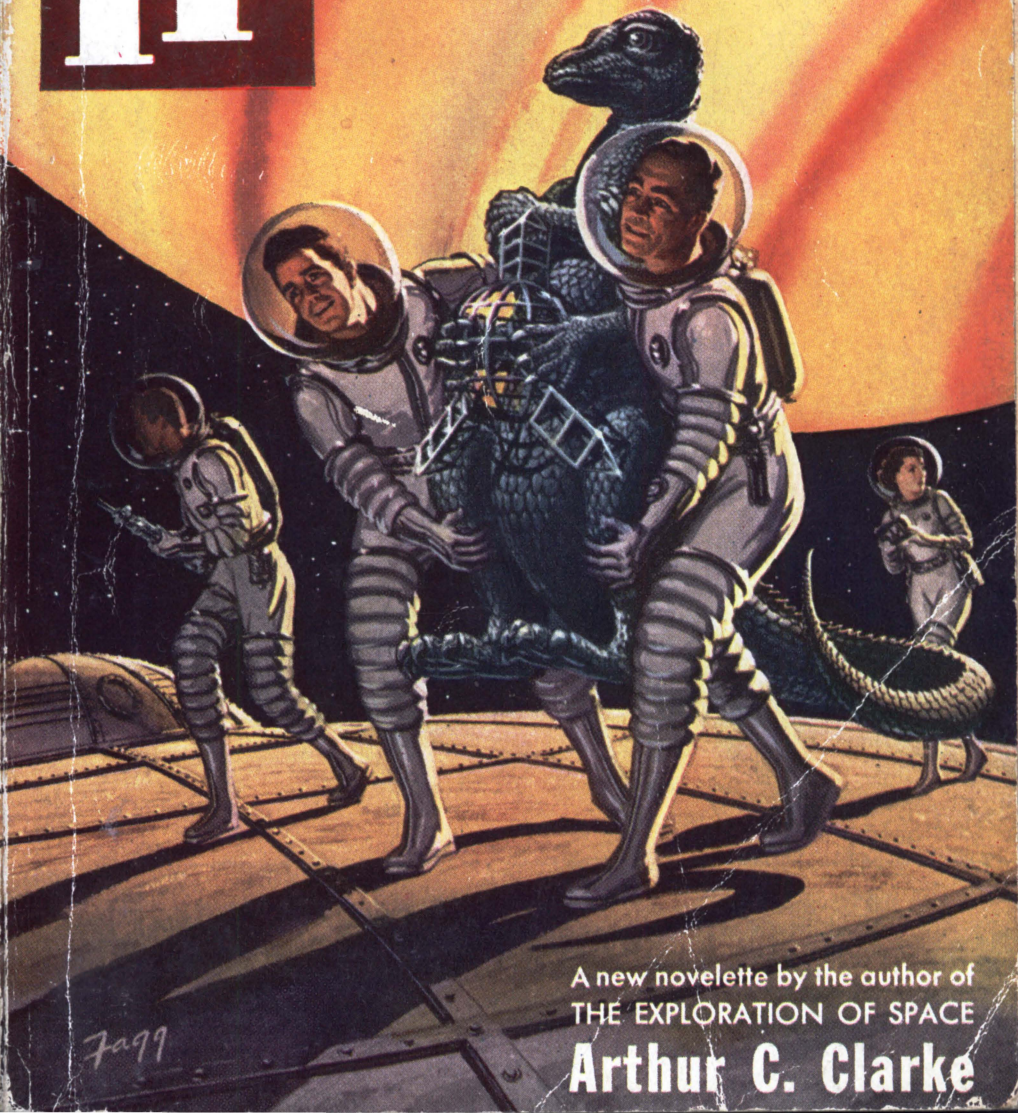


WORLDS of SCIENCE FICTION

MAY 1953 • 35 CENTS

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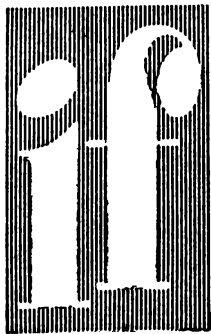


A new novelette by the author of
THE EXPLORATION OF SPACE

Arthur C. Clarke



MARS LANDSCAPE—Mars would probably be disappointing from a scenic standpoint. Its eroded hills and ice caps would be the only relief in the monotonous horizon of barren wasteland. Perpetual dust storms, insufficient atmosphere, and blinding sun would inflict physical discomforts. Here, explorers study the terrain as their space ship makes aerial studies. The deep crevices that split the desert could be the "canals" that form geometric patterns in the astronomer's telescope. On the horizon is one of the ice, or polar, caps.



WORLDS of SCIENCE FICTION

MAY 1953

All Stories New and Complete

Editor: JAMES L. QUINN

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COVER PICTORIAL: Exploring Mars and Jupiter

IF is published bi-monthly by Quinn Publishing Company, Inc. Volume 2, No. 2. Copyright 1953 by Quinn Publishing Co., Inc. Office of publication, 8 Lord Street, Buffalo, New York. Entered as Second Class Matter at Post Office, Buffalo, New York. Subscription \$3.50 for 12 issues in U.S. and Possessions; Canada \$4 for 12 issues; elsewhere \$4.50. Allow four weeks for change of address. All stories appearing in this magazine are fiction; any similarity to actual persons is coincidental. Not responsible for unsolicited artwork or manuscripts. 35c a copy. Printed in U.S.A.

EDITORIAL AND BUSINESS OFFICES, KINGSTON, NEW YORK

Next issue on sale May 12th



A CHAT WITH THE EDITOR

YOU KNOW, I've always had a bit of faith in that old adage that says "it is difference of opinion that makes horse races". I think the coiner of that was a great American named Samuel Clemens, who was born in Florida, Missouri, over a hundred years ago. He wrote a lot of kinda wonderful stuff about the Mississippi and other things under the pseudonym of Mark Twain. Remember it? Well, I guess I didn't take that "difference of opinion" quite literally enough. I shoulda known that when it says horse races it means horse races. Anyhow, IF ain't a horse-racing sheet—so I've been wrong. About disagreeing, or difference of opinion, that is. Especially about the writers who write for IF. But I've seen the light . . .

The light was in a letter I got recently from a gentleman up in Houlton, Maine, who seems to

have read a science fiction magazine for the first time. He says he wouldn't have bothered reading it but for his "very persuasive brother, who, like others, is very fanatic about this kind of literature". Well, all that's okay. There's them what likes science fiction and them what don't. It's a free country and all that, you know. But here's the part that showed me the light. Quote: "It seems to me as though your writers must be slightly crazy. They all disagree about the future in particular."

Now, can you imagine anybody putting out a magazine with writers who disagree? It's absurd. Writers should all think and write alike. Anybody knows that if *one* writer says the human race is going to have green hair, lavender skin, three arms and five legs in the year 2157, by golly they're *all* gonna say it. The manuscript that says it's going to happen in 2156 or 2158 gets sent back. And I think I'd better get busy and write all our authors to the effect that anybody who fools around with ideas about future experiments in nuclear fission or gravity or brassieres without coming to an agreement with the others appearing in that issue is due for a blackball.

SO I GUESS I'm on the right track at last. Now about our stories being "too fantastic to consider". I'll also have to correct that right away. Practically everybody knows that great writers of past centuries never dreamed up such fantastic things as steam power, air travel, underwater craft, radio, gravity, biotics, atomic power, astronomy,

etc., etc. Anybody who ever read a history book knows that the immortals of science—da Vinci, Faraday, Edison, Galileo, Newton, to name a few—always got a unanimous vote of confidence from their readers and critics. Nobody considered their dreams fantastic. They never cooked up a broth that was centuries ahead of their times. For example, suppose somebody had put a television set down in front of George Washington, with Dagmar doing her stuff. Would he have cried fantastic! Not about the television set, he wouldn't. Television, which practically everybody has got a set of these days, wasn't fantastic in those days.

This thing of writers letting their imaginations run off is bad stuff. They ought to stick to solid facts, something you can put your feet in. Like a pair of old galoshes or something. Come to think of it, somebody had to dream those up—or did they? Remind me to ask a boot manufacturer sometime just how we got galoshes. However, an idea just barged into that thing I hang my hat on: Why not get out a reprint of the Podunk telephone directory? Then you can really check your facts. All you need is a pocketful of nickels and dimes.

Whether the thought in the final paragraph applies to all science fiction magazines or not, I don't know, but here's how it goes: "A magazine like yours is hardly sensible reading for anyone." And he signs off with "truthfully", so I guess he means it. Now that durn right hurts. But I'm gonna take it to heart and request an IQ from everybody around the office.

So I took this letter seriously and I hope our readers do, too. And when this gentleman from Maine borrows the next issue of IF, he'll be happy to see that all the writers therein have certificates stating that they have never been within 100 miles of a laughing academy, and what's more they'll all agree in their plots and ideas concerning the future. They're going to get their slide rules out and everyone is going to come up with the identical answer.

DOGGONE! I just happened to run into a friend of mine last night who was one of "hell's angels" way back in 1917 and 1918. His name is Henry Jones and he was one of those daredevil knights of the skies who formed part of that elite flying group known as the Lafayette Escadrille. Well, we got to chinning about flying in those days, when their "kites" were covered with a cloth fabric and painted with a substance known as "dope" and a 30-calibre bullet came in one side and went out the other and they came back plenty mornings looking like a piece of Swiss cheese. Anyhow, we talked aviation clean up through the jet jobs of today that can crowd a thousand miles per hour. When the chin music was over, we had it all figured out how, ten years hence, we'd be crossing the Atlantic in better than three hours, with 120-passenger ram jets doing 1250 miles per at 35000 feet. You know, that's too fantas—

Now, about that little ole light. I'd a sworn it was around here some place. —jlk

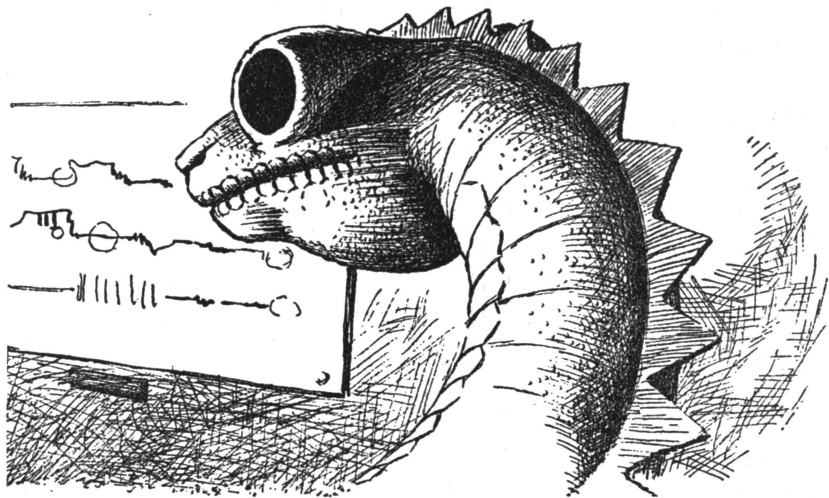
JUPITER *five*



A captivating new story, by the author of The Exploration of Space, in which a stubborn archeologist and an equally stubborn magazine reporter get delightfully involved with five million years of culture and that old adage about possession being nine-tenths of the law.

By Arthur C. Clarke

Illustrated by Ed Valigursky



PROFESSOR FORSTER is such a small man that a special space-suit had to be made for him. But what he lacked in physical size he more than made up—as is often the case—in sheer drive and determination. When I met him, he'd spent twenty years pursuing a dream. What is more to the point, he had persuaded a whole succession of hard-headed business men,

World Council Delegates and administrators of scientific trusts, to underwrite his expenses and to fit out a ship for him. Despite everything that happened later, I still think that was his most remarkable achievement . . .

The *Arnold Toynbee* had a crew of six aboard when we left Earth. Besides the Professor and Charles Ashton, his chief assistant, there

was the usual pilot-navigator-engineer triumvirate and two graduate students—Bill Hawkins and myself. Neither of us had ever gone into space before, and we were still so excited over the whole thing that we didn't care in the least whether we got back to Earth before the next term started. We had a strong suspicion that our tutor had very similar views. The reference he had produced for us was a masterpiece of ambiguity, but as the number of people who could even begin to read Martian script could be counted on the fingers of one hand, we'd got the job.

As we were going to Jupiter, and not to Mars, the purpose of this particular qualification seemed a little obscure, though knowing something about the Professor's theories we had some pretty shrewd suspicions. They were partly confirmed when we were ten days out from Earth.

The Professor looked at us very thoughtfully when we answered his summons. Even under zero *g* he always managed to preserve his dignity, while the best we could do was to cling to the nearest handhold and float around like drifting seaweed. I got the impression (though I may of course be wrong) that he was thinking "What have I done to deserve this?" as he looked from Bill to me and back again. Then he gave a sort of "It's too late to do anything about it now" sigh and began to speak in that slow, patient way he always does when he has something to explain. At least, he always uses it when he's speaking to us.

"Since we left Earth," he said,

"I've not had much chance to tell you the purpose of this expedition. Perhaps you've guessed it already."

"I think I have," said Bill.

"Well, go on," replied the Professor, a peculiar gleam in his eye. I did my best to stop Bill, but have you ever tried to kick anyone when you're in free fall?

"You want to find some proof—I mean, some *more* proof—of your diffusion theory of extra-terrestrial culture."

"And have you any idea why I'm going to Jupiter to look for it?"

"Well—not exactly. I suppose you hope to find something on one of the moons."

"Brilliant, Bill—brilliant. There are fifteen known satellites, and their total area is about half that of Earth. Where would you start looking if you had a couple of weeks to spare? I'd rather like to know."

Bill glanced doubtfully at the Professor, as if he almost suspected him of sarcasm.

"I don't know much about astronomy," he said. "But there are four big moons, aren't there? I'd start on those."

"For your information, Io, Europa, Ganymede and Callisto are each about as big as Africa. Would you work through them in alphabetical order?"

"No," Bill replied promptly. "I'd start on the one nearest Jupiter and go outwards."

"I don't think we'll waste any more time pursuing your logical processes," sighed the Professor. He was obviously impatient to begin his set speech. "Anyway, you're quite wrong. We're not going to

the big moons at all. They've been photographically surveyed from space and large areas have been explored on the surface. They've got nothing of archeological interest. *We're* going to a place that's never been visited before."

"Not to Jupiter!" I gasped.

"Heavens, no—nothing as drastic as that! But we're going nearer to him than anyone else has ever been."

He paused thoughtfully.

"It's a curious thing, you know—or you probably don't—that it's nearly as difficult to travel between Jupiter's satellites as it is to go between the planets, although the distances are so much smaller. This is because Jupiter's got such a terrific gravitational field and his moons are traveling so quickly. The innermost moon's moving almost as fast as Earth and the journey to it from Ganymede costs almost as much fuel as the trip from Earth to Venus, even though it takes only a day and a half.

"And it's that journey which we're going to make. No one's ever done it before because nobody could think of any good reason for the expense. Jupiter Five is only eighteen miles, in diameter, so it couldn't possibly be of much interest. Even some of the outer satellites, which are far easier to reach, haven't been visited because it hardly seemed worth while to waste the rocket fuel."

"Then why are *we* going to waste it?" I asked impatiently. The whole thing sounded like a complete wild-goose chase, though so long as it proved interesting, and involved no actual danger, I didn't

greatly mind.

Perhaps I ought to confess—though I'm tempted to say nothing, as a good many others have done—that at this time I didn't believe a word of Professor Forster's theories. Of course, I realized that he was a very brilliant man in his field, but I did draw the line at some of his more fantastic ideas. After all, the evidence was so slight and the conclusions so revolutionary that one could hardly help being skeptical.

Perhaps you can still remember the astonishment when the first Martian expedition found the remains not of one ancient civilization, but of two. Both had been highly advanced, but both had perished more than five million years ago. The reason was unknown (and still is): it did not seem to be warfare, as the two cultures appear to have lived amicably together. One of the races had been insect-like, the other vaguely reptilian. The insects seem to have been the genuine, original Martians: the reptile-people—usually referred to as "Culture X"—had arrived on the scene later.

So, at least, Professor Forster maintained. They had certainly possessed the secret of space travel, because the ruins of their peculiar cruciform cities had been found on—of all places—Mercury. Forster believed that they had tried to colonize all the smaller planets—Earth and Venus having been ruled out because of the excessive gravity. It was a source of some disappointment to the Professor that no traces of Culture X had ever been found on the Moon,

though he was certain that such a discovery was only a matter of time.

The "conventional" theory of Culture X was that it had originally come from one of the smaller planets or satellites, had made peaceful contact with the Martians—the only other intelligent race in the known history of the System—and had died out at the same time as Martian civilization. But Professor Forster had more ambitious ideas: he was convinced that Culture X had entered the Solar System from interstellar space. The fact that no one else believed this annoyed him, though not very much, for he is one of those people who is only happy when in a minority.

FROM WHERE I was sitting, I could see Jupiter through the cabin porthole as Professor Forster unfolded his plan. It was a beautiful sight: I could just make out the equatorial cloud belts and three of the satellites were visible as little stars close to the planet. I wondered which was Ganymede, our first port of call.

"If Jack will condescend to pay attention," the Professor continued, "I'll tell you why we're going such a long way from home. You know that last year I spent a good deal of time poking among the ruins in the twilight belt of Mercury. Perhaps you read the paper I gave on the subject at the London School of Economics. You may even have been there—I do remember a disturbance at the back of the hall.

"What I didn't tell anyone then

was that while I was on Mercury I discovered an important clue to the origin of Culture X. I've kept quiet about it, although I've been sorely tempted when fools like Dr. Houghton have tried to be funny at my expense. But I wasn't going to risk letting someone else get here before I could organize this expedition.

"One of the things I found on Mercury was a rather well-preserved bas-relief of the Solar System. It's not the first that's been discovered—as you know astronomical motifs are common in true Martian and Culture X art. But there were certain peculiar symbols against various planets, including Mars and Mercury. I think the pattern had some historic significance, and the most curious thing about it is that little Jupiter Five—one of the least important of all the satellites—seemed to have the most attention drawn to it. I'm convinced that there's something on Five which is the key to the whole problem of Culture X, and I'm going there to discover what it is."

As far as I can remember now, neither Bill nor I was particularly impressed by the Professor's story. Maybe the people of Culture X had left some artifacts on Five for obscure reasons of their own. It would be interesting to unearth them, but hardly likely that they would be as important as the Professor thought. I guess he was rather disappointed at our lack of enthusiasm: if so it was his fault since, as we discovered later, he was still holding out on us.

We landed on Ganymede, the third and largest moon, about a

week later. Ganymede is the only one of the satellites with a permanent base on it—there's an observatory and a geophysical station with a staff of about fifty scientists. They were rather glad to see visitors, but we didn't stay long, as the Professor was anxious to refuel and set off again. The fact that we were heading for Five naturally aroused a good deal of interest but the professor wouldn't talk and we couldn't—he kept too close an eye on us.

Ganymede, by the way, is quite an interesting place and we managed to see rather more of it on the return journey. But as I've promised to write an article for another magazine about that, I'd better not say anything else here.*

THE HOP from Ganymede to Five took just over a day and a half, and it gave us an uncomfortable feeling to see Jupiter expanding hour by hour until it seemed as if he was going to fill the sky. I don't know much about astronomy, but I couldn't help thinking of the tremendous gravity field we were falling into. All sorts of things could go wrong so easily. If we ran out of fuel we'd never be able to get back to Ganymede, and we might even drop into Jupiter himself.

I wish I could describe what it was like seeing that colossal globe, with its raging storm belts spinning in the sky ahead of us. Luckily there have been so many color close-ups of Jupiter published by

*You might like to keep your eyes on the "National Geographic" next spring.

now that you're bound to have seen some of them. You may even have seen the one which, as I'll explain later, was the cause of all our trouble.

At last Jupiter stopped growing: we'd swung into the orbit of Five and would soon catch up with the tiny moon as it raced around the planet. We were all squeezed in the control room waiting for our first glimpse of our target—at least, all of us who could get in were doing so. Bill and I were crowded out into the corridor and could only crane over other people's shoulders. Kingsley Searle, our pilot, was in the control seat looking as unruffled as ever: Eric Fulton, the engineer, was thoughtfully chewing his mustache and watching the fuel gauges, and Tony Groves was doing complicated things with his navigation tables.

And the Professor appeared to be rigidly attached to the eyepiece of the teleperiscope. Suddenly he gave a start and we heard a whistle of indrawn breath. After a minute, without a word, he beckoned to Searle, who took his place at the eyepiece. Exactly the same thing happened, and then Searle handed over to Fulton. It got a bit monotonous by the time Groves had reacted identically, so we wormed our way in and took over after a bit of opposition.

I don't know quite what I'd expected to see, so that's probably why I was disappointed. Hanging there in space was a tiny gibbous moon, its "night" sector lit up faintly by the reflected glory of Jupiter. And that seemed to be all.

Then I began to make out addi-

tional markings, in the way that you do if you look through a telescope for long enough. There were faint criss-crossing lines on the surface of the satellite, and suddenly my eye grasped their full pattern. For it *was* a pattern: those lines covered Five with the same geometrical accuracy as the lines of latitude and longitude divide up a globe of the Earth. I suppose I gave my whistle of amazement, for then Bill pushed me out of the way and had his turn to look.

The next thing I remember is Professor Forster looking very smug while we bombarded him with questions.

"Of course," he explained, "this isn't as much a surprise to me as it is to you. Besides the evidence I'd found on Mercury, there were other clues. I've a friend at the Ganymede Observatory whom I've sworn to secrecy and who's been under quite a strain these last few weeks. It's rather surprising to anyone who's not an astronomer that the Observatory has never bothered much about the satellites. The big instruments are all used on extra-galactic nebulae, and the little ones spend all their time looking at Jupiter.

"The only thing the Observatory had ever done to Five was to measure its diameter and take a few photographs. They weren't quite good enough to show the markings we've just observed, otherwise there would have been an investigation before. But my friend Lawton detected them through the hundred centimeter reflector when I asked him to look, and he also noticed something else that should

have been spotted before. Five is only eighteen miles in diameter, but it's much brighter than it should be for its size. When you compare its reflecting power—its albedo—its—"

"Its albedo!"

"Thanks, Tony—its albedo with that of the other moons, you find that it's a much better reflector than it should be. In fact, it behaves more like polished metal than rock."

"So that explains it!" I said. "The people of Culture X must have covered Five with an outer shell—like the domes they built on Mercury, but on a bigger scale."

The Professor looked at me rather pityingly.

"So you still haven't guessed!" he said.

I don't think this was quite fair. Frankly, would you have done any better in the same circumstances?

WE LANDED three hours later on an enormous metal plain. As I looked through the portholes, I felt completely dwarfed by my surroundings. An ant crawling on the top of an oil storage tank might have had much the same feelings—and the looming bulk of Jupiter up there in the sky didn't help. Even the Professor's usual cockiness now seemed to be overlaid by a kind of reverent awe.

The plain wasn't quite devoid of features. Running across it in various directions were broad bands where the stupendous metal plates had been joined together. These bands, or the criss-cross pattern they formed, were what we had

seen from space.

About three hundred yards away was a low hill—at least, what would have been a hill on a natural world. We had spotted it on our way in after making a careful survey of the little satellite from space. It was one of six such projections, four arranged equidistantly around the equator and the other two at the Poles. The assumption was pretty obvious that they would be entrances to the world below the metal shell.

I know that some people think it must be very entertaining to walk around on an airless, low-gravity planet in space-suits. Well, it isn't. There are so many points to think about, so many checks to make and precautions to observe, that the mental strain outweighs the glamour—at least as far as I'm concerned. But I must admit that this time, as we climbed out of the airlock, I was so excited that for once these things didn't worry me.

The gravity of Five was so microscopic that walking was completely out of the question. We were all roped together like mountaineers and blew ourselves across the metal plain with gentle bursts from our recoil pistols. The experienced astronauts, Fulton and Groves, were at the two ends of the chain so that any unwise eagerness on the part of the people in the middle was restrained.

It took us only a few minutes to reach our objective, which we discovered to be a broad, low dome at least six hundred yards in circumference. I wondered if it was a gigantic airlock, large enough to permit the entrance of whole space-

ships. Unless we were very lucky, we might be unable to find a way in since the controlling mechanisms would no longer be functioning—and even if they were, we would not know how to operate them. It would be difficult to imagine anything more tantalizing than being locked out, unable to get at the greatest archeological find in all history.

We had made a quarter circuit of the dome when we found an opening in the metal shell. It was quite small—only about seven feet across—and it was so nearly circular that for a moment we did not realize what it was. Then Tony's voice came over the radio:

"That's not artificial. We've got a meteor to thank for it."

"Impossible!" protested Professor Forster. "It's much too regular."

Tony was stubborn.

"Big meteors always produce circular holes, unless they strike very glancing blows. And look at the edges—you can see there's been an explosion of some kind. Probably the meteor and the shell were vaporized—we won't find any fragments."

"You'd expect this sort of thing to happen," put in Kingsley. "How long has this been here? Five million years? I'm surprised we haven't found any other craters."

"Maybe you're right," said the Professor, too pleased to argue. "Anyway, I'm going in first."

"Right," said Kingsley, who as captain had the last say in all such matters. "I'll give you seventy feet of rope and will sit in the hole so that we can keep radio contact.

Otherwise this shell will blanket your signals."

So Professor Forster was the first man to enter Five, as he deserved to be. We crowded close to Kingsley so that he could relay news of the Professor's progress.

He didn't get very far. There was another shell just inside the outer one, as we might have expected. The Professor had room to stand upright between them, and as far as his torch could throw its beam he could see avenues of supporting struts and girders, but that was about all.

It took us twenty-four exasperating hours before we got any further. Near the end of that time I remember asking the Professor why he hadn't thought of bringing any explosives. He gave me a very hurt look.

"There's enough aboard the ship to blow us all to glory," he said. "But I'm not going to risk doing any damage if I can find another way."

That's what I call patience, but I could see his point of view. After all, what was another few days in a search that had already taken him twenty years?

IT WAS Bill Hawkins, of all people, who found the way in when we had abandoned our first line of approach. Near the North Pole of the little world he discovered a really giant meteor hole—over a hundred yards across and cutting through both the outer shells surrounding Five. It had revealed still another shell below those, and by one of those chances that must hap-

pen if one waits enough aeons, a second, smaller, meteor had come down inside the crater and penetrated the innermost skin. The hole was just big enough to allow entrance for a man in a space-suit. We went through head first, one at a time.

I don't suppose I'll ever have a more weird experience than hanging from that tremendous vault, like a spider suspended beneath the dome of St. Peter's. We only knew that the space in which we floated was vast: just *how* big it was we could not tell, for our torches gave us no sense of distance. In this airless, dustless cavern the beams were, of course, totally invisible and when we shone them on the roof above, we could see the ovals of light dancing away into the distance until they were too diffused to be visible. If we pointed them "downwards" we could see a pale smudge of illumination so far below that it revealed nothing.

Very slowly, under the minute gravity of this tiny world, we fell downwards until checked by our safety ropes. Overhead I could see the tiny glimmering patch through which we had entered: it was remote but reassuring.

And then, while I was swinging with an infinitely sluggish pendulum motion at the end of my cable, with the lights of my companions glimmering like fitful stars in the darkness around me, the truth suddenly crashed into my brain. Forgetting that we were all on open circuit, I cried out involuntarily:

"Professor—I don't believe this is a planet at all! *It's a spaceship!*"

Then I stopped, feeling that I

had made a fool of myself. There was a brief, tense silence, then a babble of noise as everyone else started arguing at once. Professor Forster's voice cut across the confusion and I could tell that he was both pleased and surprised.

"You're quite right, Jack. This is the ship that brought Culture X to the Solar System."

I heard someone—it sounded like Eric Fulton—give a gasp of incredulity.

"It's fantastic! A ship eighteen miles across!"

"You ought to know better than that," replied the Professor, with surprising mildness. "Suppose a civilization wanted to cross interstellar space—how else would it attack the problem? It would build a mobile planetoid out in space, taking perhaps centuries over the task. Since the ship would have to be a self-contained world, which could support its inhabitants for generations, it would need to be as large as this. I wonder how many suns they visited before they found ours and knew that their search was ended? They must have had smaller ships that could take them down to the planets, and of course they had to leave the parent vessel somewhere in space. So they parked it here, in a close orbit near the largest planet, where it would remain safely forever—or until they needed it again. It was the logical place: if they had set it circling the Sun, in time the pulls of the planets would have disturbed its orbit so much that it might have been lost. That could never happen to it here."

"Tell me, Professor," someone asked, "did you guess all this be-

fore we started?"

"I *hoped* it. All the evidence pointed to this answer. There's always been something anomalous about Satellite Five, though no one seems to have noticed it. Why this single tiny moon so close to Jupiter, when all the other small satellites are seventy times further away? Astronomically speaking, it didn't make sense—but enough of this chattering. We've got work to do."

That, I think, must count as the understatement of the century. There were seven of us, faced with the greatest archeological discovery of all time. Almost a whole world—a small world, an artificial one, but still a world—was waiting for us to explore. All we could perform was a swift and superficial reconnaissance: there might be material here for generations of research workers.

The first step was to lower a powerful floodlight on a powerline running from the ship. This would act as a beacon and prevent us getting lost, as well as give local illumination on the inner surface of the satellite. (Even now, I still find it hard to call Five a ship.) Then we dropped down the line to the surface below. It was a fall of about a mile, and in this low gravity it was quite safe to make the drop unretarded. The gentle shock of the impact could be absorbed easily enough by the spring-loaded staffs we carried for that purpose.

I simply can't remember what I was feeling when we came across the first of the great mushroom-capped entrance shafts. I suppose I was so excited and so overwhelmed by the wonder of it all

that I've forgotten everything else. But I can recall the impression of sheer size—something which mere photographs can never give. The builders of this world, coming as they did from a planet of low gravity, were giants—about four times as tall as men. We were pigmies crawling among their works.

We never got below the outer levels on our first visit, so we met few of the scientific marvels which later expeditions discovered. That was just as well: the residential areas provided enough to keep us busy for several lifetimes. The globe we were exploring must once have been lit by artificial sunlight pouring down from the triple shell that surrounded it and kept its atmosphere from leaking into space. Here on the surface the Jovians (I suppose I cannot avoid adopting the popular name for the peoples of Culture X) had reproduced, as accurately as they could, conditions on the world they had left, unknown ages ago. Perhaps they still had day and night, changing seasons, rain and mist. They had even taken a tiny sea with them into exile. The water was still there, forming a frozen lake two miles across. I hear that there is a plan afoot to electrolyze it and provide Five with a breathable atmosphere again, as soon as the meteor holes in the outer shell have been plugged.

The more we saw of their work, the more we grew to like and admire the race whose possessions we were disturbing for the first time in five million years. Even if they were giants from another sun, they had much in common with man, and it

is a great tragedy that our races missed each other by what is, on the cosmic scale, such a narrow margin.

We were, I suppose, more fortunate than any archeologists in history. The vacuum of space had preserved everything from decay and—this was something which could not have been expected—the Jovians had not emptied their mighty ship of all its treasures when they had set out to colonize the Solar System. Here on the inner surface of Five everything still seemed intact, as it had been at the end of the ship's long journey. Perhaps the travelers had preserved it as a shrine in memory of their lost home — or perhaps they had thought that one day they might have to use these things again.

Whatever the reason, everything here was as its makers had left it. Sometimes it frightened me. I might be photographing, with Bill's help, some great wall carving when the sheer *timelessness* of the place would strike into my heart. I would look round nervously, half expecting to see giant shapes come stalking in through the pointed doorways, to continue the tasks that had been momentarily interrupted.

WE DISCOVERED the art gallery on the fourth day. That was the only name for it; there was no mistaking its purpose. When Groves and Searle, who had been doing rapid sweeps over the southern hemisphere, reported the discovery we decided to concentrate all our forces there. For, as somebody or other had said, the art of a

people reveals its soul, and here we might find the key to Culture X.

The building was huge, even by the standards of this giant race. Like all the other structures on Five, it was made of metal, yet there was nothing cold or mechanical about it. The topmost peak climbed half way to the remote roof of the world, and from a distance—before the details were visible—the building looked not unlike a Gothic cathedral. Misled by this chance resemblance, some later writers have called it a temple: but we have never found any trace of what might be called a religion among the Jovians. Yet there seems something appropriate about the name “The Temple of Art”, and it’s stuck so thoroughly that no one can change it now.

