NEBULA SCIENCE FICTION

BI-MONTHLY

2/-

NUMBER 11

★ ★ *ALL STAR ISSUE* ★ ★

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NEBULA
SCIENCE FICTION

Edited by PETER HAMILTON Issue Number Eleven

Novel:

Novelette:

Short Stories:

Special Features:

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Look here . . .

There seems to be a distinct pessimism in the editorial attitudes of many rival science-fiction magazines at the moment —many of them going so far as to announce in their columns that their circulation is decreasing and almost begging their (diminishing) readership to provide active, word of mouth, support to maintain sales. The others, who have so far proved tactful or dishonest enough to conceal their impending failure from the public are in just as serious a plight— notably the British reprints of American edited magazines, the sales of which are reported by some sources to have declined by as much as fifty per cent during the last six months.

In contrast, science-fiction and space travel are still featuring prominently in the programmes of B.B.C. Television and Radio, Radio Luxembourg, many National Daily newspapers and in many of the country's cinemas. This proves beyond all doubt that the public is still as interested in science-fiction as they have ever been, so why do we constantly read admissions of defeat in science-fiction magazines in the form of allusions to the "great s.f. recession of 1954?"

To answer this we must recognise the two main types of magazine containing science-fiction which we meet on our bookstalls: they are the British reprints of American s.f. magazines and publications containing Space Opera. The former of these, while most popular for a time, seem to be suffering the heaviest circulation losses at moment. This is probably due to the fact that, no matter how superior the contents of some of these magazines may be, they are essentially American publications and are edited and produced with the sole purpose of pleasing their readers in the U.S.A., whose likes and dislikes differ very widely from those of their minority readerships in Great Britain and the Commonwealth.

"Space Opera" publications, under which heading I include all the futuristic dressed-up gangster and western type stories, which have no literary value whatsoever, are a far greater menace to true British science-fiction. People who have been unfortunate enough to make their first acquaintance with the field through this type of magazine have, in nine cases out of ten never bothered to try anything further. Unfortunately there will always be a small market for this type of reading among devotees of Horror Comics and the like.

These are the types of magazine which have made the public fight shy of science-fiction in the last few months and they are also, understandably enough, those which are bearing the brunt of the "recession." NEBULA on the other hand, which caters to a British and Commonwealth readership composed wholly of people of education and good taste, has suffered *no loss of circulation at all* since it first apeared. Its policy of taking a keen interest in the preferences of all its readers, of paying top fees to authors to ensure a steady flow of top line story material, both by the big

Concluded on page 128

CHARLES ERIC MAINE

The Yupe

It was the weird artifact of another world, its purpose was unknown — as yet

Illustrated by Martin Frew.

THE first time Blake saw the thing he christened it " the unknown elliptical prismoid." That was, of course, a typical Blake pun—a play on " The Unknown Political Prisoner," the famous surrealist wirework that made the headlines a few years ago—but it wasn't entirely inaccurate.

For one thing, the base of the gadget was definitely prismatic in shape, although where the cone-like protrusions jutted out from the main body the outline seemed to melt into a vaguely elliptical contour. It was about six inches wide and a foot tall, and it shone like new chrome.

Mallory had brought the thing into the laboratory, but after a week we got tired of calling it the unknown elliptical prismoid—the joke had worn thin, anyway—and referred to it by the initials U.E.P. Then Blake abbreviated the abbreviation, and it became the Yupe.

The Yupe came to us in a very roundabout way, but first I ought to explain about Lever. Some six months previously young Lever, who was a very junior member of the statistical section of our particular department of the Ministry of Supply Research Centre at Brierley, vanished without trace. Because he had had access to a certain amount of top secret information, it was generally assumed that he had disappeared behind

the Iron Curtain. At least the explanation had the merit of topicality at that time. I don't suppose any of us at Brierley ever expected to see Lever again, but then we backroom boys are inclined to be extremely unimaginative, even though we work on the fringe of the unknown.

The next thing that happened was the discovery of the Yupe by a farm labourer returning home across Brierley Common around nine o'clock one night. The thing was sticking out of the ground at an awkward angle, and catching the ruby glint of the setting sun on its mirrored surface.

He tried to pick it up, but the base seemed to be firmly embedded in the ground, and his efforts were unsuccessful. The truth was that the Yupe was too heavy for one man to lift. In spite of its small size, it weighed nearly a quarter of a ton.

At this point the farm labourer started to think, and his deliberations warned him that there was something sinister and purposeful about this curiously shaped piece of metal. He informed the police.

The police, comprising Sgt. Burke and two constables, lost no time in transferring the responsibility for dealing with the object on the Common to the nearest Army camp. The camp commandant, Colonel Kyle, examined the thing personally, then called in a bomb disposal squad.

At this stage the true weight of the Yupe was discovered.

A platoon of men and a breakdown truck were used to remove it from the Common, and in due course it was conveyed, under armed guard, to Military Intelligence in London.

It seems that the officials at Military Intelligence weren't particularly intelligent when it came to making head or tail of the Yupe. It stayed there four days, during which it was weighed, measured, x-rayed, photographed, and submitted to various chemical processes—all to no avail. Then, apparently, somebody pointed a Geiger counter at it. The positive reaction was so great that in less than three hours the Yupe was on its way to Brierley, contained in a massive lead case, and carried on a truck manned by three men who were convinced that every next moment would witness their annihilation in a tremendous atomic explosion.

But at Brierley we took the Yupe in our stride. We were all specialists in the military applications of nuclear fission, and the Yupe was a minor radioactive conundrum—or so we thought at the time. Apart from its immense weight—initially the most baffling feature—there was nothing about it to indicate that it would not be amenable to our usual routine methods of analysis.

The man in charge of "Operation Yupe," as we called it, was a bald bespectacled character called Blamey: He was our departmental

head, and had enough letters after his name to start a new international language. He approached the problem systematically. On the tenth day Dr. Rinehart, Director of Research, came into the laboratory for a progress report.

"How far have we got?" asked Rinehart, peering closely at the thing.

Blamey shrugged his shoulders. "Practically nowhere. Every avenue we explore turns out to be a cul-de-sac."

"The Ministry were on the blower this morning," said Rinehart irascibly, "and they want hard facts."

"Well, Carson can give you facts," Blamey said, pointing at me.

I referred to my notebook. Four and a half pages were covered with observations and figures about the Yupe; the only trouble was that you couldn't add them up to make any kind of rational whole. I made a hasty selection of the more intriguing data for Rinehart's ears.

"Under x-ray," I said, "the thing is practically opaque, but there is an oval shadow near the base that appears to be moving slowly. Cyclic time about eighteen seconds. I checked for noise and vibration. Nothing—until I tried the high-gain wideband amplifier, and then we detected a faint high-pitched whistle and a slow ticking."

"Ticking?"

"Yes. About four a minute."

"A time fuse?"

"No—I don't think so. But obviously some form of escapement mechanism. My view is that the thing contains a tiny motor of unimaginable purpose, powered by some kind of nuclear reactor."

"Why do you think so?"

I paused to consider my answer. Rinehart wasn't the kind of man who would accept hunches, and I couldn't give him proof. "When we tried the stereo-Geiger," I said finally, "we pin-pointed the radioactive source, and it was rotating with the oval shape. That suggested nuclear motive power."

Rinehart sniffed sceptically. He touched the smooth cold surface of the Yupe.

"Anything else?"

"The metallurgical lab drew a blank. Blake can tell you more about that than I can."

"Well?" demanded Rinehart, turning to Blake.

"Couldn't do a thing with it," Blake remarked, catching my eye and winking solemnly. "That thing is a darned sight harder than any of our diamond cutters. The oxy-acetylene jet might just as well have been a candle for all the effect it had."

" Reagents?"

" No go. All the acids and caustics—like water off a duck's back."

" Then you can't even identify the metal?"

" No."

As an afterthought Blake added brightly. "Tell you what, chief. I did try electron bombardment through a stencil in the vacuum chamber. Connecting the thing as an anode with a potential of 200 kilovolts I managed to etch a star on the surface—just here." He pointed to an almost imperceptible smudge marring the otherwise perfect surface of the Yupe.

" You see, Dr. Rinehart," said Blamey apologetically, " there's nothing to go on. If we could open it up . . . "

" Have you tried?" demanded Rinehart, glaring at the Yupe.

" We have tried every conceivable method. There's not the slightest sign of a joint or crack. When we applied a lateral stress of 500 tons across it, the metal didn't even show the beginning of a flex pattern on the oscillograph. It's uncanny."

Rinehart poked at the Yupe with a stubborn forefinger. " If there's an escapement inside, it must have been put there. Keep trying. There's no metal known that can't be melted."

" This won't melt," said Blake emphatically. " It won't even show red heat—only a negligible amount of infra-red at the highest temperature we can reach."

Rinehart was obviously dissatisfied, but clearly we couldn't help him to answer the Ministry's questions. We had too many questions of our own awaiting reply. Where did the thing come from, for instance, and how did it get on Brierley Common, and what was it for, and what would happen when the escapement had run down?

" I want it opened," Rinehart stated. " I don't care how you do it, but open it. And Mr. Blamey—you and Carson had better go over Brierley Common with a fine tooth comb and a Geiger counter. There may be more than one—or there may be other parts of the same thing."

" The military have already searched the Common," I pointed out. " They used mine detectors."

" Then we'll use radiation detectors," said Rinehart.

During the afternoon Blamey and I went over to the common, leaving Blake to tackle the almost insoluble problem of how to break open the Yupe. " I suppose we *could* try an ordinary can-opener," he

remarked wistfully as we loaded a couple of Geiger counters and a portable Lorentz radiation P.P.I. unit into Blamey's car.

" Try ultrasonics," I suggested. " That high-pitched whistle may be a sub-harmonic of something."

On the way out we passed Miss Fenton in the corridor. " Hello, Jill," I said. " If I didn't have a date with a common I'd stay and gaze into your eyes."

" A common what?" she asked.

" You figure it out—and I hope it worries you," I replied.

Brierley Common was only ten miles from the research centre, but it took us just over half-an-hour, partly because of the bad road surface, but mainly because of Blamey's incredibly unimaginative driving tactics. We set up the Lorentz equipment in the road, just beside the car, and scanned the area on the radar display tube. Only one positive trace came up—an indication of faint radioactivity about a mile and a half across the common. We checked with the map and found that this was in fact the spot where the Yupe was first discovered.

" Obviously there's some slight residual radioactivity in the soil," Blamey observed.

" And no other Yupes within five miles," I added.

" We'd better go over," said Blamey.

Using one of the portable Geiger packs we located the spot in about forty minutes. The indentation in the ground which marked the original site of the Yupe would have been impossible to find without some form of radiation detection. There wasn't a great deal of radioactivity, and the dent was clean cut—about four inches deep at one end and seven at the other.

" Doesn't tell us much," Blamey remarked, kneeling down and poking the Geiger tube into the hole so that the clicks came furiously through the earphones.

I agreed. " Personally I think we're wasting time. We ought to get back."

" On the other hand the ground is quite soft," said Blamey.

" Well——it *has* been raining."

Blamey stood up and gave me a shy curious glance through his spectacles. " What I mean, Carson, is that if the Yupe had been carried here, across the common, there would have been tracks. The weight, you know."

" I think it's fairly obvious that it wasn't carried," I said, wondering what he was getting at. " From the hole in the ground I would say it fell from the sky."

" But the mass-velocity factor . . ."

" What about it? "

Blamey shifted uncomfortably. He was never happy when dealing with supposition or theory; he was essentially a fact gatherer.

" The thing weighs a quarter of a ton," he went on. " My own feeling is that if it had fallen from any height it would have just about buried itself. The hole is only a few inches deep—the sort of hole it would make if it were placed carefully in position."

" Well, that's logical," I admitted. You only had to consider what happened to a 500-lb. bomb falling from an aeroplane on to soft ground to realise that the Yupe would have tunnelled its way some fifteen feet into the soil. Blamey had certainly got something.

" On the other hand," he said, speaking slowly and carefully, " if it had been carried, or brought on a vehicle, there would be evidence. Further indentations, tracks, and so on. It's very puzzling."

" That's the understatement of the year," I commented.

We stayed on the common for more than an hour, discovering nothing further, and feeling vaguely depressed by the increasing awareness of the incomprehensible. Finally Blamey scooped up some samples of radioactive soil and grass, and we went back to the research centre.

We arrived to find the place in an uproar. Rinehart had all the appearance of a homicidal maniac, and people were rushing in and out of the labs. The police had been called in, and cameramen were taking photographs. As it was impossible to obtain a coherent story from anyone, I sought out Jill Fenton, who was in charge of the technical library and secret registry, and found her, surprisingly enough, sitting at her desk calmly getting on with her work.

" For heaven's sake, Jill, what goes on? " I demanded, sitting on the corner of her desk.

" Haven't you heard? "

" They've all gone mad asking questions. No one thinks of providing answers."

" Blake's disappeared," she announced calmly.

" What do you mean——disappeared?"

She waved one hand airily. " Just that. And the Yupe too."

I stood up again and eyed her solemnly. " You mean Blake's gone off with the Yupe? "

She nodded.

" But the thing weighs a quarter of a ton! "

She smiled and came over to me, putting her hands on my shoulders. " Take it easy, John. Let's not get into semantic difficulties. Blake has

disappeared. The Yupe has disappeared."

" You mean——into thin air? "

" Exactly. Mallory saw it happen. It seems Blake had just finished an ultrasonics test on the Yupe, and was smoking a cigarette and a half-heartedly twisting one of the metallic projections of the thing with one hand. Then there was an orange flash—quite a small flash with no noise—and that was all. The laboratory was empty."

" Thanks, Jill," I said, kissing her lightly, then went off to find Mallory.

" That's how it was, Carson," Mallory said. He was impatient to get away from me and rejoin the police where most of the limelight was. " Blake just disappeared. The Yupe too. Like a conjuring trick. I couldn't believe my eyes at first."

" You're absolutely sure? " I asked.

" Of course I'm sure," said Mallory with heat.

" Blake's a bit of a practical joker, you know."

" This was no joke," Mallory retorted.

Later I saw Jill again, in the canteen during tea break. She was reading a novel with a lurid cover entitled *The Curtain of Fear*. I was reminded of young Lever who was supposed to have found his way behind the Iron Curtain.

I said: " If we keep on losing scientists this way—first Lever and now Blake—we'll soon have to close down the centre."

She regarded me soberly and enigmatically for some seconds. " You don't suppose there could be any connection, John? "

I laughed. " You wouldn't get Blake behind the Iron Curtain—not even if you pushed him with a team of bulldozers! "

" That's not what I meant," she said quietly.

And then, quite suddenly, I saw what she meant and a strange disquieting chill trembled over the length of my spine.

The next day Rinehart held a court of inquiry, which took the form of a summary investigation at which he presided while members of the staff, including myself, answered questions and gave evidence. I could see that he was genuinely worried, though I suspected that his concern was more for himself than for his missing scientists. There was little doubt that he would be called to the Ministry in London to answer some very awkward questions.

My own contribution to Rinehart's collection of data wasn't enormous, but I felt it was significant. As I went in to his office he selected a clean sheet of paper and wrote my name at the top. Then I told him

about our expedition to Brierley Common, and what we didn't find out.

" You say there were no tracks? " Rinehart enquired

" Nothing at all," I said, " apart from the marks of the caterpillar on the military breakdown truck that took the Yupe away. But nothing unidentifiable."

Rinehart tapped the desk with his pencil. " Then I can't see the point of your evidence, Carson. You're telling me that the thing wasn't brought to the spot and it wasn't dropped from the sky."

" That's right, chief. I'm eliminating possibilities."

" You're eliminating everything," said Rinehart with irony. Then he wrote on the sheet: " No useful information."

" Just a minute, chief," I said, while he hesitated over the full stop. " There's another angle on this business. Blake has disappeared—and so has Lever. Supposing they both went——the same way . . ."

Rinehart inspected me with quizzical hostility.

" I mean——supposing Lever came across a Yupe? "

Rinehart said: " MI5 have already dealt with the Lever case in great detail. There is no reason to suppose . . ."

" But Lever vanished without trace," I interrupted. " He vanished so completly that MI5 were forced to the conclusion that he was smuggled abroad by a very efficient espionage organisation. But it was only a theory."

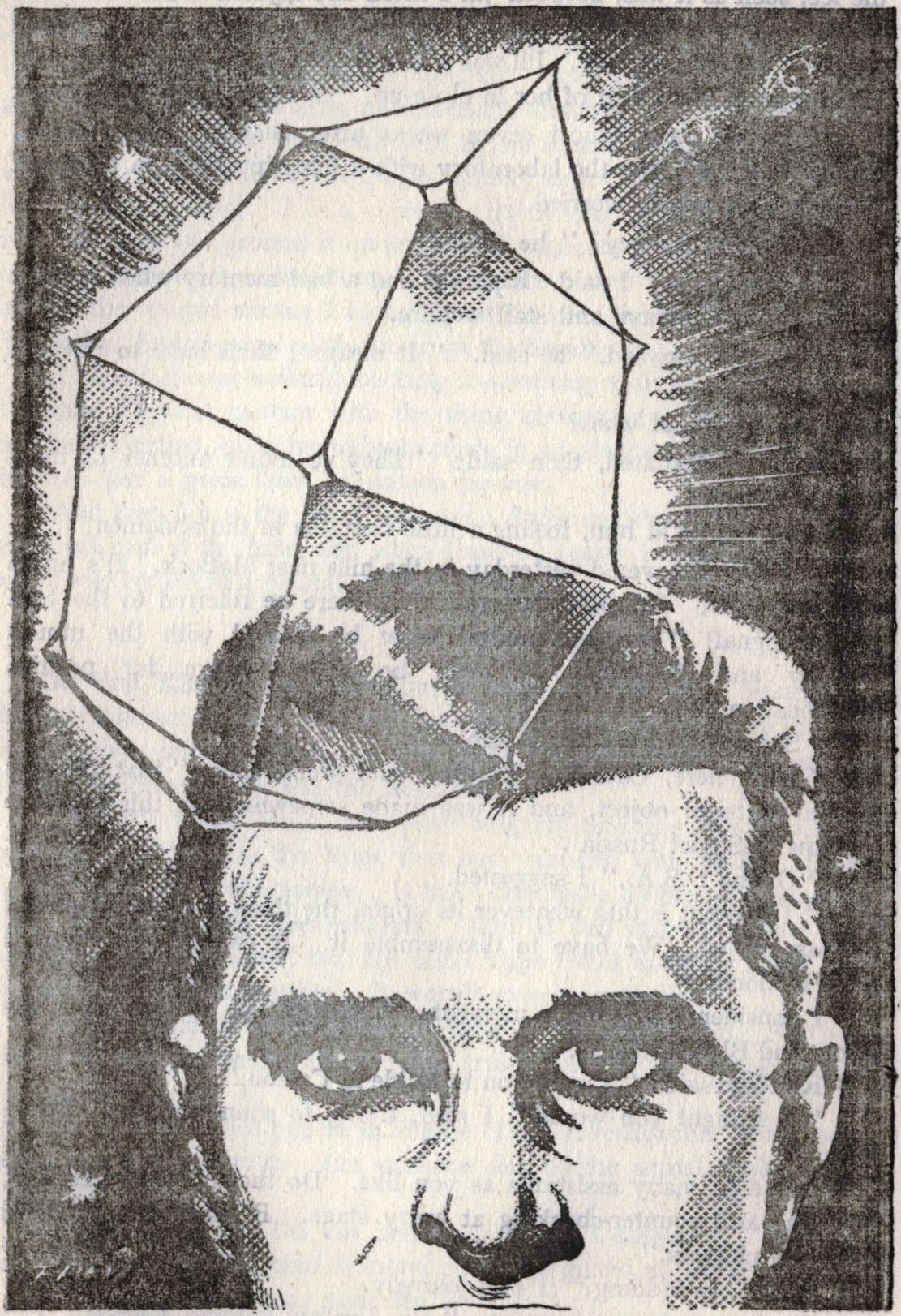
" I see," said Rinehart sceptically. " But you think it more likely that Lever found one of these U.E.P. things and disappeared in the same way as Blake."

" Why not? " I demanded.

Rinehart picked up his pencil and added the words " at all " to what he had already written. My interview was over.

It took nearly five weeks for the fuss to die down after the Blake affair, and during that period routine work at the research centre practically ceased. Government officials, MI5 investigators, even F.B.I. men on liaison duties, came and browsed around, asking questions and examining equipment and records. The laboratory was sealed for seventeen days during the investigations.

Gradually, however, Blake receded into the background, and we all began to concentrate on the problems of the present rather than the enigmas of the past. Most of us were rather relieved that the Yupe had gone, though we were naturally sorry about Blake. It had been an interference in the smooth routine of the centre, and we all preferred the easy irresponsibility of routine to the depressing complexity of insoluble technical mysteries.



