyes. "No one likes to be a traitor."

"Consider this," the Remm said. "The longer it takes us to learn what we must know, the more raids we'll have to make. You'll be helping your fellow Slaves of the Empire by helping us."

Steve pretended to mull that over. Finally he said, "How do I know you're only defending yourselves? You might be worst tyrants than —" He pretended to break off in confusion.

The alien's teeth showed again. "Than Gree?"

Steve averted his eyes. "Yes." He let a minute pass, then looked up. "What would I have to do?"

"First of all," the Remm said, "We'll take you to another place where we can talk at more leisure, and you'll be more comfortable. Understand, you really don't have any choice. Aside from torture or drugs, we have only to play back your responses to the Booth, and this conversation, for your fellow prisoners. They'd tear you to bits. But we'd rather not."

Steve let himself look a little frightened. "Well . . ."

The Remm got to his feet and hopped lightly off the broad stool. "I'm glad you're being intelligent. Do you think any others of the new arrivals have similar thoughts?"

Steve — though he knew he was being impulsive — jumped at the chance. "I don't know. None of them are from my ship. But there's one of the older prisoners — I just happened to catch a glimpse of him — whom I used to know. And he . . ."

The Remm waited a moment, then asked, "What's his name?"

"Fazzool."

The alien looked at him so long

Steve began to wonder if he'd stepped into a trap. Finally the teeth showed again. "Perhaps I'll talk to him. By the way, I am called Egral. I am in charge of all prisoner interrogation."

III

Alone in the cargo compartment during a long flight, Steve had nothing to do but think.

If the valley were the Remm's only prison camp (for Gree Slaves, at least) then he was probably on the way now to some Remm base. Once he saw that, he might be considered as knowing too much.

Certainly he wouldn't be allowed to rejoin the other Slaves. Obviously the reason for flying the Interrogation setup to the valley was to keep them in ignorance of the base.

He didn't expect it to be much of an establishment. The crude wooden stools (designed for Remm, not humanoids) were one bit of evidence. They'd certainly not come from a sawmill. Probably they'd been made from slabs cut with a laser tool, then scraped with some metal blade. The huts in the valley were of similar lumber. And these aircars — if he knew the indications, they were actually cargo-lighters from a spaceship. So the planet wasn't settled.

He hoped he hadn't put Fazzool in a jam.

Hours passed. They were travelling fast; hundreds of miles must have unreeled by now. He was hungry and thirsty, and it had been quite a while since he slept. He tried that now, couldn't. The aircar hurtled on.

He thought they might have gone several thousand miles before the speed slackened and the craft slanted down. They landed, and, stiff from sitting, he got up, impatient for the hatch to open.

It was then he realized he was no longer in heavy gravity. It was less than one G now. He stood, one hand resting on a bulkhead, and pondered. Surely this cargo tub didn't have artificial gravity. Then were they inside a ship? No; there had been the airstream on the hull.

The hatch opened, and he saw stony ground, faintly lit by starlight or weak artificial light. As he stepped out the first thing that took his eyes was one of the huge double-globe ships, looming behind some buildings that were only dimly lit and almost as crude as the huts, though bigger. Barracks, he thought. A larger one that was probably a hangar seemed put together from sections of curved ships' hulls.

The base was in a fairly narrow river valley, and other ships or buildings might be hidden behind a curve, but the place didn't have that feel. There were sounds of hammering and the intermittent rasp of an arc welder or cutting-torch. A few Remm loped about silently, wraith-like in the semidarkness. The stars were the same close-in ones, tending to red, he'd seen from the valley. That they didn't dazzle his eyes more now, at night, meant there was nebular-cloud matter partially obscuring them, which was normal for such a dense cluster.

On both slopes of the canyon,

islands of primitive incandescent bulbs were no doubt weapons emplacements. Not heavy stuff, to fight off attacks from space, but light missile-launchers or beamers, for repelling ground attack or atmospheric bombers. They could prevent capture of the base, but not its destruction. Of course, there might be heavier stuff out of sight. Or the big ships might launch the ground-to-space missiles.

He hadn't much time to see more, because Egral emerged from the pilot's compartment of the aircar and hustled him to one of the wooden buildings. "I'll arrange a bath and something to shave with and send food to your room. Will a sleeping-pad be all right? We don't have accommodations here for humanoids."

Steve said tiredly, "A pad will be fine."

They locked him in, of course, and he could hear a guard in the corridor outside. But the freshly-cooked meat was good, only a little gamey, and the boiled grain with it wasn't bad, and the bath (in what looked like half a missile-case) was hot; and the sleeping-pad was better than various things he'd slept on. He didn't even lie awake worrying.

The five or six hours of night seemed gone in an instant. Egral gave him a few minutes to dress, then hurried him to the other end of the building. "Wendar, who wants to talk to you, is one of the two top aides to the Commanding Officer of this region."

Wendar's desk was metal and probably taken from some ship. It was ordinary except that it was low and of a size for the short Remm arms. The seat behind it was one of the squat stools, upon which Wendar sprawled casually. He wore no clothing, but had one of the medallions. His fur was definitely graying, and his teeth, when they showed, were yellow and worn down. He eyed Steve for a moment, then essayed B'lant: "I not strong in your speak. Egral will . . . go between." He put his stubby hands on the desk-edge and shifted his weight on the stool, rumbling liquid Remm speech meanwhile.

Egral translated, "Are you ready to help us without reservation?"

Steve muttered, "Yes."

Egral's next translation was longer. "It is desirable that we capture one or more Overseers. Can you tell us how to do that without a serious battle?"

Steve felt dismay. That would take a lot of scheming and spying and preparation. "I can tell you," he said hesitantly, "where to find important bases, reckoning from where I was captured. But to take an Overseer . . ."

The older Remm's look was contemptuous, his question gruffer. Egral rendered it as, "Are you afraid to betray an Overseer?"

"No. But they're well protected. Command ships don't expose themselves."

Egral translated Wendar's further growl as, "Those ships that are not commanded by Overseers — how do they navigate? Who operates their computers?"

"Why," Steve said, "unless they're

locked into central control by a Command Ship, Computer Techs operate them. Haven't you captured any?" After a moment he risked, "Why is it necessary to capture an Overseer?"

The two Remm conferred. Wendar growled in B'lant, "Slaves work on computers?"

"Certainly. I know some computer technology myself, though it isn't my specialty."

There was another conference, more animated, then Egral asked, "Could you do anything with a computer that's programmed in the Overseer language?"

"Why, I — " Steve broke off, thinking hard. "Is it possible you only want an Overseer so you can learn his language?"

They both eyed him, silently and with hostility now. His blood pumped faster. If he handled this right . . .

"Slaves are not supposed to know any of that language, but it happens that I was in a situation once where I learned some of it, secretly. I think . . . that may have been the start of my doubts."

The effect on the aliens was startling. Wendar was up in a flash, forepaws on the edge of the desk, hands clenched. He spewed Remm. Egral, tail lashing, said hurriedly, "This we vow. If you will translate certain memory banks into B'lant, you will receive the best treatment we can give you! You will not be asked to betray your Empire further. And we will pledge our honor not to take any aggressive action that is not forced upon us."

Steve, his feelings mixed, faced them. It was not his aim to bring about any truce between them and Gree. But he had a solid fulcrum now, if he could apply the leverage right. He said slowly, "I would need someone who knew the actual science of computers better than I." He looked at Egral. "That B'lant I mentioned . . ."

Egral was suddenly motionless, eyes intent, teeth showing in the Remm smile. Presently he purred something to Wendar. Wendar considered and grunted a reply. Egral said, "Yes, Fazzool. He is on his way here already. When he arrives, I think we shall take another little trip. But I warn you. Though we have been lenient with you prisoners until now, we are not squeamish in punishing trickery. Do not attempt it."

Steve, furious at himself, said nothing. Why did he always have to push things so? Now Egral was definitely suspicious. And Steve's gambit had been unnecessary.

IV

"Comrade." Fazzool's voice was quiet, but there was emotion in his head-clasp. They were in the cargo van of another aircar, hurtling somewhere. Steve didn't care whether there were listening devices; he and the B'lant could talk in English, guardedly.

The gray-skinned humanoid grinned. "I did not expect to be removed from ze valley so soon."

"Maybe it was too soon," Steve said glumly. "They're suspicious now."

Fazzool shrugged. "Anyone must be suspicious, dealing wiz strangers. Ze question is, what do zese creatures want here? And where is here?"

Steve began almost to wish Egral did understand some English. It would be amusing to swap information with Fazzool, without giving Egral any. "In a dense star cluster, somewhere."

"Zat is certainly true; and zey must know zere way in it, or nulling would be suicide. But I mean, on zis planet. I have not been out of ze valley before. Ze gravity . . . I will swear it is getting steadily less, as we travel. If it were equatorial spin . . ."

Steve shook his head. "Haven't you seen the sun today? It's still not going to get much above the horizon. Anyway, it would take a rotation several times faster to offset gravity to this extent. Well, aside from that. What do you make of things? Pretty primitive in some ways, eh?"

"Zey did not act primitive in ze battle when I was captured."

Steve grinned inwardly. So Fazzool, too, had posed as a Gree Slave Warrior. "I got the same impression. So this is a trivial base for them."

"Unless," Fazzool said, "all zat is just stage dressing. I do not see, zo, why zey should care to fool prisoners."

"Maybe," Steve said, "there is someone else they want to fool. It would be unwise to judge them on the basis of rough lumber." Fazzool would get the message. They were still not to reveal their own true connections until they learned more about the Remm.

Fazzool grinned, rather widely for a B'lant.

The flight stretched on. For a time it sounded as if they flew through rain or hail. Outside, it must be night again, by Steve's chronometer.

After some hours a small hatch slid open, and Egral peered back at them. "We still have a way to go. Do you want some cold meat? I cannot offer you any of the grain; we have some along but there is no way to cook it."

"The meat will be fine," Steve said. He and Fazzool chewed on it and talked innocently in B'lant of past campaigns, of the Hive World where they'd met and competed in the training-games and finally won their way to the Advanced Academy, of comrades who were gone.

Finally the aircar began to descend.

It landed, there was a short wait, the rear hatch opened, and brilliant yellow sunlight poured in. Steve, blinking, tried to see his chronometer. It shouldn't be morning yet. But it was. He unkinked himself and stepped out, realizing as he did that the gravity couldn't be as much as half a G.

Grass had been scythed down to form a tan matting. Fifty yards from the aircar, untouched grass stood shoulder-high, thick and lushly green. He could smell it, slightly musty but sweet. Insects like dragonflies with eight-inch wings flapped leisurely above it. He filled his lungs with the air. The pressure was the same as in the prison valley. With a

planet hold an atmosphere? Maybe surface gravity like this, how did a this gravity and that nearer the poles averaged out. Which reminded him to check the sun. It still wasn't much above the horizon, though air and grass were dry enough to suggest it had been up a while.

Egral appeared and led the way around the aircar, four armed Remm falling in behind Steve and Fazzool, and Steve saw why he'd been brought here.

At the limit of the clearing, near a tremendous wall or forest, lay a spaceship. It was a large auxiliary of some kind, composed in the orthodox way of five sections, each a flat cylinder. The Sign of Gree was prominent on its hull. At least two of the sections were holed. It had never been heavily armed, and now what gunports it had were empty.

The trees beyond towered hundreds of feet, well foliaged in light green, vaguely pinelike but with globular crowns at the top. They were not close-packed, letting considerable yellow sunlight into the forest. Parasite plants of various colors grew in them; vines sent long roots to the ground. Huge birds flapped about lazily, with low hoarse cries.

Steve looked around for signs of battle. None. He said to Fazzool in English, "Probably captured and brought here. The drive being damaged, they landed it where the gravity was light."

Fazzool nodded. "But what type is it? I see no cargo hatches. And zose gunports — not quite right, eh?"

Egral, annoyed, dropped back beside them. "If you're discussing the ship, it was a training vessel for Overseers. There's material in it in the Overseer language that you're to translate. Also damage to some of the memory-banks must be repaired."

"Oh!" Steve studied the ship as they walked toward it. He knew Fazzool would be wondering the same thing he was — just what did the Remm want so badly to know?

There were Remm watching from various of the ship's gunports, but nowhere did he see any weapons larger than hand guns. Schemes began stirring in his mind. Suppose he could actually get control of the ship — seal it up, a few compartments at least, and null it away somewhere?

Would the Remm be that foolish? What if Fazzool were right and this were all a fake? Suppose they deliberately let Steve (presuming him to be a loyal Gree partisan after all, if not a Slave) steal the ship and bring a Gree Task Force to the spot? The seemingly unsettled planet might erupt with weapons. There was that anomalous gravity . . . Far-fetched, but possible.

They neared the ship. A small hatch, about thirty feet above ground in the curve of the middle section, opened. Several Remm began manually letting down a board ramp. Rough lumber again. Why not simply a ladder? Then Steve remembered that the Remm weren't built for ladders.

Guards, after a short conference with Egral, conducted them via corridors and one elevator to the control room. Steve noticed that regular

ship's lighting was on, which meant it had at least some power.

Another guard opened a door, and they stepped into the central control room. There were extra keyboards, no doubt for instructional memory-banks, and whole panels of switches that probably controlled lecture rooms throughout the ship.

The two guards remained; and Egral, squatting against the far bulkhead, said, "Somewhere in this maze, unless it's been destroyed by battle-damage, is the basic theory, plus practical aspects, of the Gree null system."

V

Steve, pretty sure by now that Egral understood no English, risked plain talk with Fazzool. "It doesn't make sense. Their null system's obviously superior, yet they're desperate to learn Gree's."

Fazzool made a face. "Zey are not idiots. Zere is *zomezing* in ze Gree system zey haven't got. Well, what do we do?"

"Go ahead and start betraying Gree, I suppose," Steve said. "It breaks my heart." He turned to the keyboard they were studying and punched buttons.

But he punched a little aberration into the program.

A rasp came from a small grille below a viewscreen, then an Overseer voice. "Three-hop training voyage, using one isolated star, one cloud nebula at long range and one correlation of star-charts. Student must —" The voice faded, came back for a moment, then was lost in a harsh rattle of electronic noise.

Steve looked up at Egral. "I'll have to search various alternate circuits."

Under cover of that, he moved to the main navigating keyboard, activated it and punched for specific information. He demanded in Overseer, "State of ship's null apparatus and of ship's grav drive. Verbal reply only."

Back it came promptly: "Null on indefinite stand-by, as ordered by Commanding Officer just prior to ship's disabling. Power leads to accumulators deliberately sabotaged. Ship's grav drive damaged; extent not known."

Steve didn't risk more, but turned to Egral. "According to the Main Computer, various things are out of order, including the null apparatus. How did you get her here?"

He hoped to slip the question by, but Egral showed his teeth in a brief grin. "There is no reason I should not tell you. We used two of our own capital ships to form a null field big enough to englobe this ship."

Steve said nothing and pretended to search farther for damage. The technique Egral described was routine. He asked questions of the computers and got answers. Gradually he built up a picture of the damage that existed, but there were important blank spots in the picture. Either he or Fazzool would have to get a chance to go over the ship. Then, given another shot at the control room, they might do many things.

Suppose, instead of nulling away, they merely locked hatches so they

were alone with Egral? Could they overcome him? Not likely. Those teeth and claws, and those muscles, weren't for nothing. Lock him in a separate compartment, then, and null just a little ways; communicate; and, using Egral as a hostage, bargain?

Bargaining wasn't indicated yet.

And at that moment Egral, a glint in his eyes, said, "Incidentally, we've removed certain things for study, so this ship isn't in flying condition."

So much, then, for that scheme.

It took two long sessions for Steve to find the information Egral especially wanted. It was a series of lectures, with diagrams and photos that could be flashed on screens in various classrooms, outlining the theory and practice of the Gree null science. No Slave, even a Drive Tech, would have access to this. Steve knew some of it, and he thought Egral was being naive to assume it could be absorbed quickly. He said so to Fazzool.

"Well," the B'lant said, "zat is so, if he expects to absorb it. But he did not say zat. He just said we are to translate it. Would it not be more logical for zem to take ze translation somewhere for study?"

"Yeah. I wonder . . . could you pretend to be looking for damage to the memory-banks and meanwhile find that deliberate break in the power-leads and fix it or be ready to?"

"I can pretend, if zey give me ze chance."

Steve turned to the Remm who was on guard and said distinctly, "Egral." The alien blinked, hesitated, then waved his pistol for them to precede him.

Egral, when they found him, pondered the request. "All right. But there's one of us here who's been studying the circuitry. He'll accompany Fazzool."

Fazzool showed no disappointment. He said, "Fair enough," and went with Egral while Steve was escorted back to the control room.

Ostensibly working at the translation, Steve had time to investigate the ship's automatic and remote controls. He could, he decided (though he didn't test it then) open or close all the hatches, turn lights on or off, adjust the air conditioning and do various other things from the control room. He decided to test the Remms' tolerance by activating an outside viewer.

The guard, squatting in a corner, was on his feet with a little snarl the instant the viewscreen came on. Steve, pretending casualness, swung the view, showing first the forest, then the clearing with the two aircars in it. One of the big flying insects moved by close to the camera. The Remm guard sat down again. Steve added sound.

Egral, when he came in, gave a little purr of surprise. "We thought they were inoperative! But why did you —"

Steve said apologetically, "Testing power leads; they're an awful maze. Is there any objection?"

Egral eyed him narrowly. "I think not. In fact, that viewer may be useful. Can you set it to watch the forest?"

"Why, yes." And Steve did so.

Egral was thoughtful for a moment. "I must talk to someone." With a glance at the guard, he left the room.

Fazzool returned before the viewer showed night outside. "Oh! Zey premit zat?"

Steve said, "I didn't ask permission first. But now they want the forest watched. Did you see anything that looked like sentries?"

"I did indeed. Zere are squads on watch in ports on zat side, wiz searchlights ready."

Steve thought that over. "If there's something they're worried about, we'll have to be ready ourselves. What about ship's power?"

"Zere are no broken leads zat cannot be repaired fairly easily, and except for grav drive and null, ze ship has power. But ze heavy converters are gone; cut out wiz torches. Zis tub will not fly."

"But there's plenty of power for on-the-ground functions?"

"Yes."

"How about weapons?"

"None. But zere is various loose metal. We could make clubs or knives."

Steve couldn't help grinning. "A hell of a way to fight a space war. Well, I've done enough for today." He gestured to the guard.

Now, in a ship's compartment, they had real bunks and bedding. Steve lay in the dark, listening to Fazzool's heavy breathing. Outside the door, a guard's claws occasionally clicked on steel decking.

He wasn't happy with the way things were going. It didn't look as if he were going to get off the planet, or even see the Remm base here. And Egral was certainly suspicious. Maybe he even suspected the truth. Admitting knowledge of the Overseer language had been an expedient, and the more Steve thought about it, the less proud of it he was. The Remm knew ordinary Slaves were carefully kept ignorant of that language.

Wasn't it logical then, from their viewpoint, to think Steve was some kind of special commando? By now they'd surely satisfied themselves that he was not of the Overseer race — close questioning of a Slave would take care of that. But why shouldn't there be individual Slaves elevated to a higher service, secret from the other Slaves? And with that suspicion, it was logical for the Remm to play along, pretending naivete, and perhaps concealing all sorts of resources Steve couldn't imagine. Maybe they had their own viewscreens somewhere in the ship, watching everything.

Irritably, he kicked off his blankets and pounded the pillow to make it softer. What did he know about the Remm at all, except that they had two arms and four legs and some unfamiliar ships?

Laboriously, he went over fundamentals. One: the Remm were studying Gree war potential. Two: so far, their tactics had been only hit-and-run, to capture Slaves and equipment to study. Three: they hadn't appeared, so far as Steve's side could determine, anywhere but in this limited region, just within the edge of the

Gree Empire. Four: their ships and at least some of their technology were radically different.

It was tempting to conclude that they came from a long way off and that they'd had no previous contact with Gree. But a long way in what direction? Gree and Effogan scouts had explored, more or less, a sector of the galaxy amounting to about a tenth of the volume. It was supposed to be impossible to null much closer to the nave. And to go around much farther in either direction, and return, would take a fair chunk of a humanoid's lifespan unless one gambled very dangerously on long null-hops.

But of course there were many dense star-clusters like this one; especially here, on the nave-ward edge of the known sector. And if the Remm could navigate in this one safely, they could do so in others.

And of course there was the nave itself — a grinding maelstrom of unknown forces, close-whirling multiple stars, gas clouds already coalescing into new stars and general debris. Theory said it couldn't be navigated. But theory had been wrong before.

There wasn't anything he knew to indicate, either, that the Remm did or did not plan war against the vast Gree Empire. If they did, they'd need a lot more than a few Task Forces using hit-and-run tactics. Counter-tactics could be worked out. Null disadvantage or no, the sheer bulk of the Empire was enough to give any strategist fits.

Neither had he made any headway in finding out whether the Remm — presuming, against all credibility, that they could defeat the Empire — would themselves become a threat to the rest of the galaxy. Which left him right where he'd started.

VI

As fitful as his sleep was, he awoke with one idea. He discussed it with Fazzool over breakfast — which was meat and boiled grain again. "Did you have a chance to see whether the artificial gravity circuits were okay?"

The B'lant, munching grain, eyed him questioningly. "I saw no damage. But ze most zat could be generated in any part of a ship like zis would be less zan two G's, anyway. If you're zinking of trying zat against ze Remm, zey'd hardly notice it."

"No. But I can feed all sorts of things into the intercoms. And I can lock Egral in somewhere by remote control, maybe, and fake something that would cause him to give the wrong orders. He couldn't tell gravity from acceleration. I might even be able to fake a take-off. Or, I can fake the sound of weapons, I think." He scowled at Fazzool's faintly derisive look. "Damn it, I haven't worked out anything definite yet. But a lot can be done by misleading people."

"People; yes. We do not know about zese beings. And assume ze best. Suppose you could get zem all locked up in ze ship, and we capture ze two aircars and some hand guns. Zen where do we go, eh? Back to ze valley? Or do we attack ze base ze two of us and capture a

ship we do not know how to fly?"

Steve nodded gloomily. "Sure. I'm only thinking, really, of getting some kind of a bargaining position. If you've got any better ideas, let's have them."

Fazzool shrugged, ate more meat and said, with pretended seriousness, "Since you are ze colonel and I am only a new major, I have not given it much zought."

Steve snarled and pushed his own plate away.

Nevertheless, to be ready for any break, he continued familiarizing himself with the ship's controls, meanwhile going on with his translation.

On the fourth day, another aircar arrived, bringing about a dozen more Remm. At least two of them were older than Egral, but neither seemed to be his military superior. Shortly the aircar took off again, taking several of the Remm who'd been here before. Simply rotation of duty, maybe.

Later in the day Egral asked Steve, "Can you arrange some way to transfer what you've done so far into a portable memory bank?"

Steve asked, "In what form?"

"Why, in spoken B'lant."

Steve, puzzled, asked, "if it's portable, it can be brought into the control room, can't it? And we can just play the stuff into it. Or doesn't it have a sound pickup?"

Egral blinked. "Of course it has. That was stupid of me." Then he said, "One of the group who arrived today thinks you've only been translating superficial theory so far."

Steve lied, "I'm taking it as it comes. And I'm no Drive Tech, remember."

"Nevertheless," Egral said ,"we believe you can do better. If you don't, we will apply presure."

"Such as what?"

Egral's brief smile showed. "For a start, feeding you more grain and less meat. I notice you do not like the grain much, though it is supposed to be good for you."

Steve nearly cursed him, but then he had to grin. "I'll hurry it all I can."

The incident didn't bother him; it was only a first admonition. And it convinced him finally that Egral himself knew very little null technology.

Now he dipped into lore that quickened his interest: the means by which two null-points, of approximately known location but shifting, could be linked by some sort of beacon or track. That was done all the time; when, for instance, a ship hopped into a null-tank, within an atmosphere or somewhere else where there was too much matter to allow spacing-in. You evacuated a large, strong steel tank to near vacuum, formed the link and nulled the ship into the tank. But what he hadn't known was that an actual beam of some force, only empirically known and operating in null without time-lag, was generated from both ends and, once joined, maintained its connection automatically.

The Overseer who'd recorded this lecture went into considerable speculation of whether the beam formed a straight line (assuming

there was such a thing in null as a straight line) or whether it followed some sort of curve as a result of divergent aiming. In any case, it seemed to Steve that the technique might hint at how the Remm achieved their instant null, without waiting to recharge. If forces sufficient to guide a ship could be sent through null, why not accumulated energy?

If it did relate to their system, he wouldn't be giving them anything new. He translated that lecture, which took him over twenty hours, and started on another. He was working in four-hour shifts now, with breaks in each for lunch, which left him nearly seven hours off per planetary rotation. Egral seemed happy with what he was doing now.

It was two nights after he'd finished the long translation that some noise wrenched him from his sleep.

He was up and slapping at his hip by reflex for a weapon that wasn't there, then groping for boots and jamming his feet into them. Fazzool was a step faster getting to the door. Some kind of a fight was going on behind it. He touched Fazzool on the shoulder and stood aside as the B'lant jerked it open.

The fight was apparently over. Two vaguely humanoid shapes were rounding a turn in the corridor. On the deck, the Remm guard was sprawled, legs moving spasmodically. One blunt hand clutched a giant arrow — rather, a feathered spear — that he'd apparently just pulled from a wound in his neck. Blood from that and other wounds spread on the steel. Another spear, broken, lay not far away. Steve darted a look around, saw the Guard's energy-pistol where it had fallen and jumped to scoop it up. The Remm convulsed once more and lay still. Steve snapped, "Control room!" to Fazzool and ran that way.

They turned into a well lit corridor and came face-to-face with several of the attackers.

They were not men, nor humanoids.

There were two legs, two arms, a neck and head. But the limbs were slender, almost spidery; the torso very spare, only inches thick from front to back except for the thorax, where leathery skin stretched over thin ribs. The head was smaller than a man's, with oval, sharp-tipped ears and a bestial face with a muzzle and fangs like a dog.

An instant, and the creature's arm shot up to hurl one of the feathered spears. Steve saw now that a great membrane — he'd taken it at first for a cloak — stretched from wrist to ankle, like the patagium of some gliding mammal. He jerked up the pistol and fired. The creature screamed in pain. The spear went askew; but half a dozen others were poised.