It has been estimated that there are between ten and twenty million individual exhibits in this single building—the harvest garnered during the whole history of a race that may have been much older than Man. And it was here that I found a small, circular room which at first sight seemed to be no more than the meeting place of six radiating corridors. I was by myself (and thus, I’m afraid, disobeying the Professor’s orders) and taking what I thought would be a shortcut back to my companions. The dark walls were drifting silently past me as I glided along, the light of my torch dancing over the ceiling ahead. It was covered with deeply cut lettering, and I was so busy looking for familiar character groupings that for some time I paid no attention to the chamber’s floor. Then I saw the statue and focussed

my beam upon it.

The moment when one first meets a great work of art has an impact that can never again be recaptured. In this case the subject matter made the effect all the more overwhelming. I was the first man ever to know what the Jovians had looked like, for here, carved with superb skill and authority, was one obviously modeled from the life.

The slender, reptilian head was looking straight towards me, the sightless eyes staring into mine. Two of the hands were clasped upon the breast as if in resignation: the other two were holding an instrument whose purpose is still unknown. The long, powerful tail—which, like a kangaroo’s, probably balanced the rest of the body—was stretched out along the ground, adding to the impression of rest or repose.

There was nothing human about the face or the body: there were, for example, no nostrils—only gill-like openings in the neck. Yet the figure moved me profoundly: the artist had spanned the barriers of time and culture in a way I should never have believed possible. “Not human—but humane” was the verdict Professor Forster gave. There were many things we could not have shared with the builders of this world, but all that was really important we would have felt in common.

Just as one can read emotions in the alien but familiar face of a dog or a horse, so it seemed that I knew the feelings of the being confronting me. Here was wisdom and authority—the calm, confident power that is shown, for example, in Bel-

lini's famous portrait of the Doge Loredano. Yet there was sadness also—the sadness of a race which had made some stupendous effort, and made it in vain.

We still do not know why this single statue is the only representation the Jovians have ever made of themselves in their art. One would hardly expect to find taboos of this nature among such an advanced race: perhaps we will know the answer when we have deciphered the writing carved on the chamber walls.

Yet I am already certain of the statue's purpose. It was set here to bridge time and to greet whatever beings might one day stand in the footsteps of its makers. That, perhaps, is why they shaped it so much smaller than life. Even then they must have guessed that the future belonged to Earth or Venus, and hence to beings whom they would have dwarfed. They knew that size could be a barrier as well as time.

A few minutes later I was on my way back to the ship with my companions, eager to tell the Professor about the discovery. He had been reluctantly snatching some rest, though I don't believe he averaged more than four hours sleep a day all the time we were on Five. The golden light of Jupiter was flooding the great metal plain as we emerged through the shell and stood beneath the stars once more.

"Hello!" I heard Bill say over the radio, "the Prof's moved the ship."

"Nonsense," I retorted. "It's exactly where we left it."

Then I turned my head and saw

the reason for Bill's mistake. We had visitors.

THE SECOND ship had come down a couple of miles away, and as far as my non-expert eyes could tell it might have been a duplicate of ours. When we hurried through the airlock, we found that the Professor, a little bleary-eyed, was already entertaining. To our surprise, though not exactly to our displeasure, one of the three visitors was an extremely attractive brunette.

"This," said Professor Forster, a little wearily, "is Mr. Randolph Mays, the science writer. I imagine you've heard of him. And this is—" he turned to Mays. "I'm afraid I didn't quite catch the names."

"My pilot, Donald Hopkins—my secretary, Marianne Mitchell."

There was just the slightest pause before the word "secretary", but it was long enough to set a little signal light flashing in my brain. I kept my eyebrows from going up, but I caught a glance from Bill that said, without any need for words "If you're thinking what I'm thinking, I'm ashamed of you."

Mays was a tall, rather cadaverous man with thinning hair and an attitude of *bonhomie* which one felt was only skin deep—the protective coloration of a man who has to be friendly with too many people.

"I expect this is as big a surprise to you as it is to me," he said with unnecessary heartiness. "I certainly never expected to find anyone here before me—and I certainly didn't expect to find all *this*."

"What brought you here?" said

Ashton, trying to sound not too suspiciously inquisitive.

"I was just explaining that to the Professor. Can I have that folder please, Marianne? Thanks."

He drew out a series of very fine astronomical paintings and passed them round. They showed the planets from their satellites—a common enough subject, of course.

"You've all seen this sort of thing before," Mays continued. "But there's a difference here. These pictures are nearly a hundred years old: they were painted by an artist named Chesley Bonestell and appeared in *Life* back in 1944—long before space travel began, of course. Now what's happened is that *Life* has commissioned me to go round the Solar System and see how well I can match these imaginative paintings against the reality. In the centenary issue, they'll be published side by side with photographs of the real thing. Good idea, eh?"

I had to admit that it was. But it was going to make matters rather complicated, and I wondered what the Professor thought about it. Then I glanced again at Miss Mitchell, standing demurely in the corner, and decided that there would be compensations.

In any other circumstances, we would have been glad to meet another party of explorers, but here there was the question of priority to be considered. Mays would certainly be hurrying back to Earth as quickly as he could, his original mission abandoned, and all his films used up here and now. It was difficult to see how we could stop him, and not even certain that we de-

sired to do so. We wanted all the publicity and support we could get—but we would prefer to do things in our own time, after our own fashion. I wondered how strong the Professor was on tact, and feared the worst.

Yet, at first, diplomatic relations were smooth enough. The Professor had hit on the bright idea of pairing each of us with one of Mays' team, so that we acted simultaneously as guides and supervisors. Doubling the number of investigating groups also greatly increased the rate at which we could work. It was unsafe for anyone to operate by himself under these conditions, and this had handicapped us a good deal.

The Professor outlined his policy to us the day after the arrival of Mays' party.

"I hope we can get along together," he said a little anxiously. "As far as I'm concerned they can go where they like and photograph what they like—as long as *they don't take anything*, and as long as they don't get back to Earth with their records before we do."

"I don't see how we can stop them," protested Ashton.

"Well, I hadn't intended to do this, but I've now registered a claim to Five. I radioed it to Ganymede last night, and it will be at The Hague by now."

"But no one can claim an astronomical body for himself. That was settled in the case of the Moon, back in the last century."

The Professor gave a rather crooked smile.

"I'm not annexing an *astronomical body*, remember. I've put in a

claim for salvage, and I've done it in the name of the World Science Organization. If Mays takes anything out of Five, he'll be stealing it from them. Tomorrow I'm going to explain the situation gently to him, just in case he gets any bright ideas."

It certainly seemed peculiar to think of Satellite Five as salvage, and I could imagine some pretty legal quarrels developing when we got home. But for the present the Professor's move should have given us some safeguards and might discourage Mays from collecting souvenirs—so we were optimistic enough to hope.

IT TOOK rather a lot of organizing, but I managed to get paired off with Marianne for several trips round the interior of Five. Mays didn't seem to mind: there was no particular reason why he should. A space-suit is the most perfect chaperon ever devised, confound it!

Naturally enough, I took her to the art gallery at the first opportunity, and showed her my find. She stood looking at the statue for a long time while I held my torch beam upon it.

"It's very wonderful," she breathed at last. "Just think of it—waiting here in the darkness all those millions of years! But you'll have to give it a name."

"I have. I've christened it 'The Ambassador'."

"Why?"

"Well, because I think it's a kind of envoy, if you like, carrying a greeting to us. The people who made it knew that one day some-

one else was bound to come here and find this place."

"I think you're right. 'The Ambassador'—yes, that was clever of you. There's something noble about it—and something very sad, too. Don't you feel it?"

I could tell that Marianne was a very intelligent woman: it was quite remarkable the way she saw my point of view, and the interest she took in everything I showed her. But The Ambassador fascinated her most of all, and she kept on coming back to it.

"You know, Jack," she said (I think this was sometime the next day, when Mays had been to see it as well) "you must take that statue back to Earth. Think of the sensation it would cause."

I sighed.

"The Professor would like to, but it must weigh a ton. We can't afford the fuel. It will have to wait for a later trip."

She looked puzzled.

"But things hardly weigh anything here," she protested.

"That's different," I explained.

"There's weight, and there's inertia—two quite different things. Now inertia—oh, never mind. We can't take it back, anyway. Captain Searle's told us that, definitely."

"What a pity," said Marianne.

I forgot all about this conversation until the night before we left. We had had a busy and exhausting day packing our equipment (a good deal, of course, we left behind for future use). All our photographic material had been used up: as Charlie Ashton remarked, if we met a *live* Jovian now we'd be unable to record the fact. I

think we all wanted a breathing space, an opportunity to relax and sort out our impressions and to recover from our head-on collision with an alien culture.

Mays' ship, the *Henry Luce*, was also nearly ready for take-off. We would leave at the same time, an arrangement which suited the Professor admirably as he did not trust Mays alone on Five.

Everything had been settled when, while checking through our records, I suddenly found that six rolls of exposed film were missing. They were photographs of a complete set of transcriptions in the Temple of Art. After a certain amount of thought I recalled that they had been entrusted to my charge, and I had put them very carefully on a ledge in the Temple, intending to collect them later.

It was a long time before take-off, the Professor and Ashton were canceling some arrears of sleep, and there seemed no reason why I should not slip back to collect the missing material. I knew there would be a row if it was left behind, and as I remembered exactly where it was I need be gone only thirty minutes. So I went, explaining my mission to Bill just in case of accidents.

The floodlight was no longer working, of course, and the darkness inside the shell of Five was somewhat oppressive. But I left a portable beacon at the entrance, and dropped freely until my hand-torch told me it was time to break the fall. Ten minutes later, with a sigh of relief, I gathered up the missing films.

It was a natural enough thing to

pay my last respects to The Ambassador: it might be years before I saw him again, and that calmly enigmatic figure had begun to exercise an extraordinary fascination over me.

Unfortunately, that fascination had not been confined to me alone. For the chamber was empty and the statue gone.

I suppose I could have crept back and said nothing, thus avoiding awkward explanations. But I was too furious to think of discretion, and as soon as I returned we woke the Professor and told him what had happened.

He sat on his bunk rubbing the sleep out of his eyes, then uttered a few harsh words about Mr. Mays and his companions which it would do no good at all to repeat here.

"What I don't understand," said Searle "is how they got the thing out—if they have, in fact. We should have spotted it."

"There are plenty of hiding places—and they could have waited until there was no one around before they took it up through the hull. It must have been quite a job, even under this gravity," remarked Eric Fulton, in tones of admiration.

"There's no time for post-mortems," said the Professor savagely. "We've got five hours to think of something. They can't take off before then, because we're only just past opposition with Ganymede. That's correct, isn't it Kingsley?"

Searle nodded agreement.

"Yes. We must move round to the other side of Jupiter before we can enter a transfer orbit—at least,

a reasonably economical one."

"Good. That gives us a breathing space. Well—has anyone any ideas?"

Looking back on the whole thing now, it often seems to me that our subsequent behavior was, shall I say, a little peculiar and slightly uncivilized. It was not the sort of thing we could have imagined ourselves doing a few months before. But we were annoyed and overwrought, and our remoteness from all other human beings somehow made everything seem different. Since there was no other law here, *we* had to make it.

"Can't we do something to stop them taking off? Could we sabotage their rockets, for instance?" asked Bill.

Searle didn't like this idea at all.

"We mustn't do anything drastic," he said. "Besides, Don Hopkins is a good friend of mine. He'd never forgive me if I damaged his ship. There'd be the danger, too, that we might do something that couldn't be repaired."

"Then pinch their fuel," said Groves laconically.

"Of course! They're probably all asleep—there's no light in the cabin. All we've got to do is to connect up and pump."

"A very nice idea," I pointed out "but we're nearly two miles apart. How much pipeline have we got?"

The others ignored this interruption as if it was beneath contempt and went on making their plans. Five minutes later the technicians had settled everything: we only had to climb into our space-suits and do the work.

NEVER thought, when I joined the Professor's expedition, that I should end up like an African porter in one of those old adventure stories, carrying a load on my head. Especially when that load was a sixth of a spaceship (being so short, Professor Forster wasn't able to provide very effective help.) Now that its fuel tanks were half empty, the weight of the ship, in this gravity, was about 450 pounds. We all squeezed underneath, heaved, and up she went—very slowly, of course, because her inertia was still unchanged. Then we started marching.

It took us quite a while to make the journey, and it wasn't as easy as we'd thought it would be. But presently the two ships were lying side by side, and nobody had noticed us. Everyone in the *Henry Luce* was fast asleep, as they had every reason to expect us to be.

Though I was still rather short of breath, I found a certain schoolboy amusement in the whole adventure as Searle and Fulton drew the refueling pipeline out of our airlock and quietly coupled up to the other ship.

"The beauty of this plan," explained Groves to me as we stood watching, "is that they can't do anything to stop us, unless they come outside and uncouple our line. We can drain them dry in five minutes—and it will take them half that time to wake up and get into their space-suits."

A sudden horrid fear smote me.

"Suppose they turned on their rockets and tried to get away?"

"Then we'd both be smashed up. No—they'll just have to come out-

side and see what's going on. Ah, there go the pumps."

The pipeline had stiffened like a fire-hose under pressure, and I knew that the fuel was pouring into our tanks. Any moment now the lights would go on in the *Henry Luce* and her startled occupants would come scuttling out.

It was something of an anticlimax when they didn't. They must have been sleeping very soundly not to have felt the vibration from the pumps, but when it was all over nothing had happened and we just stood round looking rather foolish. Searle and Fulton carefully uncoupled the pipeline and put it back into the airlock.

"Well?" we asked the Professor.

He thought things over for a minute.

"Let's get back into the ship," he said.

When we had climbed out of our suits and were gathered together in the control room, or as far in as we could get, the Professor sat down at the radio and punched out the Emergency signal. Our sleeping neighbors would be awake in a couple of seconds as their automatic receiver sounded the alarm.

The TV screen glimmered into life. There, looking rather frightened, was Randolph Mays.

"Hello, Forster," he snapped. "What's the trouble?"

"Nothing wrong here," replied the Professor in his best dead-pan manner, "but you've lost something important. Look at your fuel gauges."

The screen emptied, and for a moment there was a confused mumbling and shouting from the

speaker. Then Mays was back, annoyance and alarm competing for possession of his features.

"What's going on?" he demanded angrily. "Do you know anything about this?"

The Prof. let him sizzle for a moment before he replied.

"I think you'd better come across and talk things over," he said. "You won't have far to walk."

Mays glared back at him uncertainly, then retorted "You bet I will!" The screen went blank.

"He'll have to climb down now!" said Bill gleefully. "There's nothing else he can do!"

"It's not so simple as you think," warned Fulton. "If he really wanted to be awkward, he could just sit tight and radio Ganymede for a tanker."

"What good would that do him? It would waste days and cost a fortune."

"Yes, but he'd still have the statue, if he wanted it that badly. And he'd get his money back when he sued us."

The airlock light flashed on and Mays stumped into the room. He was in a surprisingly conciliatory mood: on the way over, he must have had second thoughts.

"Well, well," he said affably. "What's all this nonsense in aid of?"

"You know perfectly well," the Professor retorted coldly. "I made it quite clear that nothing was to be taken off Five. You've been stealing property that doesn't belong to you."

"Now let's be reasonable. Who does it belong to? You can't claim everything on this planet as your

personal property.”

“This is *not* a planet—it’s a ship and the laws of salvage operate.”

“Frankly, that’s a very debatable point. Don’t you think you should wait until you get a ruling from the lawyers?”

The Professor was being icily polite, but I could see that the strain was terrific and an explosion might occur any moment.

“Listen, Mr. Mays,” he said with ominous calm. “What you’ve taken is the most important single find we’ve made here. I will make allowances for the fact that you don’t appreciate what you’ve done, and don’t understand the viewpoint of an archeologist like myself. Return that statue, and we’ll pump your fuel back and say no more.”

Mays rubbed his chin thoughtfully.

“I really don’t see why you should make such a fuss about one statue, when you consider all the stuff that’s still here.”

It was then that the Professor made one of his rare mistakes.

“You talk like a man who’s stolen the Mona Lisa from the Louvre and argues that nobody will miss it because of all the other paintings. This statue’s unique in a way that no terrestrial work of art can ever be. That’s why I’m determined to get it back.”

You should never, when you’re bargaining, make it obvious that you want something really badly. I saw the greedy glint in Mays’ eye and said to myself “Uh-huh! He’s going to be tough.” And I remembered Fulton’s remark about calling Ganymede for a tanker.

“Give me half an hour to think it over,” said Mays, turning to the airlock.

“Very well,” replied the Professor stiffly. “Half an hour—no more.”

I must give Mays credit for brains. Within five minutes we saw his communications aerial start slewing round until it locked on Ganymede. Naturally we tried to listen in, but he had a scrambler. These newspaper men must trust each other.

The reply came back a few minutes later: that was scrambled, too. While we were waiting for the next development, we had another council of war. The Professor was now entering the stubborn, stop-at-nothing stage: he realized he’d miscalculated and that had made him fighting mad.

I think Mays must have been a little apprehensive, because he had reinforcements when he returned. Donald Hopkins, his pilot, came with him, looking rather uncomfortable.

“I’ve been able to fix things up, Professor,” he said smugly. “It will take me a little longer, but I can get back without your help if I have to. Still, I must admit that it will save a good deal of time and money if we can come to an agreement. I’ll tell you what. Give me back my fuel and I’ll return the other—er—souvenirs I’ve collected. But I insist on keeping Mona Lisa, even if it means I won’t get back to Ganymede until the middle of next week.”

The Professor then uttered a number of what are usually called deep-space oaths, though I can as-

sure you they're much the same as any other oaths. That seemed to relieve his feelings a lot and he became fiendishly friendly.

"My dear Mr. Mays," he said, "you're an unmitigated crook, and accordingly I've no compunction left in dealing with you. I'm prepared to use force, knowing that the law will justify me."

Mays looked slightly alarmed, though not unduly so. We had moved to strategic positions round the door.

"Please don't be melodramatic," he said haughtily.

"I must ask you," the Professor continued, "to consider yourself under detention while we decide what is to be done. Mr. Searle, take him to Cabin B."

Mays sidled along the wall with a nervous laugh.

"Really, Professor, this is *too* childish! You can't detain me against my will." He glanced for support at the captain of the *Henry Luce*.

Donald Hopkins dusted an imaginary speck of fluff from his uniform.

"I refuse," he remarked for the benefit of all concerned, "to get involved in vulgar brawls."

Mays gave him a venomous look and capitulated with bad grace. We saw that he had a good supply of reading matter, and locked him in.

When he was out of the way, the Professor turned to Hopkins, who was looking enviously at our fuel gauges.

"Can I take it, Captain," he said politely, "that you don't wish to get mixed up in any of your employer's dirty business?"

"I'm neutral. My job is to fly the ship here and take her home. You can fight this out among yourselves."

"Thank you: I think we understand each other perfectly. Perhaps it would be best if you returned to your ship and explained the situation. We'll be calling you in a few minutes."

Captain Hopkins made his way languidly to the door. As he was about to leave he turned to Searle.

"By the way, Kingsley," he drawled. "Have you thought of torture? Do call me if you get round to it—I've some jolly interesting ideas." Then he was gone, leaving us with our hostage.

I THINK the Professor had hoped he could do a direct exchange. If so, he had not bargained on Marianne's stubbornness.

"It serves Randolph right," she said. "But I don't really see that it makes any difference. He'll be just as comfortable in your ship as in ours, and you can't do anything to him. Let me know when you're fed up with having him around."

It seemed a complete impasse. We had been too clever by half, and it had got us exactly nowhere. We'd captured Mays, but he wasn't any use to us.

The Professor was standing with his back to us, staring morosely out of the window. Seemingly balanced on the horizon, the immense bulk of Jupiter nearly filled the sky.

"We've got to convince her that we really *do* mean business," he said. Then he turned abruptly to me.

"Do you think she's actually fond of this blackguard?"

"Er—I shouldn't be surprised. Yes, I really believe so."

The Professor looked very thoughtful. Then he said to Searle:

"Come into my room. I want to talk something over."

They were gone quite a while. When they returned, they both had an indefinable air of gleeful anticipation, and the Professor was carrying a piece of paper covered with figures. He went to the radio and called the *Henry Luce*.

"Hello," said Marianne, replying so promptly that she'd obviously been waiting for us. "Have you decided to call it off? I'm getting so bored."

The Professor looked at her gravely.

"Miss Mitchell," he replied. "It's apparent that you have not been taking us seriously. I'm therefore arranging a somewhat—er—drastic little demonstration for your benefit. I'm going to place your employer in a position from which he'll be only too anxious for you to retrieve him as quickly as possible."

"Indeed?" replied Marianne non-committally—though I thought I could detect a trace of apprehension in her voice.

"I don't suppose," continued the Professor smoothly, "that you know anything about celestial mechanics . . . No? Too bad, but your pilot will confirm everything I tell you. Won't you, Hopkins?"

"Go ahead," came a painstakingly neutral voice from the background.

"Then listen carefully, Miss Mitchell. I want to remind you of

our curious—indeed our precarious—position on this satellite. You've only got to look out of the window to see how close to Jupiter we are, and I need hardly remind you that Jupiter has by far the most intense gravitational field of all the planets. You follow me?"

"Yes," replied Marianne, no longer quite so self-possessed. "Go on."

"Very well. This little world of ours goes round Jupiter in almost exactly twelve hours. Now there's a well-known theorem stating that if a body *falls* from an orbit to the center of attraction, it will take point one seven seven of a period to make the drop. In other words, anything falling from here to Jupiter would reach the centre of the planet in about two hours seven minutes. I'm sure Captain Hopkins can confirm this."

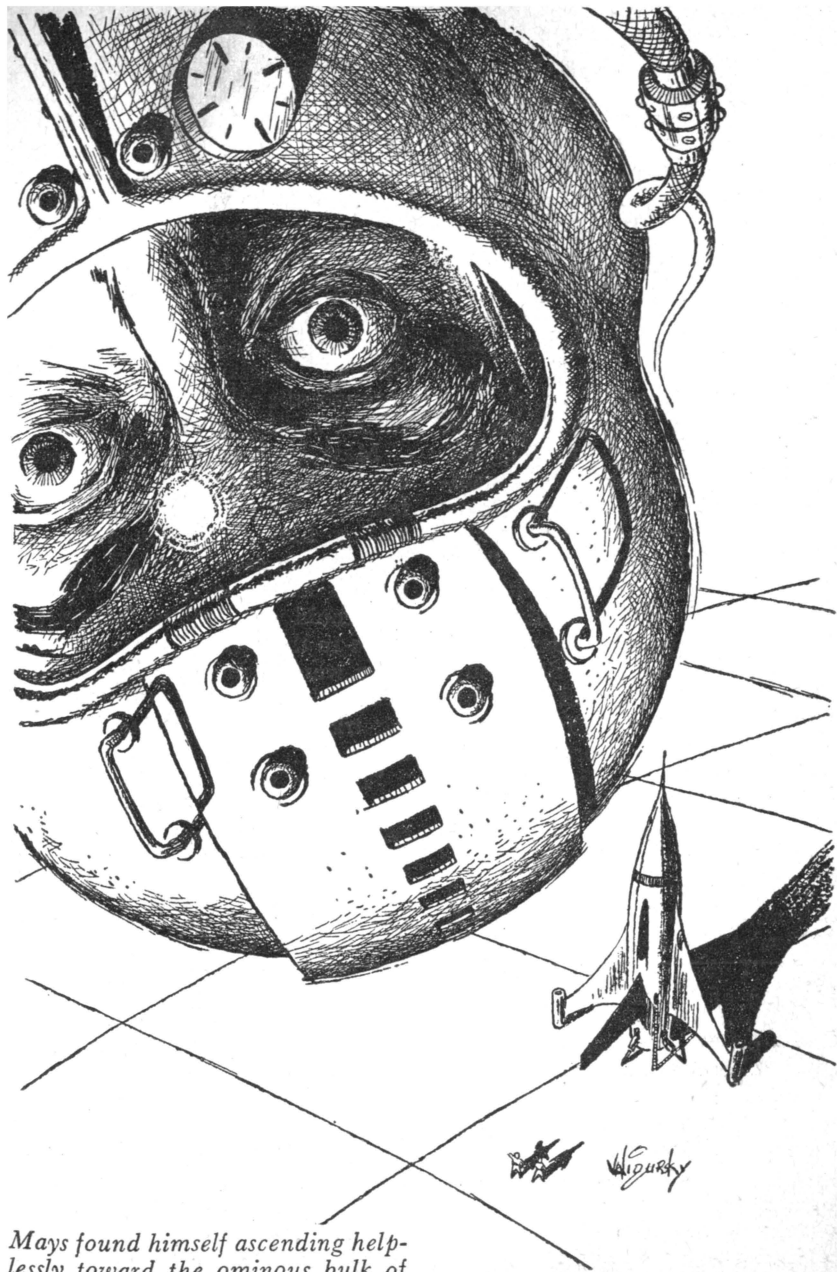
There was a long pause. Then we heard Hopkins say:

"Well, of course I can't confirm the *exact* figures, but they're probably correct. It would be something like that, anyway."

"Good," continued the Professor. "Now I'm sure you realize," he went on with a hearty chuckle, "that a fall to the *center* of the planet is a very theoretical case. If anything really was dropped from here, it would reach the upper atmosphere of Jupiter in a considerably shorter time. I hope I'm not boring you?"

"No," said Marianne, rather faintly.

"I'm so glad to hear it. Anyway, Captain Searle has worked out the actual time for me, and it's one hour thirty five minutes—with a



Mays found himself ascending helplessly toward the ominous bulk of Jupiter.

few minutes either way. We can't guarantee complete accuracy, ha, ha!

"Now it has doubtlessly not escaped your notice that this satellite of ours has an extremely weak gravitational field. Its escape velocity is only about thirty-five feet a second, and anything thrown away from it at that speed would never come back. Correct, Mr. Hopkins?"

"Perfectly correct."

"Then, if I may come to the point, we propose to take Mr. Mays for a walk until he's immediately under Jupiter, remove the reaction pistols from his suit, and—ah—launch him forth. We will be prepared to retrieve him with our ship as soon as you've handed over the property you've stolen. After what I've told you, I'm sure you'll appreciate that time will be rather vital. An hour and thirty-five minutes is remarkably short, isn't it?"

"Professor!" I gasped. "You can't possibly do this."

"Shut up!" he barked. "Well, Miss Mitchell, what about it?"

Marianne was staring at him with mingled horror and disbelief.

"You're simply bluffing," she cried. "I don't believe you'd do anything of the kind! Your crew won't let you!"

The Professor sighed.

"Too bad," he said. "Captain Searle—Mr. Groves—will you take the prisoner and proceed as instructed."

"Aye-aye, sir," replied Searle with great solemnity.

Mays looked frightened but stubborn.

"What are you going to do

now?" he said, as his suit was handed back to him.

Searle unholstered his reaction pistols. "Just climb in," he said. "We're going for a walk."

I realized then what the Professor hoped to do. The whole thing was a colossal bluff: of course he wouldn't *really* have Mays thrown into Jupiter—and in any case Searle and Groves wouldn't do it. Surely Marianne would see through the bluff and then we'd be left looking mighty foolish.

Mays couldn't run away: without his reaction pistols he was quite helpless. Grasping his arms and towing him along like a captive balloon, his escorts set off towards the horizon—and towards Jupiter.

I could see, looking across the space to the other ship, that Marianne was staring out through the observation windows at the departing trio. Professor Forster noticed it too.

"I hope you're convinced, Miss Mitchell, that my men aren't carrying along an empty space-suit. Might I suggest that you follow the proceedings with a telescope? They'll be over the horizon in a minute, but you'll be able to see Mr. Mays when he starts to—er—ascend."

There was a stubborn silence from the loudspeaker. The period of suspense seemed to last for a very long time. Was Marianne waiting to see how far the Professor really would go?

By this time I had got hold of a pair of binoculars and was sweeping the sky beyond the ridiculously close horizon. Suddenly I saw it—a tiny flare of light against the vast

yellow back-cloth of Jupiter. I focussed quickly, and could just make out the three figures rising into space. As I watched, they separated: two of them decelerated with their pistols and started to fall back towards Five. The other went on ascending helplessly towards the ominous bulk of Jupiter.

I turned on the Professor in horror and disbelief.

"They've really done it!" I cried. "I thought you were only bluffing!"

"So did Miss Mitchell, I've no doubt," said the Professor calmly, for the benefit of the listening microphone. "I hope I don't need to impress upon you the urgency of the situation. As I've remarked once or twice before, the time of fall from our orbit to Jupiter's surface is ninety-five minutes. But, of course, if one waited even half that time, it would be much too late . . ."

He let that sink in. There was no reply from the other ship.

"And now," he continued, "I'm going to switch off our receiver so we can't have any more arguments. We'll wait until you've unloaded that statue—and the other items Mr. Mays was careless enough to mention—before we'll talk to you again. Good-bye."

IT WAS a very uncomfortable ten minutes. I'd lost track of Mays, and was seriously wondering if we'd better overpower the Professor and go after him before we had a murder on our hands. But the people who could fly the ship were the ones who had actually carried

out the crime. I didn't know *what* to think.

Then the airlock of the *Henry Luce* slowly opened. A couple of space-suited figures emerged, floating the cause of all the trouble between them.

"Unconditional surrender," murmured the Professor with a sigh of satisfaction. "Get it into our ship," he called over the radio, "I'll open up the airlock for you."

He seemed in no hurry at all. I kept looking anxiously at the clock—fifteen minutes had already gone by. Presently there was a clanking and banging in the airlock, the inner door opened, and Captain Hopkins entered. He was followed by Marianne, who only needed a bloodstained axe to make her look like Clytaemnestra. I did my best to avoid her eye, but the Professor seemed to be quite without shame. He walked into the airlock, checked that his property was back, and emerged rubbing his hands.

"Well, that's that," he said cheerfully. "Now let's sit down and have a drink to forget all this unpleasantness, shall we?"

I pointed indignantly at the clock.

"Have you gone crazy!" I yelled. "He's already half-way to Jupiter!"

Professor Forster looked at me disapprovingly.

"Impatience," he said, "is a common failing in the young. I see no cause at all for hasty action."

Marianne spoke for the first time: she now looked really scared.

"But you promised," she whispered.

The Professor suddenly capitu-

lated. He had had his little joke, and didn't want to prolong the agony.

"I can tell you at once, Miss Mitchell—and you too, Jack—that Mays is in no more danger than we are. We can go and collect him whenever we like."

"Do you mean that you lied to me?"

"Certainly not. Everything I told you was perfectly true. You simply jumped to the wrong conclusions. When I said that a body would take ninety-five minutes to fall from here to Jupiter, I omitted—not, I must confess, accidentally—a rather important phrase. I should have added "*a body at rest with respect to Jupiter.*" Your friend Mr. Mays was sharing the orbital speed of this satellite—and he's still got it. A little matter of sixteen miles a second, Miss Mitchell.

"Oh yes, we threw him completely off Five and towards Jupiter. But the velocity we gave him then was trivial. He's still moving in practically the same orbit as before. The most he can do—I've got Captain Searle to work out the figures—is to drift about sixty miles inward. And in one revolution—twelve hours—*he'll be right back where he started*, without us bothering to do anything at all."

There was a long, long silence. Marianne's face was a study in frustration, relief, and annoyance at having been fooled. Then she turned on Captain Hopkins.

"You must have known all the time! Why didn't you tell me?"

Hopkins gave her a wounded expression.

"You didn't ask me," he said.

WE HAULED Mays down about an hour later. He was only fifteen miles up, and we located him quickly enough by the flashing light on his suit. His radio had been disconnected, for a reason that hadn't occurred to me. He was intelligent enough to realize that he was in no danger, and if his set had been working he could have called his ship and exposed our bluff. That is, if he wanted to. Personally, I think I'd have been glad enough to call the whole thing off even if I had known that I was perfectly safe. It must have been awfully lonely up there. To my great surprise, Mays wasn't as mad as I'd expected. Perhaps he was too relieved to be back in our snug little cabin when we drifted up to him on the merest fizzle of rockets and yanked him in. Or perhaps he felt that he'd been worsted in fair fight and didn't bear any grudge.

There isn't much more to tell—except that we did play one other trick on him before we left Five. He had a good deal more fuel in his tanks than he really needed, now that his payload was substantially reduced. By keeping the excess ourselves, we were able to carry the Ambassador back to Ganymede after all. Oh, yes, the Professor gave him a check for the fuel we'd borrowed. Everything was perfectly legal.