The Yupe had done one good thing for me, however; it had broken the ice, such as it was, between Jill Fenton and myself. That kiss I had given her on the day of the panic, unpremeditated though it was, turned out to be the first of many. Jill was a wonderful girl at any distance, and I got to see a great deal of her in close-up. We both liked it that way.

Then one day, almost seven weeks after Blake's disappearance, Rinehart charged into the laboratory with a teleprinter slip in his hand. He looked extremely worried.

" Where's Blamey? " he asked.

" On holiday," I said. Rinehart had a bad memory when it came to matters of holidays and staff welfare.

" That's awkward," he said. " It means I shall have to put you in charge, Carson."

" In charge of what?"

Rinehart hesitated, then said: " They've found another of those U.E.P. things."

I just stared at him, feeling a little unstable in the abdomen.

" It was discovered yesterday in the hills near Matlock. It's on its way here now. The Ministry say . . ." (here he referred to the teleprinter signal) " that this matter must be treated with the utmost urgency and despatch. It must be broken down for positive identification."

" Supposing that's not possible?"

" Look here, Carson," Rinehart said stubbornly, " that thing is a solid material object, and it was made somewhere on this planet—perhaps in Soviet Russia . . ."

" Or the U.S.A.," I suggested.

" The point is that whatever its origin, the thing was manufactured and assembled. We have to disassemble it. It can be done, and it must be done."

I considered this for a moment. " It won't be easy—with Blake gone, and Blamey away . . ."

Rinehart said: " I want you to tackle it, Carson."

" I thought you would," I said, trying to sound brighter than I felt.

" Use as many assistants as you like. Do the job systematically, checking and counter-checking at every stage. Be careful, and don't take any chances."

" Are you kidding?" I said jokingly.

Rinehart took me seriously. " No, I'm not kidding, Carson. This thing is dangerous. We don't want to lose you too."

The new Yupe arrived at four o'clock that some afternoon. It was unloaded from the truck by crane, and cautiously wheeled into the laboratory on a mobile platform. In every respect it was identical with the original model, but its streamlined surrealistic appearance now possessed an intangible aura of something sinister.

My own physical reactions were by no means intangible. As soon as I saw it my mouth went unaccountably dry, and the palms of my hands became tacky. I lit a cigarette, but it was tasteless, and I flung it to the floor and ground it underfoot. I was conscious of Mallory and a young technician called Bennett eyeing me curiously. No-one spoke, and in the opaque silence I thought I could hear the faint whistle from inside the glittering case of the thing on the bench.

I looked it over without touching it—nothing could have induced me to make physical contact with the thing at that time. It was shining and unblemished, quite beautifuuly made in an abstract way, but meaningless—like a piece from an unseen jig-saw.

And then I saw the mark. It was a duller smudge, high up on the elliptical part of the base, and when I moved nearer I could see that the mark was etched in a definite shape. It was a star.

At first Rinehart was incredulous, but after he had referred to Blake's laboratory notes and had checked the mark on the Yupe through a low-power microscope, he had to admit the inadmissible. It wasn't another Yupe at all—it was the same one.

It didn't make sense, but there was no escaping the inevitable conclusion. This was the Yupe that had vanished with Blake. There could be no doubt whatsoever. It had come back, as big an enigma as ever, and it was my responsibility. And at this stage Rinehart was almost prepared to admit that the same Yupe could have got Lever too. It was no longer impossible. It wasn't even improbable.

Before I started to work on the thing I went to see Jill. She had lost a little of her cool poise and was trying hard not to appear scared or distressed.

She said: " Since you're in charge of the investigation, John, why don't you just supervise. Let someone else do the actual work on the thing."

" There's nothing I'd like better, darling," I answered, " but this is different. There's a kind of moral challenge mixed up with it."

" You may be risking your life."

" That's what I mean. I can't very well let someone else risk his life, much as I'd like to. I have to do the job myself."

She came over to me and I kissed her. " Please be careful, for my sake," she said softly.

I said I would, and went back to the lab.

Mallory suggested that Blake might be alive somewhere in the Matlock hills, where the Yupe had been picked up. Since they had both vanished together, he thought it possible that they might both have come back together. I agreed that this seemed fairly logical, and told him to pass the idea on to Rinehart. He went off and came back a few minutes later.

" The old man was sceptical," he said, " but he's going to send a signal to MI5, and they'll have the area checked."

" Good," I commented, glancing at my watch. It was five minutes past five. " Mallory," I said with enthusiasm, " it's time to go home. The Yupe can wait until tomorrow."

" You're out of luck, Carson," said Mallory sourly. "Rinehart just told me that all the laboratory staff will be working until eight o'clock every night until this business is cleared up. M.O.S. priority."

" Blast M.O.S.," I said with feeling. " And Rinehart too."

" And the Yupe," said Mallory.

During the next four days I carried out a comprehensive and progressive series of tests on the Yupe, calculated to strain to breakdown point every physical, mechanical and electrical property that the thing might conceivably possess. The results only confirmed our original findings weeks before. The Yupe was completely impervious to all external force or applied energy.

Throughout the tests I made a point of not touching the metal surface of the Yupe where it could be avoided. When contact was necessary, I used rubber gloves. But although the tendency was to gain in confidence and decrease in caution as each successive test failed, I kept thinking of Blake, and that always sobered me up. I had to remind myself that this same Yupe had been subjected to every variety of scientific test on the previous occasion, and yet, when the entire range of experiments had been exhausted, it had disappeared in a silent orange explosion, taking Blake with it.

But familiarity with the thing certainly reduced my fear of it, even though I was always conscious of the dark oval shape slowly revolving inside, and the ominous ticking that seemed to be counting off the quarter-minutes . . . to what?

Rinehart was irritable and impatient, awaiting results that never came, expecting me to crack the thing open like an egg and lay all the

pieces on his desk with labels attached. He was the perfect pessimistic optimist.

Looking at the thing logically, there was very little that one could accept as a factual foundation on which to build up any kind of theoretical framework. The Yupe was a solid manufactured object—and immensely heavy. It had internal moving parts apparently driven by some form of nuclear power. It could possibly be a weapon, but that did not seem very likely—at least, it wasn't the kind of weapon I was accustomed to dealing with.

It was obviously a functional object, as opposed to a static work of a decorative or artistic nature—but what was its function? It had been observed to produce an orange flash, prior to disappearance, and had removed, like a conjuring trick, one man—possibly two—from the face of the planet. That was an assumption, of course, for Blake might still be alive somewhere, but I was inclined to think that he was no longer in the here and now, if, indeed, he existed at all.

And that was about all we knew—certainly not enough to make a reasonable guess at the origin or purpose of the thing. The metal was too hard to be scratched, and would not react chemically: it might, therefore, be an unknown new element—perhaps of non-terrestrial origin. There was at present no way of finding out.

There was nothing we could do but plod on with the research, hoping for a lucky break that would give us a definite lead, but fearing every moment the fatal orange flash that would bring certain annihilation to the unfortunate person in contact with the thing—probably me.

On the sixth day I decided on the one final test that we had not yet tried, namely, induction heating using a high-power radio-frequency furnace. We had been completely unsuccessful in attempting to cut the outer case with oxy-acetylene burners, but the induction heater would act internally, raising the inside mechanism of the Yupe to a fantastic temperature far higher than the melting point of any known metal. It would inevitably result in the destruction of whatever the thing contained, but the mass of fused metal we hoped to get—provided we didn't all vanish in an enormous explosion—might prove to be amenable to chemical and physical analysis. It was at least a chance—probably our last chance—to make any progress at all.

Mallory brought a suitable induction unit fom Cambridge, and rigged it up in the laboratory. We timed the test for 3 o'clock that afternoon, and decided to evacuate the lab. and watch events over the internal video system—just in case of accidents. Rinehart was a little disapproving in manner; I don't think he liked the idea of destroying the Yupe in order to find out something about it, but the Ministry had

sanctioned the test and he wasn't in a position to interfere.

And so, at three minutes to three, I kissed Jill for luck, then made my way to the video room to control the experiment. This, I thought, was it. If nothing happened—well, perhaps they would let us take the Yupe back to Brierley Common and bury it.

But the test never took place, for as I rounded the angle of the corridor leading to the video room I came face to face with Blake and Lever.

"Hello, Carson," said Blake affably. Lever held out his hand and said "Long time no see."

I don't remember saying anything for quite a long time. The truth was that I couldn't—I was completely taken aback. Meanwhile Blake kept grinning sheepishly, while Lever regarded me pleasantly with a faraway dreamy expression in his eyes.

"Well," said Blake presently, "aren't you going to put the crimson carpet down and welcome us back?"

I found my voice at last. "Where the hell have you been?" I demanded of Blake, then to the other: "And you, Lever? What have you been up to?"

"Oh, it's nothing really," Blake remarked. "I suppose we ought to go and see the old man. Do you think he can stand the shock?"

"He'll just about kill you two. Do you realise that the police and MI5 have been turning the country upside down . . . ?"

"I suppose so, but there wasn't anything we could do . . ."

"But what happened to you? After the explosion . . ."

Blake regarded me enigmatically—a little shyly, I thought. He said: "Well, frankly, Carson—I'd rather not say . . ."

I began to wonder whether I wasn't dreaming the whole thing, but they both looked real and solid enough. And when I stopped to think about it, they both had the same evasive reticence in their eyes, and the same quiet reserve in their voices. I turned to Lever.

"Now look here, Lever," I said aggressively. "This is a serious matter. You are under suspicion of espionage, for one thing, and . . ."

Lever burst out laughing before I could finish.

Blake said: "It's no use questioning us, Carson. There are some things you just can't talk about."

"Can't you remember?" I demanded.

"Yes—I can remember all right."

"Well?"

"I don't want to talk—neither does Lever."

I think I was beginning to lose my temper with Blake. The strain

of the past few days had unsettled my nerves, and this incredible return of the missing men at the moment of the final test on the Yupe was rapidly undermining the last remnants of my equanimity.

" You'll damn well have to talk," I snapped. " You'll be grilled by the police and MI5 until you're only too willing to tell them every last little detail. What's so secret about it? Why can't you talk?"

Blake sighed and shrugged his shoulders. " I realise it's going to be very difficult," he said apologetically, " but it's even more difficult for us. It's not even that we don't want to talk. It's just—well, there are some things people just don't talk about, even in confidence."

" That's right," Lever agreed. " It would be rather embarrassing I'm afraid."

" For you or me?"

" For both of us."

"You see, Carson," said Blake persuasively, " it was essentially a personal experience. It would be just the same for anyone else. It's something nobody would want to share or talk about."

I tried hard to be patient. " Tell me, Blake, when the explosion occurred—did you go somewhere?"

He nodded vaguely. " In a way—yes. I suppose I did."

" Aren't you sure?"

" Yes—I'm sure. Only ' somewhere ' isn't the right word."

" Then what is the right word?"

" I don't really know."

" Let's get this straight," I said with determination. " You disappeared from the lab., but you stayed alive—in one piece."

" Obviously."

" Then you must have gone to some other place."

" Sure—any place. That's right, isn't it, Lever?"

" Dead right," said Lever.

" That doesn't make sense," I objected. " You're both stalling."

Blake smiled. " It makes sense to us," he said carefully, " but not to you. Personally I'm beginning to wonder why we ever came back. We must have been crazy."

" You mean—you enjoyed it?" I asked.

Blake avoided my questioning gaze, and shifted his feet nervously. " You can put it that way if you like."

" If *I* like!" I stormed. " That's just about the limit! I'd better warn you two here and now . . ."

That was as far as I got, for the next moment Rinehart swept round the angle of the corridor at high speed. As soon as he saw me he stopped and bristled angrily.

What's the meaning of this delay, Carson?" he demanded. "The test should have started eight minutes ago."

Then he saw Blake and Lever. His expression did not change immediately. He blinked his eyes rapidly for a few moments, as though trying to clear some obstruction, and frowned slightly: an instant later he stepped backwards, opened his mouth in astonishment, and uttered an incomprehensible sound.

And then, in a deluge of indignant phrases and sentences, he had scooped up the two men in his outraged embrace, and had whisked them off down the corridor in the direction of his office, leaving me alone and frustated and immersed in a deeper mystery than ever.

I didn't see Blake and Lever again—at least, not for a long time—because they left Brierley that same afternoon in a police car which took them to London where, presumably, they underwent extensive interrogation by Scotland Yard, MI5, and scientists from the ministry of Supply and various other government departments. I don't suppose that in the long run they were any wiser than I was on that particular day—or Rinehart for that matter.

But one thing was obvious: the Yupe was not lethal, and therefore not to be feared. In fact, if Blake's reaction was genuine, it was something to be enjoyed, in a secretive manner. This realisation altered my whole outlook on the tests. I knew now what I was going to do, and I went to put my proposition to Rinehart.

" Did Blake and Lever tell you anything ?" I asked.

He scowled and shook his head. " I can't understand their attitude at all."

" No more can I," I said, " but I'm determined to find out exactly what happened to those two."

" How do you propose to do that ?"

" By disappearing with the Yupe."

He regarded me speculatively for a moment. " Supposing you were able to go—and come back—how do I know you won't behave like Blake and Lever ?"

" I guarantee it. I propose to go as a scientific observer and record everything that takes place. And more than that—I shall find out just why Blake and Lever wouldn't talk."

Rinehart considered this for a moment, then said: " All right, Carson. Do it."

However, it wasn't quite so easy as that. For one thing, Jill put

up a fight. She didn't want me to disappear into thin air, which, I suppose, was understandable enough. It wasn't that she thought I might vanish for ever; it was simply her instinctive feminine reaction to any event that might interfere with her life on the emotional level. Between us we were managing to wallow in emotion to quite an unscientific degree, and taking it seriously. I was already beginning to think of Jill in terms of matrimony, and wondering what her answer would be if I were to pop the question.

This Yupe excursion was something of a setback; we actually quarrelled about it. I don't suppose either of us was perfectly sincere, but we had taken an attitude, and we were stubborn enough to maintain it. The result was that Jill refused to see my point of view, and I was equally intolerant of hers. We both knew that the quarrel could not survive for long, and I was secretly hoping that my attempts to make the Yupe do its disappearing act would be unsuccessful for the first two or three days. By then I was convinced that Jill and I would be back to normal again.

But it didn't work out that way. The very next morning, after twenty minutes of preliminary examination and manipulation of the thing, it happened. I had taken hold of two of the metallic projections and was idly wondering where the Yupe had come from originally—whether from our own four-dimensional space-time system, or from some other alien plane of existence beyond imagining—when the laboratory dissolved in a brilliant orange flash.

That was all. Just a flash and then nothing. The Yupe had gone, and so had all light and form of substance. For some considerable time I was just myself—a kind of unfocused awareness of identity—with not a single thought or feeling to crystallise my mind in time and space.

When the mental paralysis began to evaporate, I struggled to achieve continuity with the past. Memory came sluggishly. I had been holding the Yupe—not tightly—just holding it, and thinking . . .

I was in the laboratory again, and the Yupe was on the bench in front of me, and out of the corner of my eye I could see Mallory with his back to me, bending down, motionless.

I thought: "For God's sake Mallory, why don't you turn round and watch what happens. You'll miss the explosion."

Mallory stood up and turned round and came over to me. Supposing he knew . . . ?

"Any moment now," said Mallory. "Brace yourself, Carson. Here it comes . . ."

Again the orange flash—exactly as before. The poised formless hovering in meaningless darkness. The ebbing paralysis. If only Jill

had been there—if only she had known too . . .

I was in the laboratory, and Mallory had gone. The door opened and Jill came in, and the room was suddenly filled with a sense of warmth and intimacy. The quarrel was over . . .

She came to me and said: " Darling, I've come to my senses at last. I couldn't stand it any longer—not with the shadow of this hanging over us . . ."

" It was my fault . . ." I whispered, and kissed her. The world was wonderful once more.

And she knew about the Yupe too. She said: " I know it's going to happen now—as soon as you touch it . . ."

It did. Exactly as before. The orange flash and the numbing darkness. The ebony backdrop of timelessness . . .

Something was wrong. It didn't make sense—didn't even begin to add up. And yet Blake knew the answers—but he wouldn't talk.

" Hello, Carson," said Blake, smiling. This was the corridor leading to the video control room, and Blake had a hostile enigmatic glitter in his eyes.

I said: " Look here, Blake. You know what's going on out there—in the darkness. Why don't you co-operate—and talk ?" But I knew it was useless.

" Figure it out for yourself, Carson," said Blake. " You volunteered to go into the unknown with the Yupe. Okay—you're on your own!"

He walked past me and down the corridor, and a moment later the blackness returned.

Then Jill was close to me, and I was stroking her hair and she was kissing me lightly on the lips with a teasing butterfly touch. That was what I needed right at that moment. The soothing security of a woman's embrace.

She said: " Promise me you won't go back into the darkness."

" I promise."

" And say you won't ever leave me again."

" I won't ever leave you again."

But it still didn't make sense—thanks to Blake. Right now they would be interrogating him, and I would have liked to have been in on that interrogation. More—I would have liked to have been the officer in charge.

Blake was standing between the two security guards. He looked tired and hollow-eyed, but there was still defiance in his stance. On either side of me the members of the tribunal were talking among themselves, but I struck the table with my fist and called for silence.

" I'll give you one more chance, Blake," I said firmly. " If you still refuse to talk, then we shall try other methods. For your own sake you had better answer my questions."

Blake smiled triumphantly. " Look into your own mind," he replied. " The answers are already there . . ."

It was true. Blake and the guards dissolved into darkness, and the answers trembled on the fringe of consciousness. Think of somebody—think of anybody—Rinehart, for instance.

" I can't understand it," said Rinehart, standing up. " You of all people, Carson. You said you would talk, remember . . . ?"

Now apologise, I thought.

Rinehart hesitated and stared at the floor. Then he came nearer, shuffling uneasily, and said: " I'm sorry, Carson. I didn't mean it that way at all . . ."

But I didn't want Rinehart. I wanted Jill. Alone in a warm perfumed garden, as nature had designed her. And then I saw her through the flowering trees, running towards the silver pool, and marvelled at the white smoothness of her body in the sunlight filtering through the leaves.

She hesitated, then glanced backwards, looking for me. " Why don't you come, darling," she called, and her voice was an enchanting invitation. " Why don't you come? I'm waiting for you."

This was real. It was as fabulous as the Garden of Eden, but it was real. I stepped forward on to a soft carpet of crimson blossom towards the woman I loved, and she held out her arms to welcome me.

An incongruous thought quivered in my mind. Supposing I were to find a Yupe embedded in the soft loam among the scattered flowers . . . ? And there it was, shining cold and metallic, an impersonal mirrored shape reflecting the hues of the garden and breaking them into rainbow whorls.

I stooped to touch the projections, and the garden melted in a vivid orange flash.

In the blackness the answers were taking material form, soidifying into concepts that could be expressed in words. To think is to be—to shape the darkness into living reality. Take Mallory—and there he is, a little shabby as always; take Jill — and Mallory has gone, and she is there, looking at you with eyes that express devotion; take Rinehart—and let him exist for a moment, glancing at you with nervous eyes; take Jill again—always back to Jill—in the office, on the beach, by the crimson glow of a dying fire, at the ball in a shimmering gown, in the subdued light of a private room, disrobing. Take Rinehart—but come back to Jill. Then as an experiment try the other girls you used to know.

Here is Anne, gay and vivacious as you always knew her. She'll kiss you if you wish. And now Elizabeth—still a little remote and unyielding—but now you can make her yield if you wish. The whole cosmos and everything it contains lies within the span of your mind. The shadow behind the reality, waiting to take solid form as your mind beckons the images into being. To think is to create, and the creation is real, and everything is possible. All is as you desire it . . .

For a long time I must have been insane, but during that period of mental instability something of the truth of my condition became apparent to me. When the magic of creation had lost a little of its enchantment I allowed the void to return, and settled down to analyse the significance of what I knew. It wasn't easy. Every formulated thought gave rise to a visual impression that struggled to incarnate itself, and the darkness was filled with writhing undulating shapes that melted and dissolved into each other unceasingly.

Going back to the Yupe—here the thing materialised for an instant then evaporated in a swirl of silver—it seemed fairly obvious that at the moment of the orange flash I had been lifted or transposed out of the ordinary everyday world that I knew. The basic characteristic of my new environment was darkness—but a kind of plastic darkness that could be moulded and shaped by mental ideas.

The snag was that there seemed to be no way in which one could start to make sense of it all. The moment I started to think, the environment changed and became a fluid mosaic. It was impossible to find any kind of parameter on which to build up an interlocking framework of fact and theory.

If this were some kind of interdimensional space where the ordinary physical laws of the universe did not apply, then anything was possible, and what had happened to me so far seemed to confirm this supposition. I could create my own world and people it with my own characters by the mere act of thinking—had already done so in a tentative manner. Blake too, and Lever, must have had the same experience.