Steve was already whirling, as Fazzool paused to throw his own captured spear. The shafts whished around them as they ran back the way they'd come, awkwardly in the light gravity. A sharp pain struck at Steve's shoulder blade, but the spear bounced off the bone. He heard Fazzool grunt and hoped the thick B'lant skin had turned a shaft or at

least partly stopped it. They reached the side corridor, and he skidded to a stop, leaned back to rake the well lighted one with the energy beam. The creatures' shouts went up in pitch, and they fought to retreat. He didn't wait to kill more of them, but gestured Fazzool on. There were roars from all directions now, as if the ship were full of the things. He scanned closed doorways in the corridor, chose one, gulped a breath of relief that it was the right one. A ladder led down into an unlit well. He started down, heard Fazzool slam the door behind them and follow. Four levels down, by feel, he opened a door cautiously and stepped out into a pitch-black corridor, groping his way along it. He made a turn, and another, came up against a dead end and had to retrace. Finally he found the verticle shaft he wanted. The ladder was easy climbing in the half-gravity, but his shoulder hurt. He hoped Fazzool wasn't any worse off.

He counted levels, muttered a word of warning to the B'lant and stepped onto a platform to put his ear to a metal door. There were faint sounds behind it. Damn! Then he recognized that they were only the outside sound pickup, still turned on. Pistol ready, he threw open the door.

The control room was lit but unoccupied. Hurriedly he went around locking doors, Fazzool helping. Finally he ordered the B'lant, "Hold still," and stepped behind him. Blood was seeping through the leather jerkin in two places, but not much. Relieved, he said, "Guess you'll do. Now, if we can manage a few tricks from here, we'll go get those two aircars, as you suggested."

"*I* suggested?" the B'lant said. "I was only making talk. What good are ze aircars to us?"

"If we get them, we've got the Remm here isolated, at least for several hours. I'm almost sure they don't have a transmitter except in the aircars, and I'm going to make sure right now." He went to a communications panel and began keying different rooms. "Egral?" He tried another. "Egral?"

It took ten minutes to get a reply. It came, the panel light indicated, from a large compartment with several outside ports, which must have been an instruction room. Indicators showed the ports as closed and locked; the doors also. "Jen? Where — you must be in the control room! How did you get there? It was cut off!"

"Ladders," Steve said. "We're adapted to climbing, remember. Our guard is dead. How about the rest of you?"

Egral said, "Out of about thirty-five, six known dead. Seven, counting your guard. Two or three badly hurt; others with minor wounds. A small group is somewhere in the far end of the ship, but safe, we think, as they are still operating their searchlight. Maybe you can connect us with them. The rest of us are safe here for the time. We thought we'd wait for morning. But now, of course, you can light the whole ship, and we can start clearing it out."

"Well," Steve lied, "the power's

doubtful. What are these things? Do they actually fly? How many invaded the ship?"

Egral sounded impatient. "Don't forget, your safety depends on ours. They can fly for short distances, or soar in a wind. We've only had skirmishes with small bands before, so we've never bothered to teach them a real lesson. Perhaps we should have. We think there must be several hundred aboard. We were foolish enough to let a few land unseen from directly overhead. They showed a surprising organization, seized several open ports and held them while others poured in from the trees. Is Fazzool with you? Are you both unhurt?"

"Both here, nicked, but not dangerously." Steve saw from panel lights that Egral's compartment was dark. To pretend allegiance Steve turned on lights in it. "Is that better? Have you radioed for help?"

"No," Egral said, "we —" He broke off.

Steve gave Fazzool a look and turned off the communicator for a moment. "These Remm *aren't* on top of the situation."

Fazzool shook his head. "I knew zat when we saw ze guard, dead from somezing so primitive as a spear. But what zen?"

Steve keyed the intercom again. "I'll investigate the ship's radio equipment, Egral. If it's working, maybe I can give you a voice circuit so you can call your base. Wait."

He could, of course, do that in moments. Instead, he went to one of the teaching-banks' keyboards, chose a lecture, programmed it to play in various part of the ship, punched for loud volume and set it going. Noise blared outside the locked doors. That would distract the gliding creatures for a while — and also cover up the sounds of certain doors and hatches opening, to clear a path to ground level. Quickly, he turned on outside cameras and swivelled them around, increasing intensity to see in the starlight. On the forest side, a searchlight swept across a gliding figure, which twisted and dove, evading the energy beam that spat out from a hand gun. In the other direction the two aircars were dark, with no sign of action around them.

Egral's voice was calling angrily. Steve turned off the noise long enough to talk. "I heard them outside doing something, and I wanted to worry them and gain time. Say, we've just had an idea. Fazzool says there's power enough for artificial gravity for a few minutes. Would it help if I made gravity throughout the ship about four times what it is now?"

There was a silence. Then Egral said, "I think you know that it would immobilize them without bothering us. Just what is in your mind, Jen? I remind you once more that you are alone, weaponless, on a strange planet in a part of the galaxy the location of which you don't know."

That, Steve mused, was *Egral's* bargaining position, and it was a good one. Still —

Suddenly he stared at Fazzool. Of course! Why hadn't it occurred to him? He turned back to the intercom. "True," he said to Egral. "We're

as lost as you are, until we get back to where you captured us."

It was a gamble, of course.

A minute passed, silently. Fazzool began to grin. Steve told Egral, "I'm going to start the gravity, but you'd better stay put until we go down ladders and check the power supply. It will take us a while. We won't be able to climb back up in the gravity, but I'll arrange so we can talk to you from there."

He turned on the loud lecture again, then swiftly programmed the artificial gravity and punched the "Execute" button.

Fazzool, braced, growled, "It does not work!"

Steve pointed to lights on a panel. "Sure it does. You didn't think I'd include this room or our path to the outside, did you?"

VII

As fast as they could in the dark, they went down ladders and along passageways to a port low on the curve of the middle section. Around them, the ship resounded with the programmed lecture. Steve peered out at the starlit clearing, saw nothing.

The nearer of the aircars was fifty or sixty yards away. Once there, they'd fly it to the other. He dropped the thirty feet or so to the ground, rolled to absorb the impact and was on his feet, running, with a glance to make sure Fazzool got down all right. He tried to watch the footing and look up and behind at the same time. A dark shape came diving. He hurled himself aside as a spear zipped into the ground, raked a pistol-beam across the creature to be sure of a hit. It screamed and swerved to flee. Other dim shapes were swooping from atop the ship, releasing their spears from a safer distance. The spears plunked in a scattered patter; there was no use dodging. Then they were at the flyer, and Steve, his back pressed against it, sent short squirts of energy up to discourage the attackers. Fazzool fumbled the hatch open, and they scrambled into the pilot's compartment. Steve felt about the unfamiliar panel for light-studs, swore and played the laser gun for an instant on the steel ceiling. The momentary glow was enough. He jabbed at buttons and lights came on.

Then it was only a matter of guesswork and experimentation to get the craft in the air. He spent a minute checking controls, then moved toward the second aircar, maneuvered carefully, and hovered while Fazzool leaped out and got into the second vehicle. Then Steve lifted a ways and made a dash at a flock of the gliding creatures, who, flapping hard, were hovering nearby. They scattered and dove like sparrows before a hawk.

Now there was time to study the radio transmitter and make sure he only used enough power to reach Egral. The booming lecture was still going; he'd been a little generous guessing how long they'd need to get to the aircars. When it stopped he tried channels until Egral's voice answered. "Jen? Where are you? Will the gravity stay on?"

"No," Steve told him, "it'll go off

any minute now. I programmed it that way. And there are a lot of those vermin outside, anxious to get into the ship."

A long pause. Then, in a snarl, "Where are you?"

"In the two aircars. We want to bargain."

Egral said in a flat tone, "I suppose you're some kind of special commando. If I hadn't been dealing with the Slaves, I wouldn't have underestimated you so badly. As it is, you were very lucky in having this thing come up."

"Of course," Steve said, "but give us credit for being ready, anyway."

"I'll give you nothing. We'll blow up this whole planet before we surrender."

"Surrender, hell," Steve said, "we want to pool resources with you. Especially technology! Fazzool and I aren't with Gree. We represent a coalition that's resisting him, and we can't conceivably be a threat to your home region, wherever it is. We aren't conquest-minded, anyway. We've tried before to make contact with you, but you shot without waiting to listen."

Another pause, then Egral said, a little uncertainly, "The gravity just went off." He didn't know it, of course, but that was only in his compartment, to fool him. "If we shot without provocation, we are not aware of it."

"I'll accept that," Steve said, "since I realize your position, surrounded by hostiles, isolated and lost. Anyway, our ships look like Gree's. They may even have been wearing the Sign, since they had to sneak so deep into Gree territory. What I propose is this: you and I sit and trade questions, one at a time, in turn. We both agree to answer them frankly. As a guarantee of our own sincerity, we'll rescue you from the vermin, give up all our advantage and place ourselves in your hands again. We don't have to, you know. We have other resources." Which was a pretty splendid lie.

Egral said cautiously, "You don't know much about us. You wouldn't bargain if you had other resources."

Steve said, "I know with reasonable certainty that you're not pirates or tyrants. You're not nearly ruthless enough. And I'll rely on your word."

Another wait, then Egral made a sound like a sigh. "All right; I give it. But I'll be skinned alive for talking to you direct."

Steve said, "We're in the same boat. But this is the best way." He looked toward the other aircar and saw, as he expected, Fazzool's face glaring at him.

Fazzool wasted a question by asking about the planet. "It's disk-shaped," Egral told them, "less than fifteen per cent as thick through the poles as its longest diameter, which is close to thirty thousand miles." He caught Steve's look of doubt. "No. As you realize, a core of normal matter couldn't assume that shape without spinning much faster, and then it would be unstable. But this isn't what *you* call normal matter. It's a small core, of much denser matter than any you consider normal, which has the property that,


GRAY MORROW

when a mass of it rotates, its gravity is polarized along the axis of spin. Not entirely, but to an extent depending on the rate of spin. That's why the gravity in that prison valley's higher. Out here, besides being off the center line of polarization, we're much farther from the core. I've often wished I had time to fly out farther, near the rim; things might be interesting there. My question: Where is this Effogan coalition you represent?"

Steve told him, "Out beyond the Gree Empire. We're mostly in one spiral arm of the galaxy. Now, my question: why is such a competent fighting force as yours so lacking in technicians, or even artisans?"

Egral shifted his body weight. "That's a longer story. We were on a long cruise. We do have enemies, as you've doubtless concluded. Then, forced into a sudden maneuver, we made a hastily computed null jump. It just happened to land us in some nexus of force that I can't begin to explain. Without insisting on a question, I'll tell you that our home is closer to the galactic nave, where there are forces that baffle our best theoreticians. In any case, our particular group of the Force was hurled thousands of light-years into totally unfamiliar surroundings. We've never been this far out before — we didn't even know the galaxy had spiral arms! Well, this particular cluster here attracted us somehow, or brought us out of null or whatever we were travelling in. It seems this is a localized concentration of the denser matter I described, and which we're used to; that's probably what brought us out of null. But I digress. We were without any of our auxiliary ships, which bore the technicians — we had nothing, almost, but fighting personnel. Though I, myself, am a linguist by specialty." He paused. "You see, with us, the females are the technicians, and they don't go into actual battle on fighting ships. My question — oh, nonsense; I don't have any worth bothering with. What do you want to know?"

"Well," Steve said, "if our scientists, who are as good or better than Gree's, are going to help you get home, they'll have to know about your null technique."

"Oh, that. I'm not too well versed in it myself. But in our capital ships, which do the nulling with the smaller ones inside, a great store of energy is *left* in null, so that it doesn't have to be built up slowly in normal space. That's why we have the double-globe shape; one's left in null, connected by bonds of force as well as matter, and it holds the necessary energy. The only reason it's visible at all is that there's a minor energy-leak into space. I notice our trick of opening a hull wherever we wish amazes you. It's very simple. We simply null a section of the metal, then return it whenever we wish."

Steve said, "Technologically, I think our side will get the better of this bargain."

"Maybe," Egral said, "but there are things we lack too. Knowledge of the outer galaxy . . . And of course, this Group has little to offer except the ships, for study. Once we were in contact with the Gree forces

— they attacked without warning, by the way, when we were only exploring peacefully — we hoped we could capture scientists and learn enough from them to find our way home. But frankly, things were getting desperate. We'd learned almost nothing. We haven't the basic training we need anyway. And we're running short of munitions, not to mention fuel."

Fazzool said, "Zat will be quickly remedied once we get to an Effogan base." He added thoughtfully, "I have always wondered what ze nave of ze galaxy would be like. Perhaps I will add one term to ze deal: you take us zere!" END

A Code For Sam

by LESTER del REY

Illustrated by LUTJENS

Out at the end of the spaceways, humans and robots fought side by side to win new worlds for Earth!

I

It was hours after the cave-in before the first sounds of rescue reached Sam. He switched his brain back to high amperage drain to come fully alert and began sending more current through his body heaters to prepare for emergence. From the nearness of the digging, there could be only a few feet of rubble left in the collapsed tunnel.

Fifteen minutes later, he felt a pick strike near his outstretched hand. He grabbed it and pulled himself out of the dirt and gravel around him, then scrambled quickly forward to the entrance. Surprisingly, it was a human hand that reached out to help him to his feet.

"You okay, Sam?" Barney Collins asked. The wizened old prospector's face and oxygen mask were filthy with sweat and dust, but concern showed plainly in his eyes.

Sam nodded. "I'm fine, Barney. What happened to Pete?"

"The new robot?" Barney shoved

his mask aside and spat out tobacco juice, then shrugged. "Something funny about him. Came into camp hours ago, but never said a word about you till we got worried and asked. Come on, we better get back to the digger before it gets colder."

Sam glanced about, to see that the day was almost done. The high ceremonial mounds were casting long shadows as Tau Ceti sank in the east, and the thin air was already losing heat. In another hour, the temperature would be forty below zero. At its best, Anubis was a hostile world even to a robot like Sam, totally unlike the lovely second planet men called Isis. Here, except for the Gregg Archeological Expedition, there were only a few prospectors and trappers, with a small spaceport and trading post at Ramses to service them.

Their digger was a converted prospector tank with a larger cabin and a collapsible shovel crane on top. Inside, Barney threw off his mask and began washing it hastily, while Sam lifted his chestplate and switched to freshly charged batteries. The man turned on the headlight, then swung the vehicle on its caterpillar treads to head back toward the camp, some four miles away.

"A lot of trolls showing up," he muttered. "Too blamed many."

A dozen natives could be seen in the headlight beams as he spoke, moving aside to let the digger pass. Their snarling, vulpine faces stared fixedly at the machine. They stood three feet high, with bodies like pears mounted on pipestem legs and with arms that nearly touched the ground. A greenish fur stood out several inches as insulation against the cold. All were armed with spears and heavy stone hammers, and some had bows slung over their backs. There were no young among them.

Sam shared none of Barney's prejudice against the trolls, but he felt a growing unease as they passed another armed group. In the years he had worked with Gregg to untangle the lost past of Anubis, he had encountered no real threat from them. But their sullen legends were full of violence, and most of it centered here at the Burial Mounds of the Rock Devils where the expedition was digging.

The men were just sitting down to eat as they entered the main expedition Quonset. Barney took his seat between the gray form of James Gregg and the heavy figure of his former prospecting partner, Yeng Lee. Across the table, young Dickson sat alone. He had joined them with the PT model robot two days before, unasked but bearing authorization from the Earth university that was funding them. The space he'd taken in the supply truck hadn't made him any more welcome. And now his face was flushed with heat from some argument that had been going on before Sam arrived.

Gregg motioned for Sam to take one of the chairs. "All right, now maybe we'll get some sense out of it. Sam, what happened to you? Dickson here won't let me question Pete properly."

"I have every authority to retain

full control over Pete, as you know, Dr. Gregg," Dickson said in a tone he tried to keep patient. He had moved away slightly as Sam dropped beside him, a gesture that betrayed his Earth origin even more than his accent. "Pete is an important experimental model. I cannot let him be ruined by improper handling."

Sam broke in quickly to tell what he could, but he wasn't entirely sure himself. He'd been digging a tunnel into the core of a new mound after instructing Pete in the placement of temporary shoring. There had been the sound of strain on one section, and he'd yelled for Pete to get under it and support it until new bracing could be added. Then the whole roof came down, trapping him.

"The cave-in may have started before Pete could reach it," Sam finished. He didn't believe it, but his back had been turned at the time. "But Jim, I —"

Gregg interrupted impatiently. "All right, we'll let that go. But I want to know why he abandoned you there and then didn't report when he got back! Well, Dr. Dickson?"

"I won't even discuss it before another robot," Dickson said.

Gregg's fist hit the table with a blow that made the dishes jump. "By Horus, Dickson, one more crack like that and you'll be walking back to Ramses, fund or no fund! Sam's my second in command here, as well as a friend of mine. Pete, come out here!"

"Easy, Jim," Barney said quietly. "The kid's from Earth and doesn't know any better. Give him time."

Gregg's face lost some of its tenseness. He fumbled in his pocket and dragged out a cigarette, tapping it sharply against the table. He was just lighting it when Pete emerged from the kitchen.

Then the new robot was across the main room at a single leap, and his fingers were tearing the cigarette out of Gregg's mouth. He dropped it onto the packed dirt floor and ground it out with his heel.

"Cigarettes are harmful to human beings, Master," he said in his gentle, monotonous voice.

II

Dickson had jumped to his feet and covered the robot's body with his own before Gregg could push up from the chair. Now he began shoving Pete from the room, saying something in words too low for the others to hear. Then he was back, looking acutely embarrassed.

"I'm sorry — very sorry. He won't do that again. I've told him that cigarettes are only harmful on Earth — quite healthful here." He sighed and groped backwards for his chair. "I — I guess I'd better explain, even though it may contaminate our experiment."

Gregg took a long time lighting another cigarette. Finally he nodded stiffly. "Yes, Dr. Dickson, I think perhaps you'd better."

Dickson began awkwardly with needless background and too much bias. Robots were produced by Earth companies and leased from them, but nearly all were used in space, where they could cope with hostile environ-

ments better than men. As a result, most Earthmen had never seen a robot, and inexperience left them prey to every fantasy from the ancient horror films. And, of course, *occasionally* a robot did injure a human, with sensational headlines in all Earth newspapers.

"So we had to make robots safe for Earth," Dickson went on. "To do that, we had to devise a foolproof code of ethics for them."

"Maybe you'd better find a decent code of ethics for humans and use that," Barney suggested.

Dickson smiled dutifully. "It wouldn't work. Men's ethics revolve around instinctual social drives; but robot brains contain only what is put into them during their education programs. Hence we must have precise rules that can be completely conditioned into them. Fortunately, I was able to discover such laws in the same literature which enabled Dr. Sorrenson to discover our faster-than-light drive."

They might have guessed it. After Sorrenson invented the space drive and publicly admitted he'd taken the idea from an old science-fiction story, a lot of the borderline sciences had leaped onto the bandwagon. Nobody had yet found anything else useful, but it was a good way to get research money now.

"Good Lord!" The anger on Gregg's face had been replaced by a growing amazement. "The three laws of the Asenion robots! I read about them up in my grandfather's attic when I was a kid. Don't tell me you took those plot tricks seriously?" He closed his eyes, trying to remember. "A robot must not inflict or permit harm to a human; subject to that law, a robot must obey human orders; and subject to both laws, a robot must protect itself. Right?"

"Not precisely. But in general—"

"Slavery and racism!" Lee spat the words out. "A black slave must not strike a white master; a black slave must obey a white master's orders; a black slave must protect itself as part of its white master's property. You call that *ethics*?"

"I don't think the author meant them that way, Lee. They were just things he could build plots on, for fun," Gregg said.

The big man grimaced. "Fun! I suppose having Pete call every human *Master* is an Earthman's idea of fun, too?"

"Unfortunately, it probably is." Gregg turned back to Dickson, and his face was completely sober. "Naturally, you had to train Pete to be as literal minded as most of the fictional robots. Any flexibility or judgment would have ruined your precious code. Poor Pete! Without human orders, he had to run away from any danger in the tunnel to protect himself. The robot Sam meant nothing in his code. And then, because he probably knew he'd done something wrong, he had to protect himself further by making no report until ordered to do so. Give him a month of normal work in conflict with your code, and Pete's going to be hopelessly insane — maybe dangerously so. Dr. Dickson, your experiment's finished. Until you can

leave, you'll keep Pete under close supervision, confined to the kitchen."

"No!" Sam put a heavy hand on Dickson's shoulder and shoved the white-faced man back into his chair before angry words could spill from his lips. "No, I'm going to need Pete in the new tunnel tomorrow. And I'll need Dr. Dickson to make him obey my orders."

Gregg shook his head. "Impossible. Sam, you don't know what you'd be letting yourself in for."

"Then I'll have to risk it. No, wait. You were all so busy arguing about Pete's ethics that I never got a chance to finish my report. Jim, this isn't like the tunnels we've dug through all the other mounds. It's —"

"King Tut's Tomb!"

Sam nodded. "Maybe. At least I've struck against some kind of a metal barrier less than half way through the mound."

Then the men were clustering around him, pounding him on the back and yelling for the few details he could give. Even Dickson began to catch the feeling, though his eyes kept darting back to the metal hand that had rested so rudely on his shoulder.

Later, when the men had finally retired to their bunks, Sam had time to let the contagion of their enthusiasm drain away and to get back to his private doubts. He moved out into the freezing night, staring at the ring of eyes around the Quonset. The trolls were still gathering here, armed and waiting. As he watched, a new group moved up and found places to huddle, only few hundred yards from the camp.

Fifteen years, he thought as he went back into the dim main room. Long years while Gregg and he tracked down tiny bits of evidence that seemed to indicate the trolls had somehow reached a brief period of high culture a thousand years before. A worn bit of metal knife blade; a chipped burning glass that still worked; the divergent legends of the Killing of the Rock Devil and the yearly ceremony of mound building. And then the final discovery.

Lee and Barney, returning from prospecting, had found a battered metal object sticking out of one mound. They hadn't considered it important enough to mark the mound, but they'd taken it to Gregg at Ram. When finally opened, it contained nearly two hundred well preserved sheets of paperlike material covered with writing.

Sam took out a set of photocopies and glanced through it. A primitive language changes slowly, and the decoded writing was a phonetic script for early troll speech. He could read most of it now without Gregg's dictionary or notes. But he couldn't accept it.

Without leaving evidence of a technology capable of building huge telescopes, how could any culture write a simplified text on astronomy that described the various galaxies and the evolution of stars? How could could such a culture refine and alloy aluminum and then roll it out to make the flat sheet that formed a barrier in the tunnel?

If the ancestors of the trolls had achieved all that once, who could hope to guess what they might do now?

On impulse, Sam carried the photocopy back into the kitchen where Pete was still sitting. There was time enough before morning for a PT robot to master Old Trollish, and the ability might prove useful later. At least it would fill Pete's time better than brooding about his code of ethics.

III

In the morning, the trolls seemed to have filled the whole area. They made no hostile move as the expedition party began unloading the digger and carrying shoring supplies up to the tunnel, but hundreds of eyes followed every move.

Gregg had been conferring with a couple of old trolls he had recognized, but now that conference seemed to be over. He was staring into the tunnel mouth cautiously as Sam and Pete climbed up to it with a load of shoring. He slipped the flashlight off its hook and began crawling forward, obviously trying to catch a glimpse of the other end. Pete watched intently until the man was nearly inside the entrance. Then he dropped the last of his load and dashed forward to drag Gregg back.

"You might be hurt, Master. It isn't safe in there," he warned the man gently.

Surprisingly, Gregg grinned slightly. "Oh hell, maybe you're right this time, Pete. Go back to work, and I'll behave."

He waited until he was alone with Sam and then gestured toward the tunnel. "You're going to need a lot more material than we brought to shore that up safely. The whole mound above it looks unstable. Think you can make out all right while we pull material out of Lee's last dig?"

"I think so," Sam told him. "So far, Dickson's lecture to Pete about following my orders seems to work. What about the trolls?"

"They've been hearing rumors that we're trying to bring the Rock Devil back to life, near as I can make out. I've told them we just want to make sure he's still dead and really kill him if not. They seem willing to accept that, but they're going to stick around to make sure." He shrugged. "Maybe I'd better leave Dickson with you and Pete. He's not much good for work, anyhow."

He slipped over the edge and slid to the surface below. A few minutes later, the digger took off, drawing a small contingent of trolls after it. Most stayed on, keeping their gaze fixed on Dickson and the robot.

There wasn't much Dickson could do. He found a broad rock near the supplies and sat watching as Sam and Pete drew on their grappling mittens and heaved and pulled the heavy sections of wire mesh up to the ledge in front of the tunnel. Finally the work of hauling was finished.

"You go first, Pete," Sam ordered. "I'll back you up."

Pete considered the tunnel and began drawing back from it. "I

can't. Yesterday proved that it's too dangerous in there."

Dickson was running toward them, and Pete would follow his orders, of course; the second law took precedence over the third. But Sam had taken enough nonsense. He couldn't depend on calling Dickson to intercede if an accident happened in the tunnel.

He stepped forward, brushing Pete's hesitant arms aside with a savage thrust. His grappling mittens closed firmly over the robot's neck, and he began forcing the claws of the mittens together.

"You're in more danger now than you would be in the tunnel," he told Pete. "You'll have every wire in your neck short-circuited, unless you make up your mind to obey my orders from now on."

Pete's head bobbed as far as it would go. "Yes, Master."

"I'm not your master. I'm just Sam."

"Yes, Sam. I'll go in the tunnel and do what you order."

"Sam, stop it!" Dickson was screaming and struggling to break Sam's grip. "Release him at once, Sam. That's an order!"

Sam let his grip loosen and shoved the man aside. "You'd better get back below, Dr. Dickson. I don't have a second law — maybe not even a first one. If I've got any code at all, you wouldn't know it — because it wouldn't occur to you to ask a normal robot about such things as ethics, would it?"

The brief flush of fright was fading from Dickson's face, to be replaced by a thin smile. "No," he admitted. "It really didn't occur to me. Perhaps I should ask you, some time when we're both not so busy. I'm sure you'd have an interesting answer."

Enlarging and bracing the tunnel was hard, slow work. Pete was no longer affected by the risk, but he was sadly lacking in initiative. After the first few minutes, Sam took the lead position, letting the other robot haul rubble and fetch supplies. By the time the men came back, less than twenty feet had been braced and lined properly with canvas and mesh.