There's one amusing sequel I must tell you, though. The day after the new gallery was opened at the British Museum I went along to see The Ambassador, partly to discover if his impact was still as great in these changed surround-

(Continued on page 75)

Mary might have learned a more ladylike trade, but one thing is certain: she had a shining faith in that space guy from Earth. Now, about that cake she baked . . .

she knew he was coming

By Kris Neville

Illustrated by Ed Emsch

OUTSIDE, the bluish sun slanted low across the green dust of the Martian desert, its last rays sparkling on the far mountain tops. One by one, lights flickered on in the city.

Mary must be expecting that Earthman," Anne said. She held her glastic blouse tight together over her breasts and leaned a little out of the window.

Milly nodded. "The *Azmuth* landed this morning."

The noises of commerce were fading. From the window Anne saw the neon blaze up over the door. For the thousandth time she blinked between the equivocal words: 30—BEAUTIFUL HOSTESSES—30. Laughter, dry and false, filtered up from the tea bars along the street. She looked westward, toward the spaceport, and made out the shadowy nose of the berthed space liner looming against the night. She could picture the

scene—a thousand stevedores unloading cargo, refill men and native spacewriters scurrying over the sleek hull, the Earth voyagers shouting orders and curses.

"Maybe he isn't even on it." Anne turned from the window. She crossed to the couch and sat down, fluffing out the green crinkly glass of her skirt; pendant, multicolored birds flashed from the rings in her ears. She tucked rosy feet under her scented body. "I don't like Earthmen," she said.

"They spend money."

"They make me sick," Anne said. "With their pale skins and ugly eyes and hairy bodies."

"They have strong arms."

Anne's wide, red mouth curled in distaste. "They're like a bunch of kids."

The room was lighted by soft, overhead fire. Heavy drapes hung from the walls. Sweet, spicy incense curled bluely from the burners by

the window.

Before the mirror, Milly edged in the narrow line of her pink eyebrows with a pencil. She folded her lips in, rubbing them together, licked them, making them a glistening red. She pinched her cheeks.

"I wonder when they'll catch Crescent?" she said.

Anne yawned languorously. "It won't be long."

"I wouldn't want to be in her shoes," Milly said.

Anne patted her mouth lazily. "She ought to have known she couldn't run away."

"What do you think Miss Bestris will do to her?"

Anne stood up, brushing out the wrinkles in her dress. "I should care."

"But what will she do?"

Anne shrugged. "Whip her, maybe. How should I know?"

"Don't you feel you'd like to run away, once in a while?" Milly asked, turning to look at the other girl.

Anne laughed coldly. "I've got better sense."

"But don't you *want* to?"

Anne tossed her purple hair. "Where is there to go? Who is there to go to?"

"Yes. . . I guess you're right." Milly turned back to her reflection.

Buzzzzzz. . .

Both girls turned their heads to the buttons on the wall. The white one was glowing.

"It's Miss Bestris."

"We'd better go," Milly said.

Together they walked down the heavily carpeted stairs to the sitting room.

The Madame was waiting. She

was a large woman, rolling in creases of fat, and her pink hair was rough and clipped short. She had a pair of dimples in her cheeks and a single gold band around her right wrist. She was leaning against the piano.

"Hurry now, girls, hurry right along," she said.

More girls were entering the room; they spread out, sitting on the chairs, curling at the Madame's feet. Their eyes—amethyst, gray or golden—were on her face. Many had pink hair, others had tresses of purple or salmon.

"Now, girls, I suppose you know there's an Earth ship in port?"

The girls nodded.

"So I expect we'll have visitors tonight. I want you to all look your very best." She smiled at them. "Anne, why don't you wear that low-cut, orange plastic with the spangles, and June, you the prim white one? You look like an angel in it." June smiled. "And Mary . . . ?"

"Yes, Miss Bestris?"

"Mary. Did you buy that neonylon I told you about?"

"No, Miss Bestris."

"Mary, Mary, Mary. I just don't understand you at all."

"I'm saving my money, Miss Bestris," Mary said intently.

"Yes, dear, I know that. We're *all* saving our money. But we simply must look presentable. We have a reputation to hold up."

"Yes, Miss Bestris."

"Then, Mary, dear, do—do, *please*, buy yourself something decent."

"Yes, Miss Bestris. I will. . . To—



EMSH

morrow. Tomorrow morning, if I . . ."

"Child? If you what?"

"Nothing, Miss Bestris."

"Well. See that you get it tomorrow. If you don't, I'm afraid I'll have to take some of your money and get it for you."

Mary looked down at the floor. The flaming glow of the hydrojet torches cast golden lights in her softly purple hair.

"By the way, Mary. Is that your cake in the oven?"

"Yes, Miss Bestris."

The other girls snickered.

"Let her alone," said the Madame. "If she wants to bake a cake, why shouldn't she?"

No one answered.

Miss Bestris went on around the room, discussing the girls' clothing, brushing this girl's hair, pinching that girl's cheek, chucking this one under the chin, smiling, frowning. Then finally she stepped back and nodded.

"You all look quite good, I think. I can be proud of you. And now, I want you all to go to your rooms and make them extra attractive, and then try to get a little rest, so you'll all be especially beautiful when the boys come. Run along now."

The girls filed out, and night continued to settle. After a while, her cigarette glowing in the gloom, the Madame waddled to her office. There three people were waiting for her.

THE OFFICE was plain, businesslike, masculine; no lace, no ribbons, no perfume, only the crisp

smell of new paper, the tangy odor of ink, the sweet smell of eraser fluid. When she came in the door the three people stood up.

She waved her cigarette hand with a once delicate gesture and flame light glinted dully on the gold band. "Please don't get up for me," she said, but her tone was condescending and the three visitors sat down respectfully.

Miss Bestris crossed to her desk; she perched on a corner of it, leaned back, blew smoke.

"You wanted to see me about your girls?"

Two of the people, man and wife, looked at each other. "Yes," they said. And the other man said, "Yes."

"Did you bring any pictures?"

They handed her pictures, and she held them up to the overhead torch. She studied them critically, pursing and unpursing her lips in secret calculation.

"This one," she said finally, holding out one of the pictures.

The man and wife rustled their clothing; they smiled faintly proud at each other.

The other man got up slowly, retrieved his picture, left the room without saying a word.

"We can't do for little Lavada," the woman whined. "She was a late child, and we're getting old, and we thought she would be better here. It's hard to do for a growing girl when you get old. And my husband can't keep steady work, because of his health and . . ."

"I'm sure she will be happy here," the Madame said, smiling.

"Yes," the man agreed. "It's for the best. But—you know—well, we

hate to do it.

"How old is she?"

". . . Fourteen."

Miss Bestris studied the picture again. "She doesn't look over twelve."

"She's fourteen."

"And healthy—"

"We have doctors to see to that," the Madame said. "How much did you have in mind?"

"Well," the man said, "it's been a month now since I worked, and with debts and everything. . . ."

"And something to put aside for winter," his wife added.

"We couldn't take less than a *milli dordoc*."

"And we wouldn't even think of it, but we don't have a scrap of bread in the house."

"And all our bills, and winter coming on. . . ."

Miss Bestris turned the picture this way and that. The parents waited. The woman cleared her throat. The man shuffled his feet. The clock on the wall went tick-tick, tick-tick.

"I'll give you eight hundred and thirty *dordocs*," the Madame said.

"Well. . . ."

Miss Bestris bent forward, holding out the picture. "Here, then. Take it. I wouldn't offer that, but I need a girl right now. One of mine ran away last week, and I'm afraid she won't be able to work for a month or so after they bring her back. I'm being generous. Eight hundred and thirty, or take your picture and don't waste my time."

The man and woman stared at her. And the clock went *tick-tick*.

"Take it, Chav."

". . . All right," the man said. "We need the money."

Miss Bestris leaned across the desk, pressed a button on her panel. Almost immediately, a door slid silently open and her lawyer entered with a white, printed, standard-form sales contract in his hand. Efficiently and rapidly, he entered the particulars. "Sign here," he said, and the parents signed.

"Now," said the Madame, "if you'll bring in Lavada tomorrow at nine, I'll arrange for a doctor to be here. If his examination is satisfactory, the money will be ready."

The lawyer left, and the woman said, "You understand, we wouldn't do this but for . . ."

"I understand, perfectly," Miss Bestris said. "You don't need to worry. This is the best kind of house—Earthmen only, you know, and they're very particular. My girls are given the best of care. I'm like a mother to them, and if they are thrifty and diligent, they'll be able to save enough money in a—a very short time to redeem their contract as provided by law. You needn't worry at all."

"Well," the woman said, "I feel better after talking to you. I feel better about the whole thing to hear you talk like that."

The clock went *tick-tick*.

"Uh," the man said, "you won't—? That is, our little daughter is sometimes wilful and . . . uh . . . well . . . Sometimes."

Miss Bestris smiled. "We know how to handle girls."

"You'll treat her . . . ?"

"As I would my own child," Miss Bestris said; she took out another cigarette, lit it. "I think we'll

call her—well—Poppy. Earthmen like to feel at home, you know.”

The clock went *tick-tick*.

“Well, uh,” the man said. “Uh. Thank you.”

IN ONE of the rooms upstairs Mary sat before the dressing table with her back to the mirror, while June and Adele occupied the two overstuffed chairs. Night sounds drifted up from the yellow canal, and fresh flower scents whispered on the warm air. The diaphanous glass curtains rustled at the open window.

“They’re too expensive,” Mary said. “I’m sure Miss Bestris overcharges us for them.”

“Hush,” said June, glancing around at the walls nervously. “Hush, Mary.” She smoothed at the delicate, plutolac lace fringe above her breasts. “Imported material like this costs money. You can’t get it for nothing, and we have to have the best.”

“I still think she charges too much.”

Adele shrugged delicately and crossed shapely ankles. “I think Miss Bestris must like you, or she wouldn’t let you wear that dress again tonight. You ought to watch out that you don’t get on the wrong side of her.”

Mary laughed, her amethyst eyes sparkling. “I won’t care. Not after tonight.”

“You’re not going to run away?”

June asked breathlessly. “You wouldn’t dare do that. You’d catch it, sure!”

Mary shook her head. “Not *run* away.”

Adele leaned forward and said huskily, “You got enough money to redeem your contract?”

Again Mary shook her head. “No. It’s nine hundred and ten *dordocs*. I have only ninety-three. But I’ll have enough in the morning!” She stood up and crossed to the window, looked out toward the spaceport.

“How?”

“Tell us, Mary!”

“Tell you what?” Anne asked, coming into the room. Languidly she drew the door closed behind her and rested against it. “Tell you what?” she insisted, narrowing milky eyes.

“Mary says she can redeem her contract tomorrow.”

Anne’s wide mouth curled contemptuously. “Nonsense!”

“It’s not,” said Mary without turning.

Anne glided sensuously across the room to the bed, her tight fitting plastic rippling with her tigerish muscles. She sat down.

“He said he’d take me away, this trip,” Mary continued. “He’ll sign off, and then we’ll both get a ship and go to one of the frontier planets. Where it won’t matter about—all this.”

Anne laughed harshly. “My God! You believe *that*?”

“We’ve both been saving our money,” Mary said dreamily. “He’s in love with me. He said so.”

“Honey, that’s what they all say.”

Smiling, Mary turned from the window and leaned backward, stretching. “You don’t know him. He’s different.”

“They’re all the same,” Anne

said, her mouth twisting bitterly. "They're just alike. Don't believe any of them."

And Mary said, "With him, it's different. You'll see."

After a moment, Anne said, "That Earthman? That what's-his-name?" Mary nodded, and Anne brushed an imaginary something off her knee. "An Earthman," Anne said. "They're the worst of all."

"You don't know him, or you wouldn't say that."

Adele looked away from Anne. "You love him, don't you, Mary?"

"Yes."

"You're a fool," Anne said. "Listen to me. *Love* a man? God! You'll see. After him, there'll be another and another, and—just like Rosy—you'll watch 'em leave you and laugh at you until finally you're hurt so bad you don't think you can stand being hurt any more, and then along comes another one, and it starts all over again, and then one night you take a razor blade and go to the sink and stick out your throat and . . ."

"No! No! You're wrong! He's not like the rest!"

Anne leaned back carelessly, resting, propped on one hand. "See. You know I'm right, already."

"You're not!"

Anne shrugged. "Honey, tell me that tomorrow night."

"I better go take my cake out," Mary said. She fled the room in a swirl of shimmering glastic.

Anne sneered, "I don't see why Miss Bestris puts up with her the way she does."

"You're jealous," June said quietly.

Anne did not answer.

"Mary's decent," Adele said. "Maybe that's why. She's from the sticks, and her parents still come to see her on visiting days, and there's something about her so—so innocent. Maybe that's why Miss Bestris likes her."

June said, "I think she's better than the rest of us. I think Miss Bestris feels sorry for her in a way."

"Don't make me laugh," Anne said, facing June. "The only one that'll ever feel sorry for her is herself!"

"You shouldn't have talked like that to her!" June snapped. "Why don't you let her alone? She'll feel bad enough without you helping!"

Anne rolled over on the bed and stared up at the ceiling. June took a helox lamp from her drawer and started to bake her hair darker. Those Earthmen were so funny about colors.

In the kitchen, Mary took the cake out of the oven. It was steamy and light and fluffy, and it smelled sweet and warm. She set it on the table and mixed a two-minute green frosting which she spread, carefully, over the cake. She patted here and there with the spatula and stood back, her eyes proud and serious.

She hummed a little tune under her breath as she scrubbed the pots and pans. Her hands moved in practiced rhythm, and the water splashed and gurgled. When the kitchen was again spotless, she looked once more at the cake, and then, turning out the light, she went back to her room.

Anne and Adele had left, but June was sitting quietly in the dusky moonlight. Her white dress seemed vaguely luminous.

Laughing, Mary flicked on the light.

"It's a wonderful cake," she said. "The best one I ever made. Just the way it should be."

"I wouldn't feel too bad, Mary, if he doesn't come to eat it," June said. "I don't want to sound like Anne, but there was a lot of sense in what she said."

"It's just like a real wedding cake." She hummed the snatch of Martian tune. "Like in the tele-papers." She laughed with her eyes. "The bridegroom takes the silver knife and cuts two large pieces of the cake while the bride, dressed in filament coral, stands at his right hand. She carries a bouquet of—Anne just likes to be mean!"

June frowned. Mary crossed to the dressing table. She studied her face in the mirror. It was heart shaped, elfin; her purple hair was a riot of curls, and her eyes were amethyst and gold. She smiled at herself. "I want to look as pretty as I can tonight." She twisted around. "You don't think he'll come either, do you?"

"I—no, Mary."

Mary looked back at the mirror. "He likes our canal blossom perfume." She dabbed some of it on her ear lobes. "I like it best, too."

June stood up, crossed to the musikon, found a slow five-toned waltz. She turned the music very low, and left the color mixer dim enough so that only the faintest ghosts projected hues moved on walls and ceiling.

Mary continued to stare into the mirror. "But he will come. I know it."

June said nothing.

"Don't you see. I just *know* he'll come."

June crossed back to her seat.

Mary turned from the mirror. "I'm sure he will. He's—I mean. . ."

June smiled wanly.

"Well, he will! You'll see!"

June said, "Even if it is an old dress, you look very nice in it."

"I've been learning his language. I can say 'thank you' and 'yes' and 'no' and 'I love you' and all kinds of things in it. He gave me a book, and I've been studying. I want to be able really to talk with him. We've got a lot to talk about. I want to find out about his parents, and what he likes for supper and what kind of music he likes to hear, and—and all sorts of things. I want to find out all about his planet, and . . ."

"Yes," June said wearily, "I know."

The music played on. The moving lights on the walls were like colored reflections from a sunlit river.

"He may be a little late tonight; he has a lot to do, first. But he'll be here."

Buzzzzz. . .

It was the red button; it blinked on and off.

"Visitors," June said.

"Look—" Mary said. "Look, June. I'm not half ready yet. Look. Tell Miss Bestris I'll be down a little late. Tell her I have a special boy, and it'll be all right. He wants me to wait for him."

June was on her feet. ". . . All right. You'd better not wait too long!"

"I won't."

After June was gone, Mary returned to the task of making her face pretty, but after a moment, she turned from the mirror, leaned back, and tried to relax. Underneath her dress, her heart was pounding.

The warm air carried sounds of the night creatures. One of the great canal insects, screeching, flapped by the window. The tiny third moon crept up over the horizon, and the buildings cast triple shadows.

Buzzz. Buzzzz.

Still Mary waited.

Buzzz. Buzzzz. Buzzzzzz. . . .

She was afraid to wait any longer. But by now she was sure that he would be down stairs.

There was a last-minute flurry of combing and primping, and then she rustled out of the room, her head erect, her eyes shining.

THE LARGE reception room was filling. Overhead, the color organ threw shimmering, prismatic beams on the ceiling. Beneath it, stiff, embarrassed spacemen, mostly officers dressed in parade uniforms, chatted in space-pidgin with the laughing, rainbow-haired girls.

Miss Bestris sat in one corner, her eyes roving the room: settling here for a second, there for a second, checking, approving, disapproving, silently. Occasionally she would smile or nod at one of the girls or one of the spacemen, and once she frowned ever so slightly

and shook her head.

Anne was reclining on a couch, eating a golden Martian apple, listening to a second mate; she played with a lock of his hair and smiled her wide smile.

June, angelic, sat primly in a straight-backed chair, the captain at her feet, a boyish, space-pale Earthman, drew embarrassed circles on the carpet with his index finger.

In the next room, three couples were dancing to the slow music of an Earth orchestra.

An inner door opened, and a uniformed native sheriff stepped in, a crisp, military figure. "Miss Bestris?"

She stood up. "Yes?"

The Earthmen fell silent, waiting.

"We think we have your runaway." He turned to the door. "Bring her in."

Two more sheriffs entered, and between them, there was a young, slender girl. Her face was gaunt and tear-stained. Her body trembled. She looked at the Madame fearfully.

"You idiots!" Miss Bestris screamed. "Get her out of here! You'll ruin my party! Take her out!"

The two men removed the girl. To the remaining sheriff, Miss Bestris said, "Damn you, if you ever do anything like that again, I'll . . . I'll . . ."

"I'm sorry, Madame. But we wanted immediate identification. Would you want us to hold the wrong girl?"

"That's her, all right! Now, get out! Wait for me in my office."

When they were gone Miss Bestris turned to the silent room. In quite passable Esperanto she said, "I—am sorry. A misunderstanding. I assure you, nothing. Go on with the party, and I'll see what I can do for the poor girl."

She stood up and in her own language said, "Lively, girls! Smile! You, Rita, hurry and serve tea!"

She made her exit.

The spacemen grumbled among themselves, coughed uneasily, watched the closed door through which the Madame had gone. Listening, they could hear only a muted mumble of sing-song sounds in several voices.

With determined animation, the girls moved about, smiled, chatted.

Rita came in, wheeling the tea tray, and the girls converged on it, each trying to be the first to serve her escort. The tea was the Martian stuff, concocted of a kind of local hemp. The Earthmen found it harsh and bitter to the taste, but gentle on the soul.

Anne had filled two cups and returned to the second mate when she caught sight of Mary coming down the stairs.

On the lowest step, Mary stood for a long time; her eyes eagerly searched the crowd. Slowly a puzzled, hurt look came over her face.

June came to her side after a little while.

"Isn't he here?"

"No. Not yet."

"I'm sorry," June said, touching Mary's arm lightly.

"It's all right. It's early yet. I'll just sit down by Miss Bestris' chair and wait for him."

She turned from June and went to the chair. Before she could sit down, a space corporal came over, bowed, tried to take her hand. She shook her head. He smiled twistedly and walked stiffly away.

Another man smiled at her. She shook her head slowly.

Someone came in the front door, and she leaned forward. Then she slumped back limply.

She heard a tinkly laugh. She looked in its direction. She met Anne's eyes, bright and amused. Just then Miss Bestris came in, her eyes angry and her cheeks flushed. She strode across the room.

"Well," she said. "I'm glad to see you finally came down." She sank heavily into her chair. "Crescent's back. They just brought her in. The idiots came right in here with her. I'll bet I lost half-a-dozen customers. These Earthmen are sensitive about such things."

Mary was still staring at the door; Miss Bestris looked down at her.

"Well, what are you sitting here for?"

"Please, Miss Bestris. I'm waiting for my special boy friend tonight."

She snorted and looked away. "Why isn't he here?"

"He will be."

"He'd better. I'll let you wait another—half an hour. That's all."

"Thank you, Miss Bestris. You're very kind to me."

"I indulge you more than I ought to, child," she said. "More than is good for you, if the truth were known."

A man came in; Mary stiffened and then relaxed.

The mutter of voices blended into a steady hum. More couples were dancing. Miss Bestris moved around the room. The music was tinny.

Another man came in.

"Your time's up," the Madame told Mary.

"Please, let me just wait for another few minutes."

Miss Bestris fixed her lips grimly. "I've had enough nonsense for tonight. You heard me!"

"Please!"

"You heard what I said."

"Miss Bestris, I couldn't. Not tonight. Honest, I couldn't. If I had to talk to anybody, I'd break down and cry. He'll . . . come. I know he will."

Miss Bestris whirled on her. "Listen, you little—" But she stopped, suddenly. "All right," she said, gritting her teeth. "I can't afford another scene tonight. But you'll be sorry for this."

Miss Bestris stormily looked away. The dancers danced; the music swelled louder. Gradually, deliberately, the lights were waning.

"Haven't I always been good to you, Mary?" the Madame asked.

"Yes."

"Then like an obedient girl, do as I say. If he hasn't come by now, he just won't. He's gone to some other house."

"No!" Mary said doggedly.

"Just remember, tomorrow, how you deliberately disobeyed me. Your silly emotions are costing me money, and that's one thing I simply won't stand for."

"He'll come." Mary said. "You won't lose money."

Couples sat side by side, laughing, talking in whispers. Occasionally there were giggles. The room began to empty slowly.

The lights continued to dim until the rooms were gloomy. Even the shifting shades of the color organ were no more than a faint lambence. Anne, laughing, helped her second mate to his feet.

"I'll give you one more chance," Miss Bestris said. "The next man that comes in. . ."

"No! I just couldn't! Not tonight!"

A few more customers drifted in. Then even the stragglers stopped coming. It was very late.

"He's deserted you; you see that now?" Madame Bestris sneered.

Mary stood up. There were tears in her eyes. "You can't—you don't—know—how I feel," she choked. "You don't care!" She turned and ran up the stairs, crying.

Several Earthmen, still in the big room, turned to watch. The torches were misty twinkles now. The last couples climbed the stairs and then Miss Bestris, too, went to bed.

THE BLUE morning came. The town awoke; commerce began.

At seven, Miss Bestris lay in bed frowning, considering the events of the previous evening. But she was not so annoyed that she forgot to call a doctor on the televue and arrange for him to come at nine to give a physical examination.

Her bulk out of bed, she dressed and went to the kitchen to brew a pot of hemp tea. The cleaning maid, moving about in the next room, heard Miss Bestris call

sharply: "Flavia! Come in here!"

Flavia appeared with a dust rag in her hand.

"Did you cut this cake?"

"No, ma'am."

Miss Bestris glowered. "That little idiot! She must have slipped down here after we were all asleep and sat here and cried her silly little eyes out! If she thinks she can pull that love-sick act on me she'll soon find out different. Am I supposed to put up with having her moon over every space tramp that comes in? Why, I've taken more from her—!"

"Yes, ma'am."

Miss Bestris waddled to the stairs, climbed them determinedly. At Mary's door she stopped and twisted the knob. Locked!

Miss Bestris hammered. "Open up, Mary!" The door rattled under her hand. "Open that door at once!"

No answer.

Miss Bestris pounded harder. "Open up, I say!"

Anne sauntered into the hall, her dressing gown swishing. "She really made you look the fool last night,

didn't she?" Anne said lazily.

"You—you slut! Mind your own business."

Anne smiled and shrugged.

"Open the door, Mary! Do you hear me! Open it!"

"Maybe she killed herself," Anne said. "It has happened."

"My God! No . . . She wouldn't dare. You think she would?"

Anne shrugged again. "They do funny things sometimes."

Miss Bestris' face was red. "Run down and get my keys. In my desk. You know where they are."

Then, "*For God's sake, hurry!*"

While she waited Miss Bestris rattled the door, pleading and cursing.

Finally Anne returned. Miss Bestris snatched the key with a shaking hand. She hurled the door open and burst inside.

"See here, you little—!" She stopped.

The room was empty.

On the neatly made bed reposed a little stack of money. When Miss Bestris got around to counting it, she found that it contained exactly nine hundred and ten *dordocs*.

———— THE END ————

IN THE NEXT ISSUE you'll find as exciting a line-up of stories as you've ever seen in a science fiction magazine. For instance: there's a humdinger of a novelette called **BRINK OF MADNESS**, by Walt Sheldon, a suspenseful cloak-and-dagger yarn about the Central Investigation Bureau and the new World Government of the 22nd Century; there's a short classic, by Tom Leahy, called **ONE MARTIAN AFTERNOON** that will curl your hair; also top-notch stories by Mark Clifton and Alex Apostolides, Edward W. Ludwig, H. B. Fyfe and others.

There's a song that says "it's later than you think" and it is perhaps lamentable that someone didn't sing it for Henry that beautiful morning . . .

Pipe of Peace

By James McKimmey, Jr.

THE FARMER refused to work.

His wife, a short thin woman with worried eyes, watched him while he sat before the kitchen table. He was thin, too, like his wife, but tall and tough-skinned. His face, with its leather look was immobile.

"Why?" asked his wife.

"Good reasons," the farmer said.

He poured yellow cream into a cup of coffee. He let the cup sit on the table.

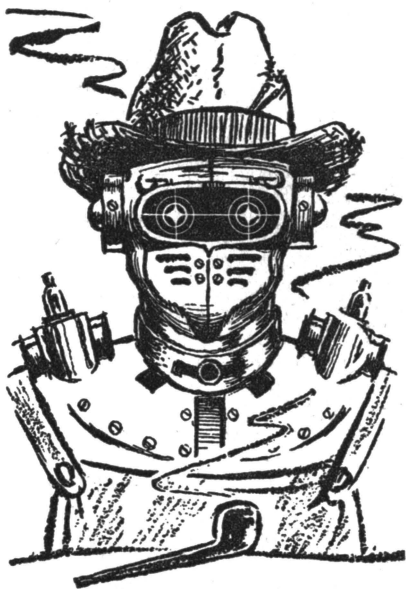
"Henry?" said the woman, as though she were really speaking to someone else. She walked around the kitchen in quick aimless bird steps.

"My right," said Henry. He lifted his cup, finally, tasting.

"We'll starve."

"Not likely. Not until everybody else does, anyway."

The woman circled the room and came back to her husband. Her eyes winked, and there were lines between them. Her fingers clutched the edge of the table. "You've gone



crazy," she said, as though it were a half-question, a half-pronouncement.

The farmer was relaxing now, leaning back in his chair. "Might have. Might have, at that."

"Why?" she asked.

The farmer turned his coffee cup

carefully. "Thing to do, is all. Each man in his own turn. This is my turn."

The woman watched him for a long time, then she sat down on a chair beside the table. The quick, nervous movement was gone out of her, and she sat like a frozen sparrow.

The farmer looked up and grinned. "Feels good. Just to sit here. Does well for the back and the arms. Been working too hard."

"Henry," the woman said.

The farmer tasted his coffee again. He put the cup on the table and leaned back, tapping his browned fingers. "Just in time, I'd say. Waited any longer, it wouldn't have done any good. Another few years, a farmer wouldn't mean anything."

The woman watched him, her eyes frightened as though he might suddenly gnash his teeth or leap in the air.

"Pretty soon," the farmer said, "they'd have it all mechanical. Couldn't stop anything. Now," he said, smiling at his wife, "we can stop it all."

"Henry, go out to the fields," the woman said.

"No," Henry said, standing, stretching his thin, hard body. "I won't go out to the fields. Neither will August Brown nor Clyde Briggs nor Alfred Swanson. None of us. Anywhere. Not until the food's been stopped long enough for people to wake up."

The farmer looked out of the kitchen window, beyond his tractor and the cow barn and the windmill. He looked at rows of strong corn, shivering their soft silk in the

morning breeze. "We'll stop the corn. Stop the wheat. Stop the cattle, the hogs, the chickens."

"You can't."

"I can't. But all of us together can."

"No sense," the woman said, wagging her head. "No sense.

"It's sense, all right. Best sense we've ever had. Can't use an army with no stomach. Old as the earth. Can't fight without food. Takes food to run a war.

"You'll starve the two of us, that's all you'll do. Nobody else will stop work."

The farmer turned to his wife. "Yes, they will. Everywhere a farmer is the same. He works the land. He reads the papers. He votes. He listens to the radio. He watches the television. Mostly, he works the land. Alone, with his own thoughts and ideas. He isn't any different in Maine than he is in Oregon. We've all stopped work. Now. This morning."

"How about those across the ocean? Are they stopping, too? They're not going to feed up their soldiers? To kill us if we don't starve first? To—"

"They stopped, too. A farmer is a farmer. Like a leaf on a tree. No matter on what tree in what country on whose land. A leaf is a leaf. A farmer's the same. A farmer is a farmer."

"It won't work," the woman said dully.

"Yes, it will."

"They'll *make* you work."

"How? It's our own property."

"They'll take it away from you."

"Who'll work it then?"

The woman rocked in her chair,

her mouth quivering. "They'll get somebody."

The farmer shook his head. "Too many people doing other things, like making shells and guns, like sitting in fox-holes or flying planes."

The woman sat rocking, her hands together in her lap. "It won't work," she repeated.

"It'll work," said the farmer. "Right now, it'll work. Yes, we've got milkers and shuckers, and we've got hatchers for the chickens. We've got tractors and combines and thrashing machines. They're all mechanical, all right. But we don't have mechanical farmers, yet. The pumps, the tractors, the milkers don't work by themselves. In time, maybe. Not now. We're still ahead of them on that. It'll work."

"Go out to the fields, Henry," his wife said, her voice like the sound of a worn phonograph record.

"No," the farmer said, taking a pipe from his overalls. "I think instead, I'll just sit in the sun and watch the corn. Watch the birds on top of the barn, maybe. I'll fill my pipe and sit there and smoke and watch. And when I get sleepy, I'll sleep. After while I might go see August Brown or Clyde Briggs or maybe Alfred Swanson. We'll sit and talk, about pleasant things, peaceful things. We'll wait."

The farmer put the pipe between his teeth and walked to the door. He put on his straw hat, buttoned the sleeves of his blue shirt and stepped outside.

His wife sat at the table, staring at nothing in the room.

The farmer walked across the barnyard, listening to the sound of the chickens and the sound of the breeze going through the corn. Near the barn, he sat upon an old tree stump and filled his pipe with tobacco. He lit the pipe, cupping his hands, and sat there, smoking, the smoke spiraling up into the bright warm air.

He took his pipe from his teeth and looked at it. "Pipe of peace," he said, laughing inside himself.

The breeze was soft and the sun warm on his back. He sat there, smoking, feeling the quiet of the morning, the peace of the great sky above.

He had no time to stand or to take his pipe from his mouth, when the two men crossed the yard and lifted him up by the arms. He dropped the pipe, while he was dragged past the house, to the road beyond. He had no time to yell or scream, before his hat was swept from his head, the overalls and the blue shirt stripped from his body.

He had not even thought about what it was that had happened, before he was thrust inside a white truck, with strong steel sides and with grilled windows like those of a cell.

He was just sitting there, in the truck, without his clothes, speeding away with August Brown and Clyde Briggs and Alfred Swanson.

● OUTSIDE, the sun was warm upon the earth. Chickens clucked in their pens, while birds fluttered about the top of the barn. A pig squealed. The corn rustled.

(Continued on page 91)

I could see her face more clearly now, and it was like the faces of our women, only prettier than most, I thought.



He was a reporter from Venus with an assignment on Earth. He got his story but, against orders, he fell in love—and therein lies this story.

The Huddlers

By William Campbell Gault

Illustrated by Ernie Barth

THAT'S what *we* always called them, where I come from, huddlers. Damnedest thing to see from any distance, the way they huddle. They had one place, encrusting the shore line for miles on one of the land bodies they called the Eastern Seaboard. A coagulation in this crust contained eight million of the creatures, *eight million*.