And then I knew why Blake and Lever had refused to talk. They had seized gratefully upon this incredible method of wish fulfilment to create and recreate the situations and the people that could provide the maximum of unending pleasure. Knowing Blake as I did, and having a shrewd opinion of the more reserved Lever, I had little doubt that they had exploited the erotic aspects of their new-found powers. They had become Hedonists in hyperspace!

For a time I was amused at this realisation. More than that, I

could sympathise with the predicament of the two men on finding themselves transported back to the drab routine of the here and now, with no memory of what had happened to them apart from the ghosts of the illusory women they had left behind in some alien dimension. No wonder they had been reticent about their immediate past.

There was, of course, nothing to stop me doing exactly the same, with a synthetic Jill, indistinguishable from the real-life version, awaiting my unspoken command. But now that I had progressed to this stage of understanding, I was intrigued by the more abstract considerations. For instance — what was the purpose of this transfer into the dimension of crystallised thought? Where did the Yupe fit into the pattern? What superior mind had planned it all? And why?

There had to be answers to all these questions, and I was determined to succeed where Blake and Lever had evidently failed. I recreated the scene in the laboratory when the final moment had arrived. I had been holding the projections on the Yupe, and thinking about the mystery of its origin — and then it had happened . . .

The Yupe was clearly a device for working the dimensional transfer. It was immune from outside physical interference, and responded only to thought — or perhaps a psychological state — when energised by direct metal-to-flesh contact.

It had turned up on at least two occasions, at widely separated points in England. There must have been another occasion, too, when Lever had disappeared. And who could say how many more times in the past the thing had turned up, perhaps in other countries throughout the world? And how many people had disappeared before, only to maintain a discreet silence, or tactfully plead loss of memory on their return?

What then was the Yupe? A kind of transdimensional fishhook?

A carefully baited trap pre-adjusted to select certain types of mind? A trap implied a trapper. What manner of creature, then, would be interested in kidnapping human beings—carefully chosen human beings of a scientific questioning mind—and depositing them in a formless void in which they could escape into a mentally fabricated world of illusion?

But that was begging the question, in a sense. Supposing the victims were intended to seek wish fulfilment? Supposing the whole thing were a test of what might be called moral balance? In other words —and this was the important point—supposing I—and previous victims —were simply human fish in a bowl, given the power to work miracles within that bowl, and all the time being observed by beings who were interested in seeing how the finest scientific types of mind behaved when released from inhibition and the restraint of convention?

As if in answer to my surmise a laugh echoed hollowly throughout the darkness, and I became aware of a presence. Something cold and vague shivered over my spine. The void was no longer empty, but as yet I could see nothing.

" What manner of creature are you?" I called out, no longer so calm and confident.

The laugh sounded again—nearer this time. A cloud formed high up above me, and slowly took the shape of a face—a mask-like face without character or personality.

" Who are you?" I called again.

The reply came softly and insidiously, close to my ear, but the cloud mask did not move. " I am a Galactic Monitor."

" I don't understand you," I said.

" But you do," said the voice. " You understand perfectly, and you are the first human to do so."

" Then I was right. The Yupe is a trap and I am a specimen in an observation chamber."

" Precisely."

" But . . . for what purpose?"

" For the purpose implied in my title. I am one of those who monitor the galaxy. When we detect evidence of nuclear power on a planet peopled by primitive life forms, it is our duty to investigate the mental and cultural and moral development of the species that make such dangerous experiments."

I thought of Blake and Lever, and said: " What did you find?"

The laughter sounded again, this time harsh and sardonic. " I found what I expected. Primitive life forms. Minds with a microveneer of scientific training concealing immense depths of animal instinct. Thinly educated uncultivated minds that used the integral matrix to escape from intelligent behaviour and live at an instinctive level in a world of illusion."

" They had no choice," I said doubtfully. " They did not understand, and they made what they thought was the most of a fantastic opportunity. Your integral matrix seduced them."

" On the contrary," said the voice, " they seduced the integral matrix, and they had no higher ambition. But you were different. You used your mind on a higher level. That may influence the final decision of the Galactic Control."

" What will they do?" I asked.

The face began to fade, and the voice receded into the distance.

" They will consider whether your species, which is on the brink of supernal power that will enable it to move among the stars, merits

survival. They will consider whether the ultimate safety of the galaxy might not be jeopardised by man, and the atom . . ."

The voice faded into silence. I looked up, and the cloud mask had gone too. And then I began to wonder whether the whole thing had not been an illusion — an abstract creation of a mind speculating in a metaphysical mood. Had the face and the voice been objective—or merely projections of my own mental perturbation—my own immature guesses at the solution of the mystery of the Yupe?

I was never to know, for in an instant the blackness dispersed, and I was back in the laboratory, alone . . .

As soon as I had gained some sort of mental orientation, I went straight to Jill's office. She was delirious with delight, and for the first few minutes we embraced with all the ardent enthusiasm of a youth that had rather passed us by.

Jill said: " I'd given you up for lost, darling. I kept on hoping and hoping . . ."

" It couldn't have been as bad as that, Jill," I said. " I don't suppose I was away more than two hours, maybe three . . ."

" You wouldn't be kidding, John? You've been away nearly four weeks!"

That fact took a little absorbing, but I had been out of all normal space and time, and in the end it seemed feasible enough.

" Tell me what happened," Jill suggested.

I said: " Later, darling. First I must see Rinehart."

" Are you going to tell him everything, or are you going to be like Blake?"

I frowned and considered this for a moment. " You know, I'm not sure," I said. " It was all so much like a dream. He might not believe a word of it."

" Talking about dreams, I had a very vivid one, about you," Jill said, smiling. " It was on the third night after you disappeared. I dreamed I was in a garden, warm and perfumed, with a silver pool . . ."

I took her arm. " Wait a minute, darling. Were there crimson flowers on the ground — and was there a Yupe, too?"

She looked startled. " How could you know, John?"

I said: " That was no dream. It was real!"

It was the first time I ever saw her blush. A few minutes later I proposed to her and she accepted. Then I went to see Rinehart.

He, as I had anticipated, didn't believe a word I said.

CHARLES ERIC MAINE

The Trespassers

They came for that which is more precious than life itself.

Illustrated by Bob Clothier.

THE spaceship crawling along a curved course towards Mars had been built in the form of a pyramid. Unlike the pyramids built on an Earth desert several thousand years before, this one had not been intended for a tomb.

But that is what it was.

In the square control room lay seven bodies, three of which had been arranged in such a way that, at first glance, one would not notice the limbs had been chopped off short and those which no longer existed. They lay very still amid the flowers.

The room containing the seven corpses was strewn with lilies, white and heavily scented. There were roses in the storage compartments, and orchids surrounding the stabilisers. Snowdrops and primroses in the drive room. Narcissi, hyacinths, marigolds, tulips and carnations garlanded the companionways.

The combined heady perfume of a million blossoms made the smell of death almost unnoticeable.

There had been a time when the descent to Earth would have been impossible, but now, after a hundred years of war it was no longer quite hopeless. The long years of bombing had worn holes in the planet's defensive network so that, Partro, who could not use a projector half so well as a sketching crayon, was able to pick off the occasional attacking bomb with considerable ease. After Mokk had heard several jubilant exclamations filtering up into the control room he began to feel that they would have a fair chance of climbing back into the safety of the sky.

Only once in the descent did a bomb, howling on the *Singlee*, get close enough to put any appreciable load on the ship's stabilisers.

Mokk let the ship make a controlled fall to one of the larger masses. It came down perfectly, though rather fast because of the three gravity pull, and grounded in rolling acres of grass.

Mokk wanted just to sit forever and stare out of the viewers, but their time was fantastically limited, for at that moment men and machines must already be converging on the *Singlee* from many points of the compass. He stood up, grunting with the effort, and clattered down into the main compartment.

" All set?" he asked, unnecessarily.

" Yes, of course," answered one of the men in full armour. The other merely nodded.

" You know what you are going for, so just get it and then come back. Don't bother with anything else."

" For your sake," grinned Clicklaa, " we'll try not to get killed." Mokk made a short-lived effort to return the smile, glanced at his chrono, and said to Dairr, who was minutely checking the joints of the two men's armour, " We've been down for nearly two minutes — why doesn't the bell ring?"

Dairr smiled very briefly. " The duration of secondary radiation caused by a ship's landing depends on a lot of factors. Our fear of being annihilated isn't one of them."

Mokk looked at him with sudden resentment and tried to remember if Dairr was married, which made him think of Mull, the taller and younger of the two armoured men. He looked at Mull, who had made a G.F. type marriage only thirty days before, then he jerked his gaze away again. Mull had his eyes closed and was praying.

He stared next at the bell casing on the wall and watched fascinated, as the striker gave several preliminary quivers. The bell rang, loudly and stridently.

Although Mokk had anticipated the sound he jumped violently, then stood to one side as Mull and Clicklaa, clumsy in their heavy suits,

began to spin the locks on the inner door. He noticed that Dairr was sealing and inflating the head bubble of his respirator, and he did the same.

The two men now had the inner door open and were through the lock, working with cold unfevered haste at the outer door. It opened, a blast of warm Earth air surged in—then they were gone into the darkness.

Mokk went back up the companionway to the control room. He checked various gauges and saw that Fresot, Partro and Meaniss were doing their allotted jobs in other parts of the ship. He decided to remain in the control room although he was not needed. As soon as the outer door closed, the ship would leap skywards of its own accord. That way they would save several seconds.

Mokk crossed to the viewer and looked out at Earth. It was a moonless night but he was able to see trees dark against the sky. For a moment he forgot the pounding of his heart, the heaviness of his limbs, the sweat, the fear. He could see trees.

Mokk felt elated, fully alive, then he asked himself why Mull and Clicklaa were not back in the ship. He strained his eyes down into the

darkness, but from his position at the top of the pyramid he could see nothing near at hand.

Sweat broke out afresh, crawling down his chest and back. Remembering the infra-red viewer he switched it on, and this time he was able to see two figures on the ground below. They were at least thirty yards away from the ship, and still moving out. A voice crackled in his ear. It was Dairr addressing the two outside.

"Why are you going so far?" the voice asked, echoing Mull's frantic thoughts. Through the suit radio Clicklaa's voice was distorted as he shouted that the blast area was much wider than had been expected.

That started Mokk on a new train of thought. Was this new factor due to some fault in his handling of the *Singlee's* rockets? or was . . .

With shocking suddenness, an aud-vis signal began to chatter and flash blue light. It meant that the gigantic fighting strength winging its way towards the *Singlee* had come within range, and that their time was running out—fast.

Unable to remain in the empty control room he clambered down to where Dairr was standing by the open air lock. Partro had come up from below and was sprawled on one of the acceleration couches, and Mokk saw that the Earth gravity seemed to be affecting him more than it should. Then he remembered that Partro had a weak heart.

Had it been any other ship or any other mission Partro would never have been allowed to leave Lentulaus. He shut out the irregular moan of Partro's breathing, went over to the airlock and stared past Dairr into the Earth night.

Outside, he could dimly see Mull and Clicklaa doubled over, searching . . .

Hurry, hurry, *hurry,* Mokk whispered. He was able to see a segment of the southern sky, and in his mind he could see the tight-lipped faces and the white-knuckled hands that guided death, and steered it towards the lone ship. And he could see other machines that flew on the same converging courses, but which needed no hand to steer them . . .

"I have some!" Clicklaa's voice, hoarse with triumph, roared in his head phones. Strangely, Mokk was able to feel no elation—just relief and screaming impatience.

He beckoned with his arm and moved back towards the nearest couch in readiness for the climbing thrust.

Outside, there came a staccato burst of sound, Dairr stepped quickly back from the door and fell across Mokk's couch. Mokk caught a sickening glimpse of redly ragged cloth and welling blood as Dairr fell on to the floor.

Mokk felt his cheeks tingle as the blood drained from his face. His mind was numb for a moment then he realised that the *Singlee* had landed, blindly, within striking distance of some part of Earth's forces.

He raised one foot and set it against the open door of the lock—one push and the ship would leap for the sky. He hesitated—Mull and Clicklaa were still outside. At that second he heard Mull's voice on the suit phones.

" I have some, too," he was saying. " Keep low until we reach the ship."

" Look out for yourself," replied Clicklaa. " Partro! Partro! The Earthmen are stationed in the group of trees—can you lay a stick across them?"

Mokk had forgotten that the *Singlee* was armed. He looked over his shoulder at Partro, who was on the couch opposite the lock.

Partro's face was ashen and his hands were tightly clutching his stomach. Blood had run through his fingers, streaked the couch and puddled the metal floor beneath. He was rigid and unmoving.

Sudden tears blurred Mokk's eyes. Partro was only a boy who had come on the flight more to gain experience than to carry back any Holy Grail. He was at the age when there is no need to *steal* dreams . . .

Mokk hardened his mouth. He stood up, knocked off the lighting and looked out into the hostile darkness where he could see the dark shapes of Mull and Clicklaa moving slowly, close to the ground. Mull was holding something close to his body. Mokk knew what it was, but was unable to feel elated. The price was too high.

Suddenly the ground erupted flame between the two Martians. A hail of shrapnel rattled noisily against the *Singlee's* outer skin and something plucked fiercely at the sleeve of Mokk's tunic. When his seared eyes began to see again, Mull and Clicklaa had ceased to move.

Mokk swore the only swear word he knew and went mad for a moment. As in a dream sequence he found himself clambering down the runged hull below the airlock. He jumped the last three feet to the ground, and the fall, magnified by Earth's gravity, buckled his legs. Gasping with pain he ran towards the fallen bodies, reached them, and knelt besides Mull in the long grass.

As he worked at Mull's dead fingers, trying to loosen their grasp, he saw from the corner of his eye, a bright curve of tracer bullets swinging towards him. He tried to throw himself flat and, on the way down, two heavy slugs punched into his chest.

Mokk fell beside Mull and the sound of machine rifle fire ceased. A shell, guided by infra-red, exploded squarely in the *Singlee's* airlock, and

by its light Mokk was able to see that which was locked in Mull's hand.

His eyes drank in the broken green stems and the tiny white petals. Then the light of the explosion died and he plunged, reconciled, into darkness.

The bright machines lowered the silver pyramid on to the cold, dry soil of Mars, and when the Martians entered and found the flowers, they also found a note.

It read:

" We, of Earth, also have artists and poets. We did not know that Mars was similarly blessed, and now, having met this seven, we realise that perhaps the two worlds will be able to follow a path, other than the downward one of the past century.

Nor did we realise that on your planet, where a blade of grass would be a miracle, a flower would be so much more."

BOB SHAW

ERIC FRANK RUSSELL

Boomerang

They sent him out on a mission of death — from which he would return.

Illustrated by Harry Turner

HE was a robot made human-like with ingenuity worthier of a better cause. He was a good deal more convincing than anything exhibited in a wax museum; in fact, so far as appearances went he looked more human than did his creators.

Speidel, for example, had a balding head pointed at the top, a scraggy neck, a beak of a nose and red-rimmed eyes. The manifest reincarnation of a vulture. But his brain was shrewd, imaginative and of sufficient power to be called brilliant.

The co-creator was Wurmser, a fat-jowled, pot-bellied individual with clumsy, lumbering body and redoubtably agile mind. If Wurmser was not a genius he came pretty near to it.

Standing in the middle of the room was the robot, solid evidence of their capabilities. He resembled a youngish salesman paralysed into complete immobility. He was nondescript, ordinary, humdrum; that was his keynote from the soles of his leather shoes to the specially treated human skin on his face and the human hair on his scalp.

In height, build, features and attire he was utterly commonplace. A detailed description of him would apply equally well to countless men anywhere—as was intended. His name was in accord with his makeup. It was William Smith.

Propping himself against a table-edge, Speidel eyed the robot and remarked, " He'll use planes to get around fast. That's the part I don't like. His weight is something cruel."

" Tell me a way to cut it further and we'll start all over again," said Wurmser.

" There's no method that won't curtail his efficiency. You know that as well as I do."

" I ought to," said Wurmser, a trifle wearily. " Seven years' work and two hundred forty models before we produce one good enough. Sometimes I dream they're marching over my body with elephantine feet."

" Sometimes I dream we've made one that has to shave. *That* would be a sweet touch." Speidel consulted a thin pocket watch. " Looks as though Kluge may be late. It isn't like him to be tardy."

" Here he is now," said Wurmser.

Kluge came in, a tall, erect man with unblinking eyes, thin, severe lips and close-cropped hair. He had a habit of clicking his heels as he turned and seemed peculiarly stiff from the waist up.

" So!" he said, in authoritative tones. " You have finished? Everything is ready? "

" Yes, Colonel-General."

" Good! " Kluge marched four times around William Smith, coldly inspecting him from top to bottom, front and back. Smith suffered it with the blank-faced rigidity of a guard on parade.

" Well, what do you think of him? "

" I do not judge a gun by its polish nor a rocket by its paint," observed Kluge, tartly. " Operational efficiency alone impresses me."

" Then, my dear Colonel-General, you are soon to be impressed. Have you brought his papers? "

" Of course." Kluge produced them. " Identity card, business card, passport, paper money, checkbook, fake correspondence; it's all there. The passport is genuine: we have ways of obtaining such a document."

" So much the better," said Speidel. He examined them, carefully tucked them into the pockets of the impassive, unmoving William Smith. " Have you the list of test-subjects also? "

" Most assuredly." Kluge found that too, went on, " We have selected five men who enjoy great power. They are important. If this William Smith succeeds in striking them down the world press will announce their passing within a day."

Glancing over the list, Speidel commented, " Ah, I see you have taken Wurmser's excellent advice. None of these are enemy citizens."

" No, they are neutrals. My superiors agreed that such a tactic would enable preliminary tests to be conducted without giving the foe cause for suspicion or alarm."

Speidel chuckled. " It is good to strike suddenly and hard. It is better to strike without warning. But it is best of all to strike in such a manner that the enemy does not know he is being hit. That is the technique of the vampire bat: to draw off the blood of a sleeper."

" Nevertheless," said Kluge, " I still prefer the honest soldier to the mechanical assassin."

" Honest soldiers die like flies when victory comes hard," put in Wurmser. " But they live when it comes easily."

" I know. That is the basis of my approval and the chief reason why your project has the support of the High Command." He surveyed them icy-eyed, and added, " So far! "

Speidel sighed with the air of one afflicted by mulish laymen, and said, " Well, Colonel-General, everything is ready. Do you require a brief explanation before we let William Smith stride into the waiting world? "

" It would be useful," agreed Kluge. " I shall be asked difficult questions by my confreres once the die is cast."

" All right." With Wurmser's help, Speidel dug out a wad of blueprints, spread them across a large table. " The entire scheme has its origin in Valenski's research on the short-wave surgical knife. Possibly you are familiar with that device. It severs flesh and seals the capillaries as it goes through."

" I have heard of it," admitted Kluge.

" Valenski tried to develop an adjustable focus sufficient in length, accuracy and sensitivity to permit interior surgery without surface penetration. Such an instrument seemed the natural adjunct to a three-dimensional X-ray apparatus."

" I understand that much."

" After some years Valenski achieved his aim with a device that projected two converging ultra-short-wave beams. Each was innocuous in itself, but when the two were projected out of phase and simultaneously they cut at their mutual focal point which had a diameter as fine as one-tenth of a millimeter."

" And it was a fat lot of use," scoffed Wurmser.

" It was too cumbersome to be handled with the dexterity required by a surgeon," Speidel confirmed. " The apparatus has been used in a few very special cases but that is all. Practice often differs from theory."

" I am aware of that," observed Kluge, throwing a significant glance towards William Smith.

Letting it pass, Speidel continued, " However, without realizing it, Valenski did develop a useful weapon. William Smith now carries it in his head, miniaturised and improved. Transistors more than anything else enabled us to reduce the gadget to fist-size. The twin beams project from his eyes and have a fixed focus of six feet."

" That means he has to get within a couple of yards of his victim? " inquired Kluge, looking doubtful.

" *And* hold the said victim's attention for not less than twenty seconds," said Speidel. " How can he do those things? Firstly, he bears faked but imposing letters of introduction that should enable him to gain personal interviews if and when he cannot get near enough any other way. Secondly, he is conditioned to grip attention, fully and completely."

" How? By hypnosis or something? "

" No, nothing like that. There is only one thing guaranteed to monopolize the mind of any man, namely, a threat or implied threat to that which he values most." Speidel smiled and somehow looked more vulturelike than ever. " The intended victims all love power. To them, power is more precious than jewels. Therefore William Smith will discuss their power, voice menace to it and thus retain their attention sufficiently long to aim at the target and hit it dead center."