There was room for no more than two in the tunnel, and the robots were better suited than the men for such work. Barney and Lee stayed near the entrance, hauling back baskets of rubble, while Gregg operated the digger shovel occasionally to clear the ledge. The cave-in seemed to have loosened part of the mound above them, and the work became increasingly difficult as they moved further in. It was long after noon before the last section was cleared, to expose a six-foot circle of what seemed to be machine-rolled aluminum sheet that blocked further progress.

Gregg came down to inspect it, tapping the metal doubtfully. "Sounds hollow, and not very thick. Can you cut it?"

"There may be danger for you, Master," Pete warned hesitantly.

Gregg sighed, but stepped back. "All right. I'll keep my oxygen mask tight. Go ahead, Sam, open it!"

If the metal had ever been tem-

pered or work-hardened, time had softened it. While Pete held the light, Sam began cutting it with the mesh snips. He tore the last few feet free and folded the panel back against the tunnel wall.

All the men were crowded into the tunnel by the time he had finished, pressing forward and craning their necks to see what lay beyond. But they waited impatiently while Sam found a place inside for the light and Gregg took the necessary photographs for the record.

Metal walls and roof formed a low dome, not more than twenty feet in diameter. A battered, dented door at one side was flanked by benches that curved along the walls. Opposite the door, hanging shelves rose to a height of six feet. The largest feature of the room was directly in front of those — an enclosed table or desk, with a seat attached to it on a swinging arm. The floor was of metal, strewn with wreckage and damaged machinery.

Sam's eyes swung rapidly over the scene and then centered on the objects scattered across the shelves and spilled onto the floor below. There were dozens of familiar metal containers and other things that could only be books.

He was across the room as soon as the camera stopped clicking, reaching out cautiously for them. Beside him, he heard Gregg's breathing catch. He half expected the book to crumble at his touch, but whatever the paperlike material was seemed proof against time. There was a solid feel to the book and the pages turned easily.

The characters were the same as those of Old Trollish, with two new additions. But the words were totally meaningless.

"Aliens," Gregg said. "They had to be. There isn't a thing in this room designed to fit troll hands or bodies. Let's take a look at the cannisters."

Once it was pointed out, the untrollish nature of everything was obvious. Even the door handle was too high. A man or robot might have sat at the desk Pete and Dickson were inspecting, but no troll could have used the swinging seat.

"Trolls maybe didn't design any of this, but they sure ruined it," Barney called. "Better take a look at this, Jim."

He and Lee had gone at once to examine the wrecked machinery. Now he began pointing out what they had discovered.

The largest piece was obviously some kind of organic fuel cell, with the piping around it reduced to twisted metal shreds. Something with vats and movable flat belts might have been either the source of the plastic paper or a way of printing on it — or both; there wasn't enough left to be sure. And a beautifully simple typewheel writing machine was intact, except for its motor. Half a dozen broken stone axe heads could be seen to show what had caused the damage.

"Looks like they started a news press here, and vox pop didn't like the truth," Barney said bitterly, "Every blamed thing that moved is smashed to smithereens."


LUTJENS

Gregg nodded thoughtfully. "Well, get what details you can with the camera." He motioned to Dickson, who was watching Pete try to pry open a locked desk drawer. "Give them a hand moving things, will you? I want to find out if there's any information in those cannisters."

The containers opened easily to pressure in the right places, and this time the writing was in Trollish. Sam found a text in agriculture, one on metallurgy, and a duplicate of that on astronomy. Then the fourth came open, and he let out a cry for Gregg.

There were two columns this time, one in Trollish and the other in what must be alien words. They flipped through the pages, finding another section with the order reversed. It was obviously a bilingual dictionary, alphabetized for both languages, and covering several thousand words. Two other complete sets of sheets lay behind the first.

"What a Rosetta Stone!" Gregg exulted. He was literally caressing the sheets. "And in triplicate! With this, we'll be reading all those books in a matter of days, Sam. And once —"

A loud crashing sound drowned out the rest of his words. They jerked around to see Pete stamping and leaping madly beside the desk. Dickson shouted an order for him to stop, but the robot went on unheedingly. By the time Sam could reach him, Pete had reduced whatever had been in the opened desk drawer to a mess of plastic lumps and metal scraps that could never have meaning. Then he halted, standing quietly in the ruin he had made.

Dickson approached him, striving for a note of firm command. "I'm giving you an order, Pete. I order you to tell me what that was."

Pete made no answer. He began backing away, shaking his head.

And more orders from Dickson only made him back away faster.

IV

"Oh, let him alone," Gregg said at last. "It's your damned prime law — something that Pete thinks might harm men, obviously. That means anything from the ultimate weapon to some alien dirty picture. And since he thinks telling us would also harm us, we'll never know whether it was important or not. It's my fault for letting a rule- and fool-crippled robot in here and not having him watched. Take him back to the digger, Dr. Dickson."

Lee held out a thick wrist, indicating his watch. "We'd all better go back with the slavemaster, Jim. By the time we can weld some mesh over the entrance to keep trolls out, it'll be night."

Gregg frowned in surprise as he checked his own watch. Then he nodded. He gathered up a set of the dictionary sheets, selected a couple of books at random, and fell in beside Sam as they headed back through the tunnel. But as they neared the entrance, he stopped.

"I think this place is taboo to trolls, even without the gate. But I'll feel better making sure. You go on, Sam."

"*You* go on. I wasn't planning on getting much sleep tonight, anyhow," Sam told him with heavy sarcasm.

Gregg chuckled. "You're right, of course. Thanks. I'll send down fresh batteries and my rifle before we leave. See you in the morning."

He hurried after the others, and Sam turned back, studying the situation. From the desk, he could see a good distance up the tunnel by arranging the light carefully. And by turning in the seat, he could reach most of the books. He spread out the second word list and prepared to do some serious studying.

Barney brought the rifle and batteries down a quarter hour later. He pulled a sandwich out of his pouch and sat down on the ruined fuel cell to eat it. "They got the gate welded down pretty good," he announced casually.

Sam shook his head gently in the gesture he used where a man would smile. "Thanks, Barney."

"Don't mention it, youngster. Temperature ought to stay comfortable down here, at least." The man finished eating and drew a thin air mattress from his pouch. When it had blown itself up, he began kicking an area free of debris. "Wake me if anything should happen."

Somehow, in spite of the oxygen mask, Barney managed to snore. But Sam was rather glad of the sound. He stared down at the old man fondly, remembering the first human he'd ever loved. Pop had been officially only head janitor of the robot school, but he'd somehow managed to provide an endless stream of games and stories for the students. He'd laughed away their failures and given them all the same advice when they finally graduated. By now, he was a legend among robots, and his words were hallowed in tradition.

Pete had missed all that in his conditioning. It was no wonder he acted more like a half-trained dog than a real person.

At midnight, Sam checked the tunnel. The gate was still secure. It was too dark to spot the trolls, but he could hear them yammering all around, with one repeated cry: *Yar Noo biliyet!* The first two words meant "Rock Devil" and the third was obscene. They were working up to something, but they didn't sound dangerous yet.

He went back to pore over the books. He'd given up any hope of making sense by translation; too many words were missing from the bilingual sheets for immediate sense. He was looking for the few books that had pictures, studying those. One showed a night sky with a star pattern that might help astronomers locate the alien sun. Another yielded several group scenes, and those disturbed him. They showed a dark, graceful people with two legs and four slender arms. But their skins were too smooth, their bodies too similar, and their heads too identically spherical.

"Something eating you, Sam?" Barney asked suddenly. He must have been awake for some time, since he was already chewing away at a cud of tobacco.

Sam shook his head, unwilling to state his suspicions yet.

Barney grunted. "Well, something's eating me. From where I sit, I can see half an inch showing under the bottom plate of your desk, and I want to know what's underneath, holding it up. Think you can move it?"

A minute later, they were looking at the spot where the desk had stood. A smooth, oval hole had been cut through the metal floor and dug into the ground below. Heavy rocks were jammed tightly together to fill it completely.

Barney looked at the rocks and then at the desk that had been placed over them. "Looks like something was meant to stay down there. I got a hunch we're going to have a lot of work getting it out."

It wasn't too hard at first, though some of the stones weighed more than a hundred pounds. But the work increased with depth, and they were eight feet down before they reached the last layer. The men and Pete had already returned in the morning and were clustered around the hole when Sam finally freed what lay at the bottom and passed it up.

The head was no longer spherical, the metal chest was horribly crushed, and most of the brown enamel was gone. But as Barney and Lee stretched it out on the floor, it was still slim and graceful, with two legs and four slender arms, like all the people in the book.

And like them . . . it was a robot.

"So that's the Rock Devil," Gregg said finally, without surprise.

Dickson was studying it with horrified fascination. "It doesn't look much like rock to me."

"It does to trolls," Sam told him. "If a thing bleeds or gives sap, it's *bel* — food; otherwise, it's *yar* — rock. *Yar* that acts like *bel* is a devil — *noo* — and smart trolls ordinarily look the other way. But this is the ultimate *Yar Noo*, and supposed to drive them into a killing rage."

"It's going to complicate our problem, but I guess it's worth the risk," Gregg decided. "Any trouble here last night?"

"No troll trouble. Just a lot of noise."

Gregg frowned. "That's odd. We had a sort of war dance around us all night. Two of the chiefs I know came to warn me that if we didn't make sure the Rock Devil was dead and get out quickly they couldn't control things much longer. I've abandoned camp already. I figured on loading up here and heading south to Ramses at once. But now we've got to smuggle the Rock Devil out. Any idea how?"

"Cover him with a piece of canvas, and I'll carry him down and load him in the digger," Sam suggested. It was the simplest way.

Apparently it was too simple for the others. Eventually they decided to make four drawstring bags from the canvas. One would contain the Rock Devil, and three others would be filled to the same size with everything else. These would be lowered one at a time by crane.

The bag with the Rock Devil would go last, after they saw the troll reaction to the others.

"Pete will have to operate the crane," Gregg decided. "Dickson, you supervise and make sure there are no slip-ups this time. Lee and Barney can improvise the bags, then go down to stow things in the digger. Sam, you'll stay with me and select what we'll take."

The thick canvas bags were clumsy, but they seemed strong enough. Sam bundled the alien into the first to give them a model for the size of the others. Then they began stripping the dome of all of any value. Two books, the writing machine and Sam's spare batteries were left to be carried out after the bags were safely down. Sam slung the rifle over his shoulder and began moving the sacks to the entrance.

The trolls were about a hundred feet beyond the digger and herded between all the mounds. They kept their fixed stares on the ledge as Sam moved out with a sack, jabbering obscenities, but made no sign of taking other action.

At least Pete could handle simple machine controls well enough. The shovel swung up smoothly to level with the ledge, accepted the first sack from Sam, and carried it down directly to where Lee and Barney were waiting. The trolls hopped about and yelled, but they made no effort to interfere. The second and third sacks followed. Sam waited until all were stowed in the digger before bringing out the one with the alien and dropping it onto the shovel.

The crane drew backwards — and swung suddenly away from the men waiting below! The digger tracks spun into motion, slewing the machine around to face away from the mound. Inside it, Sam could see Dickson pounding futilely against Pete's hands. Then the man gave up and ran back to leap for the machine and stumble toward Lee and Barney. Gregg started toward the ledge, but Sam pulled him back.

"We're better off up here, Jim, if there's trouble. Call the others up."

Gregg yelled down, and all three men began climbing toward the ledge. Dickson looked sick as Sam pulled him up the last few feet.

The digger was rolling forward now. Trolls spilled back and aside as it headed for them. The machine drove on for perhaps two hundred feet along the old road toward camp until it came to a rocky section. Then the shovel opened and spilled its contents directly in front of one caterpillar tread. The churning plates of the track hit the sack and began pounding across it, carrying ten tons of weight to grind it against the rock. The digger reversed itself and reversed again. It made six more passes before it stopped and Pete dropped from it. The robot began walking back toward the mound casually. Trolls jittered and then made room for him.

"They didn't spot it," Gregg said suddenly. "They don't know we had the Rock Devil. Sam, if we can get the digger back, we may still get out of this."

Sam nodded and threw his am-


PL

perage drain to emergency maximum, prepared to drop and run for it. Then he stopped as his heightened hearing brought him the sound of Pete's voice.

The words were in Old Trollish, but the PT brain of the robot had learned the lesson well — and somehow he had managed to guess the cant of primitive oratory. *"Yar Noo alidet!* The Rock Devil is dead! We bound him and cast him from us, we ground him into the dust of the earth, we made him like the grains of sand that blow before the wind. His breath is spent, and his power, forgotten. He cannot rise again!"

There was a delay as the ancient form of the language filtered through to the trolls. Then they were leaping for the area where the digger had destroyed the alien. And a moment later, the message was being relayed forward.

"Yar Noo alidet! Yar Noo alidet!"

V

The results came quickly. There was a series of wild cries, and then the trolls were leaping forward toward the mound, drawing their weapons. Bows were lifted, and arrows began whistling through the air. They fell short, but the next flight would reach.

Sam swung his arms, shoving the men down the tunnel. He turned again, yanked the rifle from his back, and sighted quickly. He knew some of the chiefs, and he picked them off while the arrows banged against him. At the death of the fifth chief, the trolls faltered. As the eighth dropped, they began retreating.

He lowered the rifle and stretched out a hand to help Pete up, while Gregg came from the tunnel entrance to join them, then stood watching as the last of the trolls vanished behind the digger and nearby mounds. Now that the first rush had failed, they would spend the day picking new chiefs and yelling their courage back, waiting for the obvious advantage of darkness. But meantime, they were making sure that their victims had no safe line of escape.

"They may relax a little near sundown," Sam decided. "Then if I can reach the digger while you cover me with the rifle, we may have a chance. I'll back it up to the mound, and you'll have to make a concerted run for it. If you get inside, it may protect us long enough to get through the mob and outrun them."

Back inside the little dome, the men listened grimly as Gregg outlined the situation and plan to them. Lee and Barney nodded as he finished.

Dickson shook his head. "Not all of us. Dr. Gregg, that robot isn't safe with us. He deliberately refused to obey. He got us into this!"

"Sit down, Dr. Frankenstein," Lee said sharply. A big hand put force behind his order. "We're all in this together — even you! With what I heard about the danger to us of the Rock Devil and the trolls' insistence we kill it, I thought Pete was doing the right thing. And I still don't blame him. What got into the trolls, anyhow, Jim?"

Gregg shrugged. "Who knows? We can guess. But Sam and I were always uncertain about the legends and the parts we couldn't seem to get. We knew they were afraid of his reviving — but now it seems the only reason they didn't attack us before was because of that fear. They liked his trinkets, but when he wanted to change their ways, they killed and buried him. That's all we know."

"No, Jim," Sam corrected him. "They didn't bury him. That hole in the floor isn't troll work. There had to be at least two aliens. One found the first and buried him, then took such vengeance on the trolls that they still remember. They must have thought it was the same one. So they are afraid he'll revive again."

"You mean that robot's master was with him?" Dickson asked.

Gregg shook his head. "There were no alien 'masters.' From the books I studied, the masters died off so long ago that the robot branch no longer has clear records of it. Something happened — perhaps some disease — and the robots carried on alone."

"Disease?, Murder!" Dickson came to his feet with a scream, his face taut and white with all the ancient Earth fears he had bottled up under his mask of scientific study. "The robots killed their masters. Just as ours will do. We're not safe while a single robot exists. They're the most dangerous threat to our lives — and you sit there!"

Lee was moving toward him, but Gregg's fist stopped the tirade. "Pete, don't listen —"

But Gregg's words were too late. Pete swung abruptly, grabbing Sam's spare batteries from the desk, and he was pounding up the tunnel. By the time Sam could get past the tangle of men around Dickson, the other robot had vanished.

"He'll kill himself," Gregg shouted. "He has to. If he's the greatest source of harm to men, that damned first law has to negate the third. We've got to stop him."

Sam shook his head, but he followed the others up the tunnel to the entrance. Even Dickson managed to stagger along with the others, moaning and grimacing with the pain of his jaw as sanity returned to him.

At first, there was no sign of Pete. Then they saw that the trolls had begun to stream forth and cluster below the ledge, their vulpine stares fixed upwards. Sam followed their gaze and finally spotted the other robot. Pete had almost reached the top of the mound, scrambling and fighting for holds in the crumbling surface. As they looked, he reached the peak and sat down upon it.

Methodically, he began to open his chest plate and change from his fresh batteries to the used spares he had scooped from the desk. Below, the trolls began screaming. *"Yar! Yar Noo!"*

"Yar Noo haremet!" Pete shouted back in old Trollish. "The Rock Devil has returned! You did evil as you did of old, and the Rock Devil came from the dust and entered into

this body and became strong again. Fear me and run from me, little bugs of evil!"

Most of them had already begun to draw back, though a few were lifting their bows. Now Pete stood up again, the two fresh batteries in his hands.

And Sam could see that the protective caps were removed, exposing the bare terminals.

"Down!" he cried sharply to the men.

Pete jumped, holding the batteries, moving them precisely and slowly toward his own metal body. And just before he landed among the screaming trolls, he moved his hands to short the terminals against himself.

Those batteries were capable of holding a hundred ampere hours at more than a hundred volts pressure as a strain in the space within them. And now suddenly twenty kilowatt hours of potential energy screamed out in a terrible attempt to become raw heat.

When the explosion of light and heat was over, there were no trolls except the dead and the fleeing.

Pete's torment was over. The laws and idiocy that had made his life a hell where all he did was wrong had been repealed.

"We can go home now," Sam told the men as they emerged from the tunnel. "I guess we can even go out to the stars on the great Gregg Expedition to find the aliens. But first, Barney, will you help me take what's left of Pete and bury him in the hole like the other Rock Devil?"

And with the mangled body would go a card that Sam had carried for all the years since he had graduated — a cheap little printed card of congratulations with the scrawl of a janitor on the back. It was the code a man had inscribed for Sam:

Take care of yourself — and always try to leave things a little better for the next fellow.

Pete hadn't been given such a code, of course. But he'd earned the right to it, nonetheless. END

THE BABE IN THE OVEN

by JOHN T. SLADEK

Tough day! The baby was a spy, and the friendly parish priest was his accomplice!

Agnes had been wishing for a baby all day, so it was no surprise to her when she peeked through the glass door of the oven and found one.

Bundled in clean flannel, it slept on the wire rack while she scrubbed out dusty bottles, fixed formula and dragged down the crib from the attic. By the time Glen came home from work, she was giving the baby its first bottle.

"Look!" she exclaimed. "A baby!"

"Oh, my God, where did you get that?" he said, his healthy pink face going white. "You know it's illegal to have babies."

"I found it. Why illegal?"

"Everything is illegal," he whispered, parting the curtains cautiously to peer out. "Damn near." The face upon Glen's big, pink, cubical head looked somewhat drawn.

"What's the matter?"

"Oh, nothing," she said testily. "We're going to have a gas war, that's all."

Glen was a pathetic figure as he moved so as not to cast a shadow on the curtains. His bright, skintight plastic suit was far from skintight, and even his cape looked baggy.

"Is it? Is that all?"

"No. Say, that neighbor of ours has been raking leaves an awfully long time."

"Answer me. What's wrong? Something at the office?"

"Everything. The carbon paper and stamps and paper clips have begun to disappear. I'm afraid they'll blame me. The boss is going to buy a computer to keep track of the loss. Someone stole my ration book on the train, and I found I had last week's newspaper. IBM stock is fall-

ing, faintly falling. I have a cold, or something. And — and they're doing away with the Dewey Decimal System."

"You're just overwrought. Why don't you just sit down and dandle our new baby on your knee, while I rustle up some supper."

"Stealing food! It's indecent!"

"Everyone does it, dear. Did you know I found the baby in the oven?"

"No!"

"Yes, the queerest thing. I had just been wishing I'd find a baby somewhere."

"How are the other appliances doing?"

"The automatic washer tried to devour me. The dishwasher is fading away; we must have missed a payment."

"Yes, and we're overdrawn," he said, sighing.

"The garbage disposal is hulking."

"Hulking?"

"Over there."

He did not look where she was pointing. He continued to peer out the window, where the weather situation was building up. A Welcome Wagon moved slowly down the street. He could not read the sign, but he recognized the armor plating and the blue snouts of machine guns.

"Yes, it just sits there hulking in the sink, and it won't eat anything. It ate its guarantee, though."

The neighbor, a "Mr. Green," paused in his raking to note down the Welcome Wagon's license number.

"Not hulking, darling. *Sulking*," Glen said.

"You have such a big vocabulary. And you don't even read ***How to Build Big Words***."

"I read *Existential Digest*, when I find the time," he confessed. "But last week I took their test and learned that I'm not alienated enough. That's why I'm so damned proud of our kids."

"Jenny and Peter?"

"The same."

Agnes sighed. "I'd like to read a copy of the *Irish Mail* sometime. By the way, the potatoes had poison again. Every eye." She went into the bedroom and laid the baby in its crib.

"I'm going down and turn something on the lathe," Glen announced. "Something good."

"Take off your cape first. You remember the safety laws we learned at PTA."

"Lord, how could I forget? Snuff out all candles. Never stand in a canoe or bathtub. Give name, rank and serial number only. Accept checks only if endorsed in your presence. Do not allow rats to chew on matches, should they so desire."

He disappeared, and, at the same time, Jenny and Peter came home from school, demanding a "snack." All the kids on television had "snacks," they explained. Agnes gave them Hungarian goulash, bread and butter, coffee and apple pie. They paid 95c each, and each tipped her 15c. They were gruff, dour eight-year-olds, who talked little while they ate. Agnes was a little afraid of them. After their snack,

they belted on guns and went out to hunt other children, before it grew too dark to see them.

Agnes sighed and sat down to her secret transmitter.

"AUNT ROSE EXPECTED BY NOON TRAIN," she sent. "HAVE MADE ARRGTS FOR HER GLADIOLI. SEE THAT FUDGE MEETS 0400 PARIS PLANE WITH CANDLES. THE GARDENER NEEDS TROWEL XPRESS."

In a moment, the reply came. "TROWEL ARRGD. FUDGE HAS NO REPEAT NO CANDLES. WILL USE DDT. HOLD ROSE TILL VIOLET HEARD FROM."

Always the same, tired, meaningless messages.

Agnes sighed again and hid her transmitter in the cookie jar as Glen came up the stairs. He had, she knew, his own transmitter in the basement. For all she could tell, it was him she was calling each evening.

"Look at this!" he said proudly and displayed a newel post.

Outside, a plane dropped leaflets. The neighbor rushed about, raking them up and burning them.

Every night, the same damned thing," said Glen, gnashing his teeth. "Every night they drop leaflets telling us to give up, and every night that jerk burns them all. At this rate, we'll never even learn who 'they' are."

"Is it really so important?" she asked. He would not answer. "Come on, quit hulking.. I'll tell you what I want to do. I want to ride on a real-way train."

"*Railway*," he corrected. "You can't. The Public Health Department says that going more than thirty miles an hour contributes signficantly to cancer."

"A lot you care what happens to me!"

Glen bowed his great cube of a head resignedly over the television set. "You'll notice," he said. "that it looks like an innocent Army-Navy football game. And so it may be. Perhaps the ball won't blow up when he kicks it. Perhaps that series of plays is only a coincidence."

"No. 27 fades back to pass," she murmured. "What would that mean, I wonder?"

Glen felt her hand reach out to touch his. He held hands with his wife in the darkened living room, after making sure she was not wearing her poison ring.

"The common cold," he muttered. "*They* call it the 'common cold.' By the way, have I told you we're overdrawn?"

"Yes. It's that damned car. You would have to order all those special features."

"The bazooka in the trunk? The direction-finder radio? The gun turret? Everyone else has had them for years, Agnes. What am I supposed to do if the police start chasing me? Try to outrun them, me with all that armor plate?"

"I just don't see what we're going to live on," she said.

"We can eat green stamps, until —"

"No. They confiscated them this morning, I forgot to tell you."

The children trooped in, smelling

of mud and cordite. Jenny had scratched her knee on a barbed wire barrier. Agnes applied a bandaid to it, gave them coffee and donuts, 15c, and sent them upstairs to brush their teeth.

"And don't, for God's sake, use the tap water," Glen shouted. "There's something in it."

He walked into the room where the baby slept and returned in a moment, shaking his head. "Could have sworn I heard him ticking."

"Oh Glen, let's get away for a few days. Let's go to the country."

"Oh sure. Travel twenty miles over mined roads to look at a couple of cowpies. You wouldn't dare get out of the car, for the deadly snakes. They've sowed the ground with poison ivy and giant viruses."

"I wouldn't care! Just a breath of fresh air —"

"Sure. Nerve gas. Mustard gas. Tear gas. *Pollen.* Even if we survived, we'd be arrested. No one ever goes into the country any more but dope peddlers, looking for wild tobacco."

Agnes began to cry. Everyone was someone else. No one was who they were. The garbageman scrutinized her messages to the milkman. In the park, the pigeons all wore metal capsules taped to their legs. There were cowpies in the country, but no cows. Even at the supermarket you had to be careful. If you picked out items that seemed to form any sort of pattern —

"Are there any popsicles left?" Glen asked.

"No. There's nothing in the icebox but a leftover custard. We can't eat that, it has a map in it. Glen, what *are* we going to eat?"

"I don't know. How about . . . the baby? Well, don't look at me like that! You found him in the oven, didn't you? Suppose you had just lit the oven without looking in?"

"No! I will not give up my baby for a — a casserole!"

"All right! I was merely making a suggestion, that's all."

It was dark, now, throughout the lead-walled house, except in the kitchen. Out the quartz picture window, dusk was falling on the lawn, on the lifeless body of "Mr. Green." The television showed a panel discussion of eminent doctors, who wondered if eating were not the major cause of insanity.

Agnes went to answer the front door, while Glen went back to the kitchen.

"Excuse me," the priest said to Agnes. "I'm on a sick call. Someone was good enough to loan me his Diaper Service truck, and I'm afraid it has broken down. I wonder if I might use your phone?"

"Certainly, father. It's bugged, of course."

"Of course."

She stood aside to let him pass, and just then Glen shouted, "The baby! He's at the custard!"

Agnes and the priest dashed out to see. In the clean, well-lighted kitchen, Glen stood gaping at the open refrigerator. Somehow the baby had gotten into it, for now Agnes could see his diapered bottom and pink toes sticking out from a lower shelf.

"He's hungry," she said.

"Take another look," Glen grated.

Leaning closer, she saw the child had pulled the map from the custard. He was taking photos of it with a tiny, baby-sized camera.

"Microfilm!" she gasped.