They called it New York, and it was bigger than most of the others, but typical. It wasn't bad enough living side by side; the things built mounds and lived one above the other. Apartments they called them. What monstrosities they were.

We couldn't figure this huddling, at first.

All our attention since Akers' first penetration into space had been directed another way in the galaxy, and though I'll grant you unified and universal concentration may be considered unwise in some areas, it's been our greatest

strength. It's brought us rather rapidly to the front, I'm sure you'll agree, and we're not the oldest planet, by a damned sight.

Well, by the time we got to the huddlers, Akers was dead and Murten was just an old man with vacant eyes. Jars was handling the Department, though you might say Deering ran it, being closer to most of the gang. Jars was always so cold; nobody ever got to know him really well.

They divided on the huddling. Fear, Jars said, and love, Deering said, but who could say for sure?

As Deering said to me, "What could they fear? They've got everything they need, everything but knowledge and their better specimens are getting closer to that, every day."

In the laboratory, Deering said this, and how did we know old Jars was in a corner, breaking down a spirigel?

"They fear each other," Jars said, as though it was an official announcement, as though any fact is permanent. "And they fear nature. It's the most fear ridden colony of bipeds a sane mind could imagine."

Deering looked at me, and winked.

Jars went back to the spirigel.

Deering said, "Love, love, love. All they sing about, all they write about, all they talk about, love, love, love."

Jars was just tracing a z line on the spirigel and he put down his legort at that. "Rather superficial thinking, from a scientist," he said quietly. "Surface manifestations to be considered as indicative. Oral and verbal camouflage to be accepted as valid. Deering, old thing, please—"

Deering shrugged. "So I am—what do they call it, a Pollyanna. Isn't that a pretty word? So, I'm a Pollyanna."

"I rather think that describes you partially," Jars said, "and with this particular planet we're discussing, it can be a dangerous attitude."

"So?" Deering said, nudging me. "And could I ask why?"

"Ask it."

"I ask."

"You've recorded the state of their development. They have, among other things, achieved nuclear fission."

"So? In the fourth grade we are teaching nuclear fission."

"We are a scientific people. They haven't been, until very, very recently. You have noted, I hope, their first extensive use of this new discovery?"

"Hero — Helo — " Deering shrugged. "My memory."

"Hiroshima," Jars supplied. "Love—, my friend?"

"I have noted it," Deering said. "We spoke, a while ago, of surface manifestations."

"We shall continue to. You have witnessed the mechanical excellence of their machines, in some ways beyond ours, because of their greater element wealth. You have noted the increased concentration of their better minds, their scientific minds. How long do you think it will be, friend, before they are ready for us?"

"Ready, ready—? In what way, ready?"

"The only way they know, the only thing they seem to have time for—ready for war."

"War—," Deering said, and sighed. "Oh, Jars, they will be beyond war, certainly, before they are cognizant of us. They are no tribe of incompetents; they grow each day."

"They—?" Jars' smile was cynical. "Their scientists grow. Are their scientists in command, sir?"

That "sir" had been unnecessary; Jars was the senior mind, here. Deering didn't miss it, and he flushed.

Jars said softly, "I apologize. It was not a thing to say. I have spent too much time in the study of these—monsters."

They had gone to school, together, those two, and the bond was there and the respect, but they were different, mentally, and each knew it.

"You have a sharp tongue," Deering said, "but a sharper mind."

I believe I can stand it." He smiled. "Love, fear, hate—what does it matter to us, except as phenomena?"

"It matters to us, believe me, please. It concerns us very much, Arn."

When Jars got to first names, he was emotionally wrought. I looked at him in surprise. And so did Deering. We weren't ever going to warm up to him, but he was our best mind and there wasn't a man in the department who didn't appreciate that.

We stared at him, and he sat down on the high bench near the Maling converters. He looked old and he was tired, we could see. "Evil," he said quietly. "Fear, hate, evil—which of the three is the father and which are the sons? I suppose fear is the father."

"I'd always thought so," Deering said, "though my education was almost completely confined to the technical. I'm rather skimpy on the humanities."

"And I," Jars said, and now looked at me. "But not you, Werig."

"I don't know them, sir," I said. "Surface manifestations, as we've said before, today. It would need a closer study. Their huddling is what intrigues me the most."

One of the rare smiles came to Jars' lined face as he looked at Deering. "Huddling, the lad says. If you don't say it, I won't, Arn."

Deering smiled in return. "We'll change the routine, this time; you say 'love' and I'll say 'fear'. But seriously, Jars, you fear these—people?"

"I fear them," Jars said. "Scien-

tifically, perhaps, they are tyros, but mechanically they are not. They have discovered forces and developed machines which they do not understand, and yet, have achieved efficiency with them. I fear any monster that powerful even though it is blind."

"And you think there is a possibility of their becoming—aware of us within any determinable time?"

"I do. You will remember how quickly the Algreans developed, once they achieved unity? You will remember how quickly they became a threat?"

"Yes," Deering said quietly, "and I have been trying a long time to forget what we did to that planetoid."

"It was necessary for survival," Jars said simply. "I think, by any standards, we would be the ones chosen to survive."

Deering's smile was cynical. "At least, by *our* standards. We had a closer communication with them. About the huddlers, we know only what we convert from their stronger video broadcasts. It is a device they seem to use more for entertainment than for information."

Jars nodded, and stood up. "And love is their major entertainment, perhaps. Love and war. But we gabble. I had a plan in mind, a plan to put before the assembly."

HE HAD a plan, all right, and I was part of it. The humanities had been no major with me, but they didn't want a scholar, they wanted a reporter, anyway. Or perhaps I could be called a recorder.

Jars talked and the assembly lis-

tened. They always do, when Jars talks.

And I was their boy, and went into a concentrated and complete briefing. They put me under the lucidate and poured it to me, night and day, all the information we had on the huddlers and all the theories based on that information.

They put me into a space sphere, and said "good luck" and do our people proud, young man. Oh, yes. And don't fall in love. Oh, no. They'd pick me up, again, when they got a signal. They didn't expect to wait too long for that, I guess, at the time.

The sphere was a relic of the Algrean business, and Algrean hadn't been this much of a trip. But Mechanics said it would do, and it did.

I landed in the Pacific, about three-quarters of a mile off the Santa Monica yacht basin, and let the sphere float north for a while until I reached a secluded spot. In a small curve of the shore line, a few miles above Santa Monica, I beached her, and opened the dissolving cocks.

I watched her melt into the surging water, and turned to face the red and green light almost immediately overhead. I walked up from the beach to the road, not even knowing what they looked like. Their evolution should have matched ours, but who could be sure?

For all I knew, I might be a freak to them. I should have thought of that before dissolving the ship.

Above, the light changed from red to green and across the street, I

saw a sign. This was Sunset Boulevard, and the Pacific Coast Highway. This was open country, but Los Angeles.

Along the Coast Highway, a pair of lights were bearing down on me, and they seemed to waver, as though the machine were under imperfect control.

I moved back, out of the way, and the light overhead turned to red. The car stopped about even with me, its motor running.

I couldn't see the occupants nor the driver. The light changed, the car jerked, and the motor stopped.

"Damn," somebody said. It was a female voice.

There was a grinding noise, and another damn, and then a head appeared through the open window on my side of the road.

It was a blond head, and what I could see of the face looked attractive.

"Are you sober?" she asked.

"Not always," I answered. "Some times I'm quite cheerful. But I'm some distance from home, and have nothing to be cheerful about, at the moment."

"Try not to be a Cerf," she said angrily. "What I mean is, are you—have you been drinking?"

"Not recently, though I could use some water." I could see her face more clearly now, and it was like the faces of our women, only prettier than most, I thought.

"Look," she said, "I'm drunk. Could you drive this thing? Could you drive me home?"

"I'd be glad to," I answered, "if you will tell me where you live."

She gave me an address on Sunset, and this was Sunset, this lateral

street, ending at the ocean. So, quite obviously, it was an address I could find.

I went over to climb in behind the wheel. There were two smells in that pretty car with the canvas top. One smell was of gasoline, the other was of alcohol.

"There's obviously alcohol in the gasoline," I said, "though that shouldn't prevent it from igniting."

"A funny, funny man," she said. "Keep the dialogue to a minimum, will you, Bogart? I'm not exactly sharp, right now."

I depressed the starter button, and the motor caught. I swung left onto Sunset, and started up the hill.

The car was clearly a recent model, but Jars had been wrong about the mechanical excellence of these huddlers. The machine simply had no life, no zest.

WE DROVE past a shrine and around two curves, climbing all the while, past some huddled houses on the left, and the whole shining sea spread out on the right.

The woman said, "If you know a place where the coffee is drinkable, stop."

"I have no money," I said. Diamonds I had, a bagful of them, for we knew that huddlers treasured diamonds. But no money.

"I've got money," she said. "I've got a hell of a lot more money than I have sense. Have you ever been in love, Bogart?"

"Never," I said.

We were coming into a small huddled area, now. A sign read, *Pacific Palisades*.

"I have," she said. "I still am.

Isn't it a miserable rotten world?"

"This one?" I asked, and then said quickly, "I mean—this part of it?"

"Any part of it," she said. "I've seen most of it, and any part where there's men is bad, Bogart."

"My name," I told her, "is not Bogart. My name is Fred Werig."

"A pleasure, Fred," she said. "My name is Jean Decker. And I'm beginning to feel better."

"It couldn't be my company," I said, "so it must be the air. I haven't seen any coffee places that are open."

I caught a flare of light from the corner of my eye, and turned to see her applying flame to something in her mouth. I remembered from our history; she was smoking. It was a habit long dead where I came from.

And then I remembered what she'd said about being drunk, and knew that, too, as one of our long disused vices. What was it Akers had said about 'being directed'? A theory, but discredited now, since our scientific advance. But this almost parallels evolution?

"Cigarette?" she said, and I said, "No, thanks. I—don't smoke."

"You're the only thing in Los Angeles that doesn't," she said bitterly. "Where are you from, Fred?"

"New York," I said. "Where are you from, Jean?"

"Believe it or not, I was born here," she said. "I'm one of the three people in this town who was born here."

"It's a big town, isn't it?" I said. "Less huddled than the others."

"Huddled," she said, and laughed. "Huddled. I like that.

They huddle, all right, and not just the football teams. The gregarious instinct, Freddy boy."

"Well, yes," I agreed, "but why, Jean? Why haven't they outgrown it? Is it—fear?"

"You would have to ask somebody bright," she said. "When you get to Bundy, turn over toward Wilshire. We'll find an eating place that's open."

"You tell me when I get to Bundy," I said. "I'm not exactly familiar with this part of town."

She told me, and we got to Wilshire, eventually, and on Wilshire there were many eating places.

We went into one; it was too cold to eat outside. And it was bright in there, and I got my first really clear look at the face and figure of Jean Decker.

Well, it was ridiculous, the attraction that seemed to emanate from her. It actually made me weak.

And she was staring at me, too.

"If you're hungry," she said finally, "get a sandwich. You won't find me stingy. . . What in the world is that material in that suit, Fred?"

"I don't know," I said. "You are beautiful, Jean."

She smiled. "Well, thanks. You can have a piece of pie, too, for that. That certainly is a fine weave in that material. What did your tailor call it?"

We were next to a sort of alcove, furnished with a table and two high-

backed benches, and she sat down. I sat across from her.

"I don't have a tailor," I said. "Your lips are so red, Jean."

She frowned. "Slowly, sailor."

Then a waitress was there, and I saw how red her lips were, too, and I realized it was another of the old vices I'd forgotten, cosmetics.

"Just coffee, for me, black," Jean said. "Golden boy over there will have a beef barbecue, probably, won't you, Fred?"

"I guess," I said. "And some milk, cow's milk."

Jean laughed. "It's my money. Have canary milk."

"Not tonight," I said.

The waitress went away, and there was a noticeable period of silence. Jean was tracing some design on the table top with her index finger. Her nails, too, were painted, I saw. I liked the effect of that.

She looked up, and faced me gravely, "Fred, you're a very at-



tractive gent, which you undoubtedly know. Are you connected with pictures?"

I shook my head. "Just a traveler, a tourist."

She said, "Oh" and went back to tracing the design. I thought her finger trembled.

A very dim smile on her face, and she didn't look away from the table top. "You've been—picked up before, undoubtedly."

"No. What kind of talk is this, Jean?"

Now, she looked up. "Crazy talk. You're no New Yorker, Freddy lad. You're a Middle Westerner; you can't fool me. Fresh from the farm and craving cow's milk."

"I never saw a cow in my life," I told her truthfully, "though I've heard about them. What makes you think I'm from a farm?"

"Your freshness, your complexion and—everything about you."

The waitress brought our food, then, and I didn't answer. I tried to keep my eyes away from Jean as I ate; I had a mission, here, and no time for attachments beyond the casual. I was sure, even then, that loving Jean Decker would never qualify as casual.

She drank her coffee and smoked; I ate.

She asked, "Where are you staying, in town, Fred? I'm sober enough to drive, now."

"I'll get public transportation," I said. "You get home, and to bed."

She laughed. "Public transportation? Freddy, you don't know this town. There isn't any. Did you just get here, tonight?"

I looked at her, and nodded.

"On the bum?" she said quietly.

"I—suppose," I said honestly, "though the word has connotations which don't describe me." I put my hand in my jacket pocket and fumbled in the open bag for one of the smaller diamonds. I brought one out about the size of my little finger nail, and placed it on the table.

All the light in the room seemed to be suddenly imprisoned there. She stared at it, and up at me.

"Fred—for heaven's sake—that's not—real, is it?"

I nodded.

"But—it—" She glanced from the diamond to me, her mouth partially open. "Fred, what kind of monstrous gag is this? God, I thought I'd seen everything, growing up in this town. Fred—"

"I'd like to sell it," I said. "You, Jean, are my only friend in this town. Could you help me arrange for its sale?"

She was looking at me with wonder now, studying me. "Hot?" she asked.

"Hot—?"

"Stolen—you know what I mean."

"Stolen? Jean, you didn't mean to accuse me of that."

Skepticism was ugly on her lovely face. "Fred, what's your angle? You step out of the darkness like some man from Mars in a strange suit, with no money, but a diamond that must be worth—"

"We'll learn what it's worth," I said. "Mars isn't inhabited, Jean. Don't you trust me? Have I done anything to cause you to distrust me?"

"Nothing," she said.

"Do you distrust all men, Jean?"

"No. Just the ones I've met. Oh, baby, and I thought you were a farmer." She was crushing out her cigarette. "You haven't a place to stay, but I've got a guest house, and you'll stay there, tonight. You aren't stepping back into the darkness, tonight, Fred Werig. You, I want to know about."

The words held a threat, but not her meaning, I was sure. And what better way to orient myself than in the home of a friend?

THAT was some home she had. Massive, in an architecture I'd assumed was confined to the southeastern United States. Two-story place, with huge, two-story pillars and a house-wide front porch, the great lawn studded with giant trees.

And she lived there alone, excepting for the servants. She was no huddler, and I told her that.

"Dad owned a lot of property in this town," she said. "He was a great believer in the future of this town."

At the time I didn't understand what that had to do with her lack of huddling.

The guest house was small, but very comfortable, a place of three bedrooms and two baths and a square living room with a natural stone fireplace.

I had my first night of sleep on this planet, and slept very well. I woke to a cloudy morning, and the sound of someone knocking on the front door.

It was a servant, and she said, "Miss Decker sent me to inform you that breakfast will be ready

any time you want it, sir. We are eating inside, this morning, because of the cold."

"I'll be there, soon, thank you," I said, and she went away.

Showering, I was thinking of Akers for some reason and his directed theory and what was that other theory he'd had? Oh, yes, the twin planets. Senile, he was, by that time and not much listened to, but a mind like that? And who had he been associated with at that time? It was before my birth, but I'd read about it, long ago. The Visitor, Akers had called this man. The Earth man who had come to Venus. And what had his name been?

Beer—? Beers—? No, but like that—and it came.

Ambrose Bierce.

Jean wore a light green robe, for breakfast, and it was difficult for me to take my eyes away from her.

"I'm not usually this informal at mixed breakfasts," she told me, smiling, "but I thought it might warm up enough for a swim a little later."

She threw the robe aside, and I saw she was wearing a scanty garment beneath it. Evidently the huddlers didn't swim naked, and I wondered at a moral code that sanctioned drinking alcohol but was ashamed of the human body.

I was glad the house had been cold when I answered the maid's summons, for I had worn a robe I'd found there.

Fruit juice and wheat cakes and sausage and toast and jelly and eggs and milk. We ate in a small room, off a larger dining room, a small room whose walls were glass

on two sides.

"It's too old a house to modernize completely," Jean told me. "I grew up in this house."

"You don't—work, Jean?"

"No. Should I?"

"Work or study. Life must be very dull if you don't do one of those."

"You might have a point there," she said. "I tried everything from the movies to sculpture. I wasn't very good at anything. What do you do, Fred?"

"I'm a perpetual guest," I said lightly. "Do you read much, Jean?"

"Too much, though nothing very heavy, I grant you."

"Have you ever read about a man named Ambrose Bierce?"

"I've read everything he ever wrote. Why did you ask that, Fred?"

"I—heard about him. I wondered who he was."

"Where did you hear about him, Fred? In Mexico?"

"No. I don't remember where I heard about him."

"He disappeared," she said quietly, "some time right before the first world war. I've forgotten the exact year. I think it was 1914."

Before the war, before the "first" war . . . And I thought of Jars' wife, who had come to us just before this last planetary war—the "second" world war. And what was his pet name for her? Guest, he called her, and joked about her coming from another world. But didn't Jars defend the discredited late-in-life theories of Akers? I tried to remember the name of Jars' wife, and then it came.

I asked, "And Amelia Earhart?"

Jean's voice was rough. "July 2nd, 1937. I guess I'll never forget that, when my god died. What are you trying to say? Is it some new damned cult you're promoting, Fred?"

"You called her a god. Why, Jean?"

"I don't know. I was only thirteen when she died. But she was so clean, so—so free and windswept, so—oh, what the spirit of America should be—and isn't."

I looked up to see tears in her eyes. Why was she moved? This girl who certainly knew corruption, this worldly, lovely girl. I smiled at her.

She wiped the tears with the back of her hand. "Fred, you are the strangest—I know this town's a zoo, but you, Fred—"

I continued to smile at her. "I'm just a guy trying to learn. May I repeat something I said last night? You're beautiful, Jean."

"You're no three-headed calf, yourself," she said.

Twin planets and parallel evolution . . . Parallel destiny? Not with a third planetary war shaping up here. Three major wars in less than fifty years. Why, why, why . . .

She said, "Thinking, again? You do a lot of thinking, don't you?"

"I have to think of something besides you," I told her honestly. "I can't afford to fall in love with you, Jean. I've too many places to go and too many things to see."

She just stared at me. It must have been a full minute before she said, "Well, I'll be damned."

After breakfast, it was still cold, and she said, "There'll be no swim this morning, I see. If you want to

get an appraisal on that diamond, Fred, I'll phone one of our jewelers to come out."

"I'd appreciate that," I said. "Would it be all right if I took these newspapers back to my room, now?"

"Just dandy," she said. "Sorry to be boring you."

"You're not," I told her earnestly. "Believe me, you're not."

THE PAPERS were interesting. Nowhere was it stated, but a glance at the front pages showed they were on opposite sides of the political fence. On my planet, we keep the editorial opinion in the editorial columns. Not so with these. The wire services were impartial and the accounts in both papers identical. That was as far as the similarities went. Reading the other accounts was like living in two worlds.

An informed people will always be free. Well, perhaps these weren't typical.

I was to see papers a lot worse than these before long.

I was just starting the want ads when the knock came at the door. It was the maid, again; the jeweler was at the house.

A small man, suave and dark, with the manners of a diplomat, fawning like a puppy.

It was a perfect stone, he decided. He had, he was sure, a customer who would be interested. Would I accept eight thousand dollars for it?

I said I would, and he left.

We were in the living room, and Jean stood near the tall front win-

dows. She had changed to a suit of some soft blue material.

"As soon as I get the money," I said, "we're going out for some fun, aren't we? I owe you for a beef barbecue."

"You don't owe me anything," she said. She didn't look at me.

"You'll get over him," I said.

"Him—?" He turned to look at me curiously.

"That man you're in love with, that man you told me about last night."

"Oh," she said. "Oh. I was drunk last night, Fred. I'm not in love."

Silence. That attraction of hers pulling at me like some localized gravity, silence, and the beating of my heart. Silence, my hands trembling, my knees aching.

"I'd like to see some fights," I said. "Would you like to?"

She frowned. "Not particularly." She stared at me, shook her head, and looked away.

"Well," I said, "I haven't finished the want ads."

"Of course," she said. "Get right back to them, Freddy. You never know when you'll find a bargain."

They weren't very interesting. I kept seeing her standing next to the window, looking unhappy, frustrated, somehow. I kept seeing the soft fabric of the suit clinging to her beautiful body and the proud grace of her posture.

I went back to the house, and she was sitting on the davenport near the fireplace. She looked up without expression.

I asked, "Is there a library around here?"

She sighed, and rose. She said,

"Follow me."

She led me to a room whose four walls were lined with books. There was a wide glass door leading out from this to the patio.

"Dad's old retreat," she said. "Everything from Aristotle to Zola. If there's something you don't see, don't hesitate to ask. We aim to please."

She closed the door behind her.

I didn't gorge; I only nibbled. But fed enough to realize this was a deep, rich culture; this planet had produced some first rate minds and exceptional talents. But still, with all this to choose from, the people seemed to prefer Milton Berle. And the people were in command.

I was reading Ambrose Bierce when she came in. She looked at the book, and at me. "Lunch," she said quietly.

I put the book down, and rose. "The unwelcome guest?"

"I'd tell you, if you were."

"Would you, honestly?"

She didn't answer that. She smiled, and said, "There are some fights at Ocean Park, tonight."

We saw those, and later, some amateur fights. Strange spectacles they were, men belaboring each other, but fascinating, too. The amateurs were less talented, but more friendly, leaving the ring arm in arm, if both were still conscious. The professionals displayed no such amicability.

Why? I asked Jean. What was the difference between the amateurs and the professionals?

"Money," she said, and looked at me strangely. "Didn't you really know that?"

I lied with a nod. "I wanted you to see it, and to word it for yourself."

"Look," she said with controlled irritation, "if I want any curbstone philosophy, I can read one of those corny columnists. I certainly don't have to sit in a screaming mob watching a couple of morons pound each other bloody to arrive at a stupid generality like that."

"Let's get a hamburger," I said.

She just stood there, on the sidewalk. "You—you—"

People were turning to stare.

"Farmer?" I suggested.

"Oh," she said, "oh, oh—"

"Or a cheeseburger," I added.

There was a small crowd, now, openly watching. One man said, "Hey, this is better than them jerks inside. Slug him, lady."

Jean started to laugh, and so did I, and then all of us were laughing, the whole crowd.

We didn't go to a hamburger place. We went to a place where we could dance, too, and I had a small glass of wine, and wondered why we'd outgrown alcohol, on our planet.

It was a night I will never forget. It was a night I learned how much she meant to me. There wasn't ever going to be anybody else for me, after that night.

WE WERE married in Las Trenos at five-thirty the next morning.

And still, I didn't tell her where I was from. When the time came, she could go back with me, but I couldn't risk sharing that secret with her. I didn't have the right to

jeopardize my people by giving her information she might divulge unintentionally.

The world was our playground, and my study hall American first. We drove east, taking our time, while I tried to get the temper of the people. I never overlooked a chance to talk to people; the papers were no substitute for that. And between the papers and the people, I found that only the hysterics were voluble, only the biased articulate. And yet, it was a country with a liberal and progressive tradition, a country that should have been informed beyond the average.

Knowledge had been made too easy; the glib were in command.

Fear, Jars had said, and it was becoming increasingly clear to me that he was closer to it than Deering. For Deering's viewpoint, I had a working model, I had Jean.

In the canyon city, New York, high in our room at the Empire-Hudson, she said, "You're an awfully nosy guy, Dream Boat."

"I like to talk to people," I said. "Haven't you been getting enough attention?"

"As much as I can handle," she said. "And I'm enjoying every second of it. But it seems to be getting you down."

"You or the people?" I asked, and mussed her hair.

She didn't answer that. "Fred," she said, "do you remember that day at breakfast, long ago? Do you remember asking about Ambrose Bierce and Amelia Earhart?"

"I guess I do."

"Don't be evasive, Fred. You know you do."

I pulled her close. "Is this going

to be a questioning period? Is this one of *those* marriages?"

"Now, Fred—" she said, against my shoulder. "Be serious, please, Fred. Please be serious—oh, you, Fred—"

WE WENT to England. What's that phrase they have—"muddling through"? That's what they were doing. Proudly, with a minimum of complaint, with no thought of rebellion, with no rationalizing or projection, living as the submerged tenth lives in America, and seeming to think that—well, things *could* be worse.

In Italy, it was the kids, the beggars and procurers and thieves and even murderers who were kids. In Spain we found much of the same. In France it was all the heat and no light, charges and counter-charges, lies and counter-lies, confusion and corruption.

In Berlin, it was Russia. The cloud that darkens the world looms darkest in Berlin. The apathy that grips the world is epitomized in Berlin. A people with no sense of guilt and no reason for hope, nor stirring to the promise of a re-armed Germany. A bled and devastated people, shorn of their chief strength, their national pride.

Jean said, "I've seen enough. Haven't you, Fred? How much can you take?"

"One more," I said. "Russia."

"Don't be silly," she said. "How would we get into Russia?"

"*We* wouldn't. But *I* would."

"Look, baby, whither though goest, I—"

"Up to here," I said. "Who's the

big boss in this family?"

"Now, Fred—"

"Now, Jean—"

"Get away from me. This time, it won't work. If you think that for one second you're going into that no man's land alone—and—"

It took some talking, to convince her, it took some lies. She'd wait, she agreed finally, in Switzerland. In comfort for a change.

It took two diamonds to get to the right man, and it took a formula from there. A formula that is learned in the first year of college chemistry on my planet, a formula for converting an element. A formula this planet couldn't have been more than a decade short of learning, anyway.

The last man I saw in Berlin went along, for which I was grateful, though he didn't know that. I don't speak Russian, but he did.

They were careful, they don't even trust themselves. I told Nile-noff the formula came from America, and there were more, but I needed money. I didn't tell him the fallacy in the formula; it had taken us three years to realize what it was.

My trips were limited, directed, and avoided the seamier side. I saw the modern humming factories, and the mammoth farms. No unemployment, no waste, no "capitalistic blood sucking"—and the lowest standard of living in the industrialized world. A vast, bleak land peopled with stringless puppets, with walking cadavers.

I remembered the faces of the crowds and the strangely mixed people in America, their obvious feelings, emotions and rivalries. There was nothing strange about

these people of Russia—they were dead, spiritually dead.

The country that could have been a cultural and industrial center of the world was a robot-land of nine million square miles, getting ready for war, getting ready to take over the dreams of Hitler and make them come true.

I came out with a promise of ten thousand American dollars for every one of the future formulas I had assured them I could get to. I came out with the knowledge that I'd be a watched man from now on.

In Switzerland, Jean said, "Well—?"

"I'm ready to go home," I told her.

"America, you mean?"

"Where else?"

"I've been alone," she said, "and thinking. I've gone back to Sunset and Pacific Coast Highway and traced it all forward from there. And I don't think America's your home."

Very cool her voice, very tense her face. I smiled at her.

She didn't smile in return. "Fred—we're married."

"I'm glad," I said. "Aren't you?"

"It's no time for the light touch." Tears in her eyes. "Fred, are you a—a Russian spy?"

I shook my head.

"But—"

It was a clear night, and I went to the window. How it shone, in that clear air. Jean came over to stand next to me.

I pointed, and said, "There's my home."

"Venus," she said. "Fred, for heaven's sake—I'm serious!"

"Some day," I said, "this planet

will learn how to see through our manufactured fog. Some day they will develop the vision we developed a century ago. And—"

"Damn it, Fred, be serious. If you'd know what I've gone through, alone here, thinking back on all the crazy things you've said and done. What have you told me about yourself, what do I know?"

"Nothing," I said. "And what have I asked you about yourself? It's a matter of faith, Jean."

"Faith? Running all over the country like fugitives, financed by those damned diamonds, nosing into this and into that, and then running off to Russia, all alone. *With what you'd learned, Fred?*"

I shook my head, resentment stirring in me.

"Remember when we met? In Santa Monica—right there, next to the beach. You didn't have a thing but the clothes on your back and a bagful of diamonds. Was it a sub that brought you that far, Fred?"

"No," I said, "and you wouldn't believe me if I told you."

"Try me, and see," she said. She was rigid, and near hysteria.

"All right. I came there in a space sphere from Venus."

She started to sob, a wild, lonely sound and I moved forward to take her in my arms.

Her fingers clawed my face, her high heel smashed my instep. "Get out," she screamed, "get out, get out, get out—"

I got out. I went to the first floor washroom and cleaned up my bloody face, and then went into the bar. This was one habit I'd picked up on the planet.

When I came up to the suite,

later, I didn't even check to see if she was in the washroom. I flopped down on the davenport and didn't know anything for the next twelve hours.

She was gone, when I came to. She'd checked out before I'd come back to the room, the night before.

I missed the plane she took from France. I missed her by a day in New York. I went back to the big house with the high pillars on Sunset Boulevard.

And she wasn't there.

She'd come back to it, I knew. I moved in, to wait. I wasn't going home without her; I wasn't even sure I was going home with her. I was involved, now, in this planet, almost as crazy as the rest of them.

I sat. I did some drinking, but mostly I sat, going back over all our days, reading nothing, enjoying nothing, just remembering.

The Korean business started and the headlines grew uglier, and the jackals screamed and the people grew more confused.

One day, the maid told me I had a visitor. I was in the library and I told her to send him back.

When he came in, he closed the door behind him. I'd never seen him, before, but he said, "We've been looking for three weeks."

"We?"

"Thirty of us," he said. "What happened? Jars sent me."

"Oh," I said. "I can't come, now. I'm—married—"

He smiled. "If you knew what a mess it's been. We've got men all over the planet. Does your wife—know?"

"She thinks I'm crazy," I said. "Look, I—"

"I'm not to argue," he said. "Just make your report, and I'll pick it up, tonight."

Five minutes after he was gone, I was packing. I knew he wasn't coming back for any report. He was coming back for *me*, and it didn't much matter to him if I wanted to come, or not. I was coming, or staying here—dead.

What I didn't realize is that they wanted me to run, to get out where I could be taken with a minimum of interference.

They got me the other side of Blythe, in the middle of nowhere. A clear night in the desert, and headlights coming up from behind and then the big, black car crowding me off the flat road, into the sand. . . And darkness.

DEERING sighed and shook his head. "Corruption, Werig? Was it the corruption, or the girl?"

"I've made my report," I said. "Don't worry about them. They've got enough to worry about without worrying about us."

"Another war, it looks like," Deering said. "It could be the last one, you know. What was the girl—your wife like, Fred? Was she pretty?"

"Beautiful," I said.

"And the people—fear, is it fear?"

"I don't know. Their vice is fear, but they have some virtues."

Deering's voice was quiet. "Jars wanted me to ask you—about your wife. Where is she? Is she coming

with you? It was forbidden."

"I don't know where she is, she's not coming with me, and I know it was forbidden. But where is Jars? He has been avoiding me, hasn't he? Why?"

"He has been pleading for you, before the assembly." Deering rose, and went to the window, to look out. "Who will win this war that's shaping up among the huddlers, Fred?"

"I don't know. I'm not sure I give a damn."

Deering continued to look out the window. "The gray nation, the mixed nation, this America; they have some promise of the light, have they not?"

"Some."

"But this black nation, this nation of robots, there is no chance of of light there?"

"Not under their present leaders. If they should win the war the planet would be set back five hundred years."

Deering shook his head, and turned to face me sadly. "It would be worse than that. If they should win this war shaping up, there would be no planet for them to rule."

I stared at him, not believing, still so bound up in my trip I couldn't believe his words. *Love*,—*faith*, *fear*, *Jean*—were running through my mind. And Jean . . . ?

Deering answered everything for me. "We can't take the chance," he said. "We will abolish the planet. The assembly so decided this morning."