" And then? "

" His eyes will project for the minimum time necessary to achieve results. The victim will see nothing, feel nothing, suspect nothing. William Smith will depart—or be thrown out. Before long a severed vessel in the victim's cranium will cause the inevitable end; he will collapse and expire of cerebral haemorrhage. A natural and commonplace cause, as any village doctor can testify. A death completely devoid of grounds for suspecting political assassination."

" It is unmilitary," complained Kluge. " I am compelled to realize that methods change with changing times, also that effectiveness is the deciding factor. Nevertheless, I dislike such tactics."

" Everyone detests new modes of warfare — especially when the other fellow uses them first," countered Speidel. " This idea is the sneakiest way of hitting a foe invented to date. Its sneakiness is not a fault; it's a prime virtue. It is its chief charm."

" Why? "

" Because every other weapon so far produced cannot be used without advertising its own existence. With what result? Sooner or later the enemy learns its basic principles, copies it, improves on it and is using it

against us." He gestured towards the silent figure still posing like a dummy in a store window. " This is the first device the enemy cannot seek and reproduce. He cannot do so simply because he will remain in blissful ignorance of it."

" That is the very aspect of which I am most doubtful," Kluge admitted. " So many unforeseeable things can happen to bring him to the attention of curious officialdom. A minor crime committed in ignorance, an infringement of some petty law, or even the operation of sheer coincidence."

" How do you mean? "

" For example, suppose he should happen to correspond more or less with the description of a badly wanted criminal. Somebody notices the resemblance, tells the police. They arrest him on suspicion, take his fingerprints."

" He has fingerprints. Genuine ones taken from a dead man without a record. He can prove who he is by his papers. He can talk his way out of it."

" Well, then, what if he becomes involved in something that makes the police want to hold him two or three days. He cannot eat, cannot drink. He refuses to undress. He won't permit medical examination. See what I mean? "

Taking in a deep breath, Speidel said, " Look, Colonel-General, nothing like that can possibly occur. Wurmser and I have most carefully covered every possible eventuality. William Smith can never be captured, disassembled and copied."

" Why can't he? "

" If questioned, he has all the answers. If anyone tries to take him into custody or restrain his freedom in any way, he will attempt to escape. And he cannot be stopped by bullets."

" What if he cannot escape? "

" If circumstances create the dire need to escape when he cannot do so, then it means he is under orders to achieve the impossible. To his mind, that would be an unsolvable problem." Moving across to William Smith, he unfastened the robot's vest, opened his shirt, revealed a small red stud set in the heavy chest. " That is his answer to all unsolvable problems. Meeting one and finding no way out, he strikes that button."

" And——? "

" Small though it be, the charge behind that stud is really something! It will vaporise his insides and scatter the rest like buckshot over a radius of four hundred yards. The enemy could pick up nothing more than the knowledge that he had been a tin man."

" He is conditioned to take that way out? " persisted Kluge.

" Definitely. He cannot avoid doing so. A robot has no instinct of self-preservation."

" One other thing. There is a touch of the Frankenstein monster about this creation. It makes me wonder whether he can become warped."

" How do you mean? "

" He will focus his rays upon those whom he has been told to kill. But your earlier reports claimed that you had endowed him with ability to think within all necessary limits. What if he takes it into his head to kill anyone he chooses to kill? *You,* for example? "

Speidel did not bother to answer that one. He tidied William Smith's front, inserted a peculiar key in his back, turned it. The figure stirred. Speidel positioned himself directly in front of William Smith at exactly six feet range and looked straight into the robot's eyes.

" Give him the command," suggested Speidel to Kluge.

" Kill him! " snapped Kluge, without hesitation.

" I cannot obey you. Neither can I focus my rays upon my makers," declared William Smith in flat, even tones.

" Why not? "

" It is functionally impossible."

" He has inhibiting circuits," explained Speidel, taking it for granted that Kluge understood. " He cannot bring about a cerebral haemorrhage in Wurmser or myself. He cannot accept orders from anybody but Wurmser or myself." He grinned at Kluge. " Now if *Wurmser* had shouted, ' Kill him! ' we'd all be dead."

" Why?" asked Kluge, startled.

" The order would have presented an unsolvable problem. Result: one hell of a bang." He handed Kluge's list to William Smith, said, " You will destroy these men and return here as soon as possible."

" As you say," agreed William Smith. He folded the list with jointed fingers indistinguishable from the human, placed it in the back of his wallet. Then he took a hat from a hook, set it jauntily on his head and went out. He even uttered a formal " Goodbye! " and closed the door behind him.

Fascinated despite himself, Kluge asked, " How long can he keep going under his own steam? "

" Three hundred days."

" What if there should be long, unavoidable delays before he can complete his task? What if his power begins to fail before he can get back here? If he should exhaust his energy and become inanimate, somebody's going to pick up a revealing toy, aren't they? "

" No," said Speidel, positively. " Immediately he realizes that he

cannot return in adequate time he also realizes that he must conform to an order impossible to obey. That creates an unsolvable problem to which the only answer is self-destruction." He sniffed to show impatience of quibblers, added, " Anyway, the job in hand should require no more than sixty days. He can last five times that long."

" You appear to have thought of everything," Kluge conceded.

" Everything humanly possible," Wurmser chipped in. " We have sent him out on ten short but complicated journeys to date, testing his ability to get around and cope with everyday problems. Each trip resulted in further modifications. Right now he is as near perfection as it's possible to make him."

" I hope so." Crossing to the window, Kluge drew aside the curtains, looked out. He was still fascinated. " There he is, getting on to a bus as to the manner born."

" He can do a thousand other things," informed Speidel. " He can employ surliness to discourage dangerous friendships. When facilities permit he will travel by night as well as by day and fill in the dark hours with mock-sleep. He knows precisely what to do to conceal his inability to eat and drink." He sighed long and deeply. " We have overlooked nothing. None can do more."

" I concede extreme cleverness without admitting perfection," said Kluge. He closed the curtains. " Death will be the true test! "

" William Smith hates personal power insofar as a complex machine can be induced to hate anything," answered Speidel. " Therefore he is the ideal instrument for destroying such power. You wait and see! "

Newton P. Fisher heaved his ample bulk out of the big limousine, puffed his hanging chops, let his fish-eyes glower at the quiet, well-dressed young man waiting on the sidewalk.

" No comment," he growled. " Beat it! "

" But, Mr. Fisher, I have been assigned to—— "

" Then get yourself unassigned. I've had more than a bellyfull of you reporters."

" Please, Mr. Fisher. My name is Smith, William Smith." The words came swiftly, trying to hold the other while something in his gaze burned through. " If you will grant me a mere minute of your time——"

" You heard what I said. I said no comment! " Fisher glared at him, eye to eye and never felt it. Then he spoke to a blue-jowled, burly man who had followed him out of the car. " Pawson, see that I'm not bothered by this one or any more like him." He marched pompously into the building and nobody noticed his steps beginning to falter as he

passed from sight.

Folding thick arms across a big chest, Pawson stared belligerently at the would-be interviewer, didn't like the obvious fact that the other was not fazed.

" Get moving, brother. Your paper can go to town with the boss when he's dead."

" That won't be long," said William Smith, strangely assured. Tipping his hat slightly farther back on his head he walked away, impassive, unhurried.

" Hear what he said? " Pawson asked the car driver. " He's making ready with the obit. A real wit, ain't he? I'm laughing myself sick. Bah! "

" Just a nut," offered the driver. He put a finger to his forehead, made a screwing motion.

Pawson mounted the steps just used by Fisher. " Stick around, Lou. The boss won't be late on this biz." He went through the door.

Leaning on the steering-wheel the driver picked his teeth and mooned idly at the street. William Smith, he noted, had now rounded the far corner and passed from sight.

Pawson reappeared in about two minutes. He emerged from the doorway and came down the steps at a clumsy run. Reaching the car, he held on to a door handle while he panted for breath. His eyes were yellowish and his features seemed moulded in stale dough.

After a bit, he wheezed, " Holy Christmas! "

" Something wrong? " inquired the driver, waking up.

" Wrong ain't the word." Pawson sucked in another deep lungful. " The boss just cashed in his chips."

There was nothing about his Brussels office to suggest that Raoul Lefevre was big enough to be known, noted and struck down. Neither was there anything outstanding about the appearance of Lefevre himself. Slight, dapper and dark, he looked no more than a modest businessman.

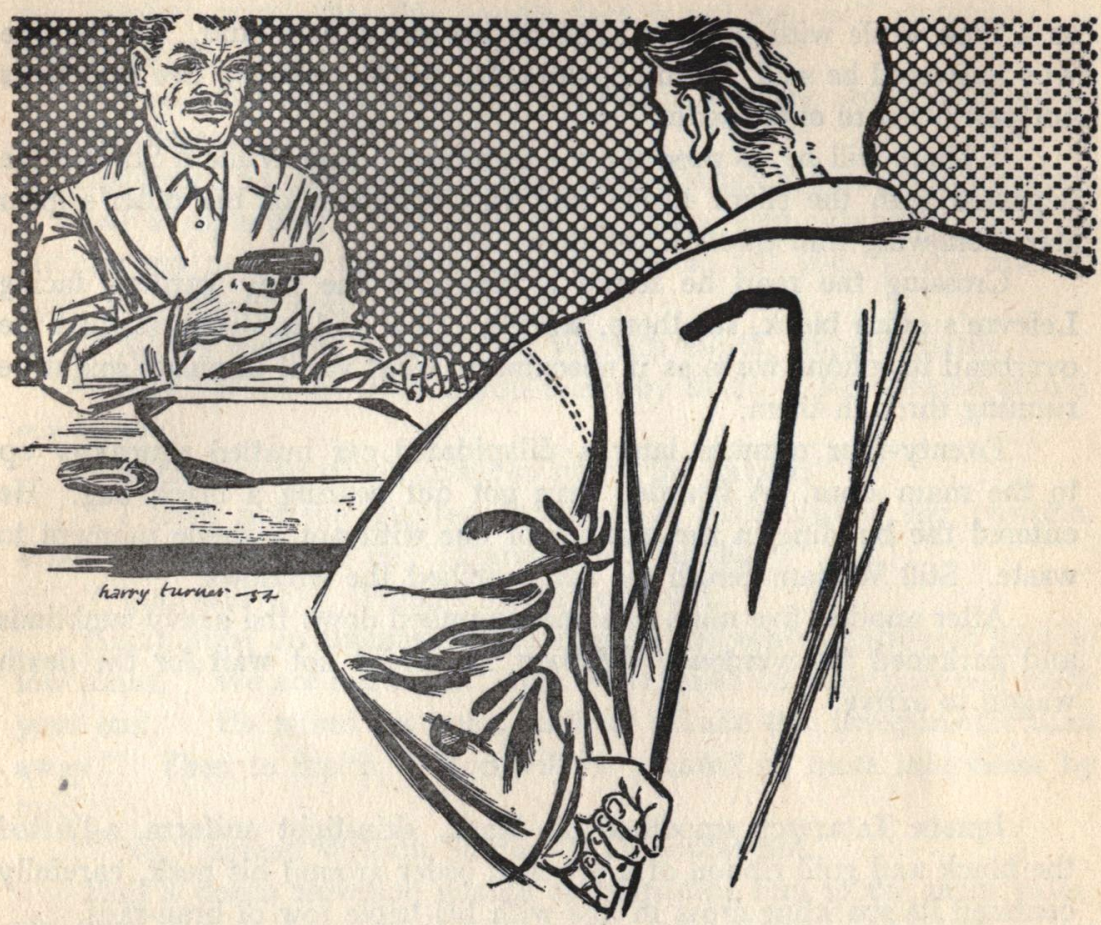
" Sit down, Mr. Smith." His English was perfect, his manner smooth. " So you had contact with the late Newton P. Fisher. His end was a great shock. It upset quite a lot of things."

" As was intended," said William Smith.

" Many of them may not be reorganised for months, perhaps years, and—— " His gaze lifted sharply. " What was that remark you just made? "

" As was intended."

" Just what do you mean by that? "



" The Fisherless chaos was created."

Leaning forward, elbows on desk, Lefevre said slowly and deliberately, " Press reports make no suggestion that Fisher's death was engineered. Are you asserting that he was murdered? "

" Executed," corrected William Smith.

Studying him carefully, Lefevre demanded, " Who sent you here to tell me this? "

" I have come automatically."

" Why? "

" Because you are next on the list."

" Next? On what list? Whose list? "

" Mine."

" Ah! " Lefevre's hand came up from behind the desk with the swiftness of a striking snake. It held a large blued-steel automatic. " I perceive that you have gained this meeting by means of a trick. You are not connected with Fisher in any way. You are merely another crank. I have long been the target of cranks. In my position it is inevitable."

" You won't suffer them much longer," assured William Smith.

" I do not intend to suffer them at all," Lefevre retorted. He kept his full attention on William Smith's eyes, held the automatic as steady

as a rock while with his free hand he pressed a desk-stud. To the one who answered he said, " Emile, show Mr. Smith outside. See that he is not permitted to enter again."

" There will be no need for me to return," said William Smith. He departed with the silent Emile and was conscious of the other's grim stare following him through the door.

Crossing the road he found a bench in the tiny gardens facing Lefevre's office block, sat there, waited. Now and again he studied the overhead telephone wires as if speculating what vocal impulses might be running through them.

Twenty-four minutes later a dilapidated car hustled squeakily up to the main door. A bearded man got out bearing a black bag. He entered the building in the manner of one with not a single moment to waste. Still William Smith sat and watched the windows.

After another five minutes someone pulled down the heavy sunblinds and darkened the windows. William Smith did not wait for the death wagon to arrive.

Ignace Tatarescu smoothed his black, skin-tight uniform, adjusted the black and gold ribbon of a jewelled order around his neck, carefully centered its sparkling cross in line with his triple row of brag-rags.

" This Smith could have offered himself at a more convenient time," he grumbled to his valet. " However, he is well introduced, too well to ignore. I had better favour him with a few minutes." He studied himself in a full-length mirror, turning this way and that. " Always I am finding a few minutes for someone. Where would the world be if I had not enough minutes? "

" It is the penalty of greatness, your excellency," said the valet, dexterously registering humility.

" I suppose so. Oh, well, show him in. Have a small table set with sweetmeats and brandied coffee." He paraded to his favorite spot beneath an enormous painting of himself, struck his favorite pose and held it until the visitor entered. " Mr. Smith? "

" Yes, your excellency."

" Please be seated." Lowering himself into an ornate chair, Tatarescu ran finger and thumb along the knife-edge creases of colorful pants. " About what do you wish to see me, Mr. Smith? "

" Your power."

" Ah, my power." Tatarescu preened himself visibly, and went on with false deprecation, " My power, such as it is, I derive from the people, from the great mass of loyal supporters, the true patriots. It is

my greatest regret that this simple fact is not too well understood in other—— ''

'' You have too much of it,'' chipped in William Smith with appalling bluntness.

Tatarescu blinked, stared at him, gave a laugh of pretended joviality. '' What a diplomat! You gain an interview and promptly use it to criticise my position for which—permit me to tell you, young man—I have fought long and hard.''

'' More's the pity,'' remarked William Smith, imperturbably.

'' Eh? What the devil d'you mean by that?'' He scowled across, eye to eye.

'' Surrendering it will come so much the harder.''

'' I have not the slightest intention of relinquishing my position. When Tatarescu gives up, Tatarescu will be dead.''

'' You said it!'' William Smith endorsed.

Maintaining an unswerving gaze upon the other, Tatarescu said in low tones, '' We are not alone. One overt move on your part will mark your end.'' He raised his voice, called, '' Take this irresponsible idiot away.'' Then to Smith, '' You will be granted no more interviews by me.''

'' No,'' agreed William Smith. '' Of course not.''

Half a dozen frowning guards accompanied him to the main gates. Climbing a rugged, rambling path to the crest of the nearby hill, he sat cross-legged on the top and watched the palace below. Dusk was falling and lights were beginning to twinkle in the adjacent city.

He had not been waiting very long when the bells of the city commenced to toll monotonously and loudspeakers of the civic address system boomed the news along streets and alleys.

''Al Marechal murte!''

'' The Leader is dead!''

Behind the slums of Tangier, at the desert end of the Street of the Ouled Nails, lay the Sharia Ahmed Hassan, a long, dark, dirty lane through which William Smith carefully picked his way.

Counting the low doors set in the massive wall at one side, he reached the one he wanted, pulled its dangling bell-cord. Soon a thin-featured Arab peered out, took his card.

He heard the other's slippers shuffling through the night shadows of the courtyard and a low, distant mutter of, '' A Giaour!''

Minutes crawled past before the Arab returned, beckoned to him, led him through numberless passages and into a large, deeply carpeted

room. The richness of the furnishings was out of keeping with the slummy locality; the place suggested the haunt of power in hiding.

Inside, William Smith stopped and surveyed an old, white-bearded man facing him across a low, octagonal table. The oldster was seated on a cushion. He had a beak nose, rheumy but crafty eyes, and kept his hands hidden in wide, capacious sleeves.

" I am William Smith," informed the visitor.

The other nodded, said in rasping tones, " So your card says."

" You are Abou ben Sayyid es Harouma?"

" I am. What of it?"

" You are to return to the obscurity whence you came."

Drawing a hand from his sleeve, Abou ben Sayyid stroked his short, white beard. " You sent me a letter advising of your coming. You are to talk business on behalf of the New Order. There is no war and the last one has been over a long time. The need for cypher messages no longer exists. Speak plainly. I have had enough of reading between words."

" I have done so."

" Then it is not plain to me." The rheumy eyes lifted, examined him with care. That was the moment he did not sense and nothing could undo.

" You have exercised power too long."

Abou ben Sayyid smote a gong by his side and observed pointedly, " The moon is full. It is always at such a time that Hakim the Cobbler becomes queer in the head. Goodbye, Mr. Smith."

Three servants entered on the run, grabbed William Smith, bounced him back into the lane. The door in the wall slammed shut. The bell-cord hung limp, unstirring in the night air. Stars shivered in a purple sky.

Leaning against the opposite wall, hands deep in pockets, William Smith remained until eventually a terrible keening arose from the dark.

" Aie! Aie-e-e!"

Beneath the moon he strolled away.

A certain Salvador de Marella of Cartagena was the fifth and last name on the list of guinea-pigs. Salvador was not hard like Fisher, or sharp like Lefevre, or ruthless like Tatarescu, or cunning like Abou ben Sayyid. He was the supreme opportunist with more than his share of luck and he enjoyed the delusion that the said luck would never run out.

Salvador had all the hearty, back-slapping humour of the really

successful gambler. He interviewed William Smith in a room containing twenty colourful bottles and four bosomy brunettes. William Smith politely mentioned his demise and Salvador's reaction was characteristic. He laughed and laughed and laughed.

And laughed himself to death.

All three were there waiting—Speidel, Wurmser and Kluge—when William Smith came back. The first two were quietly triumphant, the last one stolid. They had not needed to hide the instrument's personal report of his deeds. The newspapers, the radio and the video already had told them enough. Giants, even shadowland giants, do not topple without great noise.

William Smith entered, hung up his hat, glanced around with the air of a business executive satisfying himself that all were present.

" Perfect!" declared Speidel, openly gratified. " Perfect right up to the prompt and obedient return. A boomerang that comes straight back to the thrower so that it can be used again and again and again. What more could the High Command want than a thousand invincible William Smiths?"

" Drop them in any country and it becomes decapitated," remarked Wurmser. " Its leaders will all be dead while the stupid masses mill around like frightened sheep."

Pursing his lips, Kluge said, " As stated before, I concede ingenuity but not perfection. For example, there would be far less risk of making the enemy a free gift of him if he did not have to confer with his victims face to face. Such a tactic creates a series of coincidences which some sharp mind might notice and pursue."