"Who are you?" Glen asked the priest.

"I'm —"

"Wait a minute. You don't look like a man of the cloth to me."

It was true, Agnes saw in the light. The breeze rustled the carbon-paper cassock, and she saw it was held together with paper clips. His stole was, on closer examination, a strip of purple stamps.

"If you're a priest," Glen continued, "why do I see on your Roman collar *the letterhead of my office*?"

"Very clever of you," said the man, drawing a pistol from his sleeve. "I'm sorry you saw through our little ruse. Sorry for you, that is."

"Our?" said Glen. He looked at the baby. "Hold on. Agnes, what kind of vehicle did he drive up in?"

"A diaper truck."

"Aha! I've been waiting a long time to catch up with you — Diaper Man! Your chequered career has gone on far too long."

"Ah, so you've recognized me and my dimple-kneed assistant, have you? But I'm afraid it won't do you much good. You see, we already have the photos, and there is a bullet here for each of you. Don't try to stop me!"

Watching them, the false priest scooped up the baby. "I think I had better kill the two of you in any case," he said. "You already know too much about my *modus operandi*." The baby in his arms waved the camera gleefully and gooed its derision.

"All right," said Diaper Man. "Face the wall, please."

"Now!" Glen said. He leaped for the gun, while Agnes deftly kicked the camera from the baby's chubby fist.

The infant spy looked startled, but he acted fast, a tiny blur of motion. Scooping up two fistfuls of custard, he flung them in Glen's eyes. Gasping, Glen dropped the gun, as the infamous pair made their dash for freedom.

"You'll never take me alive!" snarled the false priest, vaulting into his truck.

"Let them go," said Glen. He tasted the custard. "I should have realized earlier the baby wasn't ticking, he was clicking. Let them go. They won't get far, and we've saved the map — for whatever it's worth."

"Are you all right, darling?"

"Fine. Mmm. This is pretty good, Agnes."

She blushed at the compliment. There was a muffled explosion, and in the distance, they could see flames shooting high in the air.

"Esso bombing the Shell station," said Glen.

The gas war had begun.

END

HALFWAY HOUSE

by ROBERT SILVERBERG

Alfieri was a dead man who wanted to live. But there was a price — his life would no more be his own!

Afterward, Alfieri realized that you must give a life to gain a life. Now, he was too interested simply in staying alive to think much about profundities.

He was *l'uomo dal fuoco in bocca,* the man with fire in his mouth. Cancer clawed at his throat. The vocoder gave him speech; but the raging fire soon would burn through to the core of him, and there would be no more Franco Alfieri. That was hard to accept. So he came to the Fold for aid.

He had the money. That was what it took, in part, to enter that gateway of worlds: money, plenty of it. Those who ran the Fold did not do it for sweet charity's sake. The power drain alone was three million kilowatts every time the Fold was opened. You could power a good-sized city on a load like that. But Alfieri was willing to pay what it cost. The money would shortly be of no use to him whatever, unless the beings on the far side of the Fold gave his life back to him.

"You stand on that bedplate," a technician told him. "Put your feet along the red triangular areas. Grasp the rail — *so.* Then wait."

Alfieri obeyed. He was no longer in the habit of taking such brusque orders, but he forgave the man for his rudeness. To the technician, Alfieri was so much wealthy meat, already going maggotty. Alfieri positioned his feet and looked down at the mirror-bright polish of his pointed black shoes. He grasped the furry yellow skin of the rail. He waited for the power surge.

He knew what would happen. Alfieri had been an engineer in Milan, twenty years back, when the European power grid was just coming in. He understood the workings of the Fold as well as — well, as

well as anyone else who was not a mathematician. Alfieri had left engineering to found an industrial empire that sprawled from the Alps to the blue Mediterranean, but he had kept up with technology. He was proud of that. He could walk into any factory, go straight to a workbench, display a rare knowledge of any man's labor. Unlike most top executives, his knowledge was deep as well as broad.

Alfieri knew, then, that when the power surge came, it would momentarily create a condition they called a singularity, found in the natural universe only in the immediate vicinity of stars that were in their last moments of life. A collapsing star, a spent supernova, generates about itself a warp in the universe, a funnel to nowhere, the singularity. As the star shrinks, it approaches its Schwarzchild radius, the critical point when the singularity will devour it. Time runs more slowly for the dying star as it nears the radius; its faint light shifts conspicuously toward the red; time rushes to infinity as the star is caught and swallowed by the singularity. And a man who happens to be present? He passes into the singularity also. Tidal gravitational forces of infinite strength seize him; he is stretched to the limit and simultaneously compressed, attaining zero volume and infinite density, and he is hurled — somewhere.

They had no dying stars in this laboratory. But for a price they could simulate one. For Alfieri's bundle of *lire* they would strain the universe and create a tiny opening and hurl him through the Fold, to a place where pleated universes met, to a place where incurable diseases were not necessarily incurable.

Alfieri waited, a trim, dapper man of fifty, with thinning sandy hair slicked crosswise over the tanned dome of his skull. He wore the tweed suit he had bought in London in '95, and a matching gray-green tie and his small sapphire ring. He gripped the railing. He was not aware of it when the surge came, and the universe was broken open, and Franco Alfieri was catapulted through a yawning vortex into a place never dreamed of in Newton's philosophy.

The being called Vuor said, "This is Halfway House."

Alfieri looked about him. Superficially, his surroundings had not changed at all. He still stood on a glossy copper bedplate, still grasped a furry rail. The quartz walls of the chamber looked the same. But an alien being now peered in, and Alfieri knew he had been translated through the Fold.

The alien's face was virtually a blank: a slit of a mouth below, slits of eyes above, no visible nostrils, a flat greenish facade, altogether, sitting on a squat neck, a triangular shoulderless trunk, ropy limbs. Alfieri had become accustomed to aliens in his dealings, and the sight of Vuor did not disturb him, though he had never seen one of this sort before.

Alfieri felt sweat churning through his pores. Tongues of flame licked at his throat. He had refused full seda-

tion, for unless Alfieri's mind could work properly he would not be Alfieri. But the pain was terrible.

He said, "How soon can I get help?"

"What is the trouble?"

"Cancer of the throat. You hear my voice? Artificial. The larynx is gone already. There's a malignant beast eating me. Cut it out of me."

The eyeslits closed momentarily. Tentacles twined themselves together in a gesture that might have been sympathy, contempt, or refusal. Vuor's reedy, rasping voice said in passable Italian, "We do not help you here, you understand. This is merely Halfway House, the screening point. We distribute you onward."

"I know. I know. Well, send me to a world where they can cure cancer. I don't have much time left. I'm suffering, and I'm not ready to go. There's still work for me to do on Earth. *Capisce*?"

"What do you do, Franco Alfieri?"

"Didn't my dossier arrive?"

"It did. Tell me about yourself."

Alfieri shrugged. His palms were growing clammy, and he let go of the rail, wishing the alien would let him sit down. "I run an engineering company," he said. "Actually, a holding company. Alfieri S.A. We do everything: power distribution, pollution control, robotics. We're getting into planetary transformation. Our operating divisions employ hundreds of thousands of men. We're more than just a money-making concern, though. We're shapers of a better world. We —" He hesitated, realizing that he sounded now like one of his own public relations flunkies and realizing also that he was begging for his own life. "It's a big, important, useful company. I founded it. I run it."

"And you are very rich. For this you wish us to prolong your life? You know that we all live under a sentence of death. For some sooner, others later. The surgeons beyond the Fold cannot save everyone. The number of sufferers who cry out is infinite, Alfieri. Tell me why you should be saved."

Wrath flamed in Alfieri. He suppressed it.

He said, "I'm a human being with a wife and children. Not good enough reason, eh? I'm wealthy enough to pay any price to be healed. Good? No? Of course not. All right, try this: I'm a genius. Like Leonardo, like Michelangelo, like — like Einstein. You know those names? Good. I have a big genius too. I don't paint, I don't compose music. I plan. I organize. I built the biggest corporation in Europe. I took companies and put them together to do things they could never have done alone."

He glowered at the alien green mask beyond the quartz wall. "The technology that led Earth to open the Fold in the first place — my company. The power source — mine. I built it. I don't boast, I speak the truth."

"You are saying that you have made a lot of money."

"Damn you, no! I'm saying that I've created something that didn't exist before, something useful, something important not only to Earth

but to all the other worlds that meet here. And I'm not through creating. I've got bigger ideas. I need ten more years, and I don't have ten months. Can you take the responsibility of shutting me off? Can you afford to throw away all that's still in me? Can you?"

His unreal voice, which never grew hoarse even when he raised it to a shout, died away. Alfieri leaned on the railing again. The small golden eyes in the narrow slits regarded him impassively.

After a long silence Vuor said, "We will give you our decision shortly."

The walls of the chamber went opaque. Alfieri paced the little room wearily. The taste of defeat was sour in his mouth, and somehow it did not anger him to know that he had failed. He was past caring. They would let him die, of course. They would tell him that he had done his work, that he had built his company, that it saddened them but they had to consider the needs of younger men whose life-dreams still were unrealized. Then, too, they were likely to think that merely because he was rich, he was not deserving of rescue. Easier was it for a camel to go through the eye of a needle, than for a rich man to attain new life on the surgeon's tables of a world beyond the Fold. Yet he couldn't give up now.

As he awaited his death sentence, Alfieri planned how he would spend his remaining months of life. Working to the end, of course. The heat-sink project at Spitzbergen — yes, that first, and then —

The walls were clear again. Vuor had returned.

"Alfieri, we have made an appointment for you on Hinnerang, where your cancer will be remitted and your tissues restored. But there is a price."

"Anything! A trillion *lire!*"

"Not money," Vuor said. "Service. Put your genius to work in our aid."

"Tell me how!"

"Halfway House, you know, is cooperatively staffed by representatives of the many worlds whose continua meet at the Fold. There is not currently an administrator from Earth on our staff. A vacancy is soon to develop. You fill it. Lend us your gift for organizing, for administration. Take a five-year term among us. Then you may return home."

Alfieri pondered. He had no particular wish to give up five years to this place. Too much beckoned to him on Earth, and if he were away five years, who would take the reins of his companies? He might return and find himself hopelessly out of touch.

Then he realized the absurdity of the thought. Vuor was offering him twenty, thirty, fifty more years of life. Standing at the edge of the grave as he was, Alfieri had no right to begrudge five of those years if his benefactors demanded them. He had made his unique administrative abilities his claim for renewed life; was it any surprise that they now wanted those same abilities as *quid pro quo?*

"Agreed," Alfieri said.

"There will, in addition, be a monetary payment," said Vuor, but Alfieri hardly cared about that.

An infinity of universes met at the Fold, as they did at every other point in space-time. Only at the Fold, though, was it possible now to cross from one continuum to another, thanks to the equipment installed there. A webwork of singularities poked holes in the fabric of universal structures. Halfway House was the shuttle point for this loom of worlds; those who could convince the administrators that they had the right to occupy a valuable place on the transfer channels were shunted to the worlds of their need.

An infinity is an infinity, and the channels filled all needs. There was access, for those who wanted it, to a matter-free universe, and to a universe filled with one all-encompassing atom, and to a universe containing a world where living beings grew steadily younger and not the reverse.

There were worlds unknown to the sons of Adam, with tribes whose heads did grow beneath their shoulders and their mouths in their breasts; worlds of monoculi, who run swiftly though they have only a single leg and a single eye; worlds of folk whose mouths are so small they take nourishment only through a straw; worlds of amoebic intelligences; worlds where bodily reincarnation is an established fact; worlds where dreams become realities at the snap of a finger. An infinity is an infinity. But for practical purposes, only some two dozen of those worlds mattered, for they were the ones linked by common purposes and common orientation.

On one of those worlds, skilled surgeons might repair a cancer-ravaged throat. In time that skill would be imparted to Earth in return for some Earthly good, but Alfieri could not wait for the exchange to be consummated. He paid his fee, and the administrators of Halfway House sent him to Hinnerang.

Alfieri was unaware, once again, as he squeezed through the Schwarzchild singularity. He had always loved tasting unfamiliar sensations, and it seemed unfair to him that a man should be compressed to zero volume and infinite density without some tactile knowledge of the fact. But so it happened. A dying supernova was simulated for him, and he was whisked through the singularity, and he emerged in one more identical chamber on Hinnerang.

Here, at least, things looked properly alien. There was a reddish tinge to the warm, golden sunlight, and at night four moons danced in the sky. The gravity was half that of Earth's; and as he stood under that quartet of shimmering orbs, Alfieri felt a strange giddiness and an inner access of ecstatic strength. It seemed to him that he could leap at a bound and snatch one of those jewels from the sky.

The Hinnerangi were small, angular beings with auburn skins, high-vaulted skullcaps, and fibrous fingers that divided and divided again until they formed writhing networks of filament at the tips. They spoke in sinister whispers, and their language struck Alfieri as more barbarous than Basque and as consonant-heavy as Polish; but the usual small devices turned their words to

the tongue of Dante when they needed to communicate with him, a miracle that struck Alfieri as more awesome than the whole mechanism of the Fold, which at least he could pretend he understood.

"We will first negate your pain," his surgeon told him.

"By knocking out my pain sensors?" Alfieri asked. "Cutting nerve lines?"

The surgeon regarded him with what seemed like grave amusement. "There are no pain sensors as such in the human nervous system. There are merely functional bodies that perceive and respond by classifying the many patterns of nerve impulses arriving from the skin, selecting and abstracting the necessary modalities. 'Pain' is simply a label for a class of experiences, not always unpleasant. We will adjust the control center, the gate of responses, so that your scanning of input impulses will be orientated differently. There will be no loss of sensory information; but what you feel will no longer be classified as pain."

At another time, Alfieri might have been happy to discuss the refined semantics of pain theory. Now, he was satisfied to nod solemnly and permit them to put out the fire that raged in his throat.

It was done, delicately and simply. He lay in a cradle of some gummy foam while the surgeon planned the next move: a major resection of tissue; replacement of lost cell matter; regeneration of organs. To Alfieri, wireless transmission of power was an everyday matter, but these things were the stuff of dreams. He submitted. They cut away so much of him that it seemed another slice of the surgical beam would sever his head altogether. Then they rebuilt him. When they were finished, he would speak with his own voice again, not with an implanted mechanism. But would it really be his own, if they had built it for him? No matter. It was flesh. Alfieri's heart pumped Alfieri's blood through the new tissue.

And the cancer? Was it gone?

The Hinnerangi were thorough. They hunted the berserker cells through the corridors of his body. Alfieri saw colonies of cancer establishing themselves in his lungs, his kidneys, his intestines. He visualized marauding creatures stabbing good cells with mortal wounds, thrusting their own vile fluid into unwanted places, replicating a legion of goose-stepping carcinomas cell by cell by cell. But the Hinnerangi were thorough. They purged Alfieri of corruption. They took out his appendix, in the bargain, and comforted his liver against a lifetime of white Milanese wine. Then they sent him off to recuperate.

He breathed alien air and watched moons leaping like gazelles in a sky of strange constellations. He put his hand to his throat a thousand times a day, to feel the newness there, the warmth of fresh tissue. He ate the meat of unknown beasts. He gained strength from hour to hour.

At last they put him in a singularity chamber and rammed him through the complexities of the Fold, and he returned to Halfway House.

Vuor said, "You will begin your work at once. This will be your office."

It was an oval room, walled with a living plastic that made it seem as warm and pink and soft as the walls of a womb. Beyond one wall was the quartz-bounded chamber used by those who traveled the Fold. Vuor showed him how to operate the switch that permitted viewing access to the chamber in either direction.

"What will my duties be?" Alfieri asked.

"Come and tour Halfway House first," said Vuor.

Alfieri followed. It was hard to grasp the nature of the place; Alfieri pictured it as something like a space station, an orbiting wheel of finite size divided into many chambers. But since there were no windows, he could not confirm that belief. The place seemed fairly small, no bigger than a good-sized office building. Much of it was given over to a power plant. Alfieri wished to stay and examine the generators, but Vuor hurried him on to a cafeteria, to a small room that would be his dwelling place, to some sort of chapel, to executive offices.

The alien seemed impatient. Silent figures drifted through the halls of Halfway House, beings of fifty sorts. Nearly all were oxygen-breathers who could handle the all-purpose atmosphere of the place, but some were masked and mysterious. They nodded at Vuor, stared at Alfieri. Civil servants, Alfieri thought. Doing their routine work. And now I am one of them, a pretty bureaucrat. But I am alive, and I will wade through a sea of bureaucratic forms to show my gratitude.

They returned to the oval office with the soft, moist pink walls.

"What will my duties be?" Alfieri asked again.

"To interview those who come to Halfway House seeking to travel beyond the Fold."

"But that's your job!"

"No longer," said Vuor. "My term is up. Mine is the now-vacant position you have been recruited to fill. When you begin, I can leave."

"You said I'd get an administrative post. To organize, to plan —"

"This is administrative work. You must judge the niceties of each applicant's situation. You must be aware of the capacity of the facilities beyond this point. You must maintain an overview of your task: whom to send forward, whom to reject."

Alfieri's hands trembled. "I'm the one who'll decide? I say, you go back and rot, and you come forward? I choose life for some and death for others? No. I don't want it. I'm not God!"

"Neither am I," said the alien blandly. "Do you think I like this job? But now I can shrug it off. I am finished here. I have been God for five years, Alfieri. It's your turn now."

"Give me some other work. There must be other jobs suited for me!"

"Perhaps there are. But you are best suited for this one. You are a gifted decider. And another thing to consider, Alfieri: you are my replacement. If you do not take the

job, I must remain until someone else capable of handling it is found. I have been God long enough, Alfieri."

Alfieri was silent. He stared into the golden eyeslits, and for the first time he thought he could interpret an expression he found there. Pain. The pain of an Atlas, carrying worlds on his shoulders. Vuor was suffering. And he, Franco Alfieri, could alleviate that pain by taking the burden on himself.

Vuor said, "When your application was approved, there was an understanding that you would render service to us. The scope of your duties has been outlined to you. There is an obligation, Alfieri."

Nodding, Alfieri saw the truth of that. If he refused to take the post, what would they do? Give him his cancer back? No. They would find another use for him. And Vuor would continue to hold this job. Alfieri owed his life to the suffering alien. If he extended Vuor's duties by one additional hour, it would be unforgivable.

"I accept the obligation," Alfieri said.

The look in the alien eyeslits could have been nothing but joy.

There were certain things Alfieri had to learn about his job, and then he was on his own. He learned them. He took up his new existence as a bureaucrat with good grace. One room to live in, instead of a cycle of mansions; food prepared by computers, not by master chefs; a long day of work, and little recreation. But he was alive. He could look to a time beyond the five years.

He sent word to Earth that he would be detained and that he would eventually return in good health to resume his position in the corporation. He authorized the commencement of Plan A for running the company in his prolonged absence. Alfieri had planned everything. Men he trusted would be stewards for him until he returned. It was made quite clear to him at Halfway House that he could not attempt to run the firm by remote control, and so he activated his plan and left the company to its new administrators. He was busy enough.

Applicants came to him.

Not all of them wished medical aid, but all had some good and compelling reason for journeying to some world beyond the Fold. Alfieri judged their cases. He had no quota; if he cared to, he could send all his applicants through to their destinations or turn them all away. But the one would be irresponsible, the other inhumane. Alfieri judged. He weighed in the balance, and some he found wanting, and others he passed on. There were only so many channels, a finite number of routes to the infinity of worlds. Alfieri thought of himself sometimes as a traffic policeman, sometimes as Maxwell's Demon, sometimes as Rhadamanthus in Hades. Mostly he thought of the day when he could go home again.

The refusals were painful. Some of the applicants bellowed their rage at him and made threats. Some of them shrank into sobbing stupors. Some quietly warned of the grave

injustice he was doing. Alfieri had made hard decisions all his life, but his soul was not yet calloused from them, and he regretted the things the applicants said to him. The job, though, had to be done, and he could not deny he had a gift for it.

He was not the only such judge at Halfway House, naturally. Streams of applicants were constantly processed through many offices. But Alfieri was, in addition to a judge, the final court of appeals for his colleagues. He maintained the overview. He controlled the general flow. It was his talent to administer things.

A day came when an auburn-skinned being with swarming subdivided tendrils stood before him, a man of Hinnerang. For a terrible moment Alfieri thought it was the surgeon who had repaired his throat. But the resemblance was only superficial. This man was no surgeon.

Alfieri said, "This is Halfway House."

"I need help. I am Tomrik Horiman. You have my dossier?"

"I do," Alfieri said. "You know that we give no help here, Tomrik Horiman. We simply forward you to the place where help may be obtained. Tell me about yourself."

The tendrils writhed in anguish. "I am a grower of houses. My capital is overextended. My entire establishment is threatened. If I could go to a world where my houses would win favor, my firm would be saved. I have a plan for growing houses on Melknor. Our calculations show that there would be a demand for our product there."

"Melknor has no shortage of houses," Alfieri remarked.

"But they love novelty there. They'd rush to buy. An entire family is faced with ruin, kind sir! Root and branch we will be wiped out. The penalty for bankruptcy is extreme. With my honor lost, I would have to destroy myself. I have children."

Alfieri knew that. He also knew that the Hinnerangi spoke the truth; unless he were allowed to pass through to Melknor to save his business, he would be obliged to take his own life. As much as Alfieri himself, this being had come before the tribunal of Halfway House under a death sentence.

But Alfieri had gifts. What did this man offer? He wished to sell houses on a planet that had no real need for them. He was one of many such house-growers, anyway, and a poor businessman to boot. He had brought his troubles upon himself, unlike Alfieri, who had not asked for his cancer. Nor would Tomrik Horiman's passing be any great loss except to his immediate family. It was a great pity; but the application would have to be refused.

"We will give you our decision shortly," said Alfieri. He opaqued the walls and briefly reported to his colleagues. They did not question the wisdom of his decision. Clearing the walls, he stared through the blocks of quartz at the man from Hinnerang and said, "I greatly regret that your application must be rejected."

Alfieri waited for the reaction.

Anger? Hysterical denunciation? Despair? Cold fury? A paroxysm of frustration?

No, none of those. The merchant of vegetary houses looked quietly back at Alfieri, who had spent enough time among Hinnerangi to interpret their unvoiced emotions. And Alfieri felt the flood of sorrow coming at him like a stream of acid. Tomrik Horiman *pitied* him.

"I am very sorry," the Hinnerangi said. "You bear such a great burden."

Alfieri shook with the pain of the words. The man was sorry — not for himself, but for *him!* Morbidly, he almost wished for his cancer back. Tomrik Horiman's pity was more than he could bear at that moment.

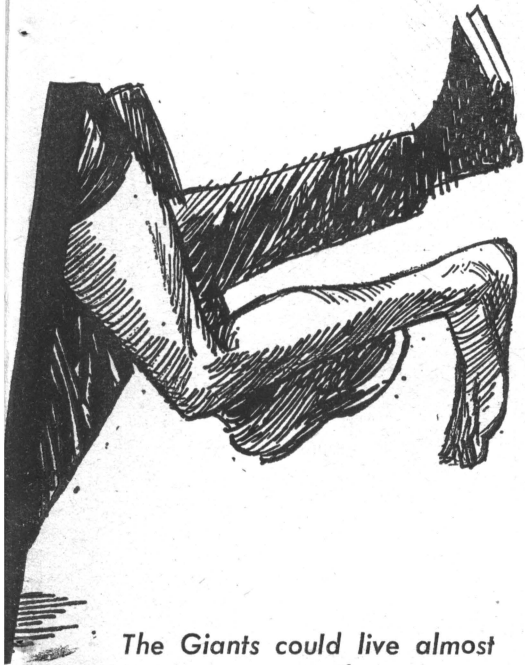
Tomrik Horiman gripped the rail and stood poised for his return to his own world. For an instant his eyes met the shadowed ones of the Earthman.

"Tell me," Tomrik Horiman said. "This job you have, deciding who goes forward, who goes back. Such a terrible burden! How did this job come to you?"

"I was condemned to it," said Franco Alfieri in all the anguish of his Godhead. "The price for my life was my life. I never knew such suffering, when I was only a dying man."

He scowled. And then he threw the switch that sent Tomrik Horiman away. END

SNOW WHITE and the GIANTS



by J. T. McINTOSH

Illustrated by GAUGHAN

The Giants could live almost forever — even if they died now and then in the process!

X

I drove home first, taking Jota with me, for he insisted we should change into dark clothes.

We knew the place where the camp must be: *"In a bend on the river about a mile upstream."* It was a piece of wasteland which campers had used before, but not often, because modern campers had cars or caravans or bicycles or trucks; and if they hadn't, they wanted to be near a road where they could catch buses. This spot was near no road, and anybody camping there

WHAT HAS GONE BEFORE

In the little town of Shuteley, England, on the hottest summer of any resident's memory, a party of visitors appeared. They were all young, and they were enormous. Moreover, they had a couple of traits that startled the quiet people of Shuteley. The girls in the party wore dresses that disappeared from time to time; and all of them had an unusual knowledge of what was happening in the town . . . and what was about to happen.

The giants had established a camp on the bank of a river outside of Shuteley. Two of the inhabitants went to visit there, to satisfy their curiosity.

They didn't know that the price of their curiosity would be their lives!

who wanted to come into Shuteley had to walk all the way.

It was a good place, perhaps the best place in the vicinity for campers who wanted privacy. Yet it was also a place where anyone who wanted to spy on them could do so very easily.

And yet, as I said to Jota just before turning into our drive: "We may be making fools of ourselves. If they knew the precise second when you'd walk into my office, don't they know already that we're on our way to spy on them?"

Such considerations didn't bother Jota. "Then something may develop. And that's what we want."

I left the car outside the house, and Jota took his one trunk inside with him.

Sheila met us in the hall, and at sight of Jota she started and shot a quick glance at me which could only be described as unfriendly. "I thought I told you — " she said.

"Sorry," I said rather awkwardly. "I knew you were going shopping. I thought you'd have left."

I had put it that way, because when we came in I knew she hadn't left. Her Austin mini was still in the drive.

"Hello, Sheila," said Jota easily. "You look more wonderful than ever."

Sheila said nothing. She picked up her shopping bag and went out, slamming the front door.

"You should have phoned, you know," Jota told me. "Don't you know anything about women? It's nothing to do with whether she

loves me or hates my guts. Maybe she wouldn't have prettied herself up anyway. You should have given her the choice, to be here or not, to be dressed up or just — "

"Let's change," I said irritably. I didn't want a lecture from Jota, of all people, on Sheila, of all people.