Personalities in Science

*His "Nature of Things" Is
History's Largest Class*

NOT TOO long ago Dr. Roy K. Marshall was living the comparatively quiet life of a professor teaching the students at the University of North Carolina astronomy and directing the activities of the Morehead Planetarium at the school. Now he is the teacher of what might well be the largest class, science or otherwise, in history. His students are grandmothers, grandfathers, school children of all ages, housewives, jurists, radio announcers, cartoonists, charwomen—in fact, they are people from every walk of life and of every age above the level of kindergarten. The lecture hall for this curiously heterogeneous audience is a television show called "The Nature of Things", which is broadcast regularly over the NBC Television System.

The success of this huge undertaking is due in part to a simple formula which the Doctor insists is not a formula at all. He does not consider these people as students, but rather as friends and companions on an adventure in learning. Roy K. Marshall is that rare phenomenon—a scientist who never talks down to his audience even



Dr. Roy K. Marshall

when he's discussing and illustrating such subjects as relativity, nuclear fission and the planetary system. He has that prized ability which enables him to translate these deep and mysterious subjects into ordinary terms that are part and parcel of every day life; and he does it with a warmth and intimacy that make him unique as a personality as well as a splendid teacher.

Demonstrating his lectures with the tools that science uses, such as microscopes, X-ray machines, telescopes, etc., Dr. Marshall fascinates his audience completely by showing them how to whip up small-scale atomic explosions in the kitchen; and then, by using ordinary house-

hold equipment, he illustrates such diverse subjects as synthetic rubber, the fourth dimension, vacuum, new and interesting properties of metals and the causes and distributions of earthquakes. His talent as a modern classroom lecturer is remarkable. His programs are of only 15 minutes duration, and yet, in even that short time, some of the most complex phases of science are made clear and interesting—opening up a whole new world of understanding for his vast audience, no matter what the age or education.

THE gray-haired, keen-eyed professor was born in Illinois forty-four years ago, raised in Ohio, graduated from Ohio Wesleyan University and got his Ph.D. from the University of Michigan. Incidentally, the thesis for his doctorate was a dissertation on astrophysics. Called "The best planetarium man in America" by the famed Dr. Harlow Shapely of Harvard, the youthful Doctor has been the director of two planetariums—Fels Planetarium in Philadelphia, and Moorehead at the University of North Carolina.

When he's not writing newspaper articles, delivering lectures, or appearing as a guest on various ra-

dio and television shows (he's flown over 125,000 miles to meet such commitments in the last two years) Roy Marshall handles a job as educational director of a radio and television station in Philadelphia. Here he supervises, expedites and very often produces and directs approximately nine hours of educational radio and television shows. These shows are used regularly by teachers as assignments and have aided the further understanding of countless children. He also must, of course, prepare his own script and arrange and rehearse the network show "The Nature of Things". He recently completed a book titled "The Nature of Things—from the hearts of the atoms to the ends of the universe", and is now hard at work on a second book.

Dr. Marshall resigned his position as director of the Morehead Planetarium and Chairman of the Department of Astronomy at the University of North Carolina last year because he felt he needed more leisure time, in which to concentrate on broadcasting and raising, with his wife Phyllis, three growing sons. "I just didn't have any home life," he explained. Today Mrs. Marshall and the three boys feel that the home front situation hasn't improved at all noticeably.

—epw



If this story has a moral, it is: "Leave well enough alone." Just look what happened to Kenzie "mad-about-ants" McKenzie, who didn't . . .

THE *Kenzie* REPORT

By Mark Clifton

Illustrated by Kelly Freas

THAT KENZIE MacKenzie was a mad scientist hardly showed at all. To see him ambling down the street in loose jointed manner, with sandy hair uncombed, blue eyes looking vaguely beyond normal focus, you might think here was a young fellow dreaming over how his gal looked last night. It might never occur to you that he was thinking of—ants.

Of course, we fellows in the experimental lab all knew it, but Kenzie wasn't too hard to get along with. In fact, he could usually be counted on to pull us out of a technical hole. We put up with him through a certain fondness, maybe even a little pride. It gave us a harmless subject to talk about when security was too rigid on other things.

Our Department Chief knew it, but Kenzie had solved quite a few knotty electronics problems. The Chief never has been too particu-

lar to see credit get back to the guy who earned it. We guessed he figured having Kenzie there was profitable to him. In fact, the little redhead in payroll told me the Chief was drawing quite a few bonus checks.

Personnel probably didn't know about it. Kenzie's papers, buried deep in the files, wouldn't show it; because about the only question they had *not* asked us was, "Where do you stand on the matter of ants?"

There was an unwritten law in the lab for nobody ever to mention insects, or even elderly female relatives. I guess that was why it wasn't mentioned to the new guy, name of Robert Pringle. This fellow Pringle worked along for a couple weeks and showed us he had the old know-how in his fingers. A capable tech, a good joe, and we thought we were lucky to get him.

On this particular morning, it

happened that Pringle was working at the bench next to Kenzie. Being a talented tech, like the rest of us, his mind naturally ran along more than one channel at the same time. I expect he was really surprised at the reaction he got when he shouted out to the room at large.

"Hey, fellows," he yelled. "I got little green bugs on my roses. What do you do about it?"

The silence made him look up from his work, and he couldn't help noticing we all stood there with clinched hands and gritted teeth. We were watching Kenzie, who snapped the juice off his soldering iron and pointed the iron at Pringle.

"Those," said Kenzie in a hollow, impressive voice, "are aphids. If you will look closer, Pringle, you will see among them—ants. The aphid is to the ant as the dairy cow is to the human. Those ants are aphid herders, carefully tending and milking their flock."

"Here we go again," moaned one of the fellows across the lab.

"The ants are a highly intelligent life form," Kenzie went on. "I would explain it to you in detail, but I am in the middle of a problem at this moment."

"Thank heaven for that," another tech ground out the words.

"Suffice it to say," Kenzie ignored all interruptions, "Man would well occupy himself trying to communicate with them."

The Chief came to the doorway of his little office down at the end of the lab. He looked us all over patiently and knowingly.

"Now give him your syllogism,

Kenzie," he said quietly, "so we can all get back to work."

"You may reflect on this, Pringle," Kenzie stated and waved his soldering iron in the air.

"One: Man wants to communicate with intelligent life from other planets or the stars.

"Two: We know from observation the ants communicate with one another.

"Ergo: Before we reach so far as to contact extra terrestrial intelligence, had we not better occupy our time with solving a much simpler communications problem; to wit: communicate with the ants? How can we expect to solve communication with really alien beings from the stars, when we have not learned to communicate with the intelligent beings at our very feet?"

All over the room we sighed heavily with relief. We knew the syllogism was the conclusion, the Sunday punch. The boy had really cut it short this time. Usually he was good for a solid hour with facts and figures about how ants built bridges and such stuff.

We all looked at Pringle's face, expecting to see the embarrassed and sheepish grin. This was the usual reaction of a stranger when he first met up with Kenzie's syllogism. It horrified us to see, instead, his shining eyes. We heard him say enthusiastically.

"That's just how I've always felt about it, Kenzie. It's a pleasure to meet a man who isn't afraid of thinking."

"Oh, no-o-o!" we all groaned out in a chorus.

"Only," Pringle said dubiously,

and our hopes began to arise again. "Only I've been thinking more along the line of termites." Our hopes fell and were shattered.

We heard the Chief moan to himself and saw him turn and almost run back into his office.

"Two of 'em now," he was mumbling over and over. "Two of 'em now. It ain't worth it. It ain't worth it." He sat down heavily and buried his head in his arms across the top of his desk. Kenzie was watching him too, like he was wondering what had got into the Chief. Then Kenzie turned back to Pringle.

"Ants," he said with determination.

"Termites," Pringle answered him stubbornly. Kenzie glared at Pringle for a minute, then his face cleared.

"Why not both of them?" he asked, like a fellow who was willing to be big about it.

"Sure, why not?" Pringle came his half way also. Then, like he wasn't to be outdone in generosity. "Ants first, then termites later."

Solemnly the two shook hands. They went back to their work at the bench, and there was an aura of understanding and accord at that end of the room thick enough to be felt.

"I hope you insect lovers will be very happy together," the grid expert mumbled to their backs. The rest of us also settled back into our varied jobs and problems. But we worked as if we momentarily expected an earthquake to rock us. Our hands were not quite steady. Our eyes were not firm and piercing. We almost held our breaths.

For a wonder, we agreed with the Chief. Two of 'em now.

The days passed and nothing more was said. More than ever now, we enforced the taboo on insects. We didn't mention trees, or wood, or even the conditional subjunctive. Would sounded like wood. Wood might bring up the thought of termites.

We could see the Chief was weighing the advantages of keeping them against the risks of upsetting the department constantly. As we expected, greed won. We knew he would not risk giving up the prestige and extra bonuses he got for Kenzie's work. And he knew he had to keep those discoveries coming, because our management has a short memory of what a guy has done in the past.

The Chief even let Kenzie have Pringle as his own personal tech. It served two purposes. It isolated them from the rest of us. It made Kenzie happy.

I will say for the lads, they spent most of their time on Company problems, at first. But gradually, on one corner of Kenzie's bench, a gadget began to take shape. The two of them worked on it when there were no urgent, frantic, must-be-out-today-without-fail problems to be solved first. None of us could figure out the purpose of the mechanism.

We knew if we couldn't figure it, the Chief couldn't. But we could practically see him rub his hands in glee when he thought of the extra bonus he might get for this new gadget.

Of course the Chief wasn't a complete slouch as an electronics

engineer. But it was a long time since he did his study, and he had grown hazy by spending too many years as an administrator. The word got around that for hours at a time, after we had gone home, the Chief would stand at Kenzie's bench.

The way we reasoned it, he figured he ought to know something about the gadget when he took it in to Old Rock Jaw, and palmed it off as his latest discovery. We also reasoned that since we couldn't figure it, the Chief must have been an awfully troubled man.

Obviously, it had something to do with microwave transmission and reception. There was the usual high-frequency condenser, the magnetron tubes, the tuning cavities. All company stock, of course. But then none of us ever worried about cost. That was the Chief's problem.

He didn't worry much about it either, except at budget time. Then there were screams of anguish from the front office over experimental requisitions. Every year, Old Rock Jaw promised to fire us all, if we didn't cut costs, but in a couple of weeks we always forgot about it.

Trouble was, the Chief had been getting edgy about costs lately, so we knew it was about time for the annual budget battle. Significantly, he didn't say a word to Kenzie about the gadget.

AS LUCK would have it, I was working late one night on a special permit. My bench is over in a wing of the lab, and I guess the Chief forgot I was around. I saw a

very pretty scene.

The Chief had built up a habit of staying late so he could stand and study over the Kenzie gadget. He never touched it, though. He knew enough not to bother anything, because we all knew how bitter Kenzie was when anybody touched his things.

The Chief was standing there this evening when the General Manager, Old Rock Jaw, was showing some important personages through the plant after hours. They came through the lab door, and I saw scrambled eggs and fruit salad shining all over bulging uniforms. There was also one little geezick in a pin-striped suit. Old Rock Jaw was talking, as usual.

"... and it is from this room, gentlemen," he was saying, "That some of those revolutionary discoveries emanate!"

Then he caught sight of the Chief, who had hastily picked up a cold soldering iron and was tentatively touching a random point on the new mechanism.

"Ah-h!" Old Rock Jaw exclaimed with satisfaction. "Here is our chief scientist now. Still at work. He watches no clock, gentlemen, He knows no time. His whole life is wrapped up in his research!"

The Chief didn't look around, but bent closer to the soldering point. He looked like he hoped they would limit their inspection to a cursory look about and then retire. I hoped they would too, I didn't want them to see me.

But Old Rock Jaw, in more of a blowhard mood even than usual, couldn't let well enough alone. He came up close to the Chief, and

looked over his shoulder at the mechanism. He was even more ignorant than the Chief, so I knew he wouldn't recognize any of it.

"Don't let us disturb you, Alfred," he breathed in a hushed voice. "But could you tell the gentlemen what you are working on now?" He cleared his throat importantly and said, "I might add that everyone here has been security cleared, Alfred, so you may speak freely."

The Chief still did not lift his eyes from his work. He didn't dare. He carefully turned an unconnected control knob a hairsbreadth with utmost deliberation and precision.

"Multimicrofrequidometer," the Chief mumbled, and buried his head still deeper into the mechanism.

"Ah yes, of course. But you have a new hook up," the General Manager bluffed. "I hardly recognized it at first. Startling!" he breathed.

He looked around triumphantly at the impressed brass and braid. He looked pointedly at the pinstriped suit who probably controlled congressional purse strings.

"Apparently he is at a point where he cannot divert his attention to us, gentlemen," he breathed in a hushed voice. He placed his fingers to his lips and began to tiptoe backwards toward the door.

The beef trust in fancy uniform came up on their own toesies, and also tiptoed away from the genius scientist. By now, the genius was beginning to exude large drops of sweat.

The door closed behind them, and the Chief dropped the cold soldering iron with a sigh of relief.

He took hold of his tongue, where he must have been biting into it. He wiped his forehead and fingers with his breast-pocket handkerchief.

Both the Chief and I heard the party walking down the hall and into another wing of the building. I still didn't make a sound. It would never do for the Chief to know he had been observed. After a suitable time, the Chief, also, tiptoed out of the lab, and he was mumbling to himself as I have never seen him mumble before.

SEVERAL DAYS later another thing appeared on Kenzie's work bench. This time it was a large rectangular glass aquarium. It was filled with moist earth. Now here was something new in electronics!

We shook our heads. One of the techs, who fancied himself a psychologist, said the boys were suffering from retrogressive dementia. They had gone so far back into childhood, they had to play sand box. The Chief overheard the tech, and spoke up plaintively.

"But I don't see any celluloid spade and bucket," he said. He seemed relieved when we burst out laughing.

His relief didn't last long, however. It changed to more worry when he saw the boys carefully sprinkling bread and meat crumbs over the surface of the sand. Then on top of that they dropped moist bits of cake icing. When Pringle brought down a marigold plant, all covered with aphid, and transplanted it in a corner of the aquarium,

the Chief again ran into his office and began to hold his head in his hands.

More days passed. The gadget became a bristling porcupine of test clips. By now the boys had forgotten they were working for the Company and spent practically all their time on the whoozits. The Chief became so fascinated, in a kind of horror-stricken manner, that he did not mention the aquarium to Kenzie at all.

The rest of us also kept away from that side of the lab. Ever since Kenzie had started on the gadget, he had no time for us, or helping us with our problems. If we spoke to him he snapped back at us, until I guess all our noses were out of joint. By the time the aquarium appeared, we were ignoring him and everything he did.

In a few more weeks the aquarium was swarming with ants. It was easy to see their tunnels running up and down the sides of the glass. I will say this for the boys. They set it in a huge pan of water. None of us could legitimately squawk about getting ants mixed up with our anatomy.

The Chief showed he was mixed with disappointment and elation when the boys asked clearance to work nights in the lab. Disappointed since he could no longer stay late and follow the progress; elated because the boys must really be getting hot.

Annual budget time was getting closer, and we could see the wheels going around in his mind. It would be a nice thing if he could deliver the multiwhoozits gadget just be-

fore the big fight for appropriations.

As far as we knew, the only interest the General Manager had shown was the time he asked the Chief in the hall how that multiwhoozits was coming along. Even in that question, it was evident Old Rock Jaw was asking out of a rare politeness only—there being no big shots around to impress.

It was doubtful if the G.M. heard the Chief's vague answer, because the old boy was mumbling to himself about rising costs and having to cut down expenses. He waddled on down the hall. He was still mumbling as he went, but both the Chief and I heard one sentence clearly.

"And certain salaries and bonuses will have to be cut."

The Chief turned pale.

So he granted Kenzie's request with alacrity—and hoped he would finish the gadget in time.

For two more weeks the Chief waited patiently, or maybe impatiently. He knew the boys were working every night, because the security police complained about their pinochle game being interrupted to let Kenzie and Pringle in and out.

Both the boys began to get a feverish look in their faces. Their cheeks grew hollow. Their eyes were bloodshot. Their regular work suffered even more. The Chief thought he was being considerate when he lifted some of their work and shoved it over to the rest of us.

We were already sore at the boys and we didn't take it too kindly. Just the same, we didn't let our squawk get beyond the walls of the

lab. No use letting that nosy Personnel Department get an excuse to start holding hands, patting on the back, and radiating aid and comfort to all.

Then—a certain Monday came.

THE CHIEF came in, a little late as usual. Some of the newer guys pretended to be busy, but we were all watching to see what he would do. There is a back door to the Chief's office which he seldom uses and which he always keeps locked. But it opens into the lab wing right at my table. It wasn't my fault, in fiddling around a little with the lock, it came unstuck and the door opened a little so I could hear what went on.

When the Chief came in, both the boys were busy dismantling the gadget. Discouragement and hopelessness were written all over their faces, in the dejected slope of their shoulders, in the lackadaisical movements of their arms. Piece by piece, through the glass partition of his office wall, the Chief watched the gadget being taken apart. Each piece was carefully taken back and placed in stock for re-use.

That alone was enough to create great alarm for their sanity. Imagine a technician putting a piece back to be used over!

Finally the Chief could bear it no longer. He called them into his office. He carefully shut the door, but he didn't notice the back door swung open a little farther. I found it necessary to work close to the crack, and if I turned around, I could get a good view of the

entire office.

The Chief waved the boys into chairs across from his desk. He sat down and placed his fingertips together. Even then, I could see his hands were shaking. He leaned forward and asked with careful sympathy in his voice.

"Didn't it work?"

"Yeah," Kenzie answered in a bored voice. "It worked." I was surprised at Kenzie's voice. Usually he talked with the concise enunciation of a professor. Now he sounded like maybe just a good lab tech.

"Then why are you dismantling it?" the Chief asked with a worried frown.

"It wouldn't be good for people to know about it," Pringle burst out.

"I don't understand," the Chief faltered. Then desperately, "Look, fellows. I've given you a lotta leeway. You've sluffed your work something terrible. That's all right to an extent. I've covered for you."

"Thanks, Chief," Kenzie said drily.

"But Old Rock—er—the General Manager," the Chief complained, "knows I've been working on something. Now what with budgets coming on, and all, I gotta have something to show!"

"*You've* been working on something—" Pringle exclaimed.

"I mean my department has," the Chief covered himself hastily. "I'm responsible for what goes on in my department, you know. I gotta have some kind of an explanation." He was almost wailing now. "What with budgets coming on, and all."

"Make up your own explana-

tion," Kenzie answered disinterestedly. "It's a cinch you can't give out with the real one."

The Chief began to wheedle. "You two boys know the explanation. Why can't you tell me? This is your Chief who's talking, boys. The one who has always stood by you and covered for you. Remember? You just gotta tell me, boys." I saw Pringle and Kenzie look at one another.

"I guess he's right, Ken," Pringle said. "That is, if he promises never to tell anybody."

"Yeah. I guess so." Kenzie nodded his head in agreement. "We owe him that much for just letting us alone."

The Chief let out a big sigh of relief.

"It's about ants," Kenzie began.

"Now, now, Kenzie boy," the Chief interrupted hurriedly. "Let's stay on the subject, shall we? Let's not get off on that tangent again, Kenzie boy. Shall we?"

"Nuts," Kenzie said.

"But this is about ants, Chief," Pringle answered. Then shrewdly, "But first you gotta promise, Chief."

"All right, I promise," the Chief acceded testily.

"It's about ants," Kenzie repeated stubbornly. The Chief winced, but he held his peace.

"They're intelligent," Kenzie said profoundly, and stopped.

"I know," the Chief prompted. "I know, Kenzie boy. You've been saying that all along."

"I communicated with them," Kenzie said flatly.

"You what?" The Chief's eyes bugged out. I guess mine did too.

"Sure," Kenzie answered. "After a fashion, that is. In their anthers they've got a chitin cell diaphragm. Modified cellular structure. They communicate with a sort of microwave. Roughly you might say it generates and radiates like our brain wave. Roughly, very roughly. This chitin diaphragm picks up the microwave like our ears pick up sound. Roughly, that is."

"But that's wonderful," the Chief glowed. It didn't take much imagination to see him in the General Manager's office explaining how his multiwhoozits gadget worked. Maybe nothing immediately commercial about it, but when the publicity office got hold of it—man, it would mean plenty of free publicity for the Company. And how Old Rock Jaw loved free publicity!

"We tuned in on them," Kenzie was saying. "By putting different kinds of food around, and by making different kinds of disturbances, we worked out a crude sort of vocabulary."

"You did—" the Chief exclaimed.

"Nothing fancy, you understand," Kenzie belittled his achievement. "But enough so when we broadcast a sugar wave, they came running to the surface to see where it was. When we broadcast a water wave, they rushed to the ant nursery and started carrying eggs to high ground."

"Glory be—" the Chief breathed. In his eyes there was the vision of world renowned scientists patting him on the back. Maybe even more important, Old Rock Jaw was actually smiling, and telling him he

could have unlimited funds in his budget.

"Sure," Kenzie said bitterly. "Sure that was all very fine. Big shots, we were going to be, Pringle and me. First time in history man had talked with an insect. Maybe even get our pictures in the paper, same as if we'd murdered somebody. Fame!"

"Yeah," Pringle chimed in. "First step in learning how to communicate with an alien mind. Nuts!"

"I don't get it," the Chief stammered. "What's wrong with that?"

"Well, we went on perfecting the vocabulary," Kenzie said. "You know. Fining it down. Had the little beggars practically standing on their heads at times with our wave." He grinned at the memory and seemed to shake off some of his lethargy.

"You shoulda been here the night Pringle had them marching in formation." His face fell again.

"We kept on improving the gadget," he said with hangdog attitude. "We still hadn't made direct communication, you understand. Nothing like 'How do you do, Mrs. Ant? This is Kenzie MacKenzie, human, talking.'" Then he sneered at his memory.

"With our microwave we could make them do things. But hell, you can make them run out of the ground by pouring water down their hole. That's not communication! We couldn't seem to contact them direct—make them know we were communicating."

"But you still—" the Chief said. He had visions of every home using a gadget to broadcast "keep away"

signals to ant pests.

"Our gadget was still crude at that point," Kenzie interrupted. "We fined it down, more and more. That's when we began to pick up the star static."

"Star static?" the Chief faltered.

"He wouldn't know about that," Pringle said, and I could detect contempt in his voice, even if the Chief didn't.

"Sure he would," Kenzie corrected. "Everybody knows about the fifty or so stars that send out continuous radio signals, and how we've been trying for years to unscramble them."

"Why certainly," the Chief said, so positively I knew he hadn't heard of it before.

"Anyway," Kenzie said. "The more we worked out the vocabulary code, the more the star signals began to fit right into it. So we decided to break up the thing, and forget all about ants. Honest Chief, you'll never hear me mention the word again."

"Termites either," Pringle chimed in.

"But I still don't understand," the Chief complained. "It still all sounds marvelous. I just don't understand."

"Draw him a picture," Pringle said disgustedly.

"Okay," Kenzie acceded. "How many years would you say ants have been on earth, Chief?"

"Oh, I don't know," the Chief answered. "Quite a few, I'd say."

"Yeah," Kenzie said drily. "Quite a few. At least a million. Unchanged. A perfect life form with a perfect civilization. So perfect, nature hasn't seen any need to

change them for a million years.”

“So what?” the Chief asked. “They’re nothing. We come along and make them do nip ups.”

“Yeah,” Kenzie was bitter again. “We humans go around talking about how brave and smart we are. How someday we might even get so smart we’ll contact other intelligent races on other worlds. Yeah, we’re smart. You know those star radiations?”

“That’s not my specialty, you know,” the Chief answered cautiously.

“Some of those radiations started out from their home planet a million *light* years ago,” Pringle said quietly.

“So what again?” the Chief asked.

“Those radiations,” Kenzie said, “happen to be communications between the galaxies—beamed at the ants. Sort of a continuous radio program broadcast universe wide. It happens the ants, maybe termites, maybe other insects, are spread through all the galaxies. It happens *they* are the dominant intelligent race throughout the universe.” He shrugged in disgust.

“Us big brave humans,” he said contemptuously. “Someday we

might even reach Mars. Hell, those ants have been colonizing for hundreds of millions of years. They’re still communicating. They are the real intelligence on the earth!”

He crushed a cigarette fiercely into a glass ash tray on the desk.

“Only thing man has got, or ever had, was his ego. He’s got to believe he’s top dog, or else he folds and quits. Yeah, we’re smart all right. Hell, we’re so far down the scale the ants don’t even recognize us as a life form at all.”

Pringle nodded soberly. “Yeah,” he said to the Chief, “how would you like to explain a gadget that proved ants have more brains than you have?”

The Chief looked at them with incredulous eyes.

He was still staring at them silently, with a bloodless face, when the office messenger came in and told him the General Manager wished to see him in his office to discuss budgets.

I closed the back office door quietly and went back to work. The other guys clustered around and wanted to know what I heard.

“Nothing,” I said, and looked them straight in the eye. “Nothing at all.”

———— THE END ————

SENATOR O’NOONAN wasn’t chairman of the appropriations committee for nothing. He had an eye for results, and right now that eye was sharper than ever. Two billion dollars worth of silvery ship was shooting for space. His final report? . . . Well, maybe you’d better read PROGRESS REPORT by Mark Clifton and Alex Apostolides in the next issue!

It is rumored that technology might eliminate many useless items from our regulated life of the future—including good, old-fashioned sex. However, let's kibitz for a moment . . .

FIELD TRIP

By Gene Hunter

KIAL was disgusted with the slow, cumbersome train. He disliked using this uncomfortable means of travel, but since he wanted to learn more about these strange creatures who were his ancestors, he had decided to try to become used to their ways.

He was lonely in this strange, backward age and when he unexpectedly saw another being like himself in the same coach, he hastened to make his presence known. He introduced himself and asked politely:

"When are *you* from?"

"8000," the other replied. "Name's Broyk, from VII Galaxy."

"I'm from out XIX way myself," Kial said. "Just a country boy. But 8000—that's only a period ahead of my own time. Maybe you could tell me . . ."

"Ah, ah!" the other admonished. "Remember the First Law of Thek!"

"Oh, Center," Kial grumbled. "I know: 'One may not divulge

any scientific, technical or social information to anyone from his own past whom he may meet at an equidistant point in a Thek-travel.' I forgot."

"Bad," Broyk said. Then he added, almost jokingly: "You wouldn't want to be marooned in this dismal era, would you?"

Kial shuddered. "Of course not. But the Laws seem so ridiculous."

"Not a bit," Broyk said, warming up to the subject. "It's very simple, really. Same principle that doesn't allow anyone to Thek-travel into the future.

"Look. I'm from 8000. Say that I went into 12,000, where I memorized as much information as I could on some subject such as medicine. So I return to 8000, retaining all such knowledge in my mind that's been learned in four periods. Therefore, I'd have knowledge that wasn't dreamed of in my own time, but was discovered sometime during the next four periods. But then it couldn't be discovered,

because I'd brought it back to 8000 and—well, I'm no Logician, but you see my point."

"Oh, it's reasonable, I suppose," Kial admitted. "I realize the Laws are really for our own good. By the way—I'm here on a field trip to gather material for my thesis on Advanced Therapeutical Psychology and its development since the Twentieth Century. What phase of this era are you here to study?"

"I—I'm afraid I couldn't tell you that," Broyk said. "It's of rather a secret nature and . . ."

"You mean we might violate a Law and be stuck here for good—is that it?"

"Yes—in a way."

Frightened, Kial let the matter drop. His gaze wandered through the coach, examining the other passengers with interest. As time travelers from a different space-time plane from their 20th Century ancestors, he and Broyk were naturally invisible to their fellow travelers.

Two pompous old gentlemen were lighting cigars and Kial was about to remark on the habit of smoking when he noticed an even more remarkable phenomenon. A few seats ahead of them sat a good-looking young couple, oblivious to others about them.

"Look!" Kial cried excitedly. "Lovers! Honeymooners! I've read about such things! Isn't it disgusting?"

"Oh, I don't know," Broyk said, a little wistfully. "I sometimes think it was a mistake for Center to do away with sex. It must have been interesting."

"Atavist!" Kial snapped in horror.

Had his peoples' emotional make-up provided for blushing, Kial would undoubtedly have turned beet-red. Broyk's words had caused him acute embarrassment.

AS HE SAT reflecting upon his strange companion, he suddenly began to feel a sensation he had often heard about but never before had experienced. Terror and dismay filled him as he sought to throw off the probing finger that was penetrating his mind.

He looked at Broyk. There was the faintest notion of a smile on the other's face as he said: "Yes, Kial—I am a Telepath."

Kial's mind reeled. He felt himself on the brink of some gigantic abyss and then, as suddenly as it had come, the searching sensation faded away.

"Since you are unable to enter my mind," Broyk said calmly, "it's only fair that I tell you about myself. You were right—I'm an atavist. Even in period 8000, such things can happen. Always such creatures are destroyed after their first psychotests, but my case was different. The Controller who bred me was only a dabbler in such things. I was a failure, but he took a fancy to me. I was allowed to mature secretly—few people knew of my existence. When I reached my majority my presence became dangerous and I was sent back into time to try and find the proper place for myself. And I think I've found it—here!"

Kial was a very amazed young

man. "But such a barbarous age," he complained. "Sex and atom bombs and everything . . ."

"Remember," Broyk smiled, "these people are the forebears of the geniuses who created Center and the Galactic Empire. They'll survive, despite their barbarism. The existence of Center is proof."

"It's rather horrible to contemplate," Kial said thoughtfully, calmer now, "and yet, this might really be a great age. In a way I almost envy you."

"Of course you do," Broyk said. "You have certain tendencies—they bother you, although you manage to hide them well. I discovered them when I took the liberty of telepathing you. Artificial Genetics isn't perfect, even in our time—perhaps because we originally sprang from man. Perhaps we'll never be quite perfect, because of that, even after thousands of periods of breeding."

Kial took another look at the

loving young couple. "It—it might be fun, after all."

Broyk laughed. "You needn't envy me at all, you know."

Kial frowned.

"I'm telling you about myself," Broyk went on, "I have also told you of a specific condition existing a period ahead of your own time. Remember the First Law?"

"Center!"

"We're marooned in the Twentieth Century. You have to accept it."

"But what will we *do*?" Kial's mind was reeling again.

"Since we've already broken the First Law," Broyk said, "we may just as well break the Second: 'No Thek-traveler may enter the body of a native of a foreign space-time . . .'"

The young lovers kissed again and this time there seemed to be an added zest, even to their passionate embrace.

———— THE END ————

JUPITER FIVE

(Continued from page 28)

ings. (For the record, it wasn't—though it's still considerable and Bloomsbury will never be quite the same to me again.) A huge crowd was milling around the gallery, and there in the middle of it were Mays and Marianne.

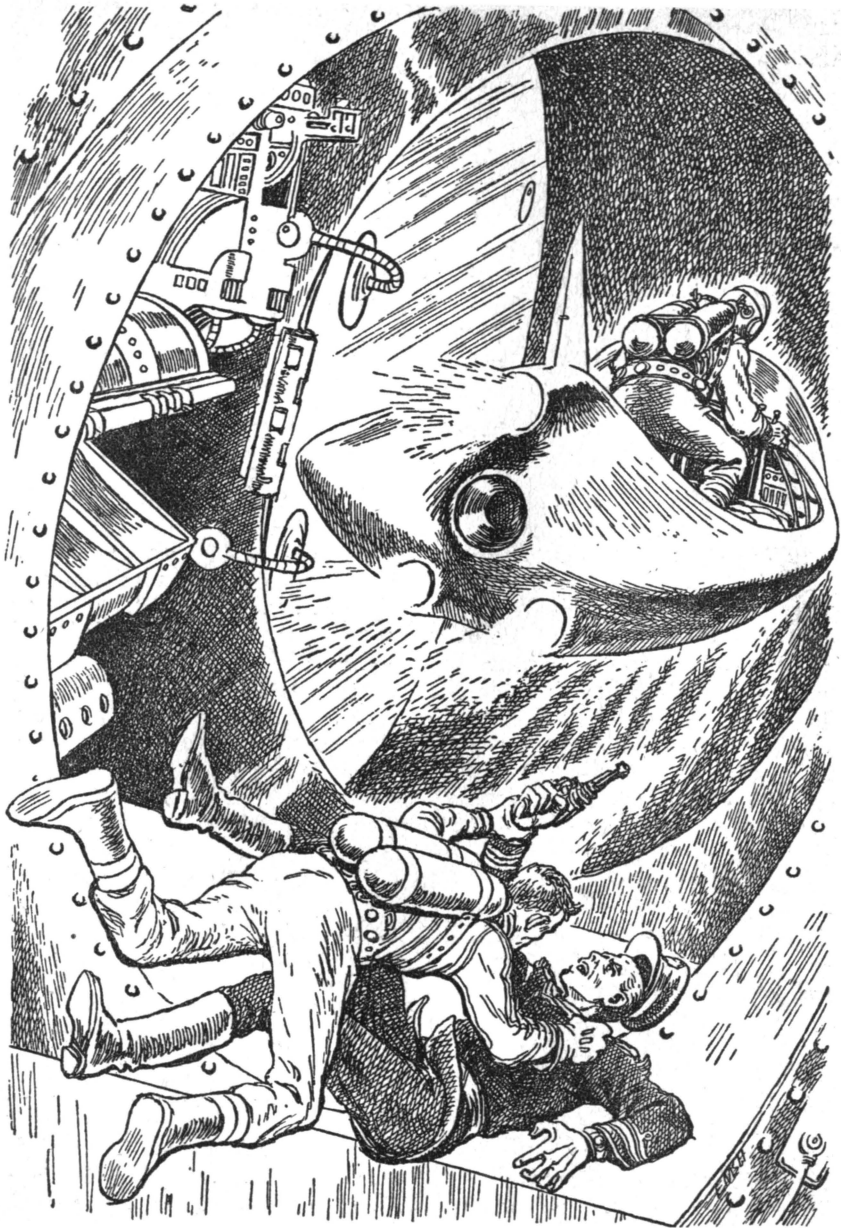
It ended up with us having a very pleasant lunch together in

Holborn. I'll say this about Mays—he was very pleasant and treated the affair on Five as a huge joke. And Marianne was pretty as she could be. She laughed too.