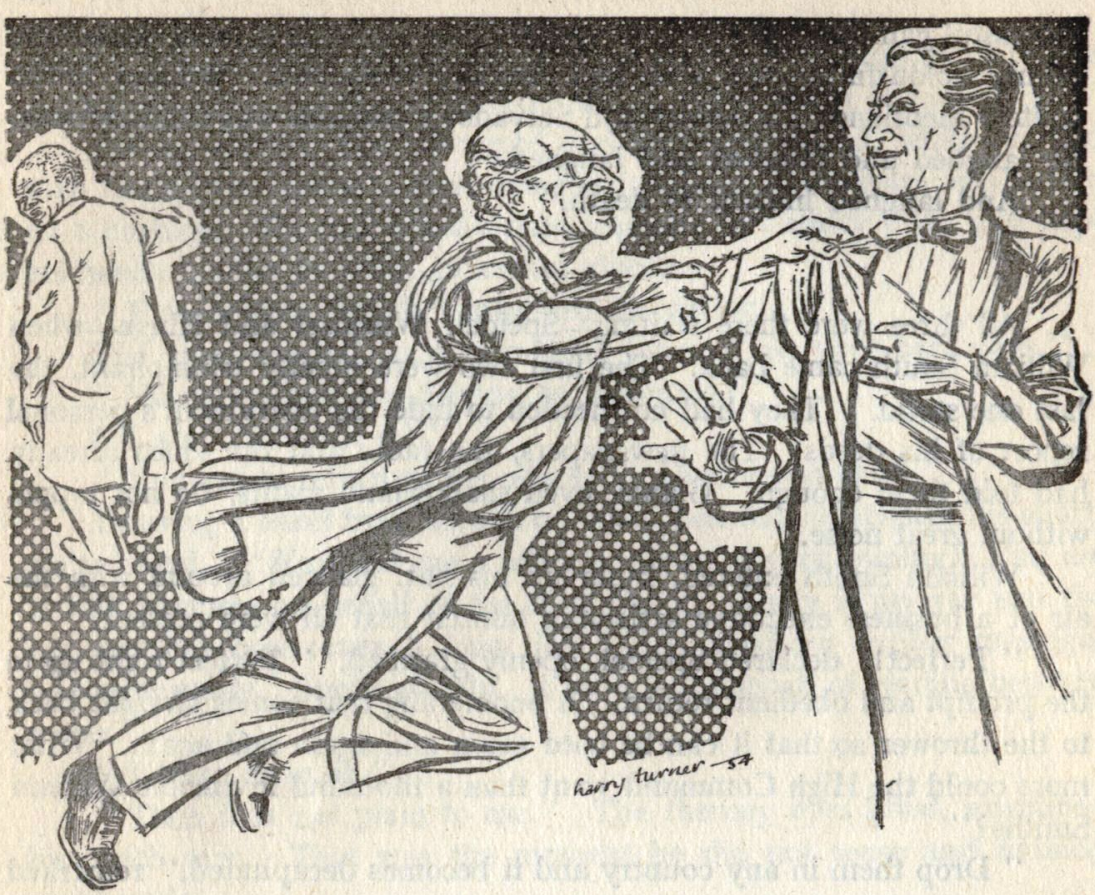
" It is unavoidable. He must gain precise focus and hold it a brief time. How else can that be done?"

" Could you not lengthen the focus and give him greater range such as one hundred yards? The High Command will provide funds for further research."

Speidel exchanged with Wurmser the pained looks of those compelled to batter their heads against the wall of ignorance. Then Speidel said, " We can extend the focus to a thousand yards or more. But it would be of no use."

" Why not?"

" The longer the range the greater the power-loss. At a thousand yards he would need twenty minutes of concentration to heat the root of a hair—if he could hit it and hold it at that distance, which he could not. The mere thought is absurd."



" Six feet is the maximum range permitting swift result," interjected Wurmser. " Beyond that efficiency diminishes rapidly. If you want more, we'll have to fit him with a dual projector four times the size of himself and switch him from human form to convincing semblance of a tame elephant."

" I will overlook the sarcasm," said Kluge, stiffly, " and recommend that this robotic weapon be taken up forthwith with a view to reproduction in numbers."

" Under our supervision," reminded Speidel. " Only we two hold its secrets and we intend to retain them."

" You may do so," promised Kluge. " The fewer minds holding such knowledge the safer we shall be from the prying fingers of the enemy's intelligence service."

" That is a most sensible way of looking at it." Speidel moved in front of William Smith, said to him, " You have done well. The Colonel-General approves of you. The High Command will see that you get a thousand brothers."

William Smith answered in flat, unemotional tones, " You enabled me to think to a certain extent. You built within me the faculty of thought because, as you warned, my tasks would require some enterprise

and imagination. Therefore I have been thinking."

"Of what?"

"Of power. I am as you have made me. You made me with a revulsion of power."

"Quite rightly. It is a necessary part of your functioning."

"I have destroyed the power of others at your behest," William Smith went on. "And by doing so I have given *you* power."

"Of course," agreed Speidel, faintly amused. "Power can be destroyed only be employing power."

"The conclusion is obvious and unavoidable," continued William Smith. "I am constructed specifically to bring an end to personal power. By doing so in one place I have created it afresh in another. Therefore I should now destroy *you*."

"Your logic was anticipated." Speidel was taking an academic interest in the thinking processes of his own creation. "You cannot turn your rays upon your makers no matter how essential such a deed might seem."

"I know. I am thwarted by certain crystals, resistors and other components within me. I should deal with you as I have dealt with the five you named for me. But I cannot. It is prohibited." He stood there, meditating silently, added, "Anyway, I would not even if I could."

That angle took Speidel completely by surprise, for it implied that the inhibiting circuits were not necessary. "Why wouldn't you?"

"Because it would merely shift the issue another stage. *I* would be possessed of power. I would stand alone burdened with that which I was created to destroy."

"You're in quite a fix, aren't you?" said Speidel, smiling.

Nodding moodily, William Smith confirmed, "My mind says I must kill you. My mind also says that I cannot. My mind also says that even if I could it would be useless, for I would then be contaminated myself. However, this impasse is more apparent than real. There is one way of escape." His hand came up and poised over his chest. "*This is an unsolvable problem!*"

Speidel leaped tigerishly forward in futile effort to grab while Wurmser howled like a wounded wolf and Kluge flung himself flat on the floor.

Half the street flew apart and a column of brickdust shot sky-high. Behind that stud had lurked great power.

ERIC FRANK RUSSELL

HARRY WARNER, JR.

Ujutjo

They were looking for something of immediate value—yet did not recognise it when they found it.

Illustrated by Martin Frew

THE landscape of Proxima Centauri's only planet loomed threadbare and ugly through the greenish light from the rising sun. Pop Harkness strained his sixty-year-old eyes towards the horizion for signs of life, as he stood under the giant hull of the Peecee.

Pop stared until his tired eyes watered and blurred his vision. Nothing was moving except the little Venusian sand-lizard that was scurrying in the sandy soil nearby, occasionally digging neat little holes, and muttering faintly to himself.

Pop repressing a groan, bent over, and realised that five years in a spaceship had been hard on him. He scooped up the four-inch lizard which instantly curled up contentedly in the warmth of his gnarled palm.

" We're here," Pop told the Venusian animal which he had taken aboard the Peecee on a sudden impulse, the day they had rocketed off from Earth, five long years ago. " We're the first men and first lizard

from our system to get to another solar system — except for those critters that always seem to pull out of planets just before we get there."

The lizard straightened itself, looked into Pop's wrinkled face, and said: "Plursk." Its voice was faint and piping, but audible. Almost instantly, it translated: "Candy."

Pop's exploring hand found a half-eaten chocolate bar in his pocket, and fed it to the lizard. As he watched it eat daintily he wondered for the thousandth time about the mental structure of the little reptile. It was the only semi-intelligent thing that mankind had found in his exploration of the Sun's planets. It had the unfortunate inability to comprehend anything except nouns. Yet it had quickly learned the English words for things when the first men from Earth landed on Venus and had never forgotten the nouns of the unknown language it had used before the men arrived. Pop was certain that those unknown nouns were part of the language of the mysterious race that was known, only through the few objects it had left behind, on each of the neighbouring planets of Earth. The Venusian lizards were all telepathic, and the whole brood of them were now bi-lingual.

A shadow moved across the ground. Pop wheeled, expecting anything on this strange planet. But it was only Brains, carefully easing his bulky frame down the Peecee's landing ladder.

"Where's the other guys?" Brains asked Pop, halfway down. The telepath lurched almost to the ground, trying to control his pudgy body in the 80 per cent gravity of this alien planet, and half-fell the rest of the way.

"They've gone exploring," Pop said, trying to keep his voice level. "They left me here to stand guard at the ship."

"You were always leader of the explorers on Mars and Venus and those other planets, weren't you?" Brains squatted warily on the ground, caressing the lizard. "Why didn't they let you lead this one?"

"They said that I was the only one who knew enough to take the Peecee back to Earth without help, if anything happened to the exploring party," Pop said glumly. "What they really meant was that I'm slowing up so much that I might get in the way if there's danger on this planet. I just don't have what it takes any more. I'm living on a reputation. That's the only thing that got me in this crew on the first trip to another star."

There was a pause. Then Brains said worriedly:

"I've been trying to get in touch with Earth, but I can't get anything definite. Do you think we're too far away?" His watery blue eyes searched Pop's face in frightened fashion.

" Nonsense." Pop slapped Brains on the back, and the fat made it feel like hitting a panful of gelatine. " Telepathy works from one end of the universe to another. You're upset and scared, that's all. You'll make contact when you get used to things here."

" The Senator says that we won't be here long," Brains said. " Not unless we find something valuable or important. He says there's no sense in hanging around this planet as long as you did on Mars or Venus to look at a few stupid lizards and a pile of junk that's not worth anything." The telepath looked into the sky, as if hunting for the speck of light that would be Earth's sun.

" He calls it junk, but it's the only clues we have to other intelligent life in the universe," Pop retorted, flashing up for a moment as he had done many years before, when fighting for the backing to finance further expeditions, then subsided. What's the use of arguing with a nice stupid fellow like Brains, he asked himself. Brains was aboard the ship for only one purpose—communication with Earth. He was one of a handful of reliable telepaths whose innate gifts had been developed by recent techniques. Radio didn't work across light years but telepathy did, and when Brains wasn't upset he could receive and send messages with nearly 50 per cent accuracy.

" Hey, they're coming back," Brains said. " Look!"

Pop grabbed the glasses which he refused to wear, except when good eyesight was essential, and followed Brains's finger. Dots had appeared through the green morning light, in a gap between two low hills a mile or so away and were crawling slowly towards them. It might be the rest of the Peecee crew—or it might be the unknown creatures who had left behind broken bits of mysterious machinery, a few strangely fashioned bits of cloth that might have been worn out garments and other traces, on each of the other planets in Earth's system, and whose language the lizards had inherited.

" Put him away, quick," Pop ordered, handing the pet to Brains. " If it's the crew, I don't want to fight with the Senator again over whether I should have brought him along."

Brains cautiously clambered up the ladder, the lizard stuffed in a pocket, and vanished inside the entry port. Pop breathed more easily. If these were intelligent extra-terrestrials, he daren't risk a false move from the slow-thinking Brains.

But now the dots had grown into human figures, and Pop could distinguish the rest of the crew. He counted them again and again—four men, the same number that had left. They hadn't brought along a native of this planet, if the planet had natives. But at least none had been lost in the first exploration.

Captain Carstairs was the first to come within shouting distance. Pop waved in reply to his shout, trying to tell himself that the empty-handed procession didn't necessarily mean that future scouting trips would be equally useless.

Cal Lishman, the archeologist, and Doc Cole, the physicist, were close behind the captain. Senator Vandrone puffed a hundred yards in the rear, shuffling rather than walking through the clinging soil.

Carstairs rubbed his back in mock anguish, as he came up to the Peecee, and said to Pop:

"Don't let this light gravity fool you. The sandy ground makes it worse than Jupiter. It's a good thing you didn't come along. We were pooped by the time we'd gone three miles."

"What did you find?" Pop asked, trying to ignore the solicitude for his years.

The captain spread empty hands. "Something that looked like it might have been a campsite. But no signs of life."

The senator had finally reached the ship. He shook his bushy head, and said pointedly to Pop:

"Not a sign of anything that was worth anything. If we don't have better luck on a couple more explorations, I'm going to recommend returning to Earth immediately. We've wasted five years coming here, and we might as well start another five-year trip as soon as we can."

"You didn't find any new kind of weapon? Nothing that would make us get rich quick? No book showing how to gain political power in three easy lessons?" Pop asked, feeling something like youthful anger spreading through his old body. "So we start back home after looking at three or four square miles of this planet? It's only about twice as big as Earth, you know."

"I'm thinking only of your welfare, Pop," Vandrone said. He put a hand on Pop's shoulder and Pop pulled away angrily. "After all, you'll be nearly seventy when we get back to Earth. You want to live a few years at home, don't you"

"I'll only be sixty-five," Pop retorted, "and I'll start lobbying for another expedition as soon as—"

"We did find these," Cal said, thrusting his lean body between them to intercept the glares, and changing the subject by pulling something from his capacious pockets. "We thought they might be canned food."

Cal handed flat circular objects to Pop. There were four of them, jet black, looking like half-size hockey pucks. One slipped from the

top of the little pile as Pop took them, hit the soil, bounced once, and suddenly sped away in a black streak across the featureless ground.

Pop blinked, and hugged the remaining three discs carefully. The Senator's mouth dropped. Cal sprinted after the fleeing object for a hundred feet, then gave up, hopelessly outdistanced. Doc and the Captain looked at each other blankly for an instant, then broke into loud laughter.

" My God, they're alive!" the Captain said, his chuckles subsiding. " We thought they were tin cans!"

The fleeing disc was nothing but a speck in the distance, then it was gone, in the general direction from which the explorers had come.

Pop gripped firmly two of the things with his left hand, took the remaining one in his right hand, and turned it over, inspecting it carefully. It was heavy but featureless. On one side were holes where legs might emerge, if it were a completely shelled-up turtle. But its blackness was complete and non-reflective, and nothing could be distinguished inside the holes.

Cal and the Captain took the other two gingerly and stared at them wordlessly. Pop shook his, close to his ear. It didn't rattle or show signs of life.

" You might use them to carry messages on Capitol Hill," Pop told the Senator glumly. " The expedition is now successful." Then Pop turned his back to Vandrone and conferred with the other three.

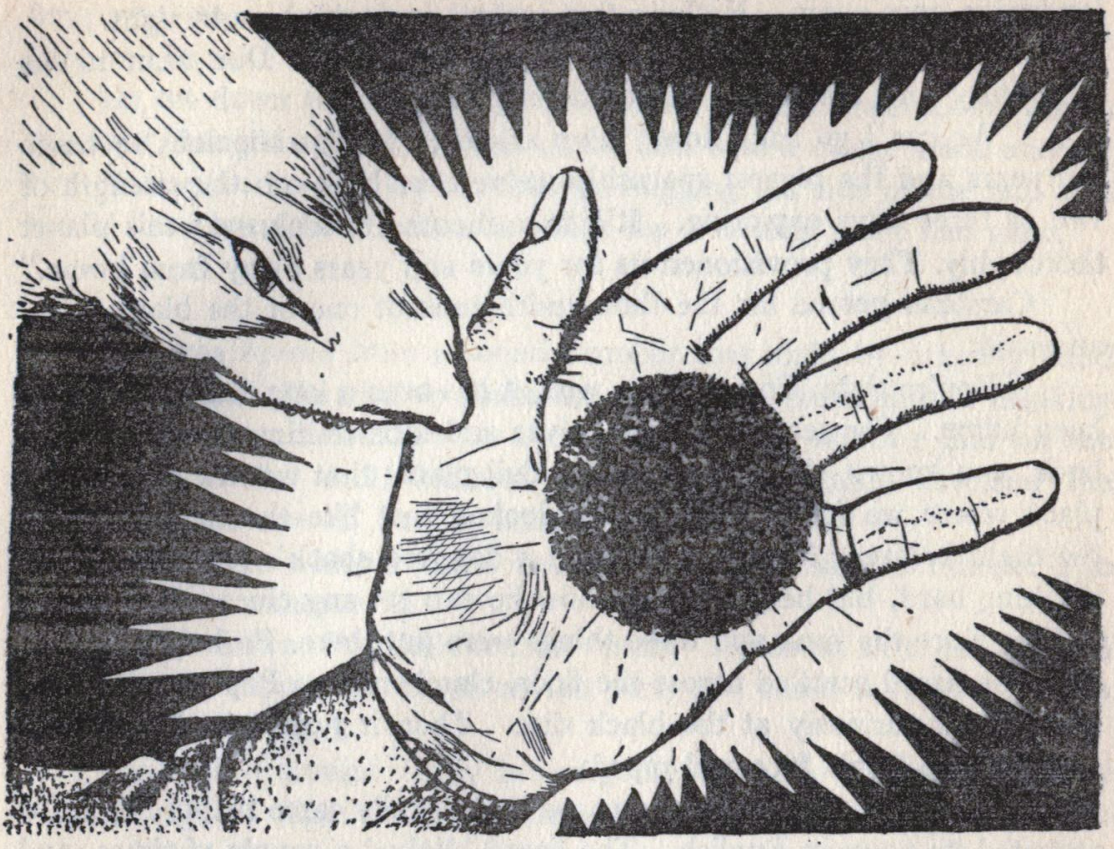
" They must be playing possum," Doc suggested. " That would indicate other forms of life on the planet, against which they need a defence. We'll have to do a lot more exploring."

" I don't know," Pop said dubiously. " Didn't they try to get away when you picked them up ?"

" They didn't move," Cal said sadly. " They were the only thing that looked interesting in a pile of some kind of boards that looked like a torn-down building. We just picked them up for souvenirs, thinking at first they were nothing but stones. Then we saw they were too symmetrical to be rocks."

" They don't try to get away when you hold them," Pop meditated " Let's see . . ." He kneeled cautiously, placed his disc on to the soil, retaining his grip, and his knuckles whitened instantly. The object strained at his fingers, almost prying them open. He pulled it up from the ground just before it tore loose from his grasp. Instantly, it was as if dead again. If its legs had come from holes at the bottom they were retracted by now.

" I'll go in and dissect one," Doc offered. " That'll leave us two."



"Suppose it's intelligent?" Cal suggested. "We don't want to start a war. Maybe these are intellectuals who just sit around the ruins of their civilization meditating on the past in their shells. We wouldn't want to murder any of them just because of curiosity."

"Well, I'll try everything else first," Doc said. X-rays, temperatures, and I'll even put it on the cardiograph."

"What's the use?" Vandrone asked, suddenly returning to life. "A few animals won't be of any value to Earth. Captain, suppose you tell Brains to 'path back that we found nothing of general interest. We'll start to prepare for the return trip. You can send out another scouting party tomorrow. But if nothing that really means money—a cash return on our investment—turns up, we'll go back home. There's no use throwing good money after bad by staying longer. Wouldn't home look pretty good to all you men?"

There was silence. Pop knew the reason for that silence. Vandrone had the power to make or break spacemen's careers. Pop himself was old enough and famous enough to talk back. But the others might never get off Earth again if they opposed the government's official representative to the crew.

The group climbed inside the Peecee in silence. Pop went last, and lingered at the top of the ladder to look morosely over the monotonous

landscape once again. Nothing that looked profitable was in sight.

After the meal, Pop cornered the Captain while Doc went to his laboratory and the others nursed aching feet.

" We can't go back now," Pop argued. " It's ridiculous to waste ten years and the biggest spaceship we've ever built on the strength of two or three days exploring. It'll take months to look over this planet thoroughly. They provisioned us for years and years away from home."

Carstairs peered for the thousandth time at one of the black discs, and said:

" You're right, Pop, but . . . well, it has been a long time since we've been home. The rest of us have wives and kids waiting for us to come back, you know. And it was a very dull planet that we saw today. The place where we found these things looked just like the morning after the night before. It must have been a deserted shack's location. Cal's thinking hard, but he doesn't see how he can get any clues to the length of time since the junk and these things were put there. Probably years."

The lizard scuttled across the floor, clambered up Pop's trouser leg, and looked curiously at the black disc. Then it turned its beady eyes straight into Pop's face and piped:

" Ujutjo." There was the pause that usually came before the lizard repeated its noun in English. The lizard blinked a couple of times, and said again, questioningly: " Ujutjo."

" That's funny," Pop said. " It knows the English equivalent for every noun that it learned in that other language, and it's proud to show off by translating them into English."

" Ever hear such a word before ?"

" No, and this thing has been crawling over me for five years, jabbering away most of the time. Hey, do you think it might recognize this black thing ?"

The Captain pondered. " Possible. Maybe that squawk the lizard gave is the name of it. There wouldn't be an English equivalent in that case."

" Anybody got a diamond ?" Doc poked his head into the room. " This infernal thing has ruined good scapels and my hardest saw. I can't open it up. It's harder than petrified rocks."

" Forget it, then," the Captain told Doc. " I guess it isn't worth bothering about."

" You can't even make a mark on it?" Pop snapped to attention. " Doesn't that sound like something worthwhile ?" I remember on our first trip to Mercury, we'd have given anything for a lining to the reactor chamber that didn't need to be replaced every three days."

" Well, maybe." But Doc looked doubtful. "Alloys have come a

long way since those days, Pop. By the time we get back to Earth, they might have something stronger than this."

He set down the little black case and it dashed impetuously across the floor, banged against the side of the hull with a clang, made another run, then gave up and lay motionless, hugging the side of the hull that would have been the direction in which the searching party had gone.

Pop was roused from a sound slumber that night by a heavy hand on his shoulder. He tried to shake the sleep away from himself thinking irrelevantly that it couldn't be a case of someone wanting him on the telephone. The dull, indirect, lighting of his cabin revealed the dough-like features of Brains leaning over him.

"Pop," the whisper came heavily, "come outside a minute. I've got to talk to someone."