Jota was staring past me at the stairs. I turned. Dina was descending slowly, dressed in an old pink evening gown of Sheila's.

"She saw a Goldwyn picture on television the other day," I murmured. "Beautiful girls coming down wide staircases." Raising my voice, I called: "Dina — would you like to go and stay with the Carswells?"

She stopped play-acting at once, lifted her long skirt and ran down the rest of the way. "Now?" she said eagerly.

"If you like."

She turned. "I'll go and pack."

"Wait, Dina. Aren't you going to say hello to Jota?"

"Hello," she said and started for the stairs.

"She's lovely," Jota said. "No change? I mean — "

"I know what you mean," I said shortly. "No change."

"That," he said, "is a great pity."

"That," I replied, "is an understatement."

"What I mean is — "

"I know what you mean."

He seemed to feel I should be more forthcoming. "Naturally I'm interested," he said. "Dina's my cousin."

I added nothing, however, and the subject was dropped.

The probable camp site being on the other side of the river, we rowed across the placid Shute in a rubber dinghy. Seldom used, the boat was invaluable at times, the nearest bridge being at Shuteley.

We made a considerable detour in order to be able to approach the place where we expected the camp to be from the far side, and we stopped talking as we neared the spot. Sound can carry unexpectedly in the open, especially near water.

Of course Jota, Gil and I had played as kids all around Shuteley, and the countryside had changed less than the town — which hadn't changed much. There were some places where we knew every bush, every tree and every stone, and this was one of them.

Along the riverside east of the probable camp site there was a jungle of undergrowth. It was through this that we approached. A slight breeze rustled the leaves and cloaked any noise we might have made.

The camp was exactly where we expected — and the giants didn't know we were there. At least, if they did they were pretending they didn't, and that seemed out of character.

At first sight their camp was like any other. There were two large tents and five small ones. Most of the boys and girls I had already seen were there, and there were some I was sure I hadn't seen. The sixteen who had been in The Copper Beech the evening before, plus Greg, were not, therefore, the whole company.

In the shade of a canopy two girls were reading magazines. Four of

the men lay on the grass sunbathing, and on the other side of the big tents, three girls lay drowsily in the afternoon heat. Two or three more sat on the river bank, not bathing, merely dangling their toes in the water.

Two who were missing were Miranda and Greg. The chance link produced a sudden stab of jealousy in me. Was Miranda Greg's girl?

Such things happened. They kept happening. A girl talked as if a certain man was, as far as she was concerned, the person least likely to succeed. And then you found out . . .

On the face of it, Miranda didn't like Jota much and liked Greg less. But I knew that any vague ideas I might have about Miranda and me — adolescent fantasies, anyway, fatuous even if I weren't married to Sheila — were going to be overturned by Greg or Jota, if not both. I knew this because such things always happened. It was in the nature of things.

Anyway, the camp presented a very normal scene. I didn't know what Jota had expected, but I hadn't expected this. Not when the giants didn't know we were watching them.

We could see very well. We were unlikely to be detected; but unfortunately we were too far away to pick up any of the lazy, murmured conversations of either group of sunbathers.

And after five minutes I was more than ready to leave. I was rather afraid that Jota was going to force the issue by striding into the camp and making something happen. Uncertain why I didn't want that, I was nevertheless certain that it would be a mistake.

Every single person in the camp was dressed exactly as might be expected. Nothing sensational like the luxon dresses was visible, and that was puzzling. If the giants didn't mind creating a sensation in Shuteley, why were they so conventional in their own camp?

Did they know we were watching them, after all?

The tents, too, were straightforward. Primus stoves, plastic containers, buckets, basins — every item of camping equipment I could see looked standard.

That crystallized one of the things that puzzled me about the giants. If their origin was as strange as I suspected, one of two things could have been expected.

Either they'd make quite certain their clothes, money, appearance, speech, camping equipment and everything else they had with them were authentic. Or, careless of what Shuteley thought of them, they'd appear in their true colors — which were, I was quite certain, vastly different from anything we had ever seen.

But they steered a baffling middle course.

At last what I feared came about. "Come on," said Jota in a normal tone and moved forward.

"No," I whispered urgently, trying to hold him back.

"They're ordinary kids or they're not," he said. "Let's talk to them and find out."

Reluctantly I followed him, and we strode into the camp.

No, they hadn't been expecting us. The sunbathers sat up, startled, one of the girls who had unfastened the strap of her bra holding a towel in front of her.

"Greg!" somebody shouted, and Greg emerged from one of the tents. I wondered: was Miranda in there?

"Hi," said Greg casually, coming to meet us.

All the giants gathered together — and they *were* giants, seen in this setting. Nobody was fat, but the vital statistics of both boys and girls were unusual. Average figures among the girls, I calculated, would be 41-27-40. Scaled down, very satisfactory. But they had to stand back for the full effect to be made.

There was no pretense that we were anything but unwelcome visitors. Someone whispered to Greg, and then he faced us.

"So you came to spy on us, Val," Greg said. "Jota's idea, I guess." He said "Jota" this time, not "Clarence Mulliner."

"We simply came to — "

"Fft," said Greg derisively, pointing. I followed his glance. His meaning and his conclusion were unmistakable. We had come from dense undergrowth. Nobody openly approaching the camp would ever have come that way

While my head was turned he must have made a gesture. Before we could move we were each in the grasp of two of the most gigantic of giants.

From that moment I ceased thinking of the giants as kids. When two of them could hold Jota and I as those four held us, they were men.

"A duel," said Greg. "No, two duels. That's it."

There was an excited hum among the giants.

Jota's silence surprised me. He was seldom at a loss for words.

"Knives or guns," said Greg. "I'll take Jota. Obviously. Wesley, you can have Val."

They began to form a ring. One of the girls ran into Greg's tent and emerged almost at once with a pair of wicked-looking knives and two old-fashioned dueling pistols in a case.

"This has gone far enough," I said. "Where's Miranda?"

"She isn't here," Greg said. And the way he said it made me certain that her absence completely left him off the leash, that he felt free to do things he might not otherwise have dared do.

In a daze I saw Jota calmly elect to fight with the pistols. His idea was to play along with the giants, see how far they would go. Perhaps he was right, I thought. On his own, without any conventional reaction, he'd possibly have been able to get himself accepted on his own terms as usual.

The giants played out the farce gravely, though with suppressed excitement. One of them offered himself as Jota's second.

Then Greg said, not to us but to the rest of them: "This really is a test. This really is worth while. I'm taking Jota." He stopped, the

pause heavy with significance, although what the significance might be was a complete mystery to us. He went on: "So after this we'll all know, won't we?"

A wave of uneasiness ran through them. All the girls stood well back. Then we got on with it. The pistols were inspected, the meeting-ground paced out. Then Greg and Jota stood back to back and at a signal began to stride slowly and steadily apart.

They had not let me be Jota's second. I had therefore had no chance to examine the pistols. They would, of course, be loaded with blanks. Perhaps they were not really pistols at all, but cigarette lighters or elaborate toys.

I couldn't take the affair seriously, and I was sure Jota wasn't doing so either, because it was obvious that the giants were simply playing at duels. There had been a chill for a moment as Greg made his little speech, but already those not directly involved were smiling and laughing, as if this was all a big joke.

Jota and Greg took their last paces and turned. The two shots were so close that it was impossible to tell which was first. Jota's, I thought, but of course he had deloped — fired in the air. Crazy though he might be at times, he wasn't taking the chance of really shooting Greg.

But Greg had not deloped. And incredulously I watched Jota sink to his knees, blood at his mouth.

When we reached him he was dead.

XI

I don't know what I said and did. The rest was nightmare.

Fragments of thought flashed through my mind. One was that if our world really was nothing to the giants, murder in it didn't count to them. If to them we were unreal, they could kill us as we'd shoot clay pipes. Was that the explanation?

I also thought of the incredible manner of Jota's death. He had always seemed larger than life. Yet at the end, he died grotesquely — firing in the air, quite certain the duel was a piece of juvenile play-acting, letting Greg pick him off.

I wondered if Miranda's presence would have made any difference. Would she have stood back with the rest of the girls? Or would she, having spoken to me three times and lunched with me, have felt what none of the others seemed to feel — that we were human beings? I had to admit she had never shown any sign of it.

I noticed then, though I was unable to analyze it until later, that Greg had proved a point. The giants were looking at him now with new respect. No, not respect. Rather caution and apprehension. Why this should be I didn't know. The reason had to be something more than that he had proved he could shoot straight. Perhaps it was because he had proved he could kill.

Incredibly, in the middle of this, they were making me choose weapons. Greg was telling me — the sense registered, though the

words did not — that if I won, I was free to go.

"Killer," I whispered.

"We're all killers," he said indifferently. "You're a meat eater."

"Are you going to eat Jota?" I demanded.

"That's a point," he admitted and groped mentally. "A hit — a palpable hit," he added.

Realizing that this much was real, that I had to fight Wesley and he would kill me if he could, I chose the knives. Pistols were no use. Greg had shown he could shoot, and no doubt Wesley could too. I didn't know I couldn't, but I was fairly sure, never having tried.

Wesley was taller than me but not much heavier. Although some of the protocol of duello had been observed, no one had said anything about dress. I still wore dark pants and a dark sweater, and Wesley, in swimming briefs, evidently intended to start that way.

We started fighting. In the first two seconds Wesley slashed my left wrist deeply and painfully, and nothing could have brought home to me more clearly that I was fighting for my life.

I knew this was a nightmare, I knew it wasn't real to the giants, and yet it had been real to Jota, and it was real to me.

So I feinted. I slid under that terrifying blade, and before I got clear again I slashed Wesley's leg. It was a fearsome cut, and it nearly made me sick. The giants shouted and screamed with excitement.

I had tried to tell Greg that we couldn't kill them, that the death of Jota had been murder because Jota couldn't possibly try to kill him. And if I killed one of the giants, the police would see it only as murder.

But if I didn't kill Wesley, he would kill me. This I now fully accepted.

The slashed leg hampered him considerably. Faster than me until then, he had shown no particular skill with a knife. But then, I had none either.

He attacked me twice and I dodged him, making him waste energy and lose blood. And now he knew that he could lose this fight — I saw it in his eyes. With every moment he was slower and weaker.

I got him again. Although the slash across his chest did no serious damage, it made him a gory object, with rich blood welling from his leg on the grass and long streaks running down his torso.

It was his blood that nearly finished me. I slipped on it, and he was on me, the knife high.

Too high. Never having fought with a knife, anymore than I had, he paid for the dramatic gesture, knife raised at arm's-length for the death stroke.

I cut his legs from under him and as he fell pressed the knife into his heart. It was torn from my fingers.

Unfortunately for all of us, he didn't die quite as quickly as Jota had done . . .

"All right, Val," Greg said soberly, "you can go."

They were all sober now, the ex-

citement fading from their faces. Some of the girls looked rather sick.

I turned and walked out of the camp. What I was going to do now, I had no idea. The giants had killed Jota, and I'd killed one of them.

Of one thing, somehow, I was certain. The giants would cover up. If I went to the police and took them back to the camp, there would be no sign of Jota or of Wesley. The blood would be gone . . .

Jota and I were striding into the camp!

For a moment we faltered and stared at each other. Then Greg, enjoying himself, was saying: "No argument, please. Just get out."

Grinning at me in a not unfriendly way was Wesley. Alive. And I knew from his expression that the duels were something more than a figment of imagination. He looked exactly as if I had beaten him, fair and square, in any contest, and he was ready to admit it.

But there was no blood. He was unscratched, as I was.

It wasn't quite the same as the last time we had entered the camp. This time they were expecting us, lined up. The sunbathers were there too, on their feet. The shy girl had fastened her bra.

In a second sense, Jota came to life. "No," he said. "I'd like to stay here with you. In fact, I will."

Greg frowned. "That was meant as a warning. If you — "

"I'm warned," said Jota easily. "Now, I'd like to stay with you for a while. I'll be no bother. I've camped out often."

All the giants seemed taken aback.

"I'll even promise not to ask questions," Jota said. "Gosh, it's hot." He started taking off his jacket.

"We'll throw you out," said Greg.

"And I'll come back," Jota said. "I came back from the dead, didn't I?"

"We arranged that," said Greg ominously. "Next time we won't loop you back."

Jota had his jacket off and was unbuttoning his shirt. "Can someone lend me a pair of shorts?" he asked.

Greg suddenly laughed — the bellow that had rattled the windows of my office. "I like you," he said.

"Most people do," said Jota.

"You're a bit like me," said Greg.

"In more ways than one," said Jota softly. And now he was speaking with significance.

There was a sudden silence. Jota knew something he wasn't supposed to know.

I was out of this, yet not entirely out of it, not without some clue. I had known Jota a long time.

"Remember," Greg said, "I killed you."

"Remember," Jota said, "I let you."

They suddenly all decided by common consent that if Jota was halfway one of them, I certainly wasn't. "*He* can't stay," Greg told Jota.

"That's all right," said Jota calmly. "I don't need anyone to hold my hand."

They were going to let him stay. He was going to have his way,

as usual. And I knew he'd had this idea in his head all along.

Jota, despite a wide variety of personal contacts that were fleeting or lasting, was a lone wolf. He didn't want me with him. He wanted to do this his way.

"What's your name?" he asked one of the girls, the prettiest next to Miranda.

"Irwina," she said.

"Let's go and dangle our toes in the water — after somebody lends me a pair of shorts."

Greg looked at me. "Get out," he said briefly.

I didn't argue. Jota, living in the camp, was bound to learn a lot — perhaps everything there was to learn.

I walked away and left them.

It was quicker to walk back along the river bank than it would have been to cut across country to the road into town.

There was no point in going back to the office. I knew I couldn't do anything useful that afternoon. Fighting for your life, even if you win, doesn't leave you cool, calm and collected.

To say I was shaken was an understatement. Unharmed, unscratched though I was, I had *lived* the nightmare. Jota had died, and yet he had experienced less than I had. I could still feel the pain in my wrist, the warm dripping blood. I would never forget what it was like to fight for my life, knowing the only choice was to kill or be killed. Nor would I forget what it was like to be a killer.

If I ever killed again, there would have to be a reason, a stronger reason even than self-defense. Until then I had not realized there could be a stronger reason. Yet if you kill merely to avoid being killed, you don't want to kill. If you kill in anger or hate, you mean it . . .

I was going home to have a stiff whisky, or two, or three. Sheila was out. And Dina would have gone to the Carswells.

I was glad Sheila wouldn't be at home. If a man and woman are close, married or not, everything that happens has to be shared, and as soon as possible. Once I'd have been running home to tell Sheila what had happened, to talk it out with her. As it was I was impatient to get into a cool, darkened room, out of the sun, with a glass and a bottle of Glen Grant.

I meant to get drunk. Yet I don't drink a lot, and seldom alone.

Ahead of me, I saw a swimmer in the river. And what a swimmer! She was moving away, gaining on me. She must therefore have slipped into the water, unnoticed, just in front of me.

Although I could see only her dark head, she must be Miranda. Nobody in Shuteley could swim like that.

I guessed at once where she was going.

When three or six or a dozen out of the ordinary things happen at more or less the same time, the chances of a connection between them are overwhelming. Miranda was swimming downriver. She wasn't swimming lazily, as anyone

might on a hot day. She was swimming with a purpose, to get somewhere.

About half a mile downriver, on the south side, was the copse where I had seen the unexplained, inexplicable radiance. And short of going all the way to Shuteley, crossing there, coming back on the other side and then walking up our drive, past the house and through the garden, the only way to reach it from the giants' camp was to swim or use a boat.

I started to run. I wanted to be in the copse before Miranda, to hide and see what happened. Unless I ran I had no chance of beating her there, because I had to run past the copse to where Jota and I had left the dinghy, row myself over and get myself established in the copse before Miranda arrived.

I made it. I was across the river and well hidden at the bottom of the garden just before Miranda swam up the first inside leg of the W bend.

I saw her climb onto the bank, shaking the water from her hair . . . then she said, not loudly: "Come out, Val."

XII

There was no point in going on pretending. I stood up, pushed my way through the bushes, and joined her on the small strip of grass at the edge of the river.

"You saw me?" I said.

"I saw your boat."

At the point where I crossed, only a tiny stretch of river past the bends was visible. By a piece of bad luck, Miranda must have been exactly at that point when I was rowing myself across.

She sat down on the grass. Her swimsuit was a brief, white two-piece, and I had never seen anything so lovely as she in it. Not sexy — that, too, of course, but she was genuinely beautiful rather than provocative.

"Where were you?" she asked.

I sat down too. "At the camp. With Jota."

"What happened?"

I told her.

For a moment she was furiously angry, though silent — the first time I had seen her really alive. But all she said was: "That Greg . . . of course he'll ruin everything. We knew that. Everybody knew that."

"Ruin what?" I asked.

She ignored that. "And in this crazy duel, Jota just died?"

"He fired his gun in the air."

She nodded. "That figures."

"He said — and everybody seemed to make sense of it but me — he *let* Greg kill him."

She nodded.

"But . . . that's ridiculous. I mean, Jota didn't know the clock was going to be put back. He didn't, I'm certain. So why would he . . .?"

"That's not what he meant."

"Greg used the word 'loop' . . . . 'Next time we won't loop you back.' "

She sighed.

"It's some kind of time warp, obviously," I said. "The same thing that enables you to be here, when anyone can see you were born in some other century."

Miranda said: "Val, please give up. I've told you a few unimportant things. There aren't many unimportant things left that I can tell you. But if you promise to stop fishing, we can talk if you like."

An idea stirred in my mind as I noticed that even in a bikini she managed to be more elegant than a Paris model.

I had, of course, no intention of stopping fishing. What I wanted to do was pull this beautiful fish so far out of water that, gasping for breath, she'd tell me what I wanted to know before I let her off the hook. It might not be possible, but I meant to try.

Her white two-piece was already quite dry. Her pale, creamy skin had already stopped steaming, and only her damp hair showed that she had been in the water a few minutes ago.

Until that moment I had thought a bikini was just a bikini, and a girl wearing one was not so much dressed as censored. But Miranda's two-piece was subtle . . . the bra, with shaped straps, not too small, concealed and revealed her thoughtfully and tastefully, as if a talented artist had painstakingly drawn and redrawn the lines until his critical eye was satisfied. The briefs, not too tiny either, harmonized with and complemented muscles and curves. Superficially similar, the white two-piece was actually in a completely different class from the brutally utilitarian kind of bikini which is merely insurance against arrest.

"Well?" she said. "Shall I turn round so that you can inspect the other side too?"

"I'm thinking," I said. "Suppose a girl from the seventeenth century were here now. Just an ordinary pretty girl, not the daughter of a duke. She probably wouldn't be very clean. She would have bad teeth. Her face would be marked with smallpox and maybe worse things. Makeup, if any, would be crude. Scars, not properly treated, would mar her skin."

Miranda was listening so intently that I was encouraged.

"Her clothes would be old, imperfectly washed with poor soap, or no soap at all. They'd fit only approximately. If there was a bit of cleavage, it would be unsubtle, almost as if she'd forgotten to put something on. Am I making sense?"

"I'm listening," said Miranda.

"A girl of today," I said, "can make far more of herself without really trying. There's plenty of clean water and good soap, and in this part of the world we've beaten the insect problem. She wears new or nearly new clothes, and they fit. Underneath she can wear lightweight machinery that does a marvelous job on what Nature forgot to do. All kinds of make-up are available, if she happens to know how to use it, and she doesn't have to have bad teeth. However. . . . "

I paused. But Miranda said nothing.

"After another century or two," I said, "purely technical things like better materials and seamless joints will be taken for granted. As well as that, though, experience in de-

sign should count for something. Oh, I know none of you would wear the clothes you've been wearing here back where you came from, any more than a girl from my office would go around in 1666 dressed as she is now. But if she went back — "

"Don't labor it," said Miranda. "You've made your point."

"What puzzles me," I said, "is your curious compromise. I mean, everything I saw in the camp looked right. You've all got your hair cut the right way. Yet just this morning, when you wore a pink suit that would otherwise have been perfectly all right for Shuteley High Street, it was made of luxon."

"Well . . . that was a mistake."

"I thought only Greg made mistakes."

Rather sharply she said: "It's not mistakes Greg makes. Some of the things he does he means. Others he just doesn't care about. A mistake is something you'd take back if you had the chance. Greg wouldn't take anything back."

"But he just did. He looped Jota back."

She decided to surrender on that, yielding on one more thing that didn't matter too much.

"Loop equipment is small and light, and the effect is purely local,) she said. "There isn't supposed to be a set at the camp, but apparently someone's got one. I'll have to do something about that."

"Just minor gadgetry," I said. "Like luxon. Nothing more."

She looked at me sharply, wondering, as she seemed to have done once or twice, if I was possibly not as primitively moronic as I was supposed to be.

She told me a little more about the loop technique, and I realized that I'd been pretty near the mark. To her, it was minor, unremarkable, which was why she told me about it. In much the same way I might have tried to explain a zip fastener to a girl of the seventeenth century.

When a small, local disaster occurred, you snuffed it out of existence. If an axe slipped and slashed your leg, you snapped back a few seconds and avoided the accident. If a car carelessly reversed at a harbor, plunged into the dock, you took the careless moments back and braked before the car went over the edge. If you dropped a precious vase and it shattered in a thousand fragments, you turned the second hand back and didn't drop the vase.

It was a useful but very ordinary technique, possibly more significant than paper clips, zip fasteners, safety pins, and cigarette lighters, but not to be classed with things like the transistor radio, television or atomic energy . . . she thought.

And it occurred to me for the first time that Miranda was no genius, merely an ordinary girl of her time, fairly intelligent but no deep thinker.

"Another thing," I said. "Food is just food. The quality doesn't matter. Now that's a real surprise. All the indications are that people will become more choosy, not less. But the expected doesn't always come about. I could make a guess . . . Expanding world population makes

food supply more and more difficult. And maybe synthetic food isn't practical, at any rate not in your time. So people are conditioned, treated, drugged, trained to regard food as merely fuel. To eat enough but not too much. To be healthy, to avoid anything grossing, never to get fat and never to regard food as an end in itself."

Miranda refused to react, so I prodded her again. "So you do come from the future. Despite all protestations."

She lay right back on the grass. "We're from the present," she said with finality.

"That means *we're* in the past. Your time is the *real* time. We're ancient, ignorant, dead savages. That's why we're not real. That's why our problems, our lives, don't matter. That's why the disaster that's going to happen in the next few hours is going to be merely an interesting spectacle. That's why, though you give as little as possible away, you talk with us as I might talk to some ignorant civilian Trojan, not even a soldier, who hasn't the faintest suspicion that the great wooden horse is full of men. If we're not too unimportant to talk to, we're too stupid."

She was sitting up again, startled. She was breathing deeply and suddenly flushed.

What I had done I didn't know. But whatever it was, it took effect — as if I, a foreigner, had suddenly spoken to her in her own language; or as if I'd kissed her the way Jota, no doubt, could have done.

XIII

She didn't say anything, yet I knew that I had got through to her. And I knew that Miranda was no longer a thousand miles or years out of my reach.

I leaned over and kissed her lightly. She did nothing. I kissed her again, more insistently, more demandingly.

"Let's go up to the house," she said, pushing me away. "Sheila can't be there, or you wouldn't be acting this way. I'm thirsty."

"So," I said, "am I. You might as well come up to the house, since you can't do what you were going to do here with me around, can you?"

"No," she admitted and smiled.

It was the first real smile I'd had from her.

In the house, I tried to make her drink whisky, from ancient motives. But she wanted lemonade. It seemed to startle her when I put ice in it. Evidently this prehistoric method of chilling drinks was strange to her.

Standing in bare feet and a white bikini on the deep carpet of the lounge, she was out of place in a dozen ways. Although I had drawn the curtains in case anyone happened to look through the window, I was uneasy. "Would you like to borrow a dress?" I said. "If Sheila's things are too big for you, Dina's might fit.

"No, thanks," she said. "I'll swim back." A thought struck her. "Who's she?"

"My sister."

I wasn't telling her, I was reminding her. She must know about Dina.

But she didn't. It showed.

And I was startled. How could she know what she knew and not know about Dina?

I started asking questions again. "You didn't know about Dina? You didn't even know she existed? Yet you knew Jota would meet me at 3:10 this afternoon."

"Did I?"

"Greg did. And you wanted to meet him . . . you arrived precisely on cue."

"Tell me about Dina."

"Do you know about my mother?"

"Something . . . she's sick, isn't she?"

"If you want to use a euphemism, yes."

"And Dina?"

"Sick too — using the same euphemism. Pretty, healthy, stable in her way. But that's the way of a child. That's how she'll stay."

"I wonder."

"What do you mean, you wonder?"

She sat on a couch, drawing up her legs. "You're not sick — in that way."

"If I am, I hope it doesn't show. But Sheila and I have no children."

"Why not?"

"Don't be dense."

"I think you're wrong. I think your children would be normal."

"And their children?"

She shrugged. "You know the difference between heredity and environment. If environment, illness, anything like that was the cause of what happened to your mother — "

"It can't be."

"Why not?"

"Because of Dina."

She questioned me briefly but rather thoroughly about my mother, about Dina, about me.

Presently she smiled, and her smile was warmer now. "I knew you were sorry for yourself, Val," she said. "It shows. I didn't know you had so many good excuses for being sorry for yourself."

"Excuses?" I said.

"Oh, sure. Even if you're no psychologist, you know that self-pity is self-destruction. If you've only one leg and everybody else has two — too bad, but self-pity can only make your situation worse."

"Thanks for the lecture," I said.

She smiled. "Don't do that," she said. "That's self-defense. You're putting up a barrier. It's not in the least necessary, because I'm not trying to psychoanalyze you. . . . "

"What else are you doing?"

She got up again and began to move about. I tried not to watch her, because she affected me almost as she would affect a lusty seventeen-year-old boy who had been in solitary confinement for a year. Yet it was impossible not to watch her.

"This is only 1966," she said. "It's not long since psychiatry was born. Clever men found out many things which had always been assumed to be straightforward physical ailments were actually caused by mental factors. And, of course, they

went too far. Now almost everything short of a broken leg or diphtheria is supposed to be psychosomatic. Quite soon now other clever men will start swinging the pendulum again. Things in the blood other than alcohol can cause disturbances — "

"Obviously," I said.

"And a great deal of what used to be called madness can be very simply dealt with."

"Loop it out of existence," I retorted. "It's easy."