But I'm still rather sore about Marianne.

"Frankly, I can't imagine *what* she sees in *him*.

———— THE END ————



What was the mystery of this great ship from the dark, deep reaches of space? For, within its death-filled chambers—was the avenue of life!

DERELICT

By Alan E. Nourse

Illustrated by Ed Emsch

JOHN SABO, second in command, sat bolt upright in his bunk, blinking wide-eyed at the darkness. The alarm was screaming through the Satellite Station, its harsh, nerve-jarring clang echoing and re-echoing down the metal corridors, penetrating every nook and crevice and cubicle of the lonely outpost, screaming incredibly through the dark sleeping period. Sabo shook the sleep from his eyes, and then a panic of fear burst into his mind. The alarm! Tumbling out of his bunk in the darkness, he crashed into the far bulkhead, staggering giddily in the impossible gravity as he pawed about for his magnaboots, his heart pounding fiercely in his ears. The *alarm!* Impossible, after so long, after these long months of bitter waiting— In the corridor he collided with Brownie, looking like a frightened gnome, and he growled

profanity as he raced down the corridor for the Central Control.

Frightened eyes turned to him as he blinked at the bright lights of the room. The voices rose in a confused, anxious babble, and he shook his head and swore, and ploughed through them toward the screen. "Kill that damned alarm!" he roared, blinking as he counted faces. "Somebody get the Skipper out of his sack, pronto, and stop that clatter! What's the trouble?"

The radioman waved feebly at the view screen, shimmering on the great side panel. "We just picked it up—"

It was a ship, moving in from beyond Saturn's rings, a huge, gray-black blob in the silvery screen, moving in toward the Station with ponderous, clumsy grace, growing larger by the second as it sped toward them. Sabo felt the fear spill over in his mind, driving

out all thought, and he sank into the control chair like a well-trained automaton. His gray eyes were wide, trained for long military years to miss nothing; his fingers moved over the panel with deft skill. "Get the men to stations," he growled, "and will somebody kindly get the Skipper down here, if he can manage to take a minute."

"I'm right here." The little gray-ing man was at his elbow, staring at the screen with angry red eyes. "Who told you to shut off the alarm?"

"Nobody told me. Everyone was here, and it was getting on my nerves."

"What a shame." Captain Loomis' voice was icy. "I give orders on this Station," he said smoothly, "and you'll remember it." He scowled at the great gray ship, looming closer and closer. "What's its course?"

"Going to miss us by several thousand kilos at least. Look at that thing! It's *traveling*."

"Contact it! This is what we've been waiting for." The captain's voice was hoarse.

Sabo spun a dial, and cursed. "No luck. Can't get through. It's passing us—"

"Then *grapple* it, stupid! You want me to wipe your nose, too?"

Sabo's face darkened angrily. With slow precision he set the servo fixes on the huge gray hulk looming up in the viewer, and then snapped the switches sharply. Two small servos shoved their blunt noses from the landing port of the Station, and slipped silently into space alongside. Then, like a pair of trained dogs, they sped on their

beams straight out from the Station toward the approaching ship. The intruder was dark, moving at tremendous velocity past the Station, as though unaware of its existence. The servos moved out, and suddenly diverged and reversed, twisting in long arcs to come alongside the strange ship, finally moving in at the same velocity on either side. There was a sharp flash of contact power; then, like a mammoth slow-motion monster, the ship jerked in midspace and turned a graceful end-for-end arc as the servo-grapplers gripped it like leeches and whined, glowing ruddy with the jolting power flowing through them. Sabo watched, hardly breathing, until the great ship spun and slowed and stopped. Then it reversed direction, and the servos led it triumphantly back toward the landing port of the Station.

Sabo glanced at the radioman, a frown creasing his forehead. "Still nothing?"

"Not a peep."

He stared out at the great ship, feeling a chill of wonder and fear crawl up his spine. "So this is the mysterious puzzle of Saturn," he muttered. "This is what we've been waiting for."

There was a curious eager light in Captain Loomis' eyes as he looked up. "Oh, no. Not this."

"What?"

"Not this. The ships we've seen before were tiny, flat." His little eyes turned toward the ship, and back to Sabo's heavy face. "This is something else, something quite different." A smile curved his lips, and he rubbed his hands together. "We go out for trout and come

back with a whale. This ship's from space, deep space. Not from Saturn. This one's from the stars."

THE STRANGE ship hung at the side of the Satellite Station, silent as a tomb, still gently rotating as the Station slowly spun in its orbit around Saturn.

In the captain's cabin the men shifted restlessly, uneasily facing the eager eyes of their captain. The old man paced the floor of the cabin, his white hair mussed, his face red with excitement. Even his carefully calm face couldn't conceal the eagerness burning in his eyes as he faced the crew. "Still no contact?" he asked Sparks.

The radioman shook his head anxiously. "Not a sign. I've tried every signal I know at every wave frequency that could possibly reach them. I've even tried a dozen frequencies that couldn't possibly reach them, and I haven't stirred them up a bit. They just aren't answering."

Captain Loomis swung on the group of men. "All right, now, I want you to get this straight. This is our catch. We don't know what's aboard it, and we don't know where it came from, but it's our prize. That means not a word goes back home about it until we've learned all there is to learn. We're going to get the honors on this one, not some eager Admiral back home—"

The men stirred uneasily, worried eyes seeking Sabo's face in alarm. "What about the law?" growled Sabo. "The law says everything must be reported within

two hours."

"Then we'll break the law," the captain snapped. "I'm captain of this Station, and those are your orders. You don't need to worry about the law—I'll see that you're protected, but this is too big to fumble. This ship is from the stars. That means it must have an Interstellar drive. You know what that means. The Government will fall all over itself to reward us—"

Sabo scowled, and the worry deepened in the men's faces. It was hard to imagine the Government falling all over itself for anybody. They knew too well how the Government worked. They had heard of the swift trials, the harsh imprisonments that awaited even the petty infringers. The Military Government had no time to waste on those who stepped out of line, they had no mercy to spare. And the men knew that their captain was not in favor in top Government circles. Crack patrol commanders were not shunted into remote, lifeless Satellite Stations if their stand in the Government was high. And deep in their minds, somehow, the men knew they couldn't trust this little, sharp-eyed, white-haired man. The credit for such a discovery as this might go to him, yes—but there would be little left for them.

"The law—" Sabo repeated stubbornly.

"Damn the law! We're stationed out here in this limbo to watch Saturn and report any activity we see coming from there. There's nothing in our orders about anything else. There have been ships from there, they think, but not this ship.

The Government has spent billions trying to find an Interstellar, and never gotten to first base." The captain paused, his eyes narrowing. "We'll go aboard this ship," he said softly. "We'll find out what's aboard it, and where it's from, and we'll take its drive. There's been no resistance yet, but it could be dangerous. We can't assume anything. The boarding party will report everything they find to me. One of them will have to be a drive man. That's you, Brownie."

The little man with the sharp black eyes looked up eagerly. "I don't know if I could tell anything—"

"You can tell more than anyone else here. Nobody else knows space drive. I'll count on you. If you bring back a good report, perhaps we can cancel out certain—unfortunate items in your record. But one other should board with you—" His eyes turned toward John Sabo.

"Not me. This is your goat." The mate's eyes were sullen. "This is gross breach, and you know it. They'll have you in irons when we get back. I don't want anything to do with it."

"You're under orders, Sabo. You keep forgetting."

"They're illegal orders, sir!"

"I'll take responsibility for that."

Sabo looked the old man straight in the eye. "You mean you'd sell us down a rat hole to save your skin. That's what you mean."

Captain Loomis' eyes widened incredulously. Then his face darkened, and he stepped very close to the big man. "You'll watch your tongue, I think," he gritted. "Be

careful what you say to me, Sabo. Be very careful. Because if you don't, *you'll* be in irons, and we'll see just how long you last when you get back home. Now you've got your orders. You'll board the ship with Brownie."

The big man's fists were clenched until the knuckles were white. "You don't know what's over there!" he burst out. "We could be slaughtered."

The captain's smile was unpleasant. "That would be such a pity," he murmured. "I'd really hate to see it happen—"

THE SHIP hung dark and silent, like a shadowy ghost. No flicker of light could be seen aboard it; no sound nor faintest sign of life came from the tall, dark hull plates. It hung there, huge and imponderable, and swung around with the Station in its silent orbit.

The men huddled about Sabo and Brownie, helping them into their pressure suits, checking their equipment. They had watched the little scanning beetles crawl over the surface of the great ship, examining, probing every nook and crevice, reporting crystals, and metals, and irons, while the boarding party prepared. And still the radioman waited alertly for a flicker of life from the solemn giant.

Frightened as they were of their part in the illegal secrecy, the arrival of the ship had brought a change in the crew, lighting fires of excitement in their eyes. They moved faster, their voices were lighter, more cheerful. Long months on the Station had worn on

their nerves—out of contact with their homes, on a mission that was secretly jeered as utter Governmental folly. Ships *had* been seen, years before, disappearing into the sullen bright atmospheric crust of Saturn, but there had been no sign of anything since. And out there, on the lonely guard Station, nerves had run ragged, always waiting, always watching, wearing away even the iron discipline of their military background. They grew bitterly weary of the same faces, the same routine, the constant repetition of inactivity. And through the months they had watched with increasing anxiety the conflict growing between the captain and his bitter, sullen-eyed second-in-command, John Sabo.

And then the ship had come, incredibly, from the depths of space, and the tensions of loneliness were forgotten in the flurry of activity. The locks whined and opened as the two men moved out of the Station on the little propulsion sleds, linked to the Station with light silk guy ropes. Sabo settled himself on the sled, cursing himself for falling so foolishly into the captain's scheme, cursing his tongue for wandering. And deep within him he felt a new sensation, a vague uneasiness and insecurity that he had not felt in all his years of military life. The strange ship was a variant, an imponderable factor thrown suddenly into his small world of hatred and bitterness, forcing him into unknown territory, throwing his mind into a welter of doubts and fears. He glanced uneasily across at Brownie, vaguely wishing that someone else were

with him. Brownie was a troublemaker, Brownie talked too much, Brownie philosophized in a world that ridiculed philosophy. He'd known men like Brownie before, and he knew that they couldn't be trusted.

The gray hull gleamed at them as they moved toward it, a monstrous wall of polished metal. There were no dents, no surface scars from its passage through space. They found the entrance lock without difficulty, near the top of the ship's great hull, and Brownie probed the rim of the lock with a dozen instruments, his dark eyes burning eagerly. And then, with a squeal that grated in Sabo's ears, the oval port of the ship quivered, and slowly opened.

Silently, the sleds moved into the opening. They were in a small vault, quite dark, and the sleds settled slowly onto a metal deck. Sabo eased himself from the seat, tuning up his audios to their highest sensitivity, moving over to Brownie. Momentarily they touched helmets, and Brownie's excited voice came to him, muted, but breathless. "No trouble getting it open. It worked on the same principle as ours."

"Better get to work on the inner lock."

Brownie shot him a sharp glance. "But what about—inside? I mean, we can't just walk in on them—"

"Why not? We've tried to contact them."

Reluctantly, the little engineer began probing the inner lock with trembling fingers. Minutes later they were easing themselves through, moving slowly down the dark corridor, waiting with pound-

ing hearts for a sound, a sign. The corridor joined another, and then still another, until they reached a great oval door. And then they were inside, in the heart of the ship, and their eyes widened as they stared at the thing in the center of the great vaulted chamber.

"My God!" Brownie's voice was a hoarse whisper in the stillness. "Look at them, Johnny!"

Sabo moved slowly across the room toward the frail, crushed form lying against the great, gleaming panel. Thin, almost boneless arms were pasted against the hard metal; an oval, humanoid skull was crushed like an eggshell into the knobs and levers of the control panel. Sudden horror shot through the big man as he looked around. At the far side of the room was another of the things, and still another, mashed, like lifeless jelly, into the floors and panels. Gently he peeled a bit of jelly away from the metal, then turned with a mixture of wonder and disgust. "All dead," he muttered.

Brownie looked up at him, his hands trembling. "No wonder there was no sign." He looked about helplessly. "It's a derelict, Johnny. A wanderer. How could it have happened? How long ago?"

Sabo shook his head, bewildered. "Then it was just chance that it came to us, that we saw it—"

"No pilot, no charts. It might have wandered for centuries." Brownie stared about the room, a frightened look on his face. And then he was leaning over the control panel, probing at the array of levers, his fingers working eagerly at the wiring. Sabo nodded ap-

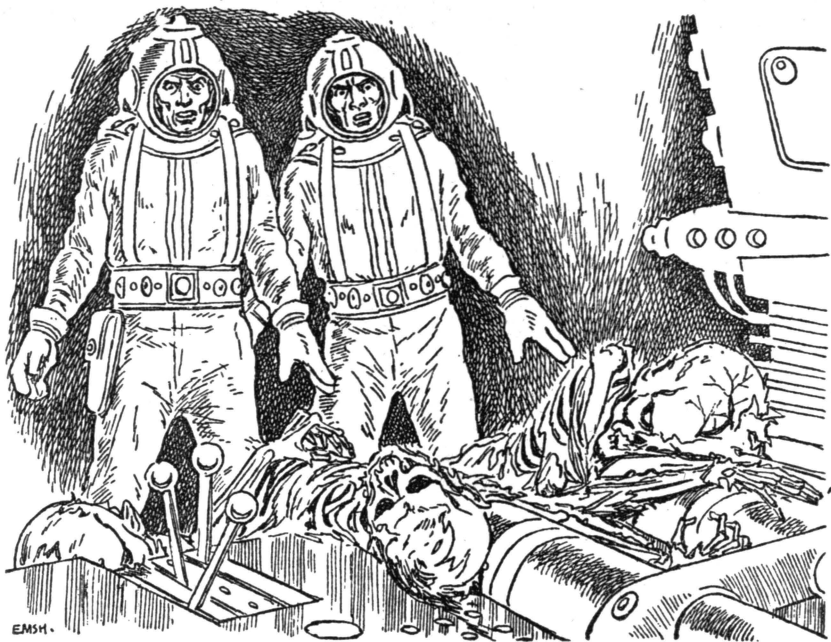
provingly. "We'll have to go over it with a comb," he said. "I'll see what I can find in the rest of the ship. You go ahead on the controls and drive." Without waiting for an answer he moved swiftly from the round chamber, out into the corridor again, his stomach almost sick.

It took them many hours. They moved silently, as if even a slight sound might disturb the sleeping alien forms, smashed against the dark metal panels. In another room were the charts, great, beautiful charts, totally unfamiliar, studded with star formations he had never seen, noted with curious, meaningless symbols. As Sabo worked he heard Brownie moving down into the depths of the ship, toward the giant engine rooms. And then, some silent alarm clicked into place in Sabo's mind, tightening his stomach, screaming to be heard. Heart pounding, he dashed down the corridor like a cat, seeing again in his mind the bright, eager eyes of the engineer. Suddenly the meaning of that eagerness dawned on him. He scampered down a ladder, along a corridor, and down another ladder, down to the engine room, almost colliding with Brownie as he crossed from one of the engines to a battery of generators on the far side of the room.

"Brownie!"

"What's the trouble?"

Sabo trembled, then turned away. "Nothing," he muttered. "Just a thought." But he watched as the little man snaked into the labyrinth of dynamos and coils and wires, peering eagerly, probing, searching, making notes in the lit-



tle pad in his hand.

Finally, hours later, they moved again toward the lock where they had left their sleds. Not a word passed between them. The uneasiness was strong in Sabo's mind now, growing deeper, mingling with fear and a premonition of impending evil. A dead ship, a derelict, come to them by merest chance from some unthinkably remote star. He cursed, without knowing why, and suddenly he felt he hated Brownie as much as he hated the captain waiting for them in the Station.

But as he stepped into the Station's lock, a new thought crossed his mind, almost dazzling him with its unexpectedness. He looked at the engineer's thin face, and his

hands were trembling as he opened the pressure suit.

HE DELIBERATELY took longer than was necessary to give his report to the captain, dwelling on unimportant details, watching with malicious amusement the captain's growing annoyance. Captain Loomis' eyes kept sliding to Brownie, as though trying to read the information he wanted from the engineer's face. Sabo rolled up the charts slowly, stowing them in a pile on the desk. "That's the picture, sir. Perhaps a qualified astronomer could make something of it; I haven't the knowledge or the instruments. The ship came from outside the system, beyond doubt.

Probably from a planet with lighter gravity than our own, judging from the frailty of the creatures. Oxygen breathers, from the looks of their gas storage. If you ask me, I'd say—"

"All right, all right," the captain breathed impatiently. "You can write it up and hand it to me. It isn't really important where they came from, or whether they breathe oxygen or fluorine." He turned his eyes to the engineer, and lit a cigar with trembling fingers." The important thing is *how* they got here. The drive, Brownie. You went over the engines carefully? What did you find?"

Brownie twitched uneasily, and looked at the floor. "Oh, yes, I examined them carefully. Wasn't too hard. I examined every piece of drive machinery on the ship, from stem to stern."

Sabo nodded, slowly, watching the little man with carefully blank face. "That's right. You gave it a good going over."

Brownie licked his lips. "It's a derelict, like Johnny told you. They were dead. All of them. Probably had been dead for a long time. I couldn't tell, of course. Probably nobody could tell. But they must have been dead for centuries—"

The captain's eyes blinked as the implication sank in. "Wait a minute," he said. "What do you mean, *centuries?*"

Brownie stared at his shoes. "The atomic piles were almost dead," he muttered in an apologetic whine. "The ship wasn't going any place, captain. It was just wandering. Maybe it's wandered

for thousands of years." He took a deep breath, and his eyes met the captain's for a brief agonized moment. "They don't have Interstellar, sir. Just plain, simple, slow atomics. Nothing different. They've been traveling for centuries, and it would have taken them just as long to get back.

The captain's voice was thin, choked. "Are you trying to tell me that their drive is no different from our own? That a ship has actually wandered into Interstellar space *without a space drive?*"

Brownie spread his hands helplessly. "Something must have gone wrong. They must have started off for another planet in their own system, and something went wrong. They broke into space, and they all died. And the ship just went on moving. They never intended an Interstellar hop. They couldn't have. They didn't have the drive for it."

The captain sat back numbly, his face pasty gray. The light had faded in his eyes now; he sat as though he'd been struck. "You—you couldn't be wrong? You couldn't have missed anything?"

Brownie's eyes shifted unhappily, and his voice was very faint. "No, sir."

The captain stared at them for a long moment, like a stricken child. Slowly he picked up one of the charts, his mouth working. Then, with a bitter roar, he threw it in Sabo's face. "Get out of here! Take this garbage and get out! And get the men to their stations. We're here to watch Saturn, and by god, we'll watch Saturn!" He turned away, a hand over his eyes, and

they heard his choking breath as they left the cabin.

Slowly, Brownie walked out into the corridor, started down toward his cabin, with Sabo silent at his heels. He looked up once at the mate's heavy face, a look of pleading in his dark brown eyes, and then opened the door to his quarters. Like a cat, Sabo was in the room before him, dragging him in, slamming the door. He caught the little man by the neck with one savage hand, and shoved him unceremoniously against the door, his voice a vicious whisper. "*All right, talk! Let's have it now!*"

Brownie choked, his eyes bulging, his face turning gray in the dim light of the cabin. "Johnny! Let me down! What's the matter? You're choking me, Johnny—"

The mate's eyes were red, with heavy lines of disgust and bitterness running from his eyes and the corners of his mouth. "You stinking little liar! *Talk*, damn it! You're not messing with the captain now, you're messing with *me*, and I'll have the truth if I have to cave in your skull—"

"I told you the truth! I don't know what you mean—"

Sabo's palm smashed into his face, jerking his head about like an apple on a string. "That's the wrong answer," he grated. "I warn you, don't lie! The captain is an ambitious ass, he couldn't think his way through a multiplication table. He's a little child. But I'm not quite so dull." He threw the little man down in a heap, his eyes blazing. "You silly fool, your story is so full of holes you could drive a tank through it. They just up and

died, did they? I'm supposed to believe that? Smashed up against the panels the way they were? Only one thing could crush them like that. Any fool could see it. Acceleration. And I don't mean atomic acceleration. Something else." He glared down at the man quivering on the floor. "They had Interstellar drive, didn't they, Brownie?"

Brownie nodded his head, weakly, almost sobbing, trying to pull himself erect. "Don't tell the captain," he sobbed. "Oh, Johnny, for god's sake, listen to me, don't let him know I lied. I was going to tell you anyway, Johnny, really I was. I've got a plan, a good plan, can't you see it?" The gleam of excitement came back into the sharp little eyes. "They had it, all right. Their trip probably took just a few months. They had a drive I've never seen before, non-atomic. I couldn't tell the principle, with the look I had, but I think I could work it." He sat up, his whole body trembling. "Don't give me away, Johnny, listen a minute—"

Sabo sat back against the bunk, staring at the little man. "You're out of your mind," he said softly. "You don't know what you're doing. What are you going to do when his Nibs goes over for a look himself? He's stupid, but not that stupid."

Brownie's voice choked, his words tumbling over each other in his eagerness. "He won't get a chance to see it, Johnny. He's got to take our word until he sees it, and we can stall him—"

Sabo blinked. "A day or so—maybe. But what then? Oh, how could you be so stupid? He's on the

skids, he's out of favor and fighting for his life. That drive is the break that could put him on top. Can't you see he's selfish? He has to be, in this world, to get anything. Anything or anyone who blocks him, he'll destroy, if he can. Can't you see that? When he spots this, your life won't be worth spitting at."

Brownie was trembling as he sat down opposite the big man. His voice was harsh in the little cubicle, heavy with pain and hopelessness. "That's right," he said. "My life isn't worth a nickle. Neither is yours. Neither is anybody's, here or back home. Nobody's life is worth a nickle. Something's happened to us in the past hundred years, Johnny—something horrible. I've seen it creeping and growing up around us all my life. People don't matter any more, it's the Government, what the Government thinks that matters. It's a web, a cancer that grows in its own pattern, until it goes so far it can't be stopped. Men like Loomis could see the pattern, and adapt to it, throw away all the worthwhile things, the love and beauty and peace that we once had in our lives. Those men can get somewhere, they can turn this life into a climbing game, waiting their chance to get a little farther toward the top, a little closer to some semblance of security—"

"Everybody adapts to it," Sabo snapped. "They have to. You don't see me moving for anyone else, do you? I'm for *me*, and believe me I know it. I don't give a hang for you, or Loomis, or anyone else alive—just me. I want to stay alive, that's all. You're a dreamer, Brownie. But until you pull some-

thing like this, you can learn to stop dreaming if you want to—"

"No, no, you're wrong—oh, you're horribly wrong, Johnny. Some of us *can't* adapt, we haven't got what it takes, or else we have something else in us that won't let us go along. And right there we're beat before we start. There's no place for us now, and there never will be." He looked up at the mate's impassive face. "We're in a life where we don't belong, impounded into a senseless, never-ending series of fights and skirmishes and long, lonely waits, feeding this insane urge of the Government to expand, out to the planets, to the stars, farther and farther, bigger and bigger. We've got to go, seeking newer and greater worlds to conquer, with nothing to conquer them with, and nothing to conquer them for. There's life somewhere else in our solar system, so it must be sought out and conquered, no matter what or where it is. We live in a world of iron and fear, and there was no place for me, and others like me, *until this ship came—*"

Sabo looked at him strangely. "So I was right. I read it on your face when we were searching the ship. I knew what you were thinking . . ." His face darkened angrily. "You couldn't get away with it, Brownie. Where could you go, what could you expect to find? You're talking death, Brownie. Nothing else—"

"No, no. Listen, Johnny." Brownie leaned closer, his eyes bright and intent on the man's heavy face. "The captain has to take our word for it, until he sees

the ship. Even then he couldn't tell for sure—I'm the only drive engineer on the Station. We have the charts, we could work with them, try to find out where the ship came from; I already have an idea of how the drive is operated. Another look and I could make it work. Think of it, Johnny! What difference does it make where we went, or what we found? You're a misfit, too, you know that—this coarseness and bitterness is a shell, if you could only see it, a sham. You don't really believe in this world we're in—who cares where, if only we could go, get away? Oh, it's a chance, the wildest, freak chance, but we could take it—"

"If only to get away from *him*," said Sabo in a muted voice. "Lord, how I hate him. I've seen smallness and ambition before—pettiness and treachery, plenty of it. But that man is our whole world knotted up in one little ball. I don't think I'd get home without killing him, just to stop that voice from talking, just to see fear cross his face one time. But if we took the ship, it would break him for good." A new light appeared in the big man's eyes. "He'd be through, Brownie. Washed up."

"And we'd be *free*—"

Sabo's eyes were sharp. "What about the acceleration? It killed those that came in the ship."

"But they were so frail, so weak. Light brittle bones and soft jelly. Our bodies are stronger, we could stand it."

Sabo sat for a long time, staring at Brownie. His mind was suddenly confused by the scope of the idea, racing in myriad twirling fantasies,

parading before his eyes the long, bitter, frustrating years, the hopelessness of his own life, the dull aching feeling he felt deep in his stomach and bones each time he set back down on Earth, to join the teeming throngs of hungry people. He thought of the rows of drab apartments, the thin faces, the hollow, hunted eyes of the people he had seen. He knew that that was why he was a soldier—because soldiers ate well, they had time to sleep, they were never allowed long hours to think, and wonder, and grow dull and empty. But he knew his life had been barren. The life of a mindless automaton, moving from place to place, never thinking, never daring to think or speak, hoping only to work without pain each day, and sleep without nightmares.

And then, he thought of the nights in his childhood, when he had lain awake, sweating with fear, as the airships screamed across the dark sky above, bound he never knew where; and then, hearing in the far distance the booming explosion, he had played that horrible little game with himself, seeing how high he could count before he heard the weary, plodding footsteps of the people on the road, moving on to another place. He had known, even as a little boy, that the only safe place was in those bombers, that the place for survival was in the striking armies, and his life had followed the hard-learned pattern, twisting him into the cynical mold of the mercenary soldier, dulling the quick and clever mind, drilling into him the ways and responses of order and obey, strip-

ping him of his heritage of love and humanity. Others less thoughtful had been happier; they had succeeded in forgetting the life they had known before, they had been able to learn easily and well the lessons of the repudiation of the rights of men which had crept like a blight through the world. But Sabo, too, was a misfit, wrenched into a mold he could not fit. He had sensed it vaguely, never really knowing when or how he had built the shell of toughness and cynicism, but also sensing vaguely that it was built, and that in it he could hide, somehow, and laugh at himself, and his leaders, and the whole world through which he plodded. He had laughed, but there had been long nights, in the narrow darkness of spaceship bunks, when his mind pounded at the shell, screaming out in nightmare, and he had wondered if he had really lost his mind.

His gray eyes narrowed as he looked at Brownie, and he felt his heart pounding in his chest, pounding with a fury that he could no longer deny. "It would have to be fast," he said softly. "Like lightning, tonight, tomorrow—very soon."

"Oh, yes, I know that. But we can do it—"

"Yes," said Sabo, with a hard, bitter glint in his eyes. "Maybe we can."

THE PREPARATION was tense. For the first time in his life, Sabo knew the meaning of real fear, felt the clinging aura of sudden death in every glance, every

word of the men around him. It seemed incredible that the captain didn't notice the brief exchanges with the little engineer, or his own sudden appearances and disappearances about the Station. But the captain sat in his cabin with angry eyes, snapping answers without even looking up. Still, Sabo knew that the seeds of suspicion lay planted in his mind, ready to burst forth with awful violence at any slight provocation. As he worked, the escape assumed greater and greater proportions in Sabo's mind; he knew with increasing urgency and daring that nothing must stop him. The ship was there, the only bridge away from a life he could no longer endure, and his determination blinded him to caution.

Primarily, he pondered over the charts, while Brownie, growing hourly more nervous, poured his heart into a study of his notes and sketches. A second look at the engines was essential; the excuse he concocted for returning to the ship was recklessly slender, and Sabo spent a grueling five minutes dissuading the captain from accompanying him. But the captain's eyes were dull, and he walked his cabin, sunk in a gloomy, remorseful trance.

The hours passed, and the men saw, in despair, that more precious, dangerous hours would be necessary before the flight could be attempted. And then, abruptly, Sabo got the call to the captain's cabin. He found the old man at his desk, regarding him with cold eyes, and his heart sank. The captain motioned him to a seat, and then sat

back, lighting a cigar with painful slowness. "I want you to tell me," he said in a lifeless voice, "exactly what Brownie thinks he's doing."

Sabo went cold. Carefully he kept his eyes on the captain's face. "I guess he's nervous," he said. "He doesn't belong on a Satellite Station. He belongs at home. The place gets on his nerves."

"I didn't like his report."

"I know," said Sabo.

The captain's eyes narrowed. "It was hard to believe. Ships don't just happen out of space. They don't wander out interstellar by accident, either." An unpleasant smile curled his lips. "I'm not telling you anything new. I wouldn't want to accuse Brownie of lying, of course—or you either. But we'll know soon. A patrol craft will be here from the Triton supply base in an hour. I signalled as soon as I had your reports." The smile broadened maliciously. "The patrol craft will have experts aboard. Space drive experts. They'll review your report."

"An hour—"

The captain smiled. "That's what I said. In that hour, you could tell me the truth. I'm not a drive man, I'm an administrator, and organizer and director. You're the technicians. The truth now could save you much unhappiness—in the future."

Sabo stood up heavily. "You've got your information," he said with a bitter laugh. "The patrol craft will confirm it."

The captain's face went a shade greyer. "All right," he said. "Go ahead, laugh. I told you, anyway."

Sabo didn't realize how his

hands were trembling until he reached the end of the corridor. In despair he saw the plan crumbling beneath his feet, and with the despair came the cold undercurrent of fear. The patrol would discover them, disclose the hoax. There was no choice left—ready or not, they'd have to leave.

Quickly he turned in to the central control room where Brownie was working. He sat down, repeating the captain's news in a soft voice.

"An hour! But how can we—"

"We've got to. We can't quit now, we're dead if we do."

Brownie's eyes were wide with fear. "But can't we stall them, somehow? Maybe if we turned on the captain—"

"The crew would back him. They wouldn't dare go along with us. We've got to run, nothing else." He took a deep breath. "Can you control the drive?"

Brownie stared at his hands. "I—I think so. I can only try."

"You've got to. It's now or never. Get down to the lock, and I'll get the charts. Get the sleds ready."

He scooped the charts from his bunk, folded them carefully and bound them swiftly with cord. Then he ran silently down the corridor to the landing port lock. Brownie was already there, in the darkness, closing the last clamps on his pressure suit. Sabo handed him the charts, and began the laborious task of climbing into his own suit, panting in the darkness.