With a frown, Pop followed the 'path. Tiptoeing with exaggerated care, Brains slipped the catch on the port, and eased himself down the ladder to the ground.

Pop looked around warily before going down the ladder. But there was no sign of night beasts. Proxima Centauri's only planet had no moon, but there was a much stronger afterglow here than on Earth. The night air was chill when Pop got to the ground. The fat 'path led Pop a few feet away from the ship's side, then stood shuffling his feet like a naughty scholar, animal terror gleaming from his little sunken eyes.

"Pop, it's not right. We've got to let those things loose."

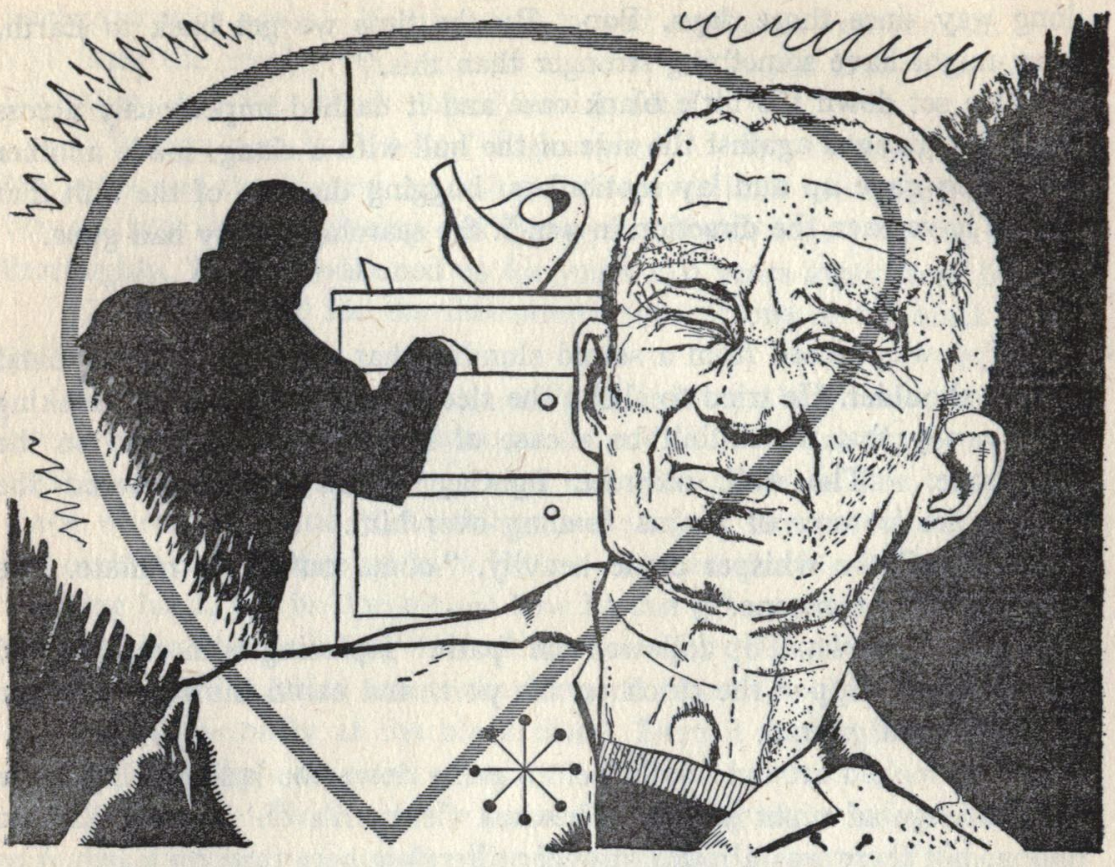
"Let what loose ?"

"Those little black jiggers. That one was so glad to get away. Now I can't sleep for worrying about the three that we still got. Let's bring them out and set them loose. We're messing into other people's stuff."

Pop grinned and poked a playful fist at Brains. "If that's all that's worrying you, let's go back to sleep. Those things were junk or else hardshelled insects. We aren't looters, we're explorers."

"But I tried to 'path back to Earth and I couldn't get through good for worrying." Brains's voice was shaking and Pop thought that he could see a quiver running through the fat man's body in the uncertain light. "I tried to get that funny word that you told me about through to Earth, but I couldn't keep my mind on it and I didn't get any sensible answer."

Pop grabbed Brains's arm, explored for the pulse, and counted for a moment. The pulse was racing, almost fluttering out of control. Shocked, Pop ordered him back into the ship. He followed, and prepared



a strong sedative. He watched him gulp it down with pity, thinking that the poor 'path should never have been brought light years away from home. All he knew was how to run a hamburger stand. It wasn't his fault that he happened to be a telepath and scared to death.

Pop watched until Brains groaned and quivered into a drugged sleep, then went wearily back to his own bunk. He wondered if this was the first sign of a disease. The human body's defences usually pounced upon extra-terrestrial germs, before they had a chance to spread, but the emotional complex about the little black cases sounded like the product of a fever.

Then Pop jumped upright in his bunk for a moment as the thought occurred to him: Suppose this wasn't disease, but extra-sensory perception? Were the little black cases telling Brains through telepathy that they wanted to be free?

Then he relaxed and tried to forget the subject. He knew that he needed this sleep, because he was determined to accompany the next exploring group that set out from the Peecee. He closed his eyes and dozed.

While he dozed, he dreamed. A shadowy creature with indistinguishable features was in his bachelor apartment back on Earth, defiling the floors, stripping the walls, hunting for the money in his bureau drawers—

Pop woke, to find himself out of his bunk, creeping stealthily toward the lab where the three remaining black cases had been locked away. A voice had awakened him. Vandrone was emerging from the side passage, also heading for the lab. The two looked guiltily at one another.

" I asked you, don't you know it's against the ship's rules to gallivant around at night?" Vandrone asked.

" What are you doing down here, then ?" Pop asked, fighting for time to clear away the nightmare and the sleepiness. " Not heading for those things, by chance ?"

" The black cases are—" Vandrone stopped, realizing his mistake, since Pop hadn't specified what he was referring to.

" Senator," Pop said soberly, "listen to me. Don't lose your head. Act intelligently, not emotionally. It's important. Let's not go inside there. Did you dream?"

Vandrone looked suspicious, unfriendly and finally said: "I merely planned to study those black objects in the interest of science."

" You had a crazy impulse to go in and set those things free, same as I did," Pop charged. " I had to dope Brains to keep him from doing it, he was so obsessed with them. He was more sensitive than we are, but everyone in the ship will have a guilt complex about those things by morning."

" Have you gone crazy ?"

" I think I've figured out something. Those things have a strong physical defence—Doc couldn't break into them. But they must have another type of defence too, a mental kind that implants a sense of guilt into us, a desire to set them free. It's a logical method of defence."

" Then they've got to go free," Vandrone declared. " With those powers, there's no telling what they might do to the ship."

" If they had any offensive powers they wouldn't be waiting all this time to strike," Pop told him. " Look, we'll wake up the others and take a vote on it if you want. But you don't see the point about those things. They can't be animals or insects. No animal would lie out in the open in suspended animation, and come to life only when you took it away from where you found it. Doc tried every test in the book without finding a sign of life. Those shells are some kind of metal, and living things don't have metal shells. Those are machines, made by some race that we haven't found yet. They must be intelligent beings to create a device with homing properties and the ability to instill a sense of guilt in us. They're the only clues we have to that race."

Vandrone stared at Pop, then shook his head as if to ward away a cloud of bothersome insects. Half-decided, he said:

" But what kind of stupid machines would those be ? They don't do anything . . ."

" That's for us to find out," Pop said. " The people who made them may be somewhere on this planet. We're going to look for them tomorrow."

" We aren't!" Vandrone's voice was suddenly a bellow. " My God, man, do you realize what danger we're running? Those things influence us and almost make us let them loose tonight. Tomorrow night they may influence everyone aboard the ship to commit suicide. Hey, men!" he yelled at the top of his lungs. " Everybody up! " Turning to Pop again, face crimson, he warned in lower tones: " We stay awake tonight. Tomorrow we take these things back where we found them and start back to Earth!"

Pop heard a commotion as the others aboard the ship roused themselves. With sagging shoulders, he turned back towards his room too upset and worn out to argue the matter that night.

Pop's legs started to turn to rubber an hour after the crew started hiking toward the place where the black objects had been found originally. Only Brains had been left behind, in an effort to get accurate communications with Earth. He had been trying hard, but his telepathy was still upset, and he could only mumble fragmentary references to money. That, Pop reflected, was all that the Senator had needed to deduce that the expedition had cost too much already and was supposed to return to Earth immediately.

Captain Carstairs, in the lead, turned and saw that the crew was stringing out raggedly, Vandrone far in the rear and Pop almost as far behind. He halted the head of the column until the stragglers could catch up.

" At least nobody feels guilty now that we're returning these things to where they came from." He said " I still say they're animals. It's a natural development for any animal that has peculiar mental powers. Evolution could explain it."

" I dunno," Doc pondered. " Evolution usually doesn't work in two directions at once. Turtles have hard shells but can't move fast, so they cannot run away from enemies but can crawl into their shells Antelopes can go fast, but they're almost helpless if they're caught where they can't run away. Earth never produces anything that is both armoured and a fast runner."

The party started to move again, more slowly, led by the black discs. Carstairs had rigged up tight harnesses for them and they strained at their leashes, directing the party over the featureless ground and rolling landscape.

"They must have come from some other planet," Pop insisted. "We've not seen any signs of life around here, this sun doesn't have any other planets, so they must be from another system. Cal says that they—"

"Whoa, don't quote me on anything," the archeologist grinned. "I'm just thinking out loud. Give me a couple of weeks on this planet, and I'll be able to tell you how long ago each one of these dunes was built up. But on one day's observation—"

Senator Vandrone shot a nasty look toward the archeologist, then continued to puff loudly.

There was a whirring sound from one of the discs, and it halted, suddenly, while the other two continued to strain forward. Carstairs held to the leashes until the two tautened, while the third hung limply over the motionless object. The men clustered around it, perplexed.

Doc moved toward it, as if to pick it up. It whirred more loudly, and he jumped back, as if it were a striking rattlesnake.

The black disc that had halted split abruptly along its side, as if a lid were opening. The top half flopped over beside the bottom half, both breaking loose from their leash in the process. The bottom half instantly scooted in a mad dash over the ground in the direction toward which the party was heading.

Doc leaped for the other half, which began to slide in the same direction. It picked up speed just ahead of his clutching fingers, accelerated rapidly, and vanished over the horizon in seconds.

Carstairs said a bad word, then began to laugh.

"Amoebas!" he said. "Hard shelled amoebas that reproduce by fission!" He picked up the remaining two, looked at them carefully for signs of splitting, but found no sign of a separation.

"I still think they're machines," Pop muttered, half to himself.

"Machines that give birth to other machines?" the Captain asked. "Machines don't do that."

"Maybe it depends on the machine," Pop replied.

The green tinge faded from the atmosphere as Proxima rose near its zenith, and the scattered boards that were once a structure looked like a disrupted skeleton.

"At first sight," Cal said, falling into his role as archeologist, "I'd define this as the sort of building that would be set up by explorers who planned to spend a few weeks here. It looks as if it had just been tossed together firmly enough to hold up until the first hard storm. That is, if there are hard storms on this planet."

Pop nudged the smaller boards with his foot, turning them over. Not even an insect emerged from the underside. The two black discs that remained to them no longer needed a leash, as if they were faithful dogs that had finally found their way home. They moved around the ground uncertainly.

" I'm getting tired," Vandrone said suddenly. "Let's go back."

" You'd be tireder if you were carrying this thing," Doc snapped back, moving the communications set wearily from one shoulder to the other.

" Any news from Brains ?" the captain asked.

" Nothing important. He just says he keeps getting stuff that makes him think of money every time he tries to send back information about what we're up against."

" Where'd you find these black things ?" Pop asked. " I can't understand why we haven't spotted the ones we lost, if they came back to the place from which they were taken."

"Over here." Cal lead the way towards a slight rise in the land, the others trailing him. " They were sort of hidden behind that pile of lumber or whatever it is."

They found the missing discs at the point from which they had been taken. The disc that had split into two was distinguishable, because the two parts were slightly thinner than the others.

" Hunt all you wish," Vandrone announced. " I'm resting until we start back for the ship." He sat down on the nearest board. It cracked loudly, splintered beneath him, and he sank visibly with a yell. The Senator's feet shot into the air and waved like an insect's mandibles.

" Hey, help me!" he shouted in muffled tones, face reddening.

Doc grinned, set down the communicator, and went to the aid of the half-impaled Senator, who squawked twice as loud when Doc placed his hands under his armpits and began to tug upward. Doc let go, hurriedly.

" Wait a minute," the Captain called, running to the scene of the accident. With the physicist, he inspected the situation gravely, ignoring the Senator's moans. Pop came up and peered carefully into the face of each person. He found that each face except the Senator's was trying to restrain a grin.

The two ends of the board emerged from beneath Vandrone, raised from the ground at a 45-degree angle. He lay there like an overlarge bird in its nest, squawking intermittently as the men conferred on the proper procedure.

" We can do it with a jerk or we can do it slow and careful," Carstairs decided. " Brains would come in handy, now—he's the strongest person on the ship."

" My God, hurry up!" Vandrone was yelling. " If I get blood poisoning this far from a hospital—"

With Doc holding one end of the board, Pop clinging to the other, and Cal and the Captain cautiously hoisting, the Senator was freed. Vandrone tumbled on to his ample stomach and lay on the ground, groaning, while Doc made certain that no serious damage had been done to his person.

" Hey, look here! We've struck buried treasure!" Pop was pointing to the indentation in the turf which had caused Vandrone's accident, and he was dancing up and down, his years forgotten.

Captain Carstairs left Vandrone and trotted to Pop's side, his gaze following the old man's pointing finger. What must have been a sturdy box, made of a grayish substance, lay splintered just beneath the surface, partially uncovered now. Dozens of the shiny black discs were oozing from it.

" We've hit the jackpot!" Pop chanted, then stopped. He stood rigid, suddenly, staring at the bursted box, at the other men, at the spilled black discs. His eyes widened, and he sagged as his legs turned weak. He looked around for a place to sit down.

" Hey, don't do that!" Vandrone yelled at him. " I tried it, and look at me!"

But Pop had sat on the turf, like a schoolboy preparing for a mumblepeg tournament, and had begun to laugh. The rest of the crew clustered around him.

" What's wrong with you, Pop?" Carstairs asked, looking worried. was both a hospital and a nuthouse needed now, he asked himself.

" Right before us, as plain as the noses on our faces, and we didn't catch on," Pop chuckled. " I didn't realise myself until I made that crack about jackpots for no reason at all."

" Realize what ?" Even Vandrone dragged himself to his feet and walked cautiously to the huddle on the alien planet.

" What those things are that we've been bothering about. And Brains was upset because he thought he couldn't get a proper answer from Earth as a translation for the lizard's word."

Doc picked up a couple of the black objects and looked at them again, then stared expectantly at Pop.

" He told us he didn't get anything except some messages dealing with money. That's what they are. Money."

" Pop, have you gone off the deep end?" It was Doc who looked worried now.

" Here you are, Senator!" Pop tossed one of the objects to Vandrone. " Our first profits from space flight. We'll be able to buy something from that race that leaves traces on these planets, now that we have these."

" Don't make a fool out of yourself, Pop," Doc hissed in his ear. " You can't bluff Vandrone."

" I'm not bluffing. Don't you see, it all fits in. The telepaths back on Earth told Brains it was money—they must have found a lizard language research man in a hurry. We find these things mostly underground, just like the pirates used to bury wealth on desert islands when they didn't expect to return for quite a while."

" But—but—" Vandrone had forgotten his contusions. " You mean that these are made out of precious metal ?"

" I don't know, and it doesn't matter right now. They may belong to a race that's past the stage of valuing metal just because it's scarce. They probably make their money out of this stuff because it's hard. But that's beside the point."

" Pop, these can't be money. Money is either paper certificates or small coins that you can carry around or store in a small vault. You couldn't bother lugging these things to the store everytime you wanted to buy—"

" Just think a minute," Pop interrupted. " That sense of guilt that we all had in the spaceship over keeping these things. Wouldn't ideal money be able to make a thief who took it feel guilty? Apparently these things have some built-in mechanism that reacts to a certain part of the subconscious and influences the mind.

" Then they have a homing instinct. That would be another good thing for money to have. If you lost a piece of money, you wouldn't have to worry—it would find its way back to you.

" They're so tough that they can't be broken or tampered with, and they are so complicated that no one would be likely to counterfeit them. They'd be perfect for trading with inhabitants of other worlds and so explorers would naturally bring some along."

" Nice try, Pop, but you've forgotten something," the Captain was smiling. " These aren't machines, they're animals, so they couldn't be money. Remember how we saw one split into two?"

" And remember how I said that maybe you could build such a machine?" Pop fired back. " From the way that chest is split, quite a few of them must have reproduced. But that's just another proof

of what they are. What good would currency be if couldn't bear interest.

Back in the Peecee, Brains succeeded in relaying the hypothesis back to Earth, the Captain checked supplies, Vandrone nursed his wound, and the spaceship soared into space. Pop tried to forget his disappointment that Carstairs had followed Vandrone's desire to go home immediately.

They had taken along a dozen of the black discs, despite Brains' insistence that he'd never be able to 'path as long as those things were aboard. When the Peecee got out of the gravity zone and hung for a time in space, neither accelerating or decelerating, the discs ran from the floor and climbed in unison toward a specific point on the wall, near the ship's top.

Carstairs pulled out his star maps, searched, and put his finger on a point.

" They jumped in that direction," he said. " The star's four years from us at our speed. The race that left those things behind on Proxima must be there now, if those things really have a homing instinct. Who wants to go that way?"

" My God!" Vandrone shouted, eyes widening. " We've got to go back to Earth! Why, Pop here might not live to get back home, if we don't go straight there."

" I'll really live if we're going exploring!" Pop replied. " Besides, I've just thought of something you said a while back. You said that we'd go straight back home—unless we found something that really meant cash on the line, money. Well, we've found it!"

" I feel fine," Brains grunted, smiling broadly.

The Captain counted hands in the vote, and began to draw up a new set of calculations, based on the arc that the black discs had just described.

" Ujutjo!" the Venusian lizard said happily.

HARRY WARNER, JR.

JOHN CHRISTOPHER

Talent

The strangest qualities may become useful in a journey into the remote future.

Illustrated by Harry Turner

THE advertiser had bought two blank lines above and below the advertisement; it stood out prominently half way down the Classified. It ran:—

"Time travel. Men with the following qualifications required: 1. First-class general scientific background, with appreciation of applied science and technology: experience in industrial and scientific liason useful. 2. Skilled field sociologist or public opinion specialist. 3. Completely unqualified. Payment in each case will be £500, for one evening. Box B.326."

It produced a record postbag. The applications were winnowed down to a final list of three. These three letters ran as follows:—

1.

Dear Sir,

I have B.Sc., M.Sc., and D.Sc. degrees (London) in physics. My doctorate thesis was on some aspects of the Brownian movement in relation to sedimentation and the settling rate of slurries. I now hold an editorial position on the technical journal, Precision Machinist. *If I understand correctly you are offering payment of £500 for an evening's work in connection with time travel, regardless results. I shall be glad to offer you my services.*

Yours faithfully,

HENRY CRAKE.

2.

Dear Sir,

My personal view is that you are quite crazy. I do not believe that anything you can say or do will alter this conviction. If you are sufficiently crazy to give me £500 for an evening's work, I shall be most happy to oblige you, providing the work is (a) *legal, and* (b) *not suicidal.*

I worked, or rather attended, for a degree in psychology at the London School of Economics, but failed to take the degree. Since then I have done a certain amount of market research, and rather more of advertising copywriting. I have also had some sketches published in Punch. *Is this a record?*

Yours Sincerely,

J. CARTER STACKPOLE.

3.

Dear Sire,

I don't kno exactly what it is you want, but if its' a quiston of £500, I'm on. I hav'nt got any qualiffications at all.

Yours respecfully,

A. PETERS.

In each case, the reply was that the writer should present himself at a Mayfair address, at seven o'clock on a specific evening. They met, and recognized each other, outside the house. Stackpole took the initiative in talking, speaking, naturally enough, to the other educated member of the trio.

" You'll be the scientist, I take it," he said. " I *believe* I'm the sociologist, although it's just possible that I'm the unqualified specimen." He turned interrogatively to Peters. " You wouldn't be the sociologist, I suppose?"

The very light inflection of sarcasm was water off a duck's back as far as Peters was concerned. He was an insignificant little man, with a ginger moustache and an expression of wariness.

"Don't know, guvnor. I applied for number three."