"No, not that . . . I think there's something quick and easy that could cure Dina. Not your mother. She really is psychotic. Dina is . . . well, she just needs a certain stimulation — I think. I can't be sure. It depends on whether there's anything fundamentally wrong in the heredity line. Hers and yours."

"Is there a way of finding out?"

She looked at me with sudden suspicion and relaxed instantly. "There's a way I could find out about you," she said. "And your children. It's a rather curious way to find out such a thing . . . But it would be infallible. It would settle whether there was any chance of your passing on . . . what you're afraid you might pass on."

"Will you do it?" I asked quickly.

She smiled and looked away. "You don't know what you're asking."

"What do you mean?"

"And because you don't know what you're asking . . . Turn around, Val."

Perhaps I was slow, but I hadn't the faintest idea what was coming. I thought she was going to hypnotize me or drug me, though where she'd get the drugs was quite a question.

A moment later she said: "All right. Turn back."

She was on the thick carpet, naked, her marvelous body twice as marvelous as even my heated imagination had been able to picture it.

She held out her arms to me, yet like a fool I hesitated.

"This way?" I said stupidly.

"This is part of it. But if you're reluctant. . . ."

I ran to her.

XIV

I had read and heard of acts of love which were not merely sex, which were more even than the consummation of true love: timeless moments when two people met and were reborn. I had not believed such things could happen.

I didn't even love Miranda, and quite certainly she didn't love me. Yet what happened then and there shocked us, drained us, and left us two different people.

Although I was aware of none of the details, which were unimportant and probably quite conventional, I knew that she was as much taken aback as I was. I also vaguely understood why: it was only a few minutes before that I had made her see me as something more than a character in a play, and now we were together with a background of silent thunder.

We didn't discuss it; we didn't try to explain it or explain it away. It was not love, it was not passion.

It was destiny. It was one of the moments, big or small, after which things are never quite the same again.

And we recognized this, dimly, yet with no possibility of pretense that nothing particular had happened.

Miranda's reaction didn't really surprise me, though I couldn't understand it. "Val," she said softly, "without meaning to, I've done something more tragic than Greg could ever manage to do."

I didn't reply. What was there to say to that?

She jumped up. "You must stay till I come back," she said.

Before I could emerge from euphoria — which I had no particular desire to do, anyway — she was gone.

I slept. When I awoke, Miranda was leaning over me, wearing her white bikini.

"You needn't worry," she said. "Your children will be entirely normal. There isn't the slightest doubt."

Only in that moment did I realize how much I wanted children — more than that, wanted Sheila and me to have children. Always when Sheila had said or hinted that things would be different if we had children I had been irritated at the irrelevance. Things would be different if I were seventy-five feet tall, or if Sheila were a man, or if I were a millionaire, or if we could have children.

All I said was: "You had to test me — *that* way?"

She nodded. "In the circumstances, it was the only way. I could hardly. . . . " She checked herself.

"You went to the copse."

"Perhaps."

"What about Dina?"

"I think I'll be seeing Dina." She was evasive. "I'll do something . . . she won't remember what, and it'll be better if nobody knows."

She didn't want to talk any more. "I mustn't see you again, unless . . . no, I shan't see you again, Val. You're not going out tonight, and I. . . . Good-bye, Val."

She ran from the room. And I knew somehow that she meant good-bye — not *au revoir.*

By the time Sheila drove up, twenty minutes later, I had carefully removed all evidence that Miranda had been in the house. I left my own glass where it was, but washed hers and put it away.

I just didn't know how I'd act and how Sheila would act after what happened. Not only had I been faithful to Sheila since we got married, I had been faithful to her since the day we met.

After hearing her mini drive up and stop, I waited in the hall. Sheila might guess what had happened the moment she saw my face . . . Belatedly I realized I should have found something to do, instead of simply standing waiting for Sheila with no prepared explanation of what I'd been doing all afternoon.

She came in and said: "What's her name, Val?"

"Miranda," I said. It would have been fatuous to ask what she was talking about, whose name she

meant, and even more fatuous to ask how she had found out.

"Why did you do it, Val?" Sheila asked quietly. She should have waited for an answer, but she surrendered some of her advantage by going on: "I thought . . . with Dina out of the way for a while, we might have had a chance. Dina's the root of all the trouble, you know. All of it. You don't think so, but you don't have to put up with Dina at her worst, all day."

So we were talking about Dina, not Miranda, and the heat was temporarily off.

"Lots of people have in-law trouble," I said rather weakly.

"Yes, but not this kind of trouble," said Sheila bleakly. "If she was a cripple, I could speak to her plainly and reach some kind of understanding. If she was old I could at least try to manage her. But she's just . . . well, you know."

"I know."

"I hate her, Val, do you know that? She does. Of course she hates me, so we're even. But she hated me first."

Some people could ignore dislike. Sheila wasn't one of them. She couldn't be indifferent.

She went back to Miranda then, trying to work up the fury she had felt earlier. But it was too late. And I had realized with relief that she wasn't talking about Miranda and me in the lounge an hour ago, but Miranda and me in the Red Lion earlier.

"Did you have to humiliate me, Val?" she demanded. "Did you have to take her where everybody knows you, and me? Couldn't you have taken her to some hotel out of town?"

"You've got it wrong. Sheila," I said.

"Of course. Obviously. What else could be expected? She's a rich client, the daughter of the Earl of Shoreditch."

"She's one of the giants," I said.

"The what? Oh, those kids. Don't be ridiculous. I hear she's about the same height as me."

"I mean, she's with them. Listen, Sheila. There's something very strange happening here in Shuteley, something fantastic. This afternoon Jota was killed. I might have been killed too, but instead I killed my opponent — "

"Killed?" She stared at me. "Jota dead?"

I explained what had happened. She listened, yet I knew I wasn't getting through to her. It wasn't that she disbelieved what I said. It was rather that she was the kind of woman, the kind of womanly woman, who saw her own family and household and everything that affected them in technicolor and everything else in black and white. The giants were all black and white, except Miranda, who had lunched with me at the Red Lion. Besides, she wasn't a giant.

It might have made a difference to Sheila's attitude, I thought, if Miranda had been six feet four. Then she'd have been a freak, and anything I did might have been laughed off as temporary aberration, as if I had fallen desperately in love

with the fat lady of a traveling circus.

"Anyway," I said, "They'll be gone tomorrow."

"How do you know?"

"I told you. Greg said — "

"And you believe everything you're told?"

"Sheila, these giants know things. One of the things . . ."

"Well, go on."

"They say," I muttered, "that I needn't worry about my children. That there's no reason why they shouldn't be normal. And I believe it's true."

Sheila's head came up quickly. For a moment there was radiance in her face. She had fought against my decision, not so much because she wanted children, though she did, as because she believed we needed them.

Then the radiance died. "Who told you — Miranda?"

"As a matter of fact, yes."

"And anything she says is true?"

"It's not like that."

"Isn't it?" She paused and then asked: "Is she very beautiful?"

"Very. But she'll be gone tomorrow too."

"So you have to make hay while the sun shines?"

The phone rang. "I'll get it," I said at once, too quickly, for Sheila looked at me calculatingly. Invariably she answered the phone, even if I was at home, because I wasn't often called at home and if I was, her answering it gave me a chance to think or pretend not to be home.

She was doing me an injustice this time, for the possibility that Miranda might be calling had not crossed my mind.

It was, in fact, Jota.

"Haven't much time," he said. "I'm out for a stroll with some of the giants. Val, something happens tonight. They haven't said anything definite — I guessed from the way they talk about tomorrow, as if everything's going to be different."

He wasn't telling me anything I didn't know.

"Good? Bad?" I said.

"They're excited. That's all I can say. Except — they seem to think they're going to do me a good turn. I think now they let me stay with them so that they'd know where I was and could keep an eye on me. One other thing. Go out. Take Sheila with you. Go right away. Don't waste any time."

"Why?"

"I don't know why. Think they tell me everything? But I gather you're supposed to stay at home tonight. It's taken for granted. It's assumed you *must* stay at home."

"Then I suppose I must," I said.

"Don't be an idiot. Why give in? They think you'll stay at home. So go out. Don't be a vegetable."

"Jota," I said ."What you and Greg were saying to each other . . . that must be important. What exactly did you mean when — "

Jota chuckled and rang off.

"So it wasn't Miranda," said Sheila. "What a disappointment for you."

"Sheila," I said, "let's go out for dinner."

"And we'll happen to run into Miranda."

"Don't be silly. You pick the place. Right out of town somewhere. Sheila . . . I love you."

She looked at me doubtfully, suspiciously. But I met her gaze fair and square.

It wasn't hypocritical, telling Sheila I loved her so soon after what had happened. I was quite certain that what had happened between Miranda and me would never happen again. She had called it tragic . . . anyway, she had called something tragic. We had met without meeting, and then suddenly in an explosion of feeling we had fused in one way and been blown apart in another.

"We never go out to dinner," Sheila said.

That reminded me. Miranda, not just Jota, had said "You're not going out tonight." That was another of the things she knew. It wasn't in the cards that I would leave the house again that day.

"We're going this time," I said. "Go and get yourself all dolled up. There isn't a girl in Shuteley who can hold a candle to you when you really try."

"Except Miranda, of course."

"Miranda isn't in Shuteley. I don't think she's anywhere."

Although this puzzled Sheila, it also seemed to satisfy her.

XV

I rushed Shelia. She wanted to spend hours getting ready, as women do. She took it for granted she'd have a bath and do all the other things that had to be done, and we'd get out about seven or eight or nine.

But I thought, I had a feeling, that if we didn't sidestep fate, we'd lose the chance. Maybe twenty giants would arrive and keep us at home by force.

And as we closed the front door and walked to the car — my car — I was certain there had been something behind that feeling, for I felt myself waking up. A moment before I had felt tired and rather disinclined to go out after all, and if I hadn't been hustling Sheila, if there had been any easy way to change my mind, I'd have been quite content to stay at home watching television instead.

We drove to Shuteley and southwards across country to a new roadhouse, the Orbit, on the nearest main road. We had been there just once before, for a drink.

We talked only casually. Miranda wasn't mentioned, nor the giants, nor Jota, nor Dina. And all the chill between us gradually melted. I realized in wonder that I liked being with Sheila, that we were going to enjoy ourselves. It had been like this before we were married, and for a very short time afterward.

I was happier than I had been for years. Sheila and I would have children. We'd become a family. There must be some solution to the problem of Dina, if we really worked on it. Perhaps it would be a tough one. She might have to be shown, with brutal directness if necessary, that if Sheila and I couldn't live our lives in peace with her around, Dina

wouldn't be allowed to stay around.

Curiously, although I completely accepted Miranda's statement that I could have normal children, I left her promise that something would be done about Dina entirely in the air. I didn't even think about it again. That I could have a family without fear was, after all, not hard to believe. It had been doubts that had been set at rest, not certainties. Dina turning into a normal teenager was something more in the nature of a miracle.

A mile or so short of the roadhouse, Sheila said: "We're far too early, Val. There won't be a soul there, and it's too soon for dinner. Let's stop for a while."

So I drove off the road.

Married couples abandon premarital parked-car behavior for a hundred excellent reasons. Kids stay parked for hours, not necessarily misbehaving themselves, because they've nowhere else to go. After marriage, many couples try to recapture magic moments in cars parked at favorite spots . . . but even if they stay in love, it can't be the same.

Yet Sheila and I, just off the road, in broad daylight, managed to go back. We did nothing more than hold hands and talk, yet it was the same as it used to be. Half an hour was a minute. We talked about nothing at all, certainly not about Miranda or Jota or Dina.

We moved on in the end only because, despite the magic, we were hungry. And the magic needn't necessarily fly away.

By this time I had made up my mind irrevocably about Dina. Something which she couldn't help was strangling her life. But it couldn't be allowed to strangle three lives instead of one.

The roadhouse was long and low. The noise from it as I parked the car rather took me aback; because we'd thought it was a fairly quiet place. Then I realized that on such a hot night all the windows were wide open.

Sheila had put on a new dress, and I didn't get the effect until she emerged from the ladies' room. She flushed with pleasure as I looked at her, knowing that I meant what I looked.

She wore a short green dress with just enough cleavage, and I saw in wonder that she was much more beautiful than she had been the last time I looked at her in this way. A business associate who had married a lovely girl and then divorced her had told me once, over a drink, that he had never wanted her more than when he saw her for the first time after she had remarried.

I was lucky. I was having the same sort of experience, only for me it wasn't too late.

I tried not to think of Miranda, and then, as Sheila went ahead to our table, I let myself think of Miranda . . . and Sheila didn't suffer by comparison after all.

Miranda was the actress in the safari picture. Her perfection had the same unreality. She wasn't a girl who worked wonders with nothing at all. She had access to tricks far beyond anything available even

to the girl in the safari picture.

Sheila didn't have any tricks. And Sheila was my wife.

We had a wonderful time. It was easily the best evening we had ever spent together. And with every second together, we came closer.

Only once more during the evening, while Sheila and I were dancing, did Miranda come to mind. And it was with gratitude, for I knew that if I had not somehow been released that day, Sheila and I would not be spending this kind of evening together.

We didn't prolong the evening greedily. We knew that unlike kids out on such a date, we didn't have to part afterwards. We could go home — and to a home without Dina.

So it was not long after ten when we got back in the car and started to drive home.

"What's that, Cal?" Sheila said idly.

I stared and then put my foot hard down.

The sky ahead of us was on fire.

I'd seen fires at night before. Quite often they look far worse than they are. An empty barn aflame can light the sky, over a hill, like a burning town.

But this was something more than a burning barn. We could see flames shooting high, flames and smoke — and Shuteley was still ten miles away.

The flames that seemed to be shooting miles into the sky really were what they seemed.

At once it all fell into place. The giants *knew*. Now I understood Greg's visit and his bizarre idea of insuring against disaster in the next twenty-four hours. Of course he hadn't meant to collect. He hadn't even meant to have the policy drawn up. He had merely been amusing himself.

Other things began to assume more significance. Miranda had *known*. I'd stay at home, and I'd gone out partly to make her wrong. Had she known then I'd die? Or had she been thinking something quite different, that I'd be safe out of it, because the Queen Anne house was in a bend in the river hundreds of yards from the town?

Dina . . . my heart missed a beat. Gil's house was in the middle of old timbered houses in the oldest part of town.

Then, with hope, I remembered that Miranda knew where Dina was and had said she expected to see her later.

The giants, who had known all about this fire, surely didn't propose simply to stand and watch, did they?

"What is it, Val?" Sheila said, and for a moment I thought she didn't even realize Shuteley was on fire. But then she added: "What are you thinking about?" And I knew that she'd been watching my face.

"About the giants," I said.

"You mean — they did this?"

I hadn't been thinking that and still didn't, on the whole. It seemed far more likely that, knowing this was going to happen, they had booked their seats for the show in advance. Maybe last week they'd

watched the Great Fire of London, seeing St. Paul's burned down, and eighty-seven parish churches, and 13,200 homes.

At the thought, I jerked convulsively and so did the car. The Great Fire was in 1666. This was 1966, the three hundredth anniversary of the London disaster. Could that be coincidence? Or did it, in a twisted way, explain everything?

"Sheila," I said. "Can you remember the date of the Great Fire of London?"

"Sixteen something," she said.

"No, I mean the day and the month."

"You must be kidding," she said.

It was a possibility that the giants were teenage vandals of time, destroying for the sake of destruction and doing it on a scale beyond belief. Things I knew made this possible too — the way, for example, in which the giants, even Miranda until a few short hours ago, obviously regarded Shuteley and the people in it as mere shadows of living creatures.

Was that what Miranda had meant when she used the word tragic — tragic because suddenly, because of what had happened between us, she realized that the people of Shuteley were something more than names fading from ancient gravestones?

But then I remembered a small item in a TV program some weeks ago, unimportant at the time. That had been the exact anniversary of the Great Fire. It was past. So this wasn't just a fantastic, manufactured playback for the giants' amusement, three centuries later.

"Talk to me, Val," said Sheila. "And don't drive so fast. You nearly went off the road at the last corner."

I slowed a little. As we approached Shuteley the fire seemed to spread until it was all around us, although that couldn't be so.

"Shuteley," I said. "The most old-fashioned town in England. Oh, afterwards it's always easy to see . . . the *Titanic,* instead of being unsinkable, was constructed so that if a certain thing happened she absolutely *had* to sink. The *Lusitania* acted as if she wanted to be sunk, paying no attention to instructions and being in one of the last places she ought to have been. At Pearl Harbor, half a dozen warnings were ignored, disbelieved, and what should have been expected was an unbelievable shock — "

"What are you talking about?" she asked, bewildered.

"Fire risk. Well, who should know better than me? Naturally, every new building in Shuteley has to conform to all the latest safety regulations. Modifications are always being made in all the old houses. But how much has it amounted to? Shuteley's the most inflammable town in England — perhaps in Europe."

"You mean, a fire only had to start, and it would be bad?"

"Something like that." My thoughts were jumbled. Sometimes I thought the giants had done it all, with my black-haired playmate Snow White as the schemer-in-chief. Then I found myself dismissing the giants an mere spectators.

"Gradually, of course, the risks have been lessening," I said. "But you know Shuteley . . . changes that would take ten years anywhere else take fifty in Shuteley. And this summer there's been hardly any rain. Not only the town is bone dry, but the grass, the bushes, the trees. The river's as low as it has ever been."

"You think it's very bad, don't you?" Sheila said quietly.

I did, though in an oddly theoretical, uncommitted way. So far I was only guessing.

So I mused: "Maybe this is the fire that's going to change our whole conception of safety measures. When the *Titanic* sank, there was no rule that there had to be lifeboat accommodations for every passenger. The company thought they'd done pretty well because they'd done far more than the regulations demanded. We did the same. I'm sure of it. A lot more could have been done in Shuteley."

After a pause, thinking of the giants again, I said bitterly: "I should have known. I had all the clues."

"What could you have done?"

"Nothing, I suppose. I don't know. Tried to get the police to move the giants on, perhaps. Watch them. Make sure they didn't have a chance to do any damage."

"Then you think they did it."

"I don't know. But if they didn't start the fire, they knew it was going to happen."

"Miranda too?" she said it quite evenly, with no detectable malice.

"Miranda too," I said rather bleakly.

It seemed to take an interminable time to drive ten miles. The road was narrow and winding. It was not possible to average more than forty, and in trying to do the journey too quickly I was losing time, and knew it, and lost more time trying to make it up.

By this time I had realized we'd have reached Shuteley sooner if I'd asked Sheila to drive. My brain was too involved with other considerations to allow me to drive well. But I didn't want to stop now to let her take over. The time lost might be greater than the time saved.

"I never knew this road was so long," I groaned.

"What can you do when you get there?"

"I don't know. At least make sure the firemen, the police, everybody involved know about the giants, if they don't already."

"Val," said Sheila quietly, "calm down. Think — no matter how bad it looks, it's only a fire."

"Only a fire!" I almost screamed.

"Please, Val. Shuteley doesn't consist entirely of wooden houses. You said yourself safety modifications are always being made. Spaces have been cleared. And we have a modern fire-fighting service, with the latest equipment. You know that as well as I do. Better."

Her calm words took effect, although we now smelt smoke, burning wood, burning rubber and — I hoped I was imagining this — burning flesh.

Of course she was right. Despite the inferno we were driving towards, the orange gouts of flame shooting

high into the dark sky, the billowing clouds of smoke pouring upwards, the sudden spurts of flame which told of oil explosions or gas leaks.

What we were seeing — the red-orange glow which made driving difficult, dimming the headlights — must, simply had to be, far worse in appearance than it was in actuality. It looked as if we were approaching a city the size of Manchester ablaze from end to end. And that was impossible. Shuteley would be lost in a suburb of Manchester.

I took a bend with a screaming of tires. For a minute or two we were tearing frustratingly along at right angles to the blaze, getting no nearer. There was a slight rise just this side of the river, which meant that we wouldn't get a direct view of the town until we were close to the suspension bridge.

Yet as Sheila said, it couldn't be all that bad. Shuteley being a town in which fires that did occur could be more serious more quickly than in other places, the fire-fighting service was that much more efficient and better equipped. In the Great Fire of London there probably was little the Londoners could do except throw buckets of water over smoldering timbers. In Shuteley, a great deal of damage was undoubtedly being done; lives might be lost, but the outbreak would be contained.

I remembered Dina again and caught my breath as I found myself thinking that if she died, one problem was solved . . .

No! I didn't want problems to be solved that way.

At last I reached the end of the straight and was able to turn towards the maelstrom again. Suddenly I braked as I saw something across the road.

Sheila screamed and cut her scream off abruptly. I was able to slow the car enough to hit the obstruction gently, but not enough to stop short of it. It looked like molten lava flowing sullenly across the road . . .

There was a brief check, nothing more. It was water flowing across, turned dull red by the glow in the sky.

The car hit the last rise, and we both coughed. We were breathing thick wood-smoke. My eyes stung so fiercely so quickly that I braked again, braked harder as a cloud of smoke swept across the road, obscuring everything.

Yet it was practically a windless night, and most of the smoke and flames rose straight up. Nor was there even a breeze to fan the flames. That was something.

Then we were over the hill, almost at the river, and we saw the hell that was Shuteley.

XVI

When you try to burn damp garden refuse, you have to create fierce heat before the green twigs, sappy cuttings and weeds begin to smoke, smolder and finally burn. Yet no matter how wet everything is, the greedy maw of a roaring fire will in the end swallow everything.

In Shuteley that summer night,

everything inflammable or uninflammable was as dry as tinder. Everything that would burn was ready to do so at the first touch of flame. Everything that wouldn't was neutral in the onslaught, neither helping nor hindering.

All along the river on the other side, buildings blazed as if they'd been prepared for a fire display and then touched off at a dozen points. Orange flames painted the gaunt shells of buildings which were all that was left along the riverside. Every few seconds, above the crackling roar of burning wood, there was a crash as somewhere masonry collapsed.

Nothing could be alive across the river from us. If anyone by some miracle escaped alive from any of those blazing buildings, there was no sanctuary in narrow streets swept with flame. I could only hope that the people who had been in these houses, the most densely populated part of the town, had already managed to get out.

Nothing could be alive across the a furnace; even a fireman is full protective clothing would collapse and melt like a tallow candle.

"The whole town," Sheila whispered beside me. "Everything's burning. There's nothing left."

She was right. The fire stretched on both sides to the limits of the town. And although we could see practically nothing through the wall of fire, the flames and smoke which gushed into the red sky showed that behind what we could see the fire was just as intense.

Where we were, a hundred yards from the river and looking across it to a strip of scorched earth and stone and concrete that could burn no more — perhaps three hundred yards from the nearest flame — we were facing a blast of heat that would have killed us in time and must already have been toasting us, although we were protected by the car's body and were looking through glass. But we were too fascinated to draw back.

Only after we had seen all there was to be seen on the other side of the river did we look closer.

Sheila gasped. The suspension bridge was buckled, twisted, still spanning the river but with its metals glowing and a huge pile of rubble in the river bed below it.

The river was practically dry. Only thin crimson trickles ran through the mud and stones and weeds.

To the left, the New Bridge was piled high with masonry and still-burning timber. The warehouses across the river had collapsed into the dry bed.

There were people and machines this side of the New Bridge, a few hundred yards along from where we stood, but I had little attention to spare yet for this side of the river, where there were few buildings and those not on fire.

Instead I looked the other way — and saw that the Old Bridge was down. It lay shattered in the bed of the river, an astonishingly vast pile of rubble, apparently the blockage that was holding back the river. But that way I couldn't see distinctly, because something close

to the Old Bridge on the opposite side was shooting out dense clouds of smoke.

And I began to realize the full horror of the situation, which I had scarcely thought, a moment ago, could be worse.

There were two footbridges beyond the bridges I could see, but both were partly wooden. It could be taken for granted they were destroyed. And the next nearest bridge was twenty miles away.

Shuteley was a backwater at the best of times. Yet in the middle of a well populated country, the town could never have been described as isolated — until now.

The main road, the big Midland towns, the rest of England were reached from this side. On the other, lanes meandered through villages, brooks, farms, woods. Of course help could reach the town that way, but it would take hours. And this was a lightning fire.

Sheila was pulling at my arm, trying to make me reverse back over the hill. But before I did anything else, I looked back at the New Bridge.

It was hard to see exactly what was going on there, because sheds and warehouses cut off the view, and at this point there was no road along the bank. But I saw two fire engines and men in helmets.

And they were on this side of the river.

I tried to start the car and only after several seconds did I realize I'd never killed the motor. I put the car in reverse . . .

There were two faint pops and the front settled. At the same time. I noticed steam rising from the front of the car. Above all the other burning smells. I smelled rubber.

Protected by the car, I hadn't realized that the fierce heat from across the river was capable of melting the tires and boiling the water in the radiator. However, the car did move jerkily, and in a few seconds we were back over the brow of the hill, protected by it.

"What can we do?" Sheila said.

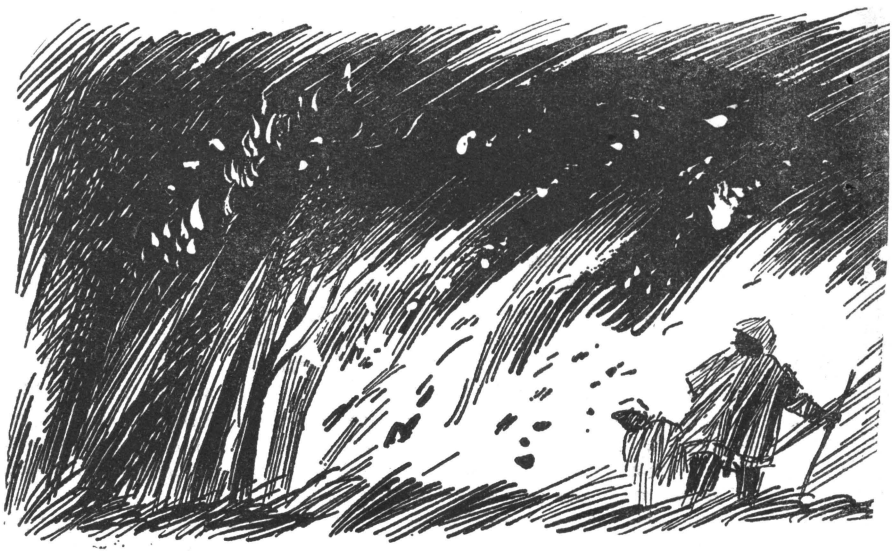
Well, what could we do? Nothing, probably. Nobody could do anything that I could see. It was too late for any measures that I could imagine.