And then the alarm was clanging in his ear, and the lock was flooded with brilliant light. Sabo stopped short, a cry on his lips,

staring at the entrance to the control room.

The captain was grinning, a nasty, evil grin, his eyes hard and humorless as he stood there flanked by three crewmen. His hand gripped an ugly power gun tightly. He just stood there, grinning, and his voice was like fire in Sabo's ears. "Too bad," he said softly. "You almost made it, too. Trouble is, two can't keep a secret. Shame, Johnny, a smart fellow like you. I might have expected as much from Brownie, but I thought you had more sense—"

Something snapped in Sabo's mind, then. With a roar, he lunged at the captain's feet, screaming his bitterness and rage and frustration, catching the old man's calves with his powerful shoulders. The captain toppled, and Sabo was fighting for the power gun, straining with all his might to twist the gun from the thin hand, and he heard his voice shouting, "Run! Go, *Brownie*, make it go!"

The lock was open, and he saw Brownie's sled nose out into the blackness. The captain choked, his face purple. "Get him! Don't let him get away!"

The lock clanged, and the screens showed the tiny fragile sled jet out from the side of the Station, the small huddled figure clinging to it, heading straight for the open port of the grey ship. "Stop him! The guns, you fools, the guns!"

The alarm still clanged, and the control room was a flurry of activity. Three men snapped down behind the tracer-guns, firing without aiming, in a frenzied attempt to catch the fleeing sled. The sled

began zig-zagging, twisting wildly as the shells popped on either side of it. The captain twisted away from Sabo's grip with a roar, and threw one of the crewmen to the deck, wrenching the gun controls from his hands. "Get the big ones on the ship! Blast it! If it gets away you'll all pay."

Suddenly the sled popped into the ship's port, and the hatch slowly closed behind it. Raving, the captain turned the gun on the sleek, polished hull plates, pressed the firing levels on the war-head servos. Three of them shot out from the Satellite, like deadly bugs, careening through the intervening space, until one of them struck the side of the gray ship, and exploded in purple fury against the impervious hull. And the others nosed into the flame, and passed on through, striking nothing.

Like the blinking of a light, the alien ship had throbbled, and jerked, and was gone.

With a roar the captain brought his fist down on the hard plastic and metal of the control panel, kicked at the sheet of knobs and levers with a heavy foot, his face purple with rage. His whole body shook as he turned on Sabo, his eyes wild. "You let him get away! It was your fault, yours! But *you* won't get away! I've got you, and you'll pay, do you hear that?" He pulled himself up until his face was bare inches from Sabo's, his teeth bared in a frenzy of hatred. "Now we'll see who'll laugh, my friend. You'll laugh in the death chamber, if you can still laugh by then!" He turned to the men around him. "Take him," he snarled. "Lock him

in his quarters, and guard him well. And while you're doing it, take a good look at him. See how he laughs now."

They marched him down to his cabin, stunned, still wondering what had happened. Something had gone in his mind in that second, something that told him that the choice had to be made, instantly. Because he knew, with dull wonder, that in that instant when the lights went on he could have stopped Brownie, could have saved himself. He could have taken for himself a piece of the glory and promotion due to the discoverers of an Interstellar drive. But he had also known, somehow, in that short instant, that the only hope in the world lay in that one nervous, frightened man, and the ship which could take him away.

And the ship was gone. That meant the captain was through.

He'd had his chance, the ship's coming had given him his chance, and he had muffed it. Now he, too, would pay. The Government would not be pleased that such a ship had leaked through his fingers. Captain Loomis was through.

And him? Somehow, it didn't seem to matter any more. He had made a stab at it, he had tried. He just hadn't had the luck. But he knew there was more to that. Something in his mind was singing, some deep feeling of happiness and hope had crept into his mind, and he couldn't worry about himself any more. There was nothing more for him; they had him cold. But deep in his mind he felt a curious satisfaction, transcending any fear and bitterness. Deep in his heart, he knew that *one* man had escaped.

And then he sat back and laughed.

———— THE END ————

PIPE OF PEACE

(Continued from page 43)

And beside the farmhouse, on the ground, lay a pipe, its tobacco spilled, the last of its smoke swirling out of its bowl into the air, disappearing.

The woman sat in the kitchen of the farmhouse and turned her head when the door opened. She widened her eyes and caught at her throat with her hand.

The sun through the doorway shone down on metallic hands and

a metallic face, gleaming on the surface which the straw hat and the overalls and the blue shirt didn't hide. The door snapped shut, and there was a sound of heavy metal footsteps against the kitchen floor.

The woman pressed against her chair. "Who are you?" she screamed.

"Henry," said the mechanical thing.

———— THE END ————



Thorus, the vengeful, had determined his way. Aria, the healer, had determined her way. Which determined this classic meeting of the twain.

CIRCLE OF FLIGHT

By Richard E. Stockham

Illustrated by Ed Emsch

IT SEEMED they had argued for years as they were arguing tonight. The man paced back and forth chain-smoking cigarettes; the woman sat motionless, watching him. They glanced at their watches with fearful eyes. They heard, with acutely alert ears, the goings and comings of people in the hall; heard the shattering blast of rockets in the sky above the city. And they argued.

"So you're going through with it tonight," he said heavily, "in your own way."

"Yes."

"Perhaps I should stop you." He crushed out his cigarette. "If the police were to hear—"

"No!" The word was thrown at him. "I know you don't mean that. But it's unworthy of you even to say it." She covered her face with

nervous hands. "After all I *am* your wife."

He stood over her, his lips tight. There was something of the fragile, finely made puppet about her, he thought, as though she had been refashioned a hundred times by some artisan seeking after perfect delicacy and precision. He softened momentarily.

"Come with me then," he said.

"No."

"Why? Why?"

"Your way is *wrong*."

"We're the last two leaders of the opposition alive." His voice came swiftly and low. "The authority's beaten us. Their setup for killing, imprisonment, bribery and blackmail functions too well. Our whole organization's been scattered like matchsticks. The police are closing in on us. We're finished

here on earth. We'll be lucky if we're killed quickly." He waited a moment for his words to take effect. "We go along together that far."

She stood, clasping her hands. "Of course. Of course."

"Look. I know you've finished that damned contraption of yours that'll take you into the atoms. I know you've been working on it for years. But I've been working too. My ship's been ready to take off into super-space for two days. But I haven't gone. I've been waiting for you. To wait at a time like this is to ask for death or worse. Now I demand you give up this insane idea of going into the atoms. You've got to come with me."

"I've told you I can't escape with you out into the macrocosm. It's not my way!"

"The word 'escape' doesn't apply," he snapped, "to what I'm doing. *You're* escaping. You'll creep into the microcosm and sit there like a seed that won't grow. You can't fight the Authority from the microcosm. That way is utter passivity and death. *My* way is fighting back. I'm going into hyper-space. My ship and I'll become so huge and powerful I'll throw suns around like snowballs. I'll toss meteors around like grains of corn. I'll upset gravities and warp time. I'll stretch and straighten space. I'll turn dimensions inside out—"

"Yes. You'll destroy. You'll ruin everything, you'll break the innocent as well as the guilty."

"I'll have to take that chance," he said grimly. "But I'll destroy the Authority and everything that goes with it."

She pulled from his grasp. "Violence and destruction are not my way. They never have been." Slowly now she sank into the chair, looked past him as she spoke. "You've always worshipped spaces and vacuums and voids. I've always been happy working with flowers and trees, the life of the meadow and valley, the rain and the new, small buds in springtime. We have always gone in opposite directions."

She paused and smiled a bit wistfully. "It's funny. Now we find, too late to help our marriage, that there's a whole universe between us. You refuse, or perhaps you're afraid, I don't know, to go to the source of everything—this table, this chair, this gown, your own flesh. You don't want to understand life; any more than you want to understand me. You must conquer it—or destroy it. You must be a giant that can kick the earth around like a football. But I *do* want to understand, for in understanding lies the cure. My machine will take me into the atoms. I'll become part of the fabric and tapestry of the very warp and woof of our world. By becoming a *part* of it, I will *know*. I'll find the secret of life in inner space and I'll return and release our people from the Authority. And you? You'll never *really* understand anything. You'll be a wild comet, yes, but I'll be a raindrop in a deep well, learning patience. I'll be a true healer."

For a moment sadness rose and softened his face. "There's nothing more to say, is there."

"I'm afraid not."

"We'll make the goodbys quick."

He came to her. "At least we're being honest with each other. No lies. No pettiness. We've developed pretty powerful ideals. And they just won't fit together. It's that simple—and that good."

She looked up at him and smiled. "At least I haven't lost you to another woman."

He returned her smile. "We're getting sentimental. This isn't good. It's weakening." He bent and lightly kissed her hair. For an instant her breathing stopped.

"Goodby."

"Goodby," she whispered.

He strode to the door and opened it. His body snapped taut.

CONFRONTING him with a drawn blaster, stood a man in the shining red garb of the police command. He resembled Mephisto with his flowing cape and snug trousers. His face was dark, his nose thin, his eyes black and very bright.

"You seem surprised," said the man in red.

Aria had half risen from the chair. As the eyes of the policeman turned on her, she sank back.

"How opportune," the policeman continued. "The eve of your departures." The smile set on his mouth. His gun snapped up on a line with Thorus' heart. "No sudden moves, or you'll be burnt to a cinder. But no. That's what you want—a quick death. So let me threaten you with merely burning your legs off." The blaster lowered. "It may interest you to know we have a recording of your whole

conversation. But there's something else."

His eyes holding Thorus, he gave a sharp command to two burly, bullnecked policemen. They stepped from the shadows and stood behind the commander. One held a small, black box.

"I see," the commander said, "You've had experience before with the truth clamps. You're frightened."

Torus motioned the commander inside. "A little fear trickles through my hate."

The door swung shut behind the three policemen. Thorus glanced at Aria. Her fingers clutched the arms of the chair. He knew she was thinking of the blocks that had recently been installed in their minds by X-ray hypnosis. Would the blocks hold after three days? Three days, they both knew was the limit.

"It's your methods of escape we must have," said the commander. He motioned to one of the policemen.

Torus watched the man step in front of him and raise the clamps to his forehead. He saw features that were thick and heavy, as though they had been roughly moulded out of too wet clay.

"You can see," the commander went on, "the tremendous advantage to us of being able to go into the macrocosm and toss meteors around like bits of corn, as you say." He glanced at Aria, who sat huddled in the chair, like a porcelain doll. "And then into the microcosm. Unlimited power. A whole new universe to conquer and colonize.

Aria did not move or speak.

"I see she refuses to face reality." He turned to Thorus. "But you will face reality—and so will she when we've finished. Had you conducted your experiments in behalf of the Authority, you would have been well rewarded. But no, you have been working against us—however, it has been *for* the Authority after all."

Torus felt the clamps tight on his temples, like two steel fingers. Sitting stiffly on a chair, he felt sweat on his back and chest, felt it seep from his forehead down into his eyes, felt the burn of salt. There was tightness all through him as he waited for the first shock. His fingernails cut his palms. His breath stopped. His shoulders and arms hardened, stretched tight his tunic.

The commander flicked his finger at the one kneeling before the little black box. This one tripped a lever. A soft hum seemed to rise from the box and fill the room.

Torus listened to the hum grow until it was a soft, high pitched scream. He closed his eyes. The next instant a shattering blow ripped through every inch of his body. Fire ran along his nerves. He felt his lips grimacing away from his teeth, felt the corners of his mouth stretching back to his ears. Oh God, oh God, he cried out in silent agony. Hold back my screams. Then he heard himself groan. He cut off the sound of it. Choked. Heard a growl deep in his chest. Lights flashed in his eyes and there was a tearing apart through his whole body. A squeezing together rushed all around him

and an insane pounding and pulling as though his flesh were being beaten and clawed from his bones. Time dropped away from him until it seemed he had never been aware of anything but this agony. Then he was empty of sensation. He felt himself fall forward, felt heavy hands catch him roughly and set him upright. The soft voice of the commander flowed into his mind like a voice from outer space:

"You will tell us your method of going into the macrocosm. The equations, the type ship, its propellent, where the ship is hidden.

Torus felt enveloped in a void.

The voice of the commander droned on. "All we need is a clue. We'll work out the rest."

Life and feeling and thought were surging back into Thorus now. Strength filled his muscles again. Sight came into his eyes. Again he sat straight and stiff on the chair. The block held, he thought. It held and they cannot know now!"

"Speak!" The commander's voice rose. "Damn you!" He seized Thorus by the hair. "You've blocked off the information. I'll see both of you tortured until you'll wish to kill each other. Then we'll try the clamps again. He smashed his fist into Thorus' face.

On the instant the commander pulled back his fist, Thorus reached out and jerked the blaster from his belt. His foot came up hard against the man's groin. There was a grunting cry of pain. Thorus fell backward off the stool, pressing the blaster trigger as he hit the floor. He saw blood gush

from the commander's middle, saw him pitch sideways, like a broken statue, heard Aria's scream. The clamps pulled from his head. He swung the gun's muzzle to the two policemen, clawing at their holsters. The blaster struck out, a long coughing hiss, a spray of flame. There were cries and gasps and jerking and clutching and the scrambling fall of the two bodies.

Then silence.

Thorus crawled unsteadily to his feet, stood swaying. The gun hung loosely in his hand. Now he felt Aria close to him, heard her voice trembling and breathy.

"Thorus! Are you all right?"

"Yes."

"The blocks held! They held!"

Steadying himself, he saw Aria glance at the bodies on the floor.

"Destruction!" she shuddered.

"Nothing but destruction. Oh God, I'm sick of it!"

Thorus let the gun drop to the floor. "There's no time to talk. Your laboratory." He grasped her by the shoulders and turned her toward a bright steel door across the room. "You'll save time to go into your damned microcosm. You'll make it. Good luck. If I have any luck at all, I'll make it too." He gave her a push. Without speaking or turning back, she moved across the room, as though sleep walking. The gleaming door slab slid back as she approached it, closed behind her.

The memory of her face stayed in his mind for a long moment after she had disappeared, and from the room's atmosphere he seemed to breathe in regret and a sense of their failure. He turned abruptly,

looked down at each crumpled body. Opening the door a crack, he searched the brightly lighted street for the figure of a policeman, saw none, stepped outside and ran.

IN HER laboratory, Aria worked deftly, swiftly at the transparent body-length cylinder. She checked wire connections, dials, buttons, then opened one end of the tube, lowered herself into place, when she had closed the tube, she lay still, the forefinger of her right hand resting on a button.

During all these preparations, she was viewing, with her inner sight, Thorus' tiny ship streaking through the night toward a distant mountain peak where a small metal ball, large enough for one man, sat shrouded by a screen of invisibility. Now she saw the streak of flame die in the night and the tiny ship sitting motionless beside the metal ball; saw Thorus open a hatch in the ball's side, let himself through the opening and swing shut the circle of steel.

"Thank God," she said. "Whatever comes now, at least he's made it."

Wiping away the vision of him, she hesitated a moment, said goodbye to earth and life as she'd known it and would never know it again. A moment of yearning for a chance to live safely and well as a wife and mother swept her with sadness. The yearning held her finger from the button; a final hugging of human love and full human life, a last lonely cry for earth as she had known it in childhood with the press of wind and the

touch and sight of green growing things and the depth of blue above and the ground beneath.

Feeling then as though she were plunging into midnight ocean depths, she thrust her finger hard against the button!

Instantly light shimmered all about!

The room dissolved. A sense of dreaming too vividly, yet of being deep in a sleep that was a thousand times more acutely awake than any awakeness she had ever known filled all her being. She felt herself sinking into a great bottomless depth and yet at the same time soaring through space to the ends of the universe, until both falling and soaring flowed into each other and became suspension. And then suddenly she saw all things as one. She saw the intricate design of a snowflake that was the snows of all the earth and a drop of water that held all the oceans.

There was the rhythmic beating all around as though of a great, omnipresent heart and the surge and flow of oceans of lifeblood and the rise and fall of eternal breathing. A speck of soil was the soil of all the earth, from which grew forests and fields of green. She let herself out into the space of all this and was merely there, like time is, where there is the motion and change of birth and death and birth again and death again. She felt a gentle touch on her body that was the body of all mankind and knew it for the touch of air, a single element of all earth's winds that yet was all the clear winds of earth.

The next moment a thundrous

roar crashed like a tidal wave. She felt a gigantic shaking in all the snow and water, in the oceans and mountains, in the air and wind, in the blood and life and beating heart. A faltering of the rhythm and flow went, like a cosmic shudder, through all this life and through her own being so that she was conscious of nausea and ache and a violent flinging about.

She had a sense then of pulling within herself, like a sea anemone that has been touched by an enemy.

And in her silent voice, she cried out, "Thorus!"

In the macrocosm. Thorus destroying! Destroying! The next instant her inner sight swung back to where Thorus' ship, the shining metal ball, had leapt up off the mountain of earth; leapt, in the fraction of a second, through the blue earth covering into black, outer space. Her inner sight saw the metal ball inflating, a cosmic balloon, flashing like the sun, then seeming to fill the space between all the suns!

THORUS, in his ship, was conscious of being a colossus that could step from planet to planet as though he were using them for stones to cross a pond of earth water. Step past the solar system, he thought, out into the universe. Now the sun became a tiny ball of fire, a lightning bug, the earth a grain of dust. He could blow out the light of the sun, flick Earth and the other planets into nothingness. "I've broken through," he thought. "I've done it! I've been

released." And looking out and away, he saw universe upon universe extending past infinity, it seemed, an ocean without a horizon.

Now, said his thought, I will destroy all evil and I shall begin with the evil of earth. As though he were looking through a microscope, he focused his sight on the grain of dust that was earth. His fingers made delicate adjustments on a dial, and earth, softly green and blue, swam clearly into his vision. He magnified his sight of earth until he could see all of it like a gigantic relief map. He saw the fortified places of the Authority—great, spreading, shining, metal domes; saw them dotting the earth; saw the lines of vehicles speeding back and forth between them. He saw too the hamlets of the people, in the spaces between the forts of the Authority, all places of squalor with row upon row of boxlike houses, each exactly like the other. There were not any green lawns or shade trees, only houses and streets and people moving about.

Thorus felt his anger rise. He pressed a button that flung out fields of gravity. Earth rocked and heaved, like an animal in convulsions. Volcanos exploded, shot out their flaming, poisonous refuse. Oceans were monsters writhing and rolling in their troughs, reaching onto the land, as though to pull it beneath them. And the land itself split wide and snapped shut great, yawning jaws. There was a wild rushing about among all the people, a madness, as though frantic motion would save them. They looked up off the convulsed earth

with panic stricken eyes, their voices raised in agony.

Thorus' voice sounded, "The time for the death of the Authority has come. I will crush them as though I were crushing snails. He reached out from the ship with rays that seized meteors and flung them like a schoolboy flinging stones at bottles, one by one against the massive, shining domes of the Authority. The domes cracked and split and were crushed. The atomic bombs broke open with flame that leapt up yellow tongues and grew mushrooms in the sky, and a burning death spread all around.

Then Thorus was quiet, watching all that he had destroyed.

But suddenly, he became aware of Aria's thought within him, crying out. "Destroyer! Murderer! In moments you've set humanity back a hundred thousand years. You're worse than the Authority. There'll never be any peace for you or for the earth or even the universe after what you've done. Other Authorities will come and you'll have to destroy them and others and others. Destruction for you forever, on and on, until you fill the universe with it . . ."

In his mind, Thorus saw her among the falling snowflakes and the drops of cool water and the green, growing atoms; saw her in the transparent tube sink deeper and deeper into the microcosm, away and away like a minnow swimming down into a beautiful lake on a summer's day. Deeper, ever deeper, until there was nothing but the blue, sleepy water.

As Thorus looked upon the earth again and saw the terrible destruc-

tion he had wrought, he trembled. There was the realization in him that, beneath his consciousness, had lain the hope that, after he had wiped clean the earth, Aria's healing power would remake it. But now there would be no healing, and for thousands of years earth would lie a smoking ruins with the people crawling about its shattered surface like bugs.

He turned from all he saw. He closed his eyes and threw his ship out into space, threw it away into the fathomless void. He must escape from the universe, must flee from the horror that filled him at the desolation he had wrought. Straight out into space, out into the forever, where earth would cease to exist, where he and his remorse would be lost.

GLEAMING suns and galaxies streaked past yet he seemed within himself to be hanging motionless in an infinite sea of blackness while he knew that the speed of him cracked through the barrier of time and space; knew that it was a speed beyond any conceived by the mind of man. On into forgetfulness, escape beyond his memory, faster and farther away than his mind, so far away that even earth would disappear in his thought.

As incredible distances stretched almost to breaking between himself and earth, he thought: So this is the end. For all I've been and wanted to be, this is it. A nothingness beyond the universe.

But as the last word went from his thought, he saw a greenish blue

ball of light rush toward him. He watched it inflate in the port. It enveloped the whole ship. The suns and the galaxies had faded into nothingness. He was aware of sinking into eternal depths but at the same time he felt himself soaring until sinking and soaring flowed into each other. After a time, he saw shimmering white crystals encircling his ship. And then the encircling crystals became one snowflake reflecting light like the moon.

A great wonder filled him and he stared in overwhelming awe. He heard his own heartbeat in his body and outside the ship, holding the ship in an eternal throbbing; heard the flowing of his own blood like a turbulent river; heard his breathing become the ebb and flow of wind, like the sound of surf. His body too became the soil of earth and its rock and water and he was deeply conscious of growth all through him. He was birth and death and he was both in one and he was the life of mankind, of animals, of plants.

As he waited in what seemed to be eternity, sunlight broke into his sight and he saw a field of grass forming around his ship. Blue sky swam into focus above him. White cloud patches formed in the blue as though they had been ordered there by the word of creation. Thorus knew then that he was on earth again, that he had come up from deep inside it.

Rising up, like one awakening uncertainly from sleep in a strange room, he opened the ship's hatch and looked out upon the land. A flash of light caught his eyes then,

from above, and he looked up in wonder.

He gasped.

ARIA, in the transparent cylinder, sinking down through the blue, like a leaf, settling gently to the earth a hundred feet away.

She crawled out and stood looking across the field of grass at him, a strange, smile on her face.

Thorus leaped from his ship and ran toward her. He ran silently. She held out her hands and he grasped them tenderly, as he would grasp the hands of a child. And all he could say was, "Aria. Aria."

"Thorus," she said, and there was courage and joy in her voice. "We've come back."

They stared into each other's eyes for a long moment and then they were close, and they held to each other and swayed.

"Do you know what's happened?" she said.

"Yes. You came back through hyper-space while I came back through the atoms." His voice was quiet. "Oh, Lord. Oh good and strange Lord. We forgot that one of the great men twenty thousand years ago, proved that space was curved."

"Yes." She stood away from him now, yet held to his hand. "We

couldn't escape from our place in life or ourselves or the good and the evil that we have done. We came back to our earth and now we must do what we have left undone."

There was much to be done.

Thorus looked around. He saw in the distance a crushed and smoking ruins. "I've destroyed the Authority, but I've destroyed too much. Now the people are in chaos."

Aria stood silently awhile, and then moved his arm. "But now you can help me to heal them. You've seen in the microcosm, as I have in the macrocosm that all life is one. Now we can show the people that outer and inner space are not separate. We can show them how they exist together and how there can be no escape in either or from either. It will take a long time. But we will do it. And the doing will be grand." She paused. "The beginning and the end, Thorus. The greatness and the smallness. The light and the darkness. It's all here."

"And all that's in between. That too."

"Yes," she answered quietly. "That too."

They turned to the smoking ruins and arm in arm began walking toward it.

Twenty years is a long time to live in anticipation. At least, Professor Pettibone thought so—until the twenty years were up.

Say "Hello" for Me

By FRANK W. COGGINS

THIS WAS to be *the day*, but of course Professor Pettibone had no way of knowing it. He arose, as he had been doing for the previous twenty years, donned the tattered remnants of his space suit, and went out into the open. He stood erect, bronzed, magnificent, faced distant Earth, and recited:

"Good morning bright sunshine,
We're glad you are here.
You make the world happy,
And bring us good cheer."

It was something he had heard as a child and, isolated here on Mars, he had remembered it and used it to keep from losing his power of speech.

The ritual finished, he walked to the edge of the nearest canal, and gathered a bushel or so of dried Martian moss. He returned and began polishing the shiny exterior of the wrecked space ship. It had to really glitter if it was to be an effective beacon in guiding the rescue ship.

Professor Pettibone knew—had

known for years—that a ship would come. It was just a matter of time, and as the years slipped by, his faith diminished not a whit.

With his task half completed, he glanced up at the sun and quickened the polishing. It was a long walk to the place the berry bushes grew, and if he arrived too late, the sun would have dried out the night's crop of fragile berrys and he would wait until the morrow for nourishment.

But on this day, he was fated to arrive at the bush area not at all, because an alien sound from above again drew the Professor's eyes from his work, and he knew that *the day* had arrived.

The ship was three times as large as any he had ever visualized, and its futuristic design told him, sharply, how far he fallen behind in his dreaming. He smiled and said, quite calmly. "I daresay I am about to be rescued."

And he experienced a thrill as the great ship set down and two men emerged therefrom. A thrill tinged with a guilt-sense, because emo-

tional experiences were rare in an isolated life and seemed somehow indecent.

The two men held weapons. They advanced upon Professor Pettibone, looked up into his face, reflected a certain wary hostility. That the hostility was tinged with instinctive respect, even awe, made it no less potent.

One of them asked. "Fella—man came in ship—sky boat—long time ago. Him dead? Where?" Appropriate gestures accompanied the words.

Professor Pettibone smiled down at the little men and bowed. "You are of course referring to me. I came in the ship. I am Professor Pettibone. It was nice of you to hunt me up."

The eyes of the two Terran spacemen met and locked in startled inquiry. One of them voiced the reaction of both when he said, "What the hell—"

"You no doubt are curious as to the fate of the other members of the expedition. They were killed, all save Fletcher, who lasted a week." Professor Pettibone waved a hand. "There—in the graveyard."

But their eyes remained on the only survivor of that ill-fated first expedition. It was hard to accept him as the man they sought, but, faced with undeniable similarity between what they expected and what they had found, the two spacemen had no alternative.

"I hope your food supply is ample—and varied," Professor Pettibone said.

This seemed to bring them out of their bemusement. "Of course,

Professor. Would you care to come aboard?"

The other made a try at congenial levity. "You must be pretty hungry after twenty years."

"Really—has it been that long? I tried to keep track at first . . ."

"We can blast off anytime you say. You're probably pretty anxious to get back."

"Indeed I am. The changes, in twenty years—must be breathtaking. I wonder if they'll remember me?"

A short time later, the Professor said, "It's amazing. A ship of this size handled by only two men." Then he sat down to a repast laid out by one of the awed spacemen.

But, after nibbling a bit of this, a forkful of that, he found that satisfaction lay in the anticipation more so than in the eating.

"We'll look around and see what we can find in the way of clothing for you, Professor," one of the spacemen said. Then the man's bemusement returned. His eyes traveled over the magnificent physique before him. The perfect giant of a man; the great, Apollo-like head with the calm, clear eyes; the expression of complete contentment and serenity.

The space man said, "Professor—to what do you attribute the changes in your body. What is there about this planet—?"

"I really don't know." Professor Pettibone looked down his torso with an impersonal eye. "I think the greenish skin pigmentation is a result of mineral-heavy vapors that occur during certain seasons. The growth. As to my body—I real-

(Continued on page 114)



This story concerns a contest, a contestant and a beautiful wife; also, perhaps, that ancient Biblical quotation that says "take therefore no thought for the morrow; for the morrow shall take thought for the things of itself".

The Contest

By Gavin Hyde

Illustrated by Orban

CYL MAR walked toward the center of the city in the yellow early afternoon, increasingly annoyed by the intrusion of unimportant domestic memories that his mind relived, not without embarrassment, and a sense of his own failing. Today, when he had turned to her at the door, he could have said, "Goodbye, I'll see you in an hour or so." There were many things he could have said which would have freed him from his conscience during his walk down. But he couldn't. He tightened up and could say nothing of how he felt. For his mind was tense with the anticipated combat to soon take place in a cubicle behind the great hanging thought-transmission screen. The cubicle and thought-transmission screen had been in use continuously until yesterday, but now they were idle, along with the

two TT machines, waiting for the last round in the contest.

She should understand—on today, of all days! He never spoke to anyone before a match. Speech disturbed the strength and color of one's thoughts because it was more difficult than thinking. It also involved the acceptance of another personality.

In the contest, acceptance was a very bad thing. So was this memory analysis, Cyl thought. Asking himself why he hadn't spoken to his wife! This slipping back in the train of thought would never do in the contest. That was the theory of Jons, the foremost analyst of developments, anyway. What was it he said in the Thought-Transmission Annual? "The contest consists of the conflict between two imaginations. Each must analyze the interest and logic of the other, trying to

possess the resultant theme through complex development of thought. The drive, the momentum of the imagination is the telling factor in the contest."

Cyl had *studied* that statement! It had been released by Jons after his tragic retirement. Like other philosophers who had dreamed of perpetual control and championship, he had been eliminated soon after the birth of the contest—when the powerful and mercenary sponsors moved in, bringing with them their strange assortment of thinkers.

One year the contest was won by a barber who could maintain the most powerful (and infinitely boring) thought train based on current events, suicides, wrecks, filibusters, sports, and scandals. Rumor said that his simple training consisted of a glance at the morning paper.

Then there was the fisherman who could turn from the most delicate winding of a gold silken thread on a trout fly to the baleful glare of a giant squid, almost, it seemed, "faster than the transmission of thought."

People had only heard about the new and exciting thought-transmission device when a last holdout of the decadent "Quiz" show M.C.'s decided it would be a good gag to get a married man from the audience, put him on-stage with a beautiful girl, and telecast the interchange of ideas. It was imperative his wife be in the audience. Oh, yes! That was half the fun, watching her reaction to her husband's futile attempt to avoid what might be called a public mental infidelity.

Well, the booming growth of the

contest was past, but even now Cyl never knew what to expect during the first rounds of elimination. Three months before this final day, Cyl had been faced with hopeful after hopeful, never knowing what sort of attack was coming with the sound of the buzzer. A roller-skater had thrown a scare into him with that infernal organ giving off its regular, unconquerable squeals, plus the sound of all the skates the pudgy boy could muster into his mind, rolling and rolling!

Every time Cyl began to get the upper hand by, say, increasing the speed until it was impossible to imagine that one was on skates and then switching to skis, or something like that, the boy would project a sign saying ALL SKATERS or COUPLES ONLY and there Cyl would be, back in the rink.

However, by a stroke of luck Cyl had broken his leg once in his amateurish attempts to go backward, and he was able to bring back the terrible ring of hot, over-sympathetic faces that immediately surrounded him. He just continued the idea of the injury, the ride in the copter-ambulance, the hospital, ether, blood. Rather a rude way to treat a child, but what was one to do? To Cyl this was a business. Children had to take their chances with the rest.

Cyl remembered the semi-finals, and one of those people who continually turned up at the contest, experts in a certain field, like glass-blowers, taxidermists, diamond cutters, even orchid fanciers. He almost paid dearly for his love of the strange, the beautiful. When the buzzer sounded he had found

himself submerged in a light-green place, in a struggle with what seemed a tremendous piece of carved jade. It had four paddles sticking out which waved, pushed and scratched. In all his life his opponent had had but one job, that of removing tortoises from the canneries' holding-tanks by turning them on their backs. Cyl had diminished the size of the shell, transforming it laboriously into a girl's bathing suit. Then he had started at top and bottom developing her body, and had managed just in time to gain dominance. The judges' decision had been long in coming even though they were experts at perceiving the telltale "unexpected metamorphosis of a thought", as Jons called it.

BUT NOW, on this day, there was only Cyl's brain against one more. He looked at their pictures on the program. It was funny, those two heads, awkward-looking things, being capable of waging a battle against each other. Cyl knew what was in the head on the right. That was his. The other one was his opponent. He would have to be powerful to have come so far.

Cyl, for his part, had worried about every opponent. He must have the sure sweep of dreams to hurl at his last adversary. He had to win for his wife. He kept telling himself it wasn't prestige he was after. He had to do it for Lin, because he felt he must somehow pay for the gulf that had widened between them because of his preoccupation with the contest. He had practically stopped talking alto-

gether! He loved her. He knew it as he watched her moving around the house. But he could not afford the distraction involved in giving her his love. There he was, night after night, his mind rising to a point of secure joy in having her and then receding into the problems of the contest. Cyl knew that everything had to be sacrificed.