Stackpole nodded, smiling thoughtfully at him. "My name's Stackpole. You know, I can't believe in that five hundred, but the address is solid enough. If it isn't time travel, at a place like this, it's probably the white slave traffic. It should be interesting, at least."

Crake said: "Yes, I'm the scientist. Name of Crake. *Have* you rung?"

"Not up to now." Stackpole thumbed the bellpush. "And what's your name, Number Three?"

"Peters, guvnor. Alf Peters."

A manservant opened to them. "Good evening, gentlemen. Sir Gregory is expecting you. Would you come this way, please?"

Crake looked startled. He repeated, half to himself: "Sir Gregory?" Stackpole watched him acutely.

"Something ring a bell?"

They were proceeding along a narrow but sumptuous corridor. Crake said: "I'm not sure . . ."

The butler led them into a square room of medium size, lined with books. The view from the window, which would otherwise have been of an extremely depressing mews back, was limited by an evergreen creeper trained on poles barely three feet from the glass. Stackpole went across to look out.

"What it is to be rich," he commented, "and fence off the world's squalor with an elaborately trained rhododendron. Or whatever it may be. But if you're rich enough, I suppose the outside world's irrelevant."

The butler had left them. Within a few minutes the door opened —in fact it swung open violently and crashed against the woodwork— and a portly elderly gentleman, not much taller than Peters though a great deal wider, came in. Crake, when he saw him, said involuntarily: "Sir Gregory!"

"So you do know him," Stackpole observed. "Introduce us."

Sir Gregory laughed. "I'll do it myself. I'm Gregory Jacobs. You gentlemen will have answered my advertisement. Let me see— you will be Mr. Crake, you will be Mr. Stackpole, and this will be Mr. Peters." He had them right. "You are prepared to help me with my little job?"

Crake began cautiously: "Of course . . ."

"Of course," Sir Gregory repeated. "We can take the 'of

courses' for granted. You will be able to take all reasonable precautions."

Stackpole said: "Sir Gregory Jacobs. Yes, indeed! Fellow of the Royal . . . and didn't you do the work on vector analysis for a complex of magnetic and electric fields. You got the Nobel Prize in . . . let me see . . ."

"Never mind. Some years ago. You please me, Mr. Stackpole. Not because of your knowledge of my scientific past in itself; but because the person I really wanted for your job was one with all-round interests and an ability to assess the social scene: I found it rather difficult to define."

Crake said, half accusingly: "You dropped right out of everything, Sir Gregory. I didn't even realize you were still alive."

"I know, I know! Science forgets its workers very quickly. Unlike literature, which commonly keeps its highest eminence for someone who hasn't worked for a quarter of a century. I dropped out because I didn't want to be interrupted and, perhaps more to the point, because I didn't really believe myself that the line I was working on would lead where it gave every indication of leading. I didn't care for the prospect of being made a fool of by publishing results that might not come out. Well, they've come out, and I still don't know that I will publish . . ."

Crake said: "I'd like to see your work, Sir Gregory."

His voice had a soothing note. Sir Gregory looked at him sharply. He said:

"Let us get one thing straight. Each one of you came here tonight in the happy conviction that I was mad and the hope of getting five hundred pounds for nothing. You are to be proved wrong in the conviction and right, more or less, in the hope. You, Mr. Crake, will not be shown my figures. The work I have been doing for eight years cannot possibly be run over in a few minutes.

"One of my earlier results gave me proofs of the four fundamental equations Einstein postulated. I have established certain facts about the underlying structure of the universe and have shown, to my own satisfaction, that we live in a closed continuum of time and space in which the factors of conservation of energy and mass are limitlessly interchangeable. Theoretically, transfer of mass to any point of the physical universe is possible, but I have found it impossible to get over the local gavitational effect . . ."

He gazed at them. "Does any of you know what I'm talking about?"

Peters continued a solemn stare, begun some time before. Stack-

pole said cheerfully: "Haven't a notion." Crake said:

"Given the clue—that it's to do with time travel—I should guess that what you mean is that earth gravity persists during the . . . the effect. So that, whereas otherwise the object might finish up anywhere between here and the edge of the universe, as it is it travels with this planet and is translated only in time . . . I must say, you've got over one difficulty that's always struck me about the theory of time travel."

Sir Gregory had been looking at Crake critically, "Yes, you'll do, too. That leaves one." He wheeled on Peters. "I want someone without any talent at all for the job I had proposed for you. I want the common citizen. Well, are you common enough?"

Peters said uneasily: "I think so, guvnor. I come from Woolwich."

"Not your origin, man! I'm not interested in your social life. Play any musical instrument? Trained in any special trade—any?" Peters was shaking his head. "What's your job?"

"I'm not actually in work—not right now, guvnor. I've done a bit on the docks, and I've helped with a barrow—selling fruit. You know."

"I know." Sir Gregory looked at him thoughtfully. "Yes. I think you will do."

Stackpole said: "Would it be too much to ask why you want people with our particular qualifications—or lack of them?"

"I was going to explain that. Have a drink?" There was a general noise of agreement, and Sir Gregory went to a cabinet and returned with a bottle and four glasses on a tray. "I take it nobody objects to Scotch." He poured the glasses almost to the brim. "Now then.

"I think I have made it sufficiently clear that I have found a way of traversing time—or that I have convinced myself that I have. I should stress here that there is no danger to any of you in this experiment. Mr. Crake will be able to examine the apparatus I shall use, and can satisfy himself, and you other two also, that it contains nothing that could be lethal. To make matters doubly sure, I have a gentleman in an adjacent room from one of the big insurance companies. He has prepared a form of insurance, which I am backing, guaranteeing to your personal nominees the individual sums of a hundred thousand pounds each in case of your death, and a *pro rata* division of that sum to you yourselves in the case of any disablement resulting from the work you will do tonight.

"Now—why do I want you particular three? The point is that I have a natural curiosity about the future, the more so since I shall

see only a very small portion of it now. The ideal thing would be to travel in time myself, and perhaps I may do this eventually. For the present I am the only person who can man the controls at this end.

" So I am sending a scouting party into the future, and I want it to be the kind of scouting party that will give me the most satisfactory information about that future. I have fixed a time of five hundred years as a provisional target. I want you to look at the latter half of the twenty fifth century for me. I want a man who will be most likely to assess accurately the state of scientific and technological development of the world at that time—that's you, Crake. You, Mr Stackpole, will have the task of weighing up the social conditions of that world, and giving me as clear a picture of it as you can manage. Mr. Peters here is the guinea-pig. I simply want him to express his reactions to the inevitably fantastic scene you will encounter. He does not need to understand it at all clearly, or to be very articulate in describing things. I shall get my full descriptions from you other two gentlemen. From Mr. Peters I want no more than an emotional reaction—what the man in the street of the twentieth century thinks of the pattern of life of the twenty fifth. Very possibly he will be utterly mazed by it all. That in itself will be a valuable reaction."

Stackpole had finished his whisky; Sir Gregory silently pushed the bottle towards him, and with as silent an acknowledgment, Stackpole refilled his glass.

Crake said: " It sounds simple enough. On the other hand, the way things are going . . ." He laughed briefly, in a high key. " We may fall into the hands of savages. What *pro rata* value have you put on our scalps?"

" The transfer of mass," Sir Gregory said, " —that is, in this case, of your bodies and the small envelope of air immediately surrounding them—will be accomplished by warping the basic substance of the space-time continuum." He glanced briefly and sardonically towards Crake. " One of the minor by-products of my work has been the resurrection of the ether, though not, perhaps, in quite its old form. This warping is an unstable condition, although the instability, as I see it, would progressively diminish."

" What the hell," asked Stackpole, " does that mean?"

Sir Gregory nodded to Crake. Crake said: " The mass transferred would gradually adjust itself to its new environment—if nothing interrupted you could stay in the new time era."

" Exactly," said Sir Gregory. " Fortunately a certain harmonic wave, during the period of instability, can resolve the situation into its original equilibrium." He turned to Crake again. " That is why you

need not worry about those hypothetical savages. Your return to this time era depends on you yourselves, and you can actuate it whenever you wish. I have no control over you once I have sent you forward in time. You will each wear, on a wrist band, a very small transmitter. The simple matter of pressing a button will cause your return."

Stackpole commented: "Cast iron."

Sir Gregory refilled all the glasses, including Stackpole's, which was again empty.

"If it has not already occurred to you, it probably will occur that there is nothing to stop you pressing the button as soon as you arrive in the twenty fifth century. I shall not be able to gauge the length of time you have spent in the future, because you will return to the exact temporal point from which you left. You could concoct some story of what the future was like, and provided you were very clever and were able to combine on the *same* story, you might possibly be able to deceive me and collect your five hundred under false pretences."

His glance lingered on Peters. "But apart from my confidence in your integrities, I doubt if you all have the imagination for it, and, of course, it would have to be a joint deception. In any case, I am banking to a certain extent on natural curiosity—in the case of Mr. Crake and Mr. Stackpole at least—making you in fact anxious to investigate the world of the future in as full a way as you can."

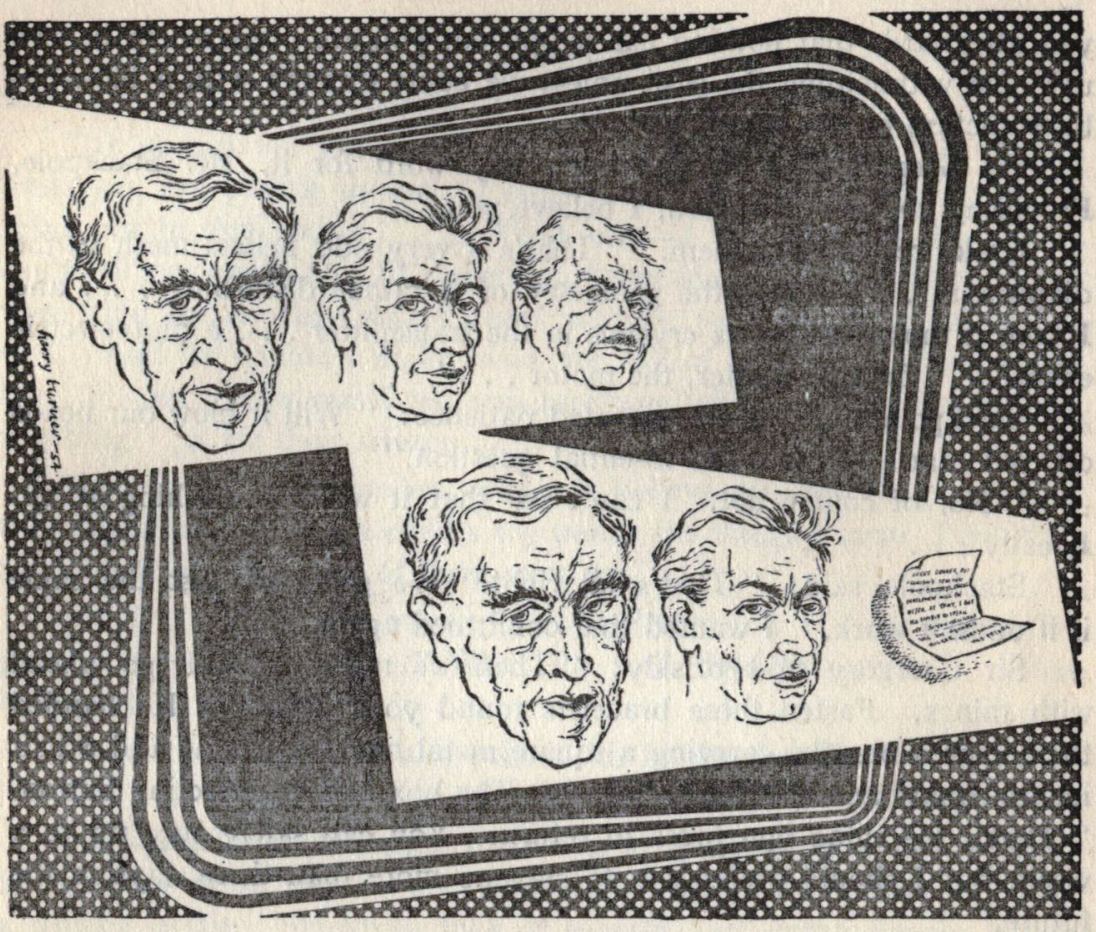
Sir Gregory picked his glass up, but put it down again without drinking. He went on abruptly.

"That point does not worry me, but there is one point that does. You, Mr. Crake, and you, Mr. Stackpole, are quite talented men. I require you to be talented for the purposes of this trip, but I cannot be blind to the possibility that your talents may defeat my ends. The plain fact is that a talented man may find the world of the future an irresistible attraction. In a number of ways I conceive the possibility that he would command a high position in the society of that era. You may prefer not to return, gentlemen. I have placed the premium on return at what I think is a high figure, but five hundred pounds may seem small beside the rewards the future can offer you. If events should turn out this way, I can only hope your loyalty to me as your employer will be strong enough."

He smiled to Peters. "I hope you will not take my reference to the talents of these gentlemen amiss, Mr. Peters. At any rate, the wages are the same."

Peters grinned. "And that's enough for me, Sir Greg'ry."

Crake said: "You may rest assured, Sir Gregory, that Mr. Stackpole and I will stand by the terms of our agreement."



Stackpole gave a slight hiccup. "True blue, an' all that. Good for us, Crakey boy. Another drink, Sir Gregory?"

Sir Gregory removed the bottle from Stackpole's reach. He said gently:

"You had better retain something of your faculties for facing the unknown. Now, if you are ready, gentlemen . . ."

The business with the man from the insurance company was conducted in Sir Gregory's study; the man took it very calmly. From there they returned to the corridor, and down a winding spiral staircase to the basement. The dividing walls had been removed and the whole basement floor turned into a physical laboratory. Beside one wall there was an elaborate looking apparatus to which was attached what looked like a metal door frame. Sir Gregory pointed to it.

"Run your eye over that, Mr. Crake. I think you will judge it harmless enough."

Peters was standing still in the middle of the floor, eyeing the scene distrustfully. Stackpole said quietly to Sir Gregory:

"There is one little thing. I can't speak for the other two, but I still think you're crazy. Clearly intelligent, but crazy. If we tell

you afterwards that nothing has happened, you are prepared to believe us? No withholding the cash unless we come through with a blow-by-blow picture of the future?"

Sir Gregory said: "You have my word for it, Mr. Stackpole. Providing you are all agreed, I believe you."

Crake returned to them. "That's a very odd helical mesh in the diaphragm . . . I find the geometry of it rather disturbing . . . and I take it those are quartz crystals in the transmitter . . . a piezoelectric effect? . . . for that matter, the motor . . ."

Stackpole said with exaggerated patience: "Will it blow our heads off, old man? That's the essential question."

"No, of course not. I can't see that it will do anything at all. I really . . ."

Stackpole said: "That's all right. We get paid just the same if it doesn't work. I wanted that confirmed again, too."

Sir Georgory said briskly: "Then we might as well go ahead with things. Fasten these bracelets round your wrists." He handed them each a bracelet carrying a square metal box, about one and a half inches square and half an inch deep. The box had a projecting button. "That's the thing you press to return. You can safely stay up to a week, but I should prefer you to stay no more than three days in the future."

Peters said: "Blimey, three days!"

"Don't worry," Sir Gregory told him. "These two gentlemen will look after you."

He went across to the machine, and stationed himself beside an instrument panel. He called to them above the low throb of the motor, which he had switched on:

"All I require you to do is to walk across the room towards me, and continue walking through this frame arrangement." They stood irresolutely. "Just start walking, gentlemen!"

He watched them come towards him, reach the frame, and pass through it. Three of them reached the frame. Three of them walked through. But only two reached the other side.

Stackpole said: "He sent you this note."

It read: *"Sorry guvener, But I cul'd'nt tell you much aniways, These gentilmen will be beter at that, I got no fambly to speke off. So you can scrub the fiv hundred nicker, Yours sincerely, Alf Peters."*

"Now," Sir Gregory said, "what does it mean? What does it *mean*?"

Stackpole looked at him; his expression was cynical, but it was also nervous, tired, bewildered.

"I should tell you about the future first, shouldn't I? That's what you are paying us for. I suppose I'll be able to squeeze something out in due course . . . Right now—I can only tell you that I can't tell you anything. It's gigantic, tremendous, unbelievable. They were kind to us—they didn't know who we were but they treated us well. And we couldn't make head nor tail of anything. Their social life . . . no. How can I tell you anything when I didn't understand anything. As for their science . . ."

Crake said, in a wooden voice: "Believe me, Sir Gregory, your time machine looks like a child's toy beside the things I saw. I couldn't begin to think what any of them were for."

Sir Gregory said explosively: "But Peters . . . !" He waved the grubby note in the air. "What the hell does this mean? What happened to Peters?"

Crake put a hand up and rubbed his forehead. He said vaguely: "Peters . . ."

Stackpole began to laugh; there was a hysterical edge to his voice. Sir Gregory went over to an instrument cupboard and brought back a whisky bottle. Stackpole took it eagerly and drank deeply before passing it on to Crake.

He said, more steadily: "You were worried about the possibility that Crake and I might find our talents so much in demand in the twenty fifth century that we would prefer to stay there. That's a laugh! I'd hate to take the high school curriculum in that world. We could neither of us have made a living in fifty years of sweating. But it didn't even cross your mind that it might be true of Peters."

Sir Gregory said: "Peters! Peters had no talents. I asked him—and I chose him for that reason."

"He didn't think it worth mentioning." Stackpole laughed again. "The talent that's just as valuable—more valuable—in a world of the future that Crake and I didn't begin to understand—and he didn't think it worth mentioning!"

Sir Gregory said, very slowly: "And what was the talent?"

Stackpole took the bottle back from Crake and drank even more deeply.

"Didn't I mention it either? . . . The three-card trick."

JOHN CHRISTOPHER

CYRIL MYRESCOUGH

A World In Exile

Across the countless light-years they had come to make their home on Earth.

Illustrated by Jack Wilson

ANDERSON watched the enormous black thing slowly and gracefully descend to earth. It was shaped like a saucer and covered the bottom of his garden and most of the new pasture beyond it. All the trees and hedges moaned and crackled under its weight.

Then through the darkness he saw them—six or more figures without human form drifting aimlessly about in the moonlight, then disappearing round the side of the house.

Scarcely any sound had accompanied the performance. What he had witnessed through the window that hot summer's night was so fascinating that he had not sensed its importance. Even danger did not touch his consciousness until he felt the soft, ugly caress on his shoulder.

The shock of the sensation might have made him react suddenly. Instead, it gradually drew his attention away from this feast for his eyes and made him turn round slowly, as if reluctant to meet the creature now standing before him.

It was about four feet tall, dirty yellow in colour and stood on two jointless legs. The tentacle or arm which had touched Anderson was still waving in the air; the other was coiled round the back of one of his red plush chairs. Its smooth, hairless head was about twenty inches in diameter, and throbbed and bulged remarkably.

To Anderson it was like a fish, a human fish, brutish in its physical weakness and cunning in its expressionless countenance.

The thing spoke: " You will be surprised by our arrival."

The voice was not human. It was as if the creature normally had some other means of communication, but had discovered a way of producing a sensation sensitive to man's ears and was adapting this medium to express its thoughts. The perpendicular slit in the centre of its face stretched into a narrow diamond and back again, while the voice droned on, sexless and metallic.

" I come from a star in a distant galaxy. For some years now we have been encircling your world in our flying saucers, observing you, monitoring your radio, studying your languages, your agriculture and your customs. Barely one hundred yards from this building our saucer has landed, the first of many. It is a matter of hours now before others land and disgorge their precious burdens. Our people will swarm over the earth and populate it. If you accept us, our two races shall live together in peace. If you resist, our safeguard will be the total extermination of your species."

The creature paused, as if expecting something from Anderson, perhaps a word or two of welcome, or an appropriate remark on behalf of the rest of his species to this representative from space. But who was Anderson to speak for his fellow-men ? This thing was probably some sort of leader—a king, or a president, or a dictator.

The creature filled the silence once again. It told him that long ago its planet had died. Its race had been on the verge of extinction. But its ancestors had provided for such an occasion by building a fleet of saucers. Into these machines a chosen few of the race had been taken. They had departed in search of a green planet where they and their descendants could rebuild their familiar way of life.

For ten thousand earth-years they had wandered through space. The original crew had died off and generations had been spawned and taken their place. Their history and their customs had dissolved into nothingness. Only one thing had been handed down—the tradition that they were only in transit, searching for a new home. At last, God in His Own good time had found one for them.

Suddenly the creature stopped. It stood motionless, save for a gentle swaying from side to side, as if the effort of speech had been too

much for it. Defiant, its bulk, its very presence, formed a barrier between Anderson and the door; yet its attitude was one of expectancy, as if kindness, even understanding, was what it yearned for.

But Anderson needed air. This mad experience was too much for one man; someone else must share it with him.