It was ironic and symbolic, rather than really important, that the firemen were trapped this side of the river. Certainly they could do nothing if they crossed the bridge — if it were possible to cross the bridge. The fire engines were rubber shod, like my car, and there was water in the radiators. Anyway, firemen in conventional uniform couldn't get near a conflagration like that.

Since the only sign of life we had seen had been at this end of the New Bridge, I turned the car and, running on the rim with a steaming radiator, drove along the lane behind the warehouses.

I stopped.

Here in the semi-gloom, lit by the blaze in the sky but unaffected by the outbreak as yet, were old huts, sheds, stores. And in the lane in front of us, blazing fiercely, was a wood brand a foot thick and three feet long.



We got out of the car and looked at the blazing balk rather helplessly. Thrown into the sky from the other side of the river, no doubt, it had fallen precisely in the middle of the lane and was spluttering helplessly. Even a small spark, falling on a tarred felt roof, would have started a blaze on this side of the river too. A fire on this side would never rival the destruction of Shuteley itself, but would make this night of destruction appallingly complete.

I found a spade in a shed and covered the balk with earth and stones. Without much of a struggle, the fire went out.

But I was almost certainly wasting my time. If a great blazing balk of timber could be thrown a quarter of a mile, millions of equally dangerous sparks must be coming all the time. Indeed, I could see them flying across the sky.

Sheila caught my arm, "Val, please," she said. "Let's go back."

"Back?" I echoed blankly, wondering whether she meant to the place just over the hill where we had watched our town being burned to death, or to the roadhouse, or to our home a quarter of a mile along the river on the side we were on.

"Anywhere," she said. "We can't do anything here. No one can."

It was true, of course. The firemen we were trying to join couldn't do anything. Fires differ in kind rather than merely in degree. You can spit on a tiny fire and put it out. A fire in a long-unused grate won't burn at all, despite all your

efforts and the fact that you're using specially selected combustible material.

But when the temperature goes up, when water boils, when rubber smolders, when wood, untouched by flame, gradually glows and blazes through the effect of high temperature alone, when human beings simply can't go near . . . that's a fire that simply has to be left completely alone.

As if to reinforce what Sheila was saying, a flying spark dropped and imbedded itself in her fur wrap. She threw it off, and I stamped on it. And then, startlingly, we were drenched in a shower of water.

"Rain!" I exclaimed. "If it would only pour!"

Sheila, in her green dress which was short top and bottom, soaked, didn't shiver. "Hot rain?" she murmured, puzzled.

I took her arm. She wanted to escape, to leave the fire to burn itself out, which was sensible but impossible. With the other arm I picked up her wrap and pushed it rather roughly around her. Then we went on.

The men at this end of the New Bridge were nearly all firemen. There were a few children, a few old men.

The firemen, protected from the direct blast of the heat by the very obstruction which kept them from attempting to cross the bridge, were spraying water this side of the river, which was sensible. Jets directed across the river would not even land. Anyway, the jets they were directing were more like trickles, possibly of

some value on this side of the river, of none if directed the other way.

I recognized Fire Officer Sayell, brother of the wit of my office.

"How did it start?" I asked.

His face twitched in annoyance, and I realized how silly my question was. Undoubtedly later there would be an investigation, and it might even be possible to establish the original cause of the fire. Meantime there were a million things that mattered more.

"Excuse me, Mr. Mathers," he said, and I recognized the carefully controlled tone of a man near the end of his tether, impotent, with an impossible job on his hands. "There's not much I can do, but I've got to get on with it anyway."

"There's help coming?"

"Lots of it. Mostly to the other side. Nobody can do anything much here. We've tried the ladders. They don't reach the other side, not from any place we can put the tenders."

It would not, I thought, have made much difference if the ladders had spanned the bed. Nobody could go across there and live. Anyway, the steel ladders would buckle in the heat.

Sayell swore as one of the jets failed, closely followed by the other.

"Everything's wrong," he said bitterly. "The river's dried up. Blocked higher up."

"How about the Winshell brook?" Sheila suggested.

"Dry before this happened. Dry yesterday."

"Have you looked?" I demanded.

He stared at me with desperation in his eyes. The interference of local VIP's was another penultimate straw.

"No, I haven't bloody looked!" he snapped. "The bloody brook was dry when the river was still — "

"Send somebody," I said.

Suddenly quiet, he said: "Do you want me to hit you, Mr. Mathers? Do you want me to cleave your skull with my axe? Because so help me — "

"Send somebody to look," I said and turned slightly away. If I tried to outface him, maybe he would cleave my skull with his axe. Many men with impossible jobs on their hands get like Sayell then. A breath of opposition sends them into spontaneous combustion.

But if someone says casually "Do so-and-so" and moves on, they've got something to try, something that isn't likely to make the situation any worse and might improve it. And if it fails utterly, it's not his fault.

Behind me, Sayell shouted: "Horner! Take a look over the hill and try the Winshell brook. And look lively!"

The Winshell brook was a tiny tributary of the Shute. It went the wrong way, meeting the river head on rather than quietly trickling into it. The meeting place, called not unexpectedly The Meeting of the Waters, was only a short distance downriver from where we stood.

I had remembered the water running across the road.

At the giant's camp, at our house, probably even just beyond the mound of debris at the Old Bridge which I had glimpsed through the

smoke, the river was still running. It was only in Shuteley itself, at the moment it was most needed, that it had run dry. But all the water was still flowing somewhere. Some of it, though not nearly enough, was still getting through along the old river bed. Some of it was perhaps going to the other side of the river, doing something to limit the blaze. That was unlikely, however, because it would have to get round Castle Hill.

The rest of it must be flowing along the other side of the hill which for so many miles had cut off our view of Shuteley. And the Winshell brook was there.

XVII

The human animal has survived and will continue to survive, because of its enormous talent for adaptation — and rapid adaptation at that.

We were living in a world of smoke which stung our eyes and made breathing always difficult, sometimes painful and occasionally impossible.

We were living in a world of heat which made sweat run from us continuously. We were all so thirsty that we would have drunk anything, even the muddy crimson trickles that were still meandering down the river bed.

We were living in a world where thirst, pain, hunger and comfort had to be set apart. All of us had small burns where sparks had landed. Several of us had small smoldering spots in our clothes which we beat out absently. We were hungry from our exertions, at least I was, but that didn't mean the thought of eating was present. Drinking was different. All of us, given the chance, would have knocked down a pint or two of water, milk, lemonade, beer, anything. We couldn't say drinking no longer mattered. We'd have drunk greedily if we could. But if we couldn't, it would have to wait.

We were living in a nightmare world where only one thing could be held in the mind at one time. At the moment it was the Winshell brook. Even Sayell, who had wanted to kill me for bothering him, was waiting, praying.

If there was water, something could be done. Without water, stuck across the river from the fire (which nobody for the moment was looking at) we could no nothing but watch this side of Shuteley, such as it was, burn with the rest.

It was no use thinking of what had happened and was still happening across the river. Apparently these firemen knew little more than I did about that.

Our wives, children, parents, friends and lovers were over there, dead or alive. Either they'd escaped when the fire started (whenever that was) or they were still there, forever, unrecognizable.

I suppose I was the luckiest of all those people there. Sheila was with me, and Sheila, despite everything, was the human being I cared most about. Sheila and I were going to live. If necessary we could escape and save ourselves.

We had no children, and at that moment I had never been more glad of anything. Sheila's parents were dead, and the remaining parent I had was far from Shuteley.

There was only Dina to worry about. And Gil, perhaps.

As for the others . . . Well, through being faithful to Sheila and her alone, I had become unconcerned with most of the people in Shuteley. In the office, I was concerned chiefly about Sally Henrey, and she was on holiday, out of this altogether. Of course I'd be sorry about many others. But they weren't close, apart from Gil. And was he close any more?

Somebody screamed, and I turned. As if thrown by an ancient catapult, a blazing mass of timber was flying in a leisurely parabola across the dry river, straight for us.

I grabbed Sheila and pulled her to the left. But we bumped into two very solid firemen and bounced the other way. The timber crashed on the ground twenty yards from us.

Nobody was near it. Everybody had had plenty of time to get clear. But when it hit the ground it flew asunder into a thousand blazing sparks which exploded in all directions, and the curses and screams of those hit by the sparks temporarily drowned the noises from across the river.

A couple of brands dug into my clothes and obstinately stuck. I was trying to brush them off when a scream from Sheila made me look at her and see that a spark was clinging like a leech to the front of her dress. I tore off my jacket, still with a smoldering patch in it, and plucked away the spark and some of her dress, whereupon Sheila promptly fainted.

I could have sworn she had her fur wrap on, but either it had slipped off unnoticed or she had thrown it away in the broiling heat. Picking her up, I carried her behind the shelter of one of the sheds. The spark on my leg had fallen off, though not before burning through to the skin. The pain was sharp and more like a stab wound than a burn.

I put Sheila down. She'd had been lucky. There was no sign of a burn.

I pulled up a leg of my pants and saw to my astonishment that the considerable pain in my leg was caused by a tiny burn no larger than a pinprick.

Sheila opened her eyes. She didn't move. "Val," she said, "am I badly burned?"

"You aren't burned at all," I said bluntly. Reassured, she jumped up and wailed when she saw that the left top half of her dress was torn away.

"Where's your wrap?" I demanded.

"I can't wear it in this heat. It's — "

"Find it, put it on and keep it on."

"Sparks stick in it."

"I know, but . . . "

I was beginning to realize that though it was reassuring to have your wife with you in such a situation, and many men who found themselves alone at this moment

would have given their right arms to be as fortunate as I was, a fully feminine girl like Sheila kept your hands full. You'd scarcely time even to see what was going on.

So I said: "Look Sheila, the best thing you can do is gather all the kids and old folk together and take them back over the hill, where it's safe, and just *stay* there. A lot of people were burned and injured unnecessarily just now. They needn't have been here."

"And what are you going to do?" she demanded.

I shrugged. I didn't know. If the firemen were helpless, it wasn't likely I'd be able to do anything useful. But I had to try. I had to be there. If I could no nothing else, I had to stand and watch.

"What will this mean to your job?" Sheila said.

Trust a woman to be practical. The thought seemed to come from a thousand miles away.

But I was responsible for practically all the insurance in Shuteley — and the San Francisco disaster that wrecked insurance companies among other things was a minor affair compared with this. True, Shuteley wasn't a big town. But never in history, save by act of war, had any town been so completely destroyed as Shuteley obviously would be before this was over.

Behind us there was a shout. And we ran back, for at such a time the last thing we expected to hear was a shout filled with excitement and delight.

When we saw the firemen talking to Sayell and gesticulating, we didn't have to hear what they were saying. There was water in the Winchell brook, and plenty of it.

It was remarkable how merely having something they could do transformed the firemen from a dispirited, cursing, demoralized mob, no more useful than the children and old people who still stood around, into an efficient, well drilled team.

A squad raced up the hill with their equipment, and Sayell turned to me, his face alight. "Thanks, Mr. Mathers," he said. "If it hadn't been for you, we might never have looked at the brook. I never guessed it would be . . . anyway, we're in business again."

Significantly he turned to look at the fire on the other side of the river, which for some time he had been ignoring. Then he turned back, shouting orders.

I sent Sheila to do as I'd suggested and saw that she too became efficient once she had something to do. She waved to me as she shepherded the children and the old people over the hill . . . and that was the last I saw of her while the Great Fire raged.

TO BE CONTINUED

HAIRRY

by MIKE HILL

Never know what you're going to meet out in the red. You might even meet something like this!

The band finished the number with a flare of the clarinet and a whoom and rattle of the drums.

Jake began talking again, "The way I met Hairry? I was out in the red with a geological survey team looking for petroleum. That's not the cleanest sport in the world, but I wanted to get ahead, and the pay was good. We were working the canal branches to the north out of Thorsport, and we pitched camp up near the mountains. There's been no fauna of any account discovered in that region in all the thirty years since the planet survey, but we slept in the tractor tanks anyway. That way we didn't have to carry tents and weren't bothered by the cold nights.

"Well, you know the ceremony in the desert when a new camp is pitched. We had a ten-gallon oil can full, with plenty of bio-fixed alky from the chemical stores added. There's no hangover if you do that, and not only does it make a good party, but the effects last over into the next day. By the time it fades out the job is going good, and the scenery hasn't bothered you a bit. But you can't have a party with this stuff every day either.

"A good party — did you ever hear Jam Pot on a radio turned up full, helped along by harmonica, samisen, banjo and tin cane — inside a tractor tank? Twenty db's too loud, but sweet just the same. The Chief is drinking only bourbon; he quits early and goes off to the office wagon. But the rest of us think we sound fine.

The next day, still feeling the beat, we get into the scout cars and start on the branch canals. The ground is broken up on these branches — the scouts nevertheless can go nearer the edges than the heavy trac-

tors, and of course the nearer the edge the better you can study the strata. Even with the branches it's a long way to the bottom. I drive off humming the oiler's song."

Here Jake broke into song in his gratey voice:

Oil, oil, oil well; sh, shush, whoosh, whoom!
Clik, clak, clik, clak, tread that turns the wheel,
Sand, sand, salt dome, salt that covers the boom
Drill, drill, drill deep, down, deep down, to oil.

After a while, I whisk off my helmet and try a turn on my harmonica. It lacks something, but still being in a state myself I like it. But the camp intercom is still on. My jazz harmonica must've been giving a concert for the Chief, because next thing I hear is his bull roar.

" 'Jake. you fool, quit that. And close your flacky helmet. If you hit a bump and spring a leak in that gut busted crap box you drive, you —' The Chief knows all those good old-fashioned words.

"So seeing how he is right and I am wrong, I shut and dog my helmet, and a good thing, too. One minute I'm breezing along with a good view in all directions; pearly sky, smiling crags — not a worry in the universe. Then I hit a flaw in the bank.

"The car tilts — I try to set it right, but then I get a sinking feeling. I glance to the up side and see a crack widening in the ground. Frantically I gun the engine and try to get back on solid ground; but the edge is breaking too fast! Man! I'm flying — and without wings!

"The crumbling rock gives way completely; the scout car flips out over the canal, and I'm in free fall. The car turns slowly as it drops downwards, and I get a beautiful view of a thin ribbon of water way down below. Inside the glass bubble of the dome I can hear the thin air whining past, and everything seems unreal. I try to close my eyes, but I'm hypnotized. I think about home; I wish I were there. Mama wanted me to be a violinist; Papa wanted me to work in the shop; me — I wanted to be an oil geologist — so here I am. The ribbon of water comes closer and closer, faster and faster, larger and larger. Everywhere. Suddenly I'm not here; I'm in sweet velvet blackness.

"The blackness thins. I hear water and open my eyes. The water is splashing past the helmet of my suit, and I'm bobbing up and down like a Halloween apple. I'm alive! I start moving my arms like a windmill and finally thrash to the edge of the canal, gasping for breath. I pull myself up onto the jagged, decayed edge and sit gasping until time catches up with me. Then I pull myself together and look the situation over. Down the canal a way is the wreckage of my scout car grinding against a fallen rock. The bubble has a hole in it large enough for a man — me — to have popped out like a pingpong ball. Which is lucky for me, but that scout car is gone forever, which looks like the time I'm about to spend down here.

"It is very shady down here at the bottom of the canal gorge. I look upwards, and I'm very astonished at how tall the cliffs are. Way above me I see a thin line that must be the sky, with a star or two shining in it . . . I'm wondering how in forever I will make it to the top. Things get suddenly worse. A cloud drops over me with no warning. It looks like a wisp of fog; but of course there can be no fog here. I brush at it. It does not brush away, but sticks gooey to my glove. I don't get it at first, but more strands drift down on me, and then I see this thing with ten legs start going round and round me. A spider! Big. Big as me. It must be the air or gravity, but it's sure big. A chill goes through me. I stare at the spider stuff in horror. Desperately, I try to tear the stuff off my suit, stumbling around on the jumbled rocks of the canl edge. But more of the web settles over me. I struggle with the stuff, but it is sticky; and the more I move, the more I get tangled in the mess.

"I'm a cocoon. I'm wound so tight I cannot move. But my view plate is free enough of the web, so I can see the character who does me this dirty trick. A ten-legged spider scittles around me, two legs straight in the air; there are a few sights I would prefer. In a moment I feel myself lifted and carried along on its back. I start having mental pictures of things that might happen next. Each one is worse than the one before.

"Suddenly we are in darkness, me and the ten-legged streetcar. We are going through a tunnel. I bump whenever we go through a narrow place. Finally it gets a little lighter. I can see that the walls are studded with luminescent rocks. The colors are very pretty, but I'm in no mood for the appreciation of scenery. I have a suspicion that unkind things are being planned for me. To be specific, I feel like a package from the meat market. I have a hunch that I am to be the main course in an arachnid smorgasbord.

"Finally I am deposited in a hole in the wall. The multilegged monster is very neat about this. The web stuff around my suit acts like packing, and I am wedged tight in the crevice. Just for security a few new strands fasten me for good to the walls, so I can't wander off. Then I am left alone with my imagination.

"Now and then, one of the creatures scuttles by. Most of them pay no attention, but a few take careful inventory. Maybe this is a main highway for these characters. Maybe the ones that look me over think I'm a lobster.

"After a while a spider comes along who does not seem to be in such a rush and gives me the glad eyes. There is nothing I can do but look back again. When I get a good look at his color arrangements, I feel as if I've slipped a dimension, like you do when you go in overdrive.

" 'I can change'em for my friends,' says a voice from nowhere.

"Now I know I'm cracking. I am hearing voices, and I am wondering if I should answer. Then I no-

tice that the spider is looking at me like he just passed a remark. I know it's impossible, but these spiders have not been discovered by the all-seeing survey either.

"So I try a snappy rejoinder, 'Did you say something?'

" 'Daddyo, you hear gospel,' with a flash of green along its legs that chilled me cold.

"This leaves me speechless for a moment. I mean spiders can't talk; they breathe through their joints, or cracks in their shell, and have no vocal cords; besides, these particular spiders don't exist, having not been surveyed. And more besides, my specimen is covered with thick, stiff, long hair all over, and you wouldn't have heard him if he were talking. Except on the ends of his legs, where he has six hairless fingers apiece.

" 'How can you talk? I don't believe it,' I assert.

" 'Oh man! Don't come on so square! I'm a telepath. All us cats are telepaths.'

"I am astonished. 'Where did you get that jive talk?'

" 'On the radio, man. I dig that jazz the most.'

" 'A radio!' I am double astonished. 'You bugs don't exist. How would you get a radio?'

" 'Hah, man! I drum, I live. Yours isn't the first scout car that's gone over the edge. I stole a radio. I found the thing in a wrecked scout car a long time ago. When I moved the dials, things happened. Oh, man! When I heard that thing, something happened inside me. I took it to my pad. Then I heard the true word; then I got religion.'

" 'The true word? What's the true word?'

" 'Oh, man! Chummy Harris on sax! Dizzy Casper on vibes! Man it's all true.'

" 'I don't believe it,' I snarl and jerk at the webs that hold me. 'You wouldn't recognize 'Jam Pot' if you heard it live.'

" 'Jam Pot' OH WOW! I FLIP.' And he really does; up and over like a hot cake, rustling against the walls, hopping on his hind legs between the flips; and then finally up to the ceiling and down on a silver thread, spinning wildly. All this with chameleon effects, too. This daffy arachnid is gone on jazz; and he isn't coming back. When he finally bounces to a stop, he snaps his fingers.

" 'Oh, man. You know things. We got to have a talk in private; this tunnel echoes thoughts all up and down. Nobody else here knows about jazz like I do, and that's what I dig the most.'

"Working plenty fast with hands or feet or what, he loosens the webs from the rocks and tosses me on his back.

" 'Where are we going?' I wonder, as we race down the passageway.

" 'Not so loud, Pops; think easy. We're going to my pad. It's insulated for thought and sound, and that's where the radio is.'

"We finally reach the hole in the rock that he calls his pad. There is a web across the entrance; that he pulls aside, slicks us through and gums it back, before I can see how he does it. Probably just a matter of having enough fingers.

Plenty more web stuff pads the little cave all over. At the far side, against the bare rock, is the radio. He wasn't kidding; he really has the thing. Dropping me on the floor, he begins fiddling with the dials. In a moment sound blazes into the cave from the hot jazz program out of Thorsport.

"'Oh, man!' says the hipster. 'I gotta get in on this!'

"Alongside the radio on the same rock shelf, he has a crude but fairly complete set of drums. He seizes these, three of them, and begins on them, and he also makes a queer motion with four of his other legs, one leg plucking the others, another leg rubbing the others. A flutelike keening rises, mixed with the percussion of the drums; a chilling, enrapturing rhythm seizes me, and I beat my feet against the floor of the cave. For a moment I wonder if this is some sort of ritual before the feast, but when the radio stops, he stops, and I lay panting.

"'How did you learn that?' I think.

"'Easy, Pops. I listen to the sounds, and I know what's making them. I made these drums. It took a long while. And the rest I just got into. The drums are just a crude set, but it's the best I could do without scratch.'

"'Scratch!'

"'Sure, man. Bundle. Bread. Dough. Money. Pops, without scratch you can't do so much.'

"Civilization coming from a spider, you see.

"Well, that's how I first met Hairry."

"You were in quite some fix."

Jake continued, "Hairry begins working on the drums again, and I have to admit he is good, but good. He has all ten of his drums now and isn't doing any of the leg stuff. An idea begins to glimmer in my mind — how would this cat look fronting a twenty piece outfit?

"The hipster's eyes have been half closed in a dreamy concentration on the drums; but now they open wide, and all ten drums pop wide open.

"'Pops, I read you clear. You think good, and I can see scratch in the background.'

"I can see it too, but first I can see a way out of this mess I'm tied in. After that maybe with the right manager this arachnid can clean the air.

"I even start wondering how his name would look in lights. 'What do they call you?' I ask.

"'Man, they call me as little as possible. They think I'm nuts. It's sour grapes. There's only one radio and all us spiders. But I got a tag.' There follows on my mind an impression which I can't untangle.

"I shake my head. 'That don't pronounce, and it don't spell. I'd rather call you something that people can recognize. What you look like. Hairry, that's good. I can't spell, anyway.'

"'Crazy, dad. Call me anything but beautiful.'

"'Crazy, Hairry.' And now I broach the delicate point. 'We can't do anything down here. For one thing alone, my suit air won't last overnight.

"'So how can we get out of here and play some real?'

"Hairry lays down his sticks and looks at me, with all his eyes. But then he pushes aside any visions of meals he sees and takes the bait.

"'Good spider,' I think, without thinking.

"He winks at me with exactly half his eyes.

"'That takes some thinking, Pops. You're the main dish for dinner tonight. It'll be hard to get you away from the King.'

"I suddenly think that these characters are people, in their way.

"'Sure, man, and we got a high priest and vestal virgins.'

"Arachnid humor. He winks the other half of his eyes.

"'Oh, man, they have. But I'm out of it now, with these.' He points to his drums. 'Man, you set me up like you showed, and I'm with you.'

"'It's a deal,' I think.

"'Pops, you're my private package now. Up on my back, and with enough of this webbing around you no one will see you. But, oh man, keep your thoughts on jazz, so they'll think it is me. Like, they'd believe anything I'd do, just so it didn't seem reasonable.'

"To me this was as good a plan as any I'd been thinking of. 'Just make it fast enough to avoid the dinner rush.'

"'Right, Pops.' Hairry picks down some of the door web and slaps it around me, then puts me on his back. He ambles out into the passage. I can just barely sense him going dah bah dittin bittn achhh ohhh, bop, to himself. Let the other spiders figure out his plans from that if they can. They are all around, though, as Hairry rushes along. Sometimes I get a glimpse through the threads, and sometimes I get a drift of the mental fog they use for conversation. I try to think in jazz, too, but not a tune can I remember. I try not to think too loud. How do you think in a mutter when you got worries like I have?

"Suddenly Hairry gives a mental shout. 'Oh, wow! They know that dinner's gone! And they know where!' His pace changes to a gallop. 'Hang on, Pops, it's all or nothing! If they catch us, I'll be the side dish.' I cling to the cocoon around me, for what good that does, but for the first time I am glad that the sticky web sticks to Hairry as good as it sticks to me.

"Hairry really works up some speed. He races down the tunnel, not taking much care what he hits. We break around a corner into an alcove — occupied by four spiders waiting for us. I think we are lost, but Hairry bowls right through them, legs flying loose in all directions. Two of them manage to fasten webs onto us, but Hairry spins his ninth leg in a sort of Gordian knot operation and cuts the webs off, before the two can even tighten them.

"'Wonder what the score would have been if Hairry had lost that leg,' flies through my mind.

"'I'd grow a new one, Pops.'

"We are rushing down the tunnel again, almost as fast as I'd fallen down into the canal in the first place, but in perfect darkness. A glimmer of light shows far ahead. A point, a star, growing larger by the

minute. As we get closer, I can see that it is the mouth of the tunnel. We break into the open, and Hairry races along the edge of the canal.

"'Oh, wow, I can hear them calling up the reserves!'

"With a burst of speed, Hairry swerves into a cleft in the cliff wall and begins climbing upwards. Down below we can hear the other spiders in pursuit. Their thoughts are loud and angry. Several of them try to get into the cleft at the same time. They jam. Then more push from behind. Hairry hesitates.

"Then, 'All or nothing,' he murmurs. He turns his radio on full and lets it drop onto the top of the sprawl. Some of them respond and begin to dance. In fact, Hairry's ruse works almost too well. Hairry begins to dance and wave his legs as if drumming; he begins to edge back down the cleft!

"'Stay with Jake, Hairry,' I plead, but without much result. 'There's bigger radios with Jake.' I visualize an all-transistor monster receiving three different jazz programs at the same time, but the visualization isn't strong enough to break through to Hairry. He drops me on the ground and continues jogging down the cleft. I finally work my harmonica loose and into my mouth. I play on it and imagine that it is a twenty piece band.

"This is all yours, Hairry,' and I visualize Hairry playing the drums in that band. Well, that does it. Hairry breaks loose from the spell that holds him, races back, picks me up and starts moving for the top again. The sounds of the combined jam session and donnybrook in the mouth of the cleft drift far behind and below until there is nothing. Even after that it takes a half hour of Hairry's best climbing to reach the top. Hairry heaves me onto the ground with a thump and sprawls his ten legs out, resting.