A few weeks before, in a state of exasperation at the thought of facing a chess champion, he had taken his chess pieces out to try to figure some way to foil his opponent. Chessplayers and scientists in specialized fields had a quality called conformance. It helped them, but it was also a weakness. Every time these people won by the use of the same image. From one round to the next, they projected the one idea that obsessed them. What they hoped for was that they would draw either a sequence of men who could comprehend their theories, or that those who didn't would be too stupid to distract them. Cyl had to break down the chessplayer's conformance, somehow, think of something that would wreck the precision of a chess game. The answer had come to him. He decided he would simply create a physical experience here and now which he could bring to mind during his mental struggle with the master. So he scooped up the chess pieces and walked to the kitchen, savoring the experience as much as possible. He dropped the little dolls into the disposal unit, one by one, as if he were supposed to be absolutely sure of their death. It was evident from the gritty, staccato whine that the appliance was not made for grinding

plastatron. It soon stopped dead. That had been unfortunate, but to Cyl's joy, he found it enabled him to retrieve the chips and dust that used to be chessmen. This treasure he carried back to the board. He played a couple of mock-serious games with the rubble. He pushed a little bit of dust here, captured a chip there, and finally checkmated a beheaded King. The crazy thing about it was that when he had finished and jumbled the remains off onto the floor, he had felt sure his idea would be a success.

It was understandable that Lin would take a dim view of the insane operation, but Cyl had really been surprised at her that time. She became very emotional, cried, said he didn't understand her. What a peculiar thing to say! Anyway, he couldn't worry about something like that now. If he won there would be lots of time to make up for the strain.

CYL bent close to the picture on the program again. What he knew about his opponent wasn't going to be of much use because this man was one of those frightening dark horses. Hardly anyone went to see him. Why? Everybody liked Cyl's projections. They were varied, subtle. He liked them that way.

Sometimes they were full of the conversation of things that had never talked before, almost going out of control as though he were just a loudspeaker, through which one could hear, at last, the sound of a clam working its way into the sand, or a goose's bill rattling at

the corn in some far and frosty field.

And the other man? His name was Grus. Those who had been curious enough to watch him at work had come back with an old story. Surely it could not be true that he had come so far on some sort of sexual pitch! But they all assured Cyl there was nothing out of the ordinary about the man. Each time he started the round with a very dull series of transmissions, identified by most people as being connected with the mechanics of common machines. That was plausible. The paper had said Grus was a home-appliance repairman. Anyway, they went on, Grus would continue these occupational ramblings until his opponent overpowered them. Then he would switch to the image of a woman, the switch being effected with apparent ease. From that moment on Grus' competitors had little power over the development of the thought. The most peculiar quality in the women Grus imagined was the plain, unexciting appearance—no beautiful bodies or come-hither looks. These were just old or young, bored or sad, forgotten or unloved women. Many of his opponents had been questioned after the round. Who was the woman? What was the power of Grus' thought? Not one of the men had an answer. Naturally the beaten ones didn't feel much like talking to reporters and curious contestants, but from what they did say it was definite the woman on the screen was no acquaintance, living, dead, or dreamed.

A voice from the instrument over

the door said, "Mr. Mar, you have five minutes."

Then he heard his wife's steps click-clicking down the smooth, white hall. She came into the room and sat down, with her purse, as though the setting-down of the purse was just as important as the seating of the body. She knew she mustn't speak. . .

Cyl would either have to invent TT machines that could be carried by husband and wife or quit the contest. He wasn't worried about himself. He could live among the suspended splinters of his mind. Reactions were conversation. But then there was love, which could never be kept within the safe confines of the mind. Love was too frantic. It broke through the skull and left its hard cloven hoofprints everywhere, never forgetting, though, to return to rest, to sleep, and to play its surprising part in the drama of dreams as a young African girl swimming, or a red-skirted maid who has lingered a moment too long in the garden, who stops just once on the walk under the ivory wall, to look into your eyes.

Cyl walked past Lin. He almost said something to her as he paused before stepping out into the hall, but he knew she would have released a flood of words. He couldn't afford to think about what she said now. Her white-gloved hand was lightly closed on the orange front-row ticket.

There was no cheering when Cyl walked across the stage and sat down. The Contest Board had asked that noise be kept to a minimum. But there was always a heavy murmur, feet scuffling and cough-

ing. It was soothing to Cyl. He had been a favorite in his long fight and he knew they wanted to see him crowned. Especially since most of them had seen Grus at the projection and had developed a firm dislike for him.

Grus seemed to be calm, had his helmet adjusted, and was chatting with one of the technicians.

THE RED LIGHT was on. The audience quieted. Cyl thought of the hum of bees working in a group of white, weatherbeaten hives. He hoped this would emerge well on the screen after the buzzer and also attack at close quarters by the white enamel kitchen that he expected from Grus. There was the buzzer.

It was chaotic, like the beginning of every round between strong imaginations. Cyl worked to establish two levels of thought. One dictated his course of action. The other was the actual, projected thought which would affect the screen picture. This was usual, because if one's strategy got mixed up with one's projection he would become easy prey to the simplest idea from his opponent.

He had guessed almost right. Grus started with the inner parts of the hamper of a common laundry system. It was sorting the clothes into different groups, delicate rayons one way, denim work-clothes another. Cyl's hives were petrifying the cloth and his bees were becoming more and more numerous, so that when he had thought them all out of the hives there was a cloud of humming,

walking, flying, seething bees that was shutting out the whiteness of the laundry. Grus backed his clothes down through the machine until they reached the washing element and began turning Cyl's bees into dirty suds, flowing and pushing. It was time for Cyl to make his play for dominance.

The sea. He was looking back over the stern of a ship. The water was boiling away from him with the ferocity that only the sea has. The clothes became translucent eels, falling over each other in their effort to feed on the remaining bees. They leaped out and slimed against each other. They dove in the white froth.

Grus was trying to bring back the precision of his machine. He tried to ram Cyl head-on with the image of black pistons and sharp cogs soaking and dripping in oil. The machine parts became obvious only at intervals, in the dark lines that surrounded the white foam, but the viscosity was ruining Cyl's spray, and his eels were flowing together into a conveyor belt. So out of the sleek pistons Cyl made darting sharks with black, black fins that slashed among the eels, dividing them and throwing their mauled, bloody bodies aside into the greener brine. Cyl relaxed, but realized moments later that Grus was not the pushover he had seemed so far.

For Cyl's sharks, which had promised to be unapproachable in speed and ferocity, had, with perfect subtlety, been turned into a group of men in tails enjoying a Christmas party. The dazzling foam was a swirling snowfall, the

blood a spray of holly berries here and there among green spears of pine and fir. Grus was doing his best work in black and white. His stiff, black men were like dolls, perambulating around a Christmas tree. Grus was not sympathetic with the green and red that had been left over from Cyl's image, for those colors were suffering a snow change, becoming colder, whiter, crisper as the winter fell in upon them. The walls disappeared into the gloomy whiteness, the tree was heavier with snow, but the men who before seemed festive took on a funereal quality. The slow flakes passed them, for they were just visiting. The background remained a dark void. The tree never reached the formless stage, but shook itself and weaved from side to side. It was a huge white bear. The men stopped their slow traveling at this and as though at a signal filed into the dark cave. The animal turned, hunched and shook himself once more, and followed them.

As a man wakes who has been forbidden to sleep, Cyl escaped the other man's mind with a feeling of total fear, mental and physical. He looked apprehensively at the clock. Grus had managed only to catch up what he had lost in the beginning of the round. But why did he stop? He must have tired his mind, until his thoughts just fell from the peak of imaginative power into that shaded opening, fatigue.

Cyl was reassured of this as he let his mind slip back to the projection. Grus had returned to a sleek, silent home-freezer. Cyl threw himself into the effort to reach Grus with some thought that

would be familiar to him. He had to do that before he could metamorphose the idea for his own purposes. By imagining the storage contents of the box, Cyl brought into the projection a lot of waxed cartons of ice cream. As he reveled in their cold, sweet smell he saw himself as the head on a coin, buried in a large, square, white birthday cake. He heard the muffled voices of the children singing "Happy Birthday to You," the girls fairly well oriented to the words and rhythm of the song, the boys lagging behind or forging ahead, as well as the voice of one misguided child who was familiar only with the words, "Home, Home on the Range," for he used these lyrics for each line.

THE SONG was finished now and he could hear the candles snapping and fluttering above him. Suddenly there was noise. The table shuddered, forks and knives clanged together, fists pounded on the crepe tablecloth and pieces of gum were pressed against the underside of the table with a faint squashing sound. The knife hissed through the airy cake, but contrary to tradition, it caught Cyl on his serrated edge and rolled him out on the plate, bared. All that remained was the knife which lay beside him and his wife's face. She looked down at him from above with gray indifference.

Cast out of dominance by his wife's image? It *was* she! Yet it wasn't. She didn't look like that, walking down the street. That wasn't the way she looked when she sat and watched him perform.

He glanced quickly at her seat. It was empty.

The projection now showed her lying on their bed. For an instant Cyl felt embarrassed at the idea of her being held up in front of the public, but then he realized that to them it was just any old mid-morning housewife.

Cyl looked down again, searching the auditorium seats. Then he saw her. She wasn't out yet. But she was walking quickly away, a small back in the shadows of the great hall. All the faces were turned to him except one. She moved toward the little door so far up the aisle. There was a flash of white light.

She was gone.

Gone? The word echoed in his mind like the bell on the door of a grocery store. It rang. Someone had left, left him among the sweet smells of coffeecake and wheat crackers. So much alone, here. He wanted to run to the jingle door and yell, "Come back! What about all these wonderful things? These wonderful things we are going to have? Lin! These . . ." But the bell had tinkled. It had already said, "gone."

Cyl's mind wandered, crazed, over the events of the last few moments. Grus. Grus. What had he done? Something like the chessmen. That's what Cyl and Lin were like now, wasn't it? Grus had picked them up before, sliced them up. Then he had strewn the pieces. Grus, come a-riding to Cyl's door on one of his cement mixers. See this! You have a silver candlestick, mister? He'll make dimes of it, and for half price!

Grus dominating the screen, for Cyl could no longer focus on the

contest of thoughts . . . his thoughts were now only of Lin. No reason to go on trying, nothing down here in the ashes, in the obsidian loneliness where the flowers, once so red and yellow, are black and painful—for the lack of the lovely eyes to look upon them. Lin's eyes.

And when he saw her eyes again for that fleeting moment, he saw a light. It was a light of memory only, now that everything was over, but he had to cling to it. Anything to save him from the utter darkness. He saw a plain with stars overhead, and down below the myriad lights of a festival. For Cyl, a beginning. A beautiful memory, Lin, the first time he had looked at her.

She was a young girl standing near the crowd that had gathered to watch one of those rocket launchings. They were all jabbering. The danger. The chances one took! Oh, the bravery. Except for the children, of course, who were stealing things to take back to their bedrooms. The police were working their way around the circle trying to keep people from breaking into the flash zone. She was standing near the knot of pilots, who were attaching to their bodies the equipment they could put on outside of the rocket. It was obvious she wanted to go nearer but was too self-conscious to do so, or perhaps afraid she might touch one of them strangely, on the shoulder, and thus enchant him forever. Yes, she was afraid that some part of her might go with these heroes and yet she was loath to believe she could give them nothing. Then one of them said, "Take a good look, wonderboys. That may be the last chick

you'll see, let alone get close to." At this she turned away with a look of infinite pity and resignation that left her eyes burning in the night, there on the plain, and walked back into the city.

Once more. Cyl saw her eyes, luminous. Springtime.

Springtime, and the contest had ended for the year. He was in one of his favorite haunts, the Museum of Natural History, in the room of the luminous minerals. It was wonderful to stand there, in the dark, with thousands of eternal eyes looking at you, all impassive. There was no accusation there; only a silent, heavenly atmosphere of immortality.

Someone was standing on the other side of the room. Silhouetted against pale green stones etched with fantastic pink lines, was the girl he had seen the year before. He couldn't see her features, but he knew from the shock to his senses that it must be she.

Soon Cyl stood very near her. He wanted to go on, really, go on around and out into the sunlight of the courtyard. It would be much simpler than marrying this woman, after all. But it was too late to go on.

He looked past her hair, a last time, at the doorway. But his eyes returned to her face. Now he had to take her with him. He had to find out what she did all day. He was unaccountably afraid to look at her as he said this, so he squinted at his watch and said, "Why don't we have a drink somewhere? It's time."

Lin had made flowery days of the summer. Intense, electric eve-

nings sprang fiercely into the sheltered heart of the dense foliage outside Cyl's window. The nights slid away from the circle of the week as quickly as the delicate balance of midnight was disturbed.

In the fall, when Cyl looked out and saw the ice-cream man and the children and the shoppers running before red leaves in the wind, he told Lin that he was determined to marry her immediately. Every day Cyl discovered that he was wrong when he decided that one or another part of her face or body was most beautiful. One morning he was convinced her lips were so cool and fragrant that the rest of the day must be evil to soften them. And that night as he watched sleep invade that same flesh he was sorry to see the effects of the day's experiences erased. . .

THE BUZZER and the last rude noises in the great Thought-Transfer machine were unwelcome in Cyl's life now, because there was no life. None that he wanted.

The loud speakers were blaring the name of Cyl Mar! The Board had written his name on the blank check and had cast a huge picture of it on the back wall of the auditorium, for the spectators to see on their way out.

The contest was over. He had forgotten all about the contest. Grus? He had forgotten all about Grus. There was only memory and Lin. Stunned, Cyl heard himself being asked for a few words and he felt his lips say the same things he had always said.

They let him go, he stumbled

past Grus, who was collecting all his certificates, credit cards, and prizes for runner-up. The crowd was leaving in a vast, swelled murmur. He wanted to get away, lock himself in his cubicle and rave at himself as a fool screams at a fool, louder, louder! Make faces at himself, feel his face with his hands, as though the physical world which he had seemed to reject would believe this sort of proof that he recognized it. But all the indirect, mystic, or magical tricks would never bring her back. Exhausted, he stood on the edge of the stage, where the gray seats stretched away from him like waves in a sea. The crowd was gone, the auditorium empty. The technicians behind him were testing the equipment, before switching off. One of the mechanics wore the thought helmet, projecting plush leather, red wine, and ivory women on the screen, smiling.

Cyl did not move. He looked up and yet further up through the empty auditorium. It was not quite empty.

His breath tightened, and his heart moved in the hollowness.

A single person sat alone in the very last row. The person did not move. The person looked back down over the emptiness, reaching as Cyl was reaching. She was very beautiful.

Lin.

She had decided to go, had walked out forever, because she had thought Grus was right, because she was ashamed. But once outside, she had paused, thought Cyl, and gone to the balcony to watch, to see all of it, to know the rest.

Lin. Lin. She sat above, quiet.

He did not trust himself to call out to her. He turned to the machine, the technicians, the helmet. Quietly, he took the helmet, placed it on his head. He closed his eyes. He knew what he could, what he must, paint there on the screen.

And there it was for her. There it happened for her eyes.

On the screen, a picture of himself walking off the stage and up the aisle. And a picture of her getting up from her place in the balcony and walking out through the door and down the quiet stairs. Himself

coming out into the lobby, their meeting. And now they were taking each others' hands, warm and belonging, and now they were kissing, now moving silently past the cool fountains, out of the theatre.

He opened his eyes and removed the helmet. A glance told him that, in the balcony, Lin was already suiting action to the image. She rose. She was smiling. She turned and walked.

Cyl stepped down from the stage. He started up the aisle. Then, he was running.

———— THE END ————

SAY "HELLO" FOR ME

(Continued from page 103)

ly don't know."

But the two spacemen, though they didn't refer to it—were not concerned with the body so much as the aura of completeness, the radiation of contentment which came from somewhere within.

And it was passing strange that nothing more was said about the Professor returning to Earth. No great revelation, suddenly arrived at, that he would not go. Rather, they discussed various things, that three gentlemen, meeting casually, would discuss.

Then Professor Pettibone arose from his chair and said, "It was kind of you to drop off and see me."

And one of the spacemen replied, "A pleasure, sir. A real pleasure indeed."

Then the Professor left the ship

and watched it lift up on a tail of red fire and go away. He raised an arm and waved. "Say hello for me," he called. Then he turned away and, from force of habit, he began again to polish the hull, knowing that he would keep it shining, and be proud of it, for many years to come.

Almost beyond reach of the planet, one of the spacemen flipped a switch and put certain sensitive communication mechanisms to work. So sensitive, they could pick up etheric vibrations far away and make them audible.

But only faintly, came the pleasant voice of a contented man:

"Good morning bright sunshine,
We're glad you are here.
You make the world . . ."

———— THE END ————



Specific Gravity of Space

SPECIFIC GRAVITY, the familiar concept of comparing the weight of a thing or substance with an equal volume of water, is widely used, but it isn't often that you find such a computation made in connection with all of space! Cosmologists, however, are interested in discovering the distribution of matter throughout the universe and it is a valuable piece of knowledge to have some idea of the "specific gravity", or density (to be correct), of matter in that vast volume of nothingness.

Someone will immediately question the idea with "but you don't know how big Space is!" That's true; yet telescopes can probe hundreds—even thousands—of millions of light-years into space and they can sample a big enough volume to make the concept "density of the universe" perfectly valid. Subsequent penetration of space—if that's possible and the universe is not finite—is not likely to change the figure by much.

It turns out that the density is—as you would suspect—fantastically low. After all there is a lot of *empty* space to consider. In technical terms the density is about ten

to the centimeter—or, in familiar terms, about a pound of matter to the volume occupied by thirty thousand Earths! That is rareness and vacuity indeed! Nevertheless, when you consider the total volume of the known universe, that's a lot of stuff. Assuming that the universe is six hundred million light-years in diameter—and it's certainly more than this—all you need do is apply the formula for the volume of a sphere—four-thirds pi times the radius cubed—and you come up with an answer in cubic light-years which literally takes your breath away. The specific gravity of the universe is mighty, mighty low. . . .

Who Needs Gravity?

FOR THE FIRST time the Air Force recently revealed data and photographs showing that live animals—mice and monkeys—had been sent up in V-2 and Aerobee rockets to altitudes of 80 miles, to test their reactions at zero gravity. Even though they were subjected to a brief, one-second acceleration of about 15 g and a force of 3 to 4 g, which lasted for 45 seconds, the animals showed absolutely no unusual aftereffects from the experimental flight.

One of the photographs made available shows a mouse floating in a plastic drum. Since the walls of the drum were glassy smooth, the animal was unable to gain a foothold and was undoubtedly in a state of helpless panic. Another photograph shows a mouse in an adjoining section of the drum. This section had a shelf, and the

second mouse was able to take firm hold, stay calm, and keep his equilibrium while the rocket shot through the weightless period.

The results of these experiments, plus others in which several humans took part in jet fighter planes, lead to the conclusion that it is undoubtedly possible for man to be able to stand for brief periods the gravity-free state expected in rocket flight to the outer atmosphere. But he must have something to hang on to. Properly secured in the aircraft, he should be able to function normally during brief periods of zero gravity, and without difficulty should be able to perform any operations that would be necessary to pilot the craft.

Why Rotation Varies

FOR YEARS the irregular fluctuation occurring periodically in the earth's rate of rotation has puzzled scientists. Recent studies of the optical properties of the mineral olivine under high pressures, however, give some idea of what the electrical conductivity at earth's center is like—and there is now a possible explanation to the fluctuations: It may be due to the activity of an electromagnetic coupling which is located between the mantle of the earth and earth's liquid center.

According to evidence which scientists have carefully gathered, it is probable that the earth's mantle consists in great part of the mineral olivine. Under normal conditions olivine acts as an insulator, but the high temperatures raging within the earth are strong enough to

change its properties there so that it becomes a conductor.

The electrical conductivity of the earth's mantle plays an important role in many geophysical phenomena, one of which of course is to provide the electromagnetic coupling between the mantle of the earth and the center of the earth, and the resulting activity of the coupling, which may possibly explain the variance in the earth's rate of rotation.

Unknown Universe?

ACCORDING to a theory which astronomers have been working on for almost 2,000 years, there are stars in the sky that do not twinkle. This means there may be as many invisible as visible stars in the universe, thus indicating that it is entirely possible that there exists a duplicate universe, of which we have no knowledge.

A British research foundation, in conjunction with the British government, has recently announced they are building a giant radio-telescope, at a cost of approximately \$1,120,000. With this huge instrument, scientists will try to locate the invisible stars. These may be radio stars, or dark stars. They may be stars in the process of being born or of dying. They may even be some completely new type of object of which our astronomers have no previous knowledge.

Birth of a Star

UNLIKE the birth of most of Nature's offspring, a star is formed almost purely by accident.

It begins to be created when interstellar gases in a cloud are brought together unevenly. The embryo star adds to its mass by picking up other gases as it makes its way through the cloud. It grows fast, and eventually moves out of its parent cloud and into a free space which has only irregular dottings of gas clouds.

According to a recent lecture by Professor Fred Hoyle of St. John's College in Cambridge, England, further growth of the star by the addition of external material, once it has left its parent cloud, is fairly rare. Perhaps one star in a hundred will experience a second period of growth, while only one in a million will experience both a second and a third growth.

The second period stars become moderately large. The stars that get to an exceptionally high mass, however, are the three-period stars.

That Old Bloodthirsty Mother Goose

MOTHER GOOSE — literature's benign old lady of letters—is actually a bloodthirsty vampire. Very few persons realize that the traditional nursery rhymes,

which have been used for generations to amuse and entertain innocent childhood, are filled with an overwhelming amount of villainous references, of death and violence and shocking horrors, masquerading under a mask of innocence.

Geoffrey Handley-Taylor, founder of the British Poetry-Drama Guild, is an active crusader for the reform of the old-fashioned nursery rhymes. Out of 200 famous traditional nursery rhymes which he recently studied in detail, he says at least 100 of them contain "unsavory elements". A detailed listing of their contents include: 200 allusions to death, violence and depravity, including eight cases of murder, two cases of choking to death, three of death by drowning, one each of death by devouring, decapitation, squeezing, cutting a human being in half, starvation, shrivelling, boiling, and hanging.

There's even a blow for starry-eyed newlyweds, in one rhyme, which contains an allusion to marriage being another form of death.

Today's radio and television programs of horror and suspense—which are bringing such loud protests of disapproval from parents—can well take a back seat to the old classics for children. —Peter Dakin



THE
Postman
COMETH

AMATEUR
TELESCOPE MAKER

Dear Sirs:

An item in IF, September 1952 issue (Science Briefs) on the subject of optical sandblasting proved to be of considerable interest to me. Mr. Recour refers to the technique devised by Dr. Wm. A. Rhodes.

I have made many telescope mirrors (all by the "old hat" method) and quite naturally the Doctor's technique (and its apparent time-saving) opens up new possibilities for amateur telescope makers, including myself. As Director of the Amateur Telescope Makers' Group in Toronto, Ontario, I have watched the rapid growth of public interest in the hobby, hand in hand with the also rapid development of time-and-effort-saving apparatus for making the mirror. The process of grinding has by no means been the least of the deterrents to amateurs, because of the relatively long period of work required without any apparent approach to the finished product. Consequently, I feel sure that my fellow amateurs will consider Dr.

Rhodes' method of sandblasting the base curve a useful advance in the mirror technique, especially in the larger sizes.

While the possibility of sandblasting is not entirely new to us, no actual experimentation (that I know of) has ever proved successful in Canada. Hence, we would appreciate any information you can give us on the Doctor's method.

—L. H. Clarke
328 Hillsdale Ave.
Toronto, Canada

No doubt Dr. Rhodes and other interested readers would like to exchange notes with Mr. Clarke.

AN OLD MONEY ORDER,
DA VINCI AND
NOSTRADAMUS

Dear Sir:

Enclosed you will find one slightly battered and beat-up money order. It was originally bought in Korea 8½ months ago but, just as it was about to be put into an envelope, several incoming rounds of enemy artillery followed by a call for a rather actively interesting combat patrol caused it to be misplaced. It finally turned up when I was looking through some old letters a few days ago.

It is made out for \$3.50, enough for a subscription for 12 issues.

I have just finished the November issue of IF. Very good; I liked especially the makeup and clear type which made the issue very easy to read. I won't list the stories in order of preference except to say that "The Image and the Like-

ness" was definitely the best and the feature on Leonardo da Vinci was very interesting. A full length article with a few diagrams of some of his inventions would be good for a later issue. Or how about Nostradamus and his predictions?

You have an attractive, flexible magazine. Keep up the good work.

—Sgt. Warren I. Paul, USMC,
1162025,
Marine Barracks, Box #33, NAS,
Jacksonville, Florida

That poor little old money order was good as gold. We hope you'll find IF comparably good.

THAT WORD "EXTRAPOLATE"

Sirs:

Inclosed find my check for \$3.50, for which please send me 12 issues of IF, beginning with the January number.

The November number is the only copy of any science fiction magazine which does not use the word "extrapolate" even once—for which receive my congratulations. What is it about that word that bewitches science fiction writers? One doesn't encounter it often in other fiction. Is it a sort of code in sf? Even writers whose knowledge of English grammar is a bit shaky manage to use it; in fact, especially writers in that category.

The Image and the Likeness is a beautiful bit of allegory as well as a touching story. Such flights of fancy justify science fiction as literature.

With good wishes to your maga-

zine (but I do hate the sexy covers).

—Phoebe H. Gilkyson
Mont Clare, Penn.

OF CHARACTERS IN STF

Dear Mr. Quinn:

The modern Gulliver story titled *The Image and the Likeness* is quite well written. My congratulations to Campbell for achieving verisimilitude in the character Kazu. Most characters in stf make me think of the joke (?) concerning the comment of an editor on a manuscript. Remember it? The writer had inserted the law-suit preventative "All characters appearing in this story are fictional. Any similarity to actual persons is coincidental." The plagued editor penciled a note, "That's the trouble," and tearfully inserted said script in the outgoing mail basket.

The sketch on da Vinci is excellent. The cover is poor in all over effect for me, although the balance of color is excellent. The staring eyes convey neither attraction nor horror and the foreshortened arms look like flippers. The bodies are neither opaque (witness planet line on legs) nor transparent, since solid continents in background are obliterated by trunks and Bell-jarred headdress.

—Alice Bullock
812 Gildersleeve
Santa Fe, New Mexico

DISPENSE WITH HUMOROUS STORIES?

To the Editor:

I was very impressed with your leading novel in the November

issue. It was easily the most absorbing story I have yet read on the theme of Atomic mutation. The best story in the issue, though, was *The Running Hounds*. Indeed a vivid portrayal of the changes which could take place in a culture as the result of highly technological warfare. I'd like to commend IF on its good discretion in stories. It's good to see that, as is true in some magazines, the so-called gimmick is not allowed to overshadow the characterization and the interplay of people.

For my money, although I know you can't please everybody, you can dispense with the humorous stories. I've read very few in my time which I believe were very successful.

Your covers are improving with each issue, the November one being the best so far. I think, and again I realize that you can't please everyone, that the cover should illustrate one of the stories, not necessarily the leading novel.

You'll be receiving my subscription.

—Robert Maider
Hamilton College
Clinton, New York

Our cover policy was explained in the March issue. Regarding humor, we need it sometimes, but agree that it has to be well handled.

THE NOVEMBER ISSUE AGAIN!

Dear Sir:

Your November issue of IF was tops in my opinion. I've read the mag ever since its inception and have followed its progress with interest. The cover . . . is absolutely

the best yet. It attracted me with such intensity at the newsstands that I frankly felt the interior could not live up to such a dazzling cover-picture. Happy to say, the stories were of equal calibre.

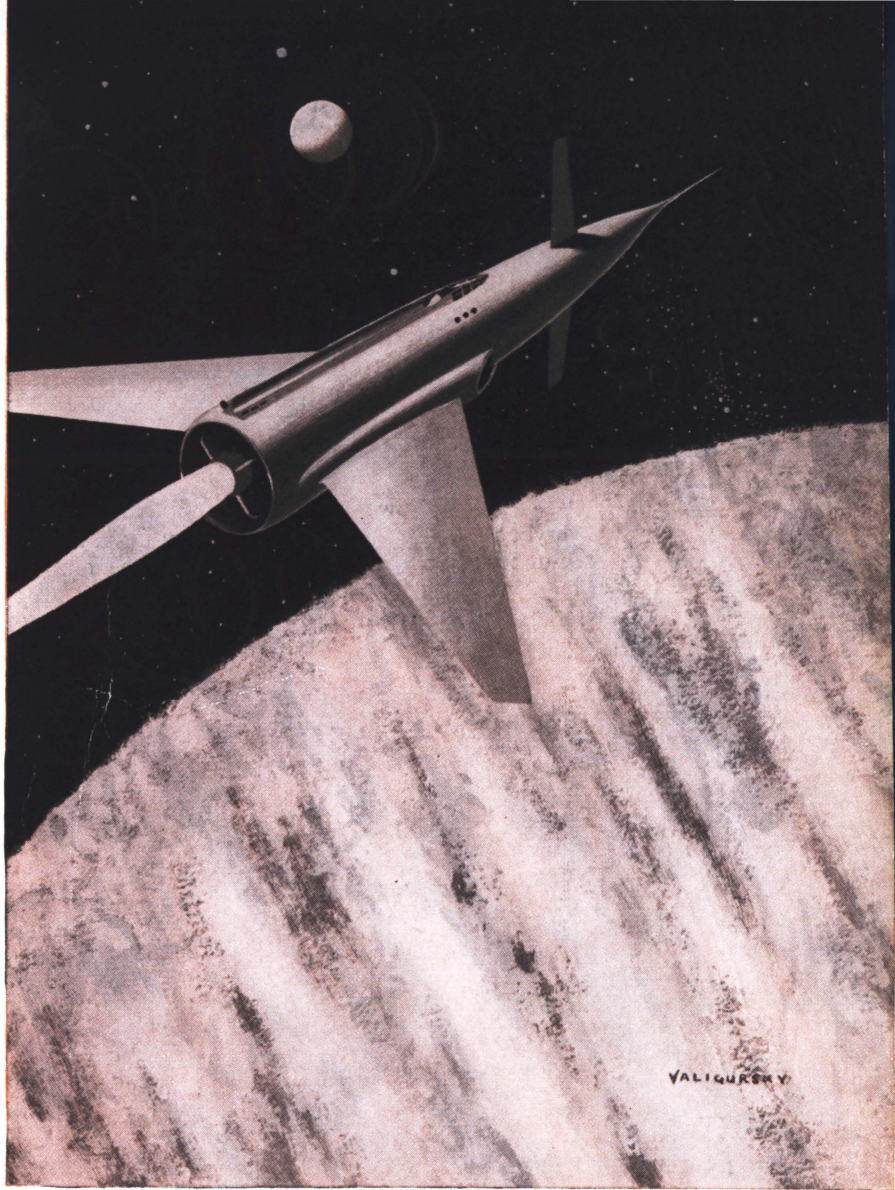
The Image and the Likeness was the best of the issue by a good 590 feet. Seldom have I read a story as realistic and enthralling as this one during my ten years of avid stf reading. This one was so good that even raving about it would be an understatement . . .

The Running Hounds was next on my list. A well turned tale, one that stays in my mind and suggests the possibility of a sequel . . .

Brother to the Machine was next in preference; a hauntingly written story. If this issue of IF is any yardstick I would say you have achieved what some of the other mags in the field are clamoring (falsely) that they have . . . quality in material.

Your inside covers are very welcome. I hope they continue. Your *Personalities in Science* feature is excellent. This is quite a statement coming from someone who avoids features like the plague. This one is being handled very nicely. *The Postman Cometh* is just right in length. I find when a mag starts printing poor quality stories they enlarge their readers' column, probably so the readers will have some reason to buy the mag. Keep yours short and your stories good and you'll have few complaints from this corner. Definitely compliments on the November IF.

—Jan Gardner
Apredelon
Canterbury, N. H.



JUPITER—The largest planet in our system presents many difficulties to the explorer. Its hostile atmosphere of ammonia and methane, coupled with a seething volcanic surface, promises to make any attempt at landing highly improbable. In this space scene, an exploration rocket streaks over Jupiter's bulk, approximately 100,000 miles above its equator. In the background above the rocket are three of Jupiter's eleven moons, all of which seem to invite comparatively safe exploration.

(Drawings by Ed Valigursky)

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