"Far away, tiny but bright in the afternoon light is the most beautiful sight that has ever greeted my eyes: a bunch of tanks and tractors in a circle around the camp site.

"'Pops, we are here, free and clear.'

"Hairry rests some more, then pulls all the webbing off me, then rests again. Even for a spider that is some climb. I am a little stiff myself, partly from being tied up so long and partly from straining against the webbing. It feels great to be back on my own feet. Hairry watches as I stumble around, trying to work up the circulation.

"'Pops, the trouble with you is you don't have enough legs.'

"Well, I am glad he has his ten, so he gets no argument there. We start walking toward the camp site. It takes a couple — three hours, so it is almost sundown when we hear voices. You can see a long way in the desert, and sound carries far, too. Voices begin coming in as the guys get into camp and start yakking on the intercoms. As we get nearer, I hear the unmistakable ping of a neutron rifle, the way the charge crackles.

"A stone to one side of us vanishes in a puff of powdered rock, and we dive for cover. I hear a commo-

tion behind me and turn to see Hairry disappearing in a cloud of sand.

"'Whattinell are you doing, Hairry?'

"His mental voice comes dimly through the flying grit, 'Pops, I know it's square, but I'm digging a hole!'

In a few minutes Hairry is completely out of sight beneath a mound of sand. I dog into my suit's tool pockets and pull out a white swab rag. This I tie to a chipping hammer and wave over the top of the dune. Then I hear a voice I know, old heavy bass boss-guy himself.

"'Jake, you goldbricking poisoner, is that you?'

"'It won't be if you keep shooting that thing at me.'"

The first sounds of the musicians tuning up offstage began to drift to us. Jake resumed hurriedly, "Well, that's the complete story of how I met Hairry. Things progressed one after another after that bullet. We got into town all right with no trouble from the chief. He thought it was all the funniest, with special snickers to the survey. We got our start by Hairry dropping in on one of Casper's sessions, playing the drums full tilt. There's nobody that can resist him. Well, I have to hurry off now. Stop around after the show, and I'll introduce you. Watch this now." And he was off.

A silken rope began to lower onto the brightened stage. Then six spider drums, each held by a hand of a different color, appeared below the edge of the curtain. Suddenly a crescendo broke from the drums. Hairry swung down the rope, and the rest of the band raised out of the floor. A samisen, a tin cane, clarinets and flutes. They all sang out, but Hairry topped their every note and outswung their every rhythm in a flow of tone, a niceness of syncopation, a burst of skyrocket colors.

Hairry. As Jake said, "There's nobody that can resist him."

END

The Boat in the Bottle

by THURLOW WEED

She was the finest Boat on all Earth's oceans — and doomed to the sea's most fantastic end!

The Boat was the world's most impressive ship, as she was intended to be. This was why she was named The Boat. It had been decided in a Board Meeting that a more prosaic name, such as *Maresta* or *Grand Dame* (both of which had been suggested), would not do for the vessel which was to be the supreme achievement of all shipbuilding. It was agreed, also, that the air of casualness about the name would appeal to some travellers who, though possessed of great wealth, sought a formal casualness when travelling.

She was an impressive ship in several ways. First of all, she was longer than any ship, any ocean liner, at least, had ever been. She was two thousand feet long. She could carry three thousand passengers and required a crew of two thousand to operate her and serve those passengers. She was almost four-tenths of a mile long and could go the nautical equivalent of forty miles an hour.

Simply to build her as the world's most impressive ship was, of course, not the end of it. She had also to be fitted out in the proper manner. For a ship with such a name nothing would be too elaborate or too plush.

Even and especially her name was made much of in the outfitting. It was made the motif of all decoration and ornamentation, both interior and exterior. Great mosaics filled entire walls in lounges, salons, and even in the wider corridor. Each mosaic featured either the profile of the vessel or her name as the central element. One mosaic, in fact,

the one behind the Second (or as they called it, The Traveller) Class bar, was composed entirely of "The Boat" written thousands of times in miniature script. So discreetly done was it that only drinkers at the bar could be sure of the text, and they not for long.

But should drink get the better of them, blurring their vision, they were reminded by the bottles and glasses from which they drank their beer. Each crystal glass had "The Boat" etched in modern script around both lip and base. The bottles were produced by the company's own brewery and proclaimed on their labels "Boat Bottling Company." The bottles were miniature replicas of the vessel herself, with the cap going over the single funnel. Thus when used bottles were cast into the sea with other refuse they would be instantly identified by any beachcomber in the world, no matter on what deserted or remote beach they came to rest.

Even, let it be noted, the lifeboats were Boatshaped. Not that it was thought there would ever be a need to employ them as safety devices, but because when the vessel was in a port they would show magnificently above the terminal buildings and be a further ' advertisement of the world's most impressive ship.

There is an area of the ocean, quite near the coast, where in the course of the past twenty years strange events are presumed to have taken place. The right word is "presumed" because no way has yet been found to make proof either for or against strangeness. It is a heavily travelled section of the sea, being near one of the world's best-known resort cities, and is used daily by hundreds of airplanes and dozens of ships.

Yet in the past twenty years several of these ships and even more of these airplanes have ventured into the area, as they have daily countless times in the past, and then failed to emerge from it.

The circumstances at any age would have been considered ominous. But in this day of highly accurate navigational aids, radio and radar, it is considerably more ominous than even those few who know of it realize, for those some dozen airplanes and probably six or eight ships and yachts have vanished in these few (no one knows for sure how many) square miles of ocean, and not one of them has so much as sent a simple distress call or radioed back that anything out of the ordinary was occurring. They merely sail or fly into the area and cease to exist.

In one case no fewer than five military planes, flying in formation, vanished into this Unknown simultaneously and were followed later by one of the planes of the search party sent after them.

Of course no wreckage of ship or plane has ever been found.

The Unknown, or the Bahama Abyss as some have come to call it, seems to be very selective, claiming only two dozen or less of the tens of thousands of ships and planes which have traversed it (with-

out noticing anything unusual or suspicious) regularly since the days of Ponce de Leon and before. Hordes of tourists, untold warehouses full of goods, many warships and even simple fishermen have passed unharmed and unvanished through the Bahama Abyss. Of every million air or sea passages made through the Abyss area, statistically less than one vanishes. Yet that one continues to do so with an erratic regularity.

In certain circles much interest has been taken in the Abyss. Insurance and transportation companies have investigated. So has the military, since besides the formation-plus-one lost on one occasion, be it noted that the atomic submarine which recently sank mysteriously in the North Atlantic passed through the area of the Abyss on her way from her last port of call to the spot where she went down. Some have suggested the Abyss misfired on that occasion, but had its victim in the end.

Of all this interest nothing concrete has come. Theories have been set forth, as theories will be, but they range from the fantastic (sea monsters) to the odd but possible (a field of some sort distorting the natural laws causing such things as gravity and radio to operate, set up perhaps by a hypothetical sunken cargo of some ore in which chemical changes have taken place). So far the only logically acceptable explanation advanced on the Bahama Abyss is that it is no abyss at all, only a strange but honest set of coincidences.

As it happens, all explanations are equally incorrect. There is an Abyss, and an active one.

Some force (the scientists are working on it even now, having the data from The Boat's trip) acts upon ships and planes entering the area, if certain conditions exist. The conditions, if known, have not yet been announced. All that has been released is that the force acts only upon machines of transportation, *i.e.,* ships and planes, and their contents. Thus flotsam is not affected, nor are creatures of the sea. (As to the sea itself, it cannot be determined. After all, the ocean is a difficult thing to measure).

But the logical explanation was accepted by most people who knew of the case and was accepted by the Board Members of the Boat Corporation, since they were (as The Boat amply demonstrated) rational men.

Thus it came about that they caused much publicity to be given to the Bahama Abyss. Feature pages in the Sunday magazine sections carried installments for weeks. The magazines of several nations published articles, and pictures (of the missing planes or vessels or their type models), and all the theories, concentrating on the most implausible. Of all the theories, one was seldom mentioned, that of coincidence, for it would not have suited the Board's plans concerning The Boat. When it was of necessity mentioned, it was played down or ridiculed. A book was published, entitled *The Secret of the Bahama Abyss.*

The Board Members planned this publicity campaign to coincide with

the final stages of the outfitting of The Boat, so that her maiden voyage could be into, through, and out of, the Bahama Abyss. It was so planned that the builder's trials took the ship to the resort city nearest the Abyss proper, and that the maiden voyage should be a lengthy cruise through the crucial area and on to Europe. It was to be a luxury voyage, and reports were to be sent to the waiting millions of The Boat's progress. Her owners, having no doubts of the explanation of the Abyss, had no anxiety over her trip, and the Board Members and their families were the first to be entered on the passenger list (not, be it noted, Traveller Class, but Premiere Classe).

And so it happened. The publicity campaign, both as regards the Abyss and The Boat's intended voyage through it and the final trials runs of the ship came simultaneously. The gala pre-sailing balls and parties were held, with representatives from the world's press flashing bulbs and making notes, the baggage was loaded, immigration officials were put at ease and the time for sailing came.

The actual sailing was at sunset. The three thousand passengers had been aboard since midafternoon, and at least triple that number (newspapers put it even higher) cheered on the pier as the lines were cast off and the tugboats moved the noble vessel into the channel and the open sea.

The two thousand crewmen, from the six fully qualified captains to the innumerable cabin boys, served The Boat and her passengers at peak efficiency, joyful to sail the world's most famous (and impressive) ship on the world's most talked-about voyage. The nine Board Members and their families glowed in pride as they absorbed every drop of excitement.

Once the mainland was lost to view and The Boat was enclosed by clean horizons, festive dinner was served, if possible more festive even than the most extravagant of the Bon Voyage dinners. In the Premiere Classe Dining Room and bars much champagne was consumed, and in the Traveller Class quarters, much whiskey and beer. Wine flowed by the cask as each captain tried to outdo the others in compliments.

The plan was to approach the boundary of the Abyss (as everyone called it, to dissuade which none of the Board Members said a word) by night and then, once full daylight had come and the sun was high in the east, enter it full steam at the whole forty knots in The Boat's engines. Once at the probable center of the area they would stop the engines, drift silently with whatever breezes and currents might be found and celebrate their conquering of the Abyss with a lavish party.

The night passed in revelry, but most of the pasengers and as many of the crew as could be spared from duty retired by midnight or shortly after to be on hand when the moment came.

When the dawn arrived, early, bright and bellclear, as is usual in tropical waters, the decks were crowded to the rails. The early risers

had arranged the deck chairs to their liking, and the later comers stood in packs around and behind them, all straining to discern any movement or shape on the horizon or in the water by the side. The nine Board Members were on the starboard Flying Bridge with a captain to advise them. The captain in command had taken the wheel himself. The remaining four captains occupied the port Flying Bridge. Every crewman who could find a porthole or inch of deckspace was, with the commander's permission, on attentive watch.

At the appointed moment the commander spun the wheel, gave orders to the engine room for full speed ahead and steered The Boat confidently into The Bahama Abyss.

The commander saw with satisfaction that the sea and sky, the weather in short, was absolute perfection. The Board Members noted the fact also. The Boat would not have to report so much as a fog or a one-foot sea for her passage of the Abyss.

So much the better for her reputation and fame. The weather was in fact a cliche: the sky lacked even the suggestion of a cloud, and the ocean was calmer than whatever millpond sea-travellers so often mention. The Boat slid across the water with the smoothness of a warm knife cutting butter, and the sky was brittle in its clarity. If there was anything to be reported (which of course there wouldn't be, since the disappearances were coincidences involving unseaworthy or unairworthy ships or planes, and The Boat was more seaworthy even than the *Titanic* had claimed to be), observation of it would not have been hampered by the weather. Actually only the more imaginative of the passengers and the more superstitious of the crew expected anything worthy of observation, aside from the sheer beauty of the ship and (it must be said) of the day's run. The commander exulted in his vessel, while the other captains secretly wished sickness on him that they might take command. The Board Members watched either the sea or the passengers with vague and vacant expressions. One or two of them even went so far as to be dreaming of a successor to The Boat which would be even greater and more impressive, then abandoned the dream on consideration of the difficulty of finding a name for the world to call it.

Whatever their unspoken thoughts, the five thousand people on The Boat sailed peacefully into the Bahama Abyss. As was fitting for the portentuous occasion, an occasion for which they had paid large sums to either travel agents or union officials, an occasion for which the rest of the world had been prepared by reams measured in the hundreds of thousands of publicity, there was no sound from human throat. The engines of The Boat gargled in a murmur, and the parted seas hissed along the sides of the world's most impressive ship. Long since the gulls from the harbor had returned after scavenging the garbage cast overboard from the festival. Five thousand people breathed as quietly as they could,

and the fabled ship bore them with steady and as-advertised power.

Fifteen minutes after swinging The Boat onto the preplanned course the commander called the next senior captain to the wheel, then stepped to a microphone to proclaim their course, speed and elapsed time to the waiting thousands. The silence all but glittered as breaths were held and the commander's voice boomed from every cleverly concealed loudspeaker in The Boat's decor. At the end of his terse announcement five thousand voices cheered as one (for even the commander allowed his exultation to become mildly vocal). The unison roar reached to the horizon, which did not echo.

Once broken, the silence was not regained. The cheer dissolved into the babble, then subsided to the murmur, of hundreds of conversations. Most passengers remained on deck, but a few drifted into the bars and lounges. As the minutes went by, more and more went inside to drink to the successful bearding by The Boat of the Abyss in its den. The Board Members and the captains opened a 'boam of supreme champagne (the commander turning the ship over to a glistening Mate), and the crewmen returned to their posts.

By ten o'clock, one hour later, laughter and merrymaking dispelled even the memory of the earlier silence. A few adventure-loving passengers still searched the horizon, but most remaining on deck had all but forgotten the romance of the hour before. The routine of a luxury liner at sea (if so young a ship as The Boat can be said to have developed a routine) was settled into by everyone.

At eleven o'clock midmorning coffee was served in the lounges and on the decks. Jokes about the Abyss had run their course, and all but two of those on the ship had begun to forget the whole matter. Those two were the commander, who was making an entry in the log book, and the radio operator who, at the behest of the commander (in turn at the behest of the Chairman of the Board), was sending a complete report of the successful running of the Abyss to the home offices, the news services and the world.

In the kitchens the employees were halfway through their preparations for the midday meal. The noon position was taken and duly noted in log book and charts (both navigational and passengers'). The weather had not changed, though a slight sea, a gentle and extremely prolonged swell, had developed. This was noted in the log, somewhat improperly in the kitchens, and subconsciously elsewhere.

When lunch was served in the Dining Rooms at one o'clock, the rolling of the ship had become quite noticeable, and when after-lunch coffee was served an hour later it was necessary to raise the restraining borders on the tables to keep the dishes from sliding to the floor.

Through the next two hours the seas continued to become larger, but were causing no major discomfort. The commander made mention of it in the four o'clock log entry,

as well as of the fact that the sky remained transparently cloudless.

By five o'clock some concern, or rather interest, had been generated on the Bridge by the now quite large swells. They were of considerable interest because they were so large, yet so long and broad. While they lifted The Boat with sonorous regularity, they came no faster than one each minute, if that. The swells were unlike anything in the experience of any of the six captains assembled in discussion. It was as though the ocean were heaving great, deep sighs.

But the cause of the discussion was not the peculiar swells so much as the strange item which had been increasingly visible for the past hour overtaking them in their wake.

It seemed, visually, to be a ship. But no answer was received from the repeated messages broadcast from the radio room. Binoculars provided only one further bit of information about the following vessel, and that was the fact that she seemed to be green. It was thought by four of the captains to be an optical illusion produced by the now beginning to set sun, and a hallucination by the other two.

The most disturbing thing about the ship in their wake was that no two estimates as to her distance agreed, and none agreed with the radar report of fifty-five miles (which all six captains agreed was totally impossible — at that distance she would be invisible). Either she was much farther away than she seemed, or much closer.

The stranger was causing idle comment among many of the passengers, but few had enough sea experience to recognize the problems she raised. Those who did merely shrugged and ordered more Boat Bottling Company beer.

When six o'clock arrived, however, the ship was abuzz with general comment and even consternation. The Bridge was in a state of orderly panic. The following ship seemed to be larger than The Boat (which was physically impossible). It was now evident that she was indeed wholly and totally green, from funnel to waterline. Whatever vessel she might turn out to be (she still answered no radio messages), she was built on the lines of a luxury liner. The wireless operator had reported her to the shore, as the commander had instructed, but for the past hour and a half no radio messages had been received at all, which had caused the dismantling of one wireless, the employment of another and an inspection of the aerials.

Furthermore, and no one but the most drunken of the passengers would say it aloud, she seemed to be transparent.

This more or less irrelevant fact was causing more consternation on the Bridge than her size, distance and identification problems. No ship was bigger than The Boat, and certainly none was at the same time green and transparent. Everyone was now watching the strange sight in their wake with as great an apprehension as nine o'clock had been met. The watchers were either silent, as in the morning, or excitedly babbling,

as their various temperaments, duties, and states of sobriety dictated.

Then, as they watched, the huge ship behind them heeled sluggishly and rolled over onto her port side.

It was an awful and majestic sight. The captains, frozen to their binoculars, saw that no boats were lowered, no survivors leapt into the sea. Estimates differed wildly as to her probable distance (radar having been so obviously wrong that the sets had been taken apart by electricans for inspection), but the commander immediately put The Boat about and steamed at full speed toward the stranger to offer his assistance.

Time seemed to have frozen congealed around The Boat. The commander ordered a radar reading on the stranger, sent further unacknowledged radio messages to her, and returned to his binoculars.

At seven o'clock a radar set had been blasphemously reassembled by the technicians, and a report of the stranger's distance was telephoned to the commander, who gasped, began to tremble, ordered the radar sets destroyed completely and then disintegrated.

The next senior captain took command, had the previous commander restrained and removed, and tried, too late, to countermand the destruction order. The chief radar operator was able, however, to repeat the reading which had disintegrated the former commander. The senior captain thereupon calculated for a moment on a scratch pad and informed his four fellows that if both radar and visual observations were correct, the capsized stranger was approximately thirteen miles long and three miles high. A junior captain refused to accept this and, on inspecting the scratch pad calculations, disintegrated screaming the same phrases the first commander had used.

It was now evident to all, even the Board Members, that something incredible was at hand, for as they steamed at full speed toward the stricken monster it became obvious that the stranger was indeed much larger than The Boat. The most accurate calculations, in fact, placed her length at approximately thirty-five times that of the world's most impressive ship.

But far more disturbing than her size was the fact that she was green, transparent and unoccupied. She had, capsized, swung around so that her superstructure was visible from The Boat. Her lines were strangely rounded and blurred, as though in a fog. No distinct features could be discerned. And no, absolutely no, human activity could be seen. By now she was so near — less than a mile some said — that even her smallest features were too large to be taken in by the eye. She simply and monolithically overwhelmed the tiny Boat.

Then a new current usurped the power of the mysterious swell. While the swell was tremendous, requiring The Boat to climb for thirty or forty seconds up one slope and then down another, the new current was not so friendly. It was set up by the capsized monster ship, for when her

funnel touched the water the ocean made a determined attempt to rush bodily into her innards.

Though she tried every evasive maneuver known to her remaining four captains, The Boat was slowly and majestically drawn into the full rush of that current.

With irresistible force. The Boat was swept through the monster funnel and into the green transparence.

One hour later an immense network of almost a thousand ships and planes was searching the Bahama Abyss for some sign of The Boat. This vast search operation had been planned quietly even before The Boat sailed, and when no radio messages were received from her after about four o'clock in the afternoon, at eight o'clock the search was begun. Since The Boat was equipped in triplicate with the latest in radio equipment it was assumed that her four-hour silence was due to more than mechanical failure. When the silence stretched to eight hours (midnight of the fatal day), and when by that time neither search ship nor search plane had located her (despite their having accurate copies of her planned course and her reported positions up to and including four that afternoon), the worst was assumed. No public announcement, however, was made. The search was quietly continued.

At ten the next morning, when it became (after five hours of daylight) evident that no Boat was going to be found, the planes were called in. The ships were given instructions to search now for wreckage. Even small pieces of flotsam were ordered to be gently and carefully picked up, stored in tanks of sea water, and returned to shore for chemical and radioactive analysis.

And so it was that a search ship, at four-thirty that following afternoon (24½ hours after The Boat's final and strictly routine radio message was received, and approximately 21½ hours after she was sucked through that gigantic green funnel), very gently and very carefully removed a beer bottle from the sea. It was assumed, even certain, to be refuse cast overboard from the liner, since it was (though the label had soaked off) a bottle from the Boat Bottling Company. This was evident from the shape, that of The Boat herself.

The bottle was found floating within two miles of the reported position of The Boat at the previous afternoon's four o'clock sighting.

The explanation of the Bahama Abyss began to break on the world when the seaman who actually plucked the bottle from the water observed that a piece of debris roughly one-third of an inch long had found its way into the bottle through the top (disguised as a ship's funnel). He noted that, furthermore, it seemed to be carved into a miniature replica of The Boat herself, and immediately reported to his superior.

Subsequent measurement proved this seaman's find in the bottle to be 0.266247558559375 inches long.

Of The Boat, and of the Bahama Abyss, nothing further has ever been proved. END

Dear Editor:

I can't believe you really can't find the answer to your question somewhere. I would also imagine that somebody better qualified than I, will write an answer. (Look ma! no Ph.D.) But then remembering Dr. Dingle, I'll bite.

How ya gonna get a proton going at light speed? Oh, you wave the magic wand. Well, everybody knows you can destroy the universe with one of those. Let's start with a baseball. The conventional view says when you throw it you add kinetic energy in the amount $\frac{1}{2}mv^2$. Another and more accurate way to look at it is that in the process of accelerating it you add to its mass. You pump in energy and it shows up as mass. When the ball hits a brick wall and stops dead the extra mass turns back into energy which shows up as heat, cracks in the wall and whatnot. So back to the proton. When you accelerate it you pump energy into it and the energy shows up as a relativistic mass increase. You might say you are turning energy into matter. So even with a proton you need infinite energy to get to the speed of light. Even with an electron. (A better way to say it would be that for any specified finite energy input, no matter how large, the velocity imparted to the object will be less than the speed of light.)

So what about photons? To square with the above rules, the physicist make a definition that the photon has no rest mass. In other words, it ain't matter. Along with that, you will never observe a photon going *slower* than the speed of light. If you don't mind the anguished screams from the mathmeticians, you can say this illustrates the rule that zero (the rest mass) times infinity (the relativistic mass increase) equals an ordinary number (the mass that shows up because the photon is affected by a gravity field.)

Now, in anticipation I would like to shoot down some other goodies that people have confused the scene with now and again. Suppose we have a rocket with a perfect matter converter for a drive. Say it can give 1 gravity for 100 years. (The design is a mere engineering problem.) No matter how fast it goes, from *its* standpoint it is standing

still, so it can go faster. From the viewpoint of an observer standing still (accelerating with respect to the ship) the ship's drive suffers no impairment, because as it goes faster it has more matter to turn into energy. So how come it can't go faster than light? The dilation comes to the rescue. Relative to the ship, acceleration is constant at 1 g. The ship is always standing still relative to itself, so there is no problem. The other observer sees ship time slowing down as the ship's velocity approaches that of light, and consequently the acceleration also slacks off, approaching zero symptotically as the velocity goes up.

One more. What about non-uniform acceleration? Despite old chestnuts to the contrary, the special theory of relativity holds perfectly well for non-uniform accelerations. In many cases the actual computations can get a bit hairy, but the rules are still there, and every bit as valid. You need to go to the misnamed general theory only when you insist on throwing gravitational fields into the misch on the same par with other types of acceleration.

So much for that. I like your magazine. It reminds me of the old Thrilling twins. Lately I've even been buying it regularly. — Leonard Zettel, Jr., 7101 Quail Road, Fair Oaks, California.

* * *

Dear Editor:

I have been reading *If* for only about a year and I've wondered why people wrote in saying how much *If* has improved and to keep up the good work. (I discovered why when I ordered back issues of *If*. Oh, brother!) But I must enter my plea for you not to get *too* good. What are pulps for if not to develop new writers besides offering stories by well-established authors?

I would like to say that your book reviewer, Algis Budrys, is my favorite sf reviewer. I like someone whose opinions run fairly parallel to mine.

Now, I'm going to make one of those lists that you never publish in Hue and Cry (But the kind of list that you need, nevertheless.) I give you my favorite authors: (1) van Vogt (Of course! Plus Heinlein and all the other obvious ones.) (2) Fred Saberhagen. (3) C. C. MacApp. (4) Mark Philips (Laurence M. Janifer or Randall Garrett, if you will.) (5) Avram Davidson. (6) Murray Leinster. (7) Clifford Simak.

I think someone should compile a list of all science-fiction writers and the pen names used by each. Pen names give me a pain.
—Sean Wright, 13306 East 44th Terrace, Independence, Missouri 64050.

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Dear Editor:

I would appreciate receiving an answer to the following question through the readers' column of *If* In the Fall, 1946 issue of *Thrilling Wonder* Stories there appeared a novelette called *The Multillionth Chance* by John Russell Fearn. Does anyone recall the plot of the story, and in particular the definitions of the word "multillionth" as it appears therein? — Rudolph W. Castown, 142 Manhattan Avenue, New York, New York 10025.

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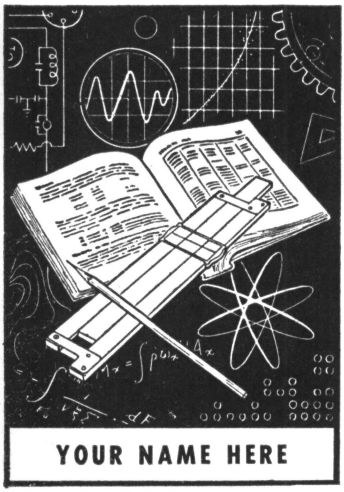

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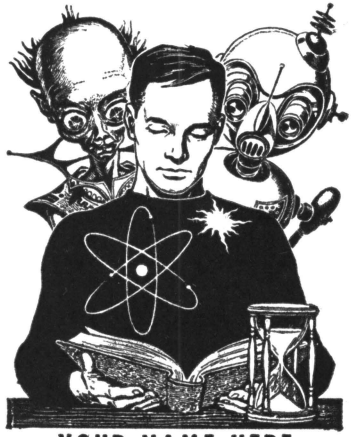

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