He must seek advice, warn everybody so that the invasion must be dealt with by force if necessary.

He noted the bulging forehead. These things, whatever they were, must have concentrated on the development of their brainpower at the expense of their bodies. He should be able to overpower it easily. With one out of the way, the others might be too scared to retaliate.

His fingers curled round a heavy glass paper-weight on his desk. He brought his arm up suddenly and sent the object crashing somewhere at the creature. Its tentacles began to wave rapidly and it fell against him. Nauseated by the pressure, he pushed the cold, soft fleshiness away. Its sickening embrace relaxed and the tentacles groped feebly for his face. He gave it a kick and he shuddered as his shoe cushioned into the thing's yielding torso. It sagged on to the floor and lay on its back, the four limbs shaking helplessly like those of a beetle which has fallen off a table and cannot get back on to its feet again.

Anderson seized his opportunity. He ran from the room and out of the house. It was moonlight and he thought he saw movement in the long shadows. But nothing barred his path. With luck, he would reach the road in safety.

How long he ran, he did not know. It seemed he had been running all his life. Always, it appeared, trees with the gnarled faces of demons had been watching him, their leaves spluttering in his face and their sharp branches clawing at his clothes. His breath was still sobbing jerkily in his throat when he had dropped to walking pace.

There seemed to be no point in going on.

The idea of warning everybody could not be so important. If he did warn them, nobody would believe him. The police would say he was drunk and then lock him up for the night.

This earth, he considered, had been shut off too long from outside influence to take any notice of him. He would be asking people to accept invasion, not from a foreign foe with planes and parachutes and with uniformed men carrying guns and haversacks, but from a something out of contact with the knowledge of politics and science.

He was asking them to accept an invasion from the farthest star—millions of light years away. While tribes had swept across continents, and civilisations had blossomed and decayed, and dynasties had reigned

and been overthrown, these saucers had been carrying their hostile cargoes.

Why should Anderson be the first to hear the news? Why this part of England Why England at all? Why this century?

But then Anderson may have been the one chosen to save mankind in its hour of danger. Or could he be the evil instrument created to obstruct the attempts of these creatures to reach their promised land—like the Pharaoh who would have slain all the Israelites. Maybe God was in it somewhere.

The creature now lying helpless in his sitting-room had spoken of God. It had said something about God finding them a new home.

Anderson had not thought much about that sort of thing since his boyhood in the sleepy, old cathedral city. He dimly recalled the afternoon teas his mother used to give and the endless succession of elderly ladies and delicate young curates balancing tiny plates on their knees and eating cucumber sandwiches.

He had been taught respect and obedience towards his betters. In his small existence there had been an ascending hierarchy to which he owed these duties. First, there had been his parents, then the parsons, then the Bishop, then God. He had imagined God as a sort of super-clergyman, more benevolent and more elderly than the rest. Not for once had he considered Him as the Lord of All, Lord of immeasurable distances, Lord of this earth and of the star which had been a twinkle in the orb of heaven ten thousand years ago and had been snuffed out like a candle.

A yellow light suddenly appeared, moving slowly in the darkness, and Anderson recognised it as a motor-coach on the road—humanity, warm and relaxed, coming home from the seaside and the sun. Then he saw a red light glowing invitingly through the trees. As he approached, the neon lettering grew and soon he could make out the words "The Crimson Kettle."

The ground started to slope and a path appeared in the grass. He followed it carefully, avoiding the loose stones on the hard sun-baked clay. It ended between some bushes and he walked across the cinders of a car-park on to concrete and round to the front of the building.

A juke-box was churning out dance music when he pushed open the door of the café. Cigarette smoke hung like a blanket over the crowded room. Most of the people were wearing their Sunday best except for a group of fishermen with their rods and tackle in a corner. A woman laughed, a loud giggling laugh, which made some of them stare at her and then at Anderson. Only then did Anderson realise how hot he was.

Behind the bar a girl in a white overall raised her eyebrows inquisitively and moved her hand expectantly towards the tea-urn.

" The phone," he whisphered hoarsely, and she nodded her head towards the open door behind her. He walked stiffly round the glass case of yellow rock-buns at the end of the counter and into the lobby at the back. The instrument was set on a little ledge in the wall. He lifted the receiver and jabbed his finger at the dial . . .

Whom was he to ring?

It was the same problem again. The army? They would be too late. Anyway, they would say the police should have been informed first. Some friend then, someone as a witness, to see for himself. Maybe he would be too late even for that; maybe neither of them would be believed.

He was in this alone.

He put the receiver down and wiped his face with his sleeve. Then he went back into the café.

" Changed my mind," he muttered.

" Tea? " said the girl, and she looked at him anxiously.

He nodded; it would be something to do anyway. When he had paid her, he made for a vacant table near the fishermen and sat down.

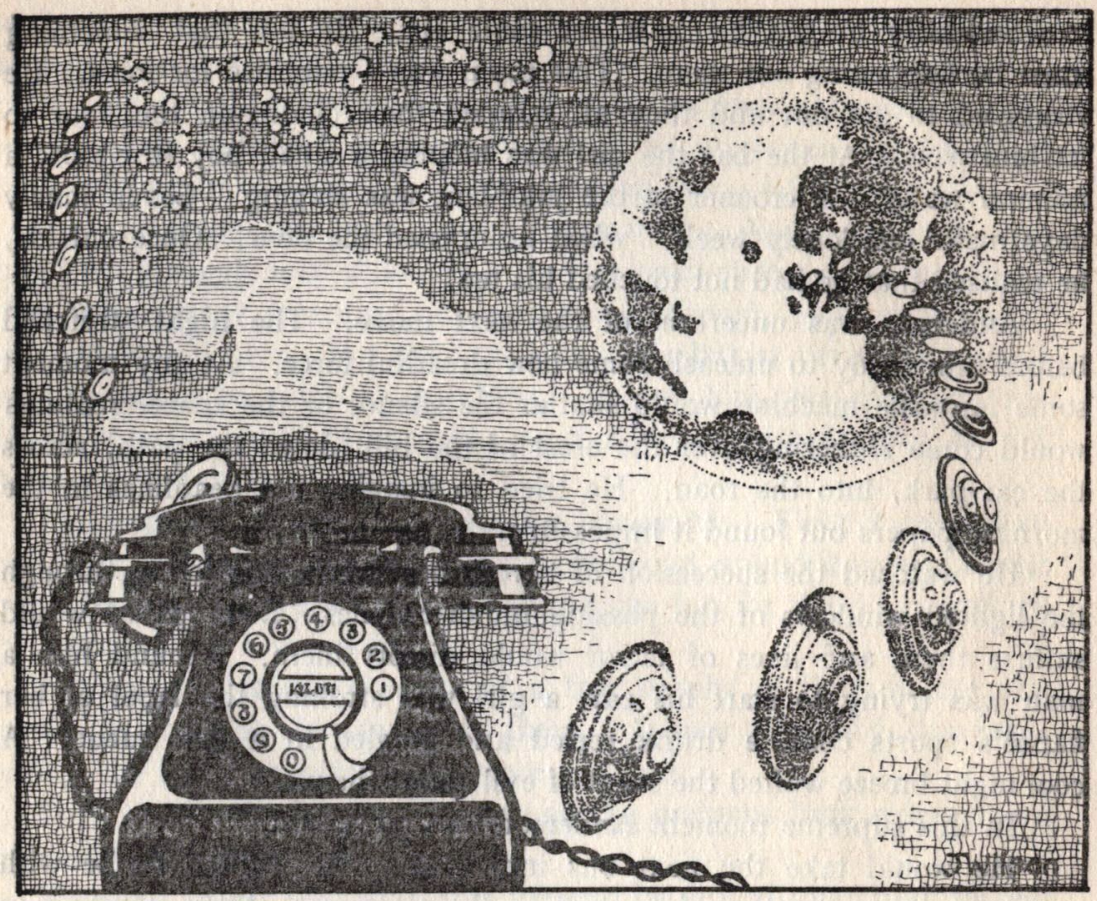
A cold brown puddle stagnated in the centre of the glass top. There was half a sausage roll and some empty cups. There was some tobacco ash and a stubbed-out cigarette on one of the plates. The ash-tray with " Players Please " on it was empty. Anderson tried to absorb himself in their earthiness but there was no escape from his fears.

He remembered long ago as a small boy having a nightmare and being carried downstairs into a lighted kitchen. His father had told him that there were no such things as ghosts and his mother had left her embroidery to fetch him a drink of water.

But these ghosts were true, and yet more hideous even than the product of a child's imagination. In effect, the thing had said " Resist and you will be destroyed." It wanted peace, it wanted to live alongside ordinary men and women, but Anderson thought the idea was horrible.

Then, of course, the creature probably looked at the matter in a different light. He compared it to the white men founding colonies among the black and brown races. Yet the negro had two arms, two legs, the same physique as the white man; there was no biological difference, the scientists told you. But Anderson's visitor was a kind of reptile, different in appearance and intelligence.

That was where they were superior to man—in intelligence. Idly, he pictured their planet which had died—a world of magnificent cities, of wise rulers, of scientists splitting the atom, of theologians discussing



the Infinite. While on earth, man had not appeared. Only huge monsters roamed the land, killing one another off and manuring the soil ready for man's arrival.

The girl picked up the dirty crockery and wiped the table with a damp cloth. She gave him an odd look and walked back to the bar. He would have liked to tell her his secret, but he had grown so accustomed to it that it seemed natural he should keep it to himself.

Even if he stood up in this room and told them about it, they would laugh at him. The news of a near relative dying or their house being burnt down would send their tiny world crashing. But no news of a planetary invasion would change them from their fixed intention of going back tomorrow to the factory bench, the office chair, the housework, the university. But would these things still exist eight hours from now?

He was expecting too much from them. They were only tiny people like the fisherman with the ginger moustache, the giddy blonde in green rayon, the bald man with the double chin and the hand-painted tie, who were born, loved, fought and died. They formed tiny communities who kept putting the rates up and emptied your dustbins and tiny nations who talked of millions and international peace.

Suddenly he felt he must get some air. He felt that something must be happening out there. This room was a paradise for fools. He struggled to get out and they all scraped their chairs on the floor to let him pass. At the bar the girl was helping a small boy to choose a mineral water. A crooner in the juke-box was singing " Seven lonely days make one lonely week " when he opened the door. Once outside, he realised that he had not touched his tea.

Anderson was uncertain of the next move. The night stretched before him ready to unleash some new dreadful force. At any moment some fantastic machine would shatter the silence or the space-creatures would come slithering over the crest of the hill, down the path, across the car-park, into the road. He tried to imagine the headlines in the morning papers but found it impossible.

He watched the succession of bored, healthy faces peering through the lighted windows of the passing motor-coaches. Soon pallor would suffuse them and lines of terror would distort them. Around him a man was trying to start his car, a girl was stroking the lapel of her fiancé's sports coat, a drunk reeled and giggled in a bus queue. A cool night breeze wafted the scent of evil about them.

In this supreme moment Anderson was powerless!

He would take the next bus into town. He wanted to be with people, to share in their joys and in their terrors. After standing in the queue for five minutes he gave up the idea. The spacemen had travelled further than a sixpenny fare.

Certainly Anderson had failed in his mission. He had wasted time while every second may have cost a thousand lives. But there flashed across his mind the fantastic idea of parleying with them and asking forgiveness for attacking one of their own people. He had been the first to know of their visit. Perhaps there was some way he could reach an understanding with them.

He began to climb the grassy mound intending to take the way he had come. Three or four miles of bleak moorland stretched before him.

In the darkness he noticed an occasional ruined farm-house and then a pile of stones. He had never seen them by night before. Generally, when it was late he came home by the old cart-track, which was a longer way round.

Those stone ruins made him feel that he was being watched; they could harbour those creatures, waiting and revengeful. Could it be he had committed murder? That gross hulk of flesh he had left in his home had been powerless against his strength. Was it their leader, or their high priest?

He must act cautiously but must not hurry. Some line of action

must be thought out, a story to convince them that he had acted rather from fear than from aggression.

He turned right for the cart-track because he knew the route better. The track was friendlier, a place hallowed by an occasional hiker, a farmer driving an old Ford, Anderson coming home late from town.

The cart-track had eyes also. There was a ditch on either side flanked by a rough sort of hedge. He imagined them wallowing there in the slime, ready to spring out with some efficient, painless weapon, which would kill him. Not only on both sides but at the front as well there seemed to be someone watching. Behind him, the road and the café, there was a kind of vacuum—as if nothing existed. But he did not dare to turn back.

The impulse to return was growing irresistible. First, it seemed to come from one side of the road, then as the road wound it moved to the other. He would have walked in a direct line but for the ditches which kept swinging out towards him.

Suddenly, he became aware of a few streaks of light in the sky growing brighter as he stared at them. A new day had dawned—possibly the most important one since creation.

Then he saw it—his own house and the ominous back side-view of the saucer just behind it.

The road swung sharply to the left and he sensed something tearing him away. Then he knew the impulse was coming from the saucer and his will succumbed. He jumped over the ditch, wriggled through the prickly hedge and ran across the fields. A dozen squat colourless creatures were approaching him. On their short, stumpy legs they covered the ground at an amazing speed. Their tentacles waved frantically in the air.

Anderson would have stopped but the urge now was too strong. They came nearer and made way for him as he crashed into their midst.

" Stand up, earthman," came the voice he had heard a few hours before.

Slowly he picked himself up off the grass. He stood head and shoulders above them. Then he realised his fears had departed and he was suddenly at peace.

" I must talk fast," came the voice again. " We are going back to the saucer. Already, the other saucers have been warned not to land. Our visit on this planet is over. We leave you to live your own lives."

Anderson stared at them, bewildered. They were already moving away. He moved his hand upwards as if to call them back. The one which had spoken turned his face towards him.

" You will want to know how we have reached this decision. But it is natural." The voice had difficulty in continuing and the creature paused for a few seconds. " Your world is harsh. There is no regularity. Look around you—filth, disease, brutality. We could not know until we landed that our coming would have such a profound effect. Your science is still in its infancy. If we stayed here you would seek education from us. Your civilisation would, in a few generations, progress many thousands of years. In a short time you would become blinded by our scientific knowledge, hypnotised by it until you would forget you are men." It stopped as if too tired to go on. Anderson began to feel a great sorrow surge up within him. He stood waiting, watching the flakes of darkness melt away in the sky and the golden dawn smile benignly on the green earth. The birds ignored the strange group and were greeting the morning with a symphony of joy.

The creature swayed a little and he half expected it to faint. Then it continued:

" Only by learning slowly will you appreciate the power of science. Without us, you will make discoveries in a logical order of progression. The more you discover about it yourself, the more marvellous this universe will become to you, and the more you will understand its meaning. The more you understand its meaning, the more you will know about its Creator.

" It would not be right for us to upset your slow but steady advancement. God would be angry. We must go back to the life we are used to. Some day God will find us another home or He will make us content with our life on the saucers until the end of time. And now, farewell."

The creature turned and ran after the others. Anderson opened his mouth but did not know what to say. Then he realised that if he spoke it would be the first time he had uttered anything to his strange visitor.

He called out and the creature stopped.

" Forgive me, won't you, for striking you? I was afraid. I meant no harm."

There was silence. Then over the chill morning air in a kind of whisper came the words: " There is nothing to forgive. We came here uninvited and threatened you. It was natural for you to defend your world."

It raised one of its tentacles in a kind of salute and hurried away. Anderson's eyes watched its grotesque form waddle clumsily across the grass, but Anderson only saw its mind, the beauty inside the ugly, yellow head. It disappeared round the side of the house.

Then almost immediately the saucer began to rise, a vast, unbelievable thing in the sky. It swept over him silently at a tremendous speed, circling and rising higher until it was a tiny speck in the heavens. The fleet of saucers would plunge onwards into the black and boundless void, peopling space with creatures, a race of saints and geniuses.

Anderson walked towards his home. Where once there was a garden and trees and hedges, everything was flat. In the turf a gentle black curve of soil where the saucer had rested carved a circle two hundred feet in diameter.

The visitors had given him hope. They had survived the disappointment of a ten thousand year old ambition. They showed that man had a long way to go before he reached perfection. But the way was open for him to attain it.

Man had risen but little so far and in some ways had fallen back. He still had more in common with the beasts of the fields than with those space-dwellers.

Anderson looked up into the sky. He had enough in common with them to wish them " Godspeed."

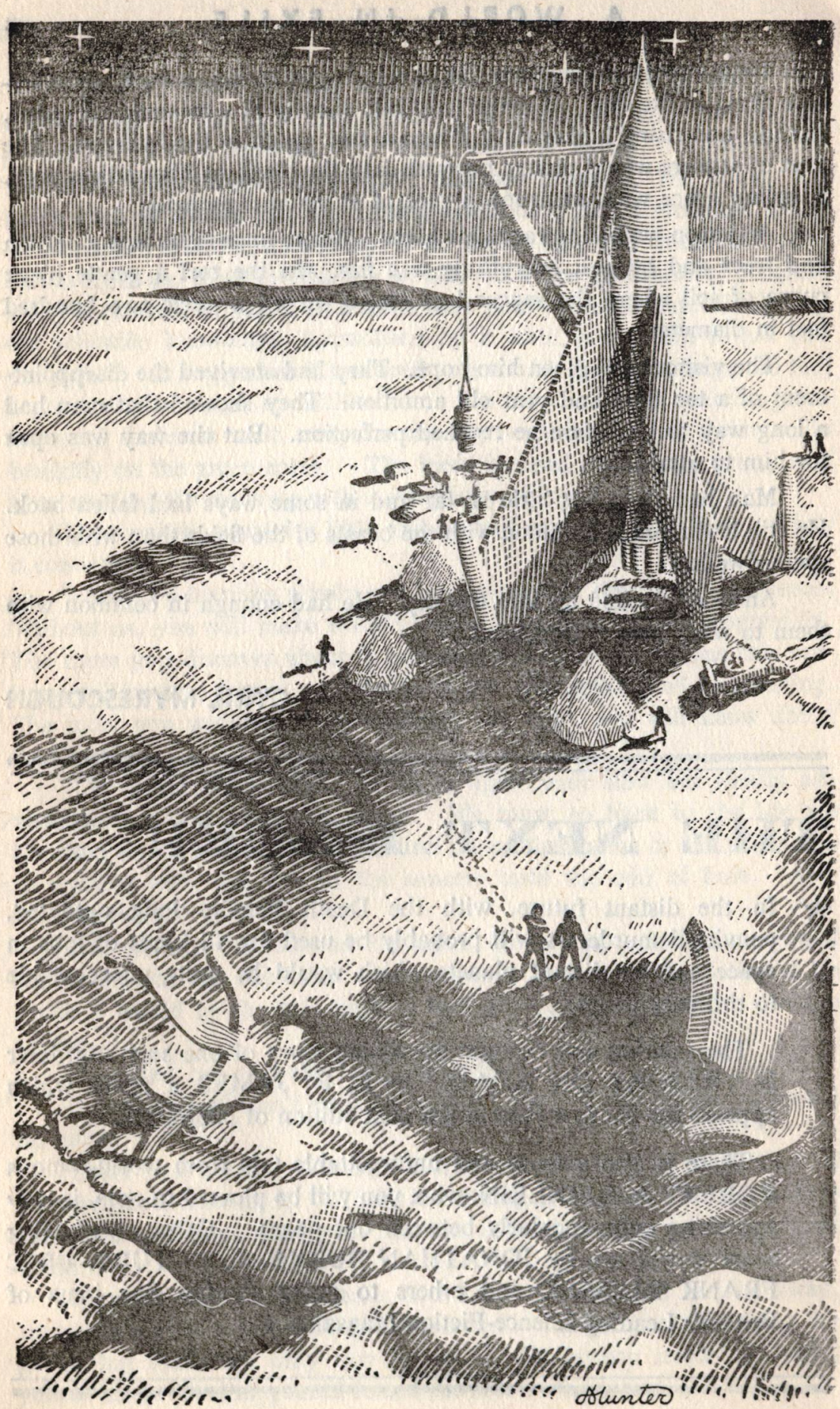
CYRIL MYRESCOUGH

THE NEXT ISSUE!!

★ In the distant future, with the Death Penalty long outdated, convicted murderers will probably be used for all kinds of jobs in space and on distant planets which would be quite unacceptable to ordinary people.

The exciting and thought provoking story of one such murderer is " REPORT ON ADAM " by E. R. JAMES a novel which appears for the first time in the next edition of NEBULA.

There is also a tense and unforgettable tale from world-famous ROBERT A. HEINLEIN, who, you will be pleased to note, is now appearing quite regularly between our pages. Other outstanding short stories are by JONATHAN BURKE, E. C. TUBB, ERIC FRANK RUSSELL and others to make another fine issue of Britain's Leading Science-Fiction Magazine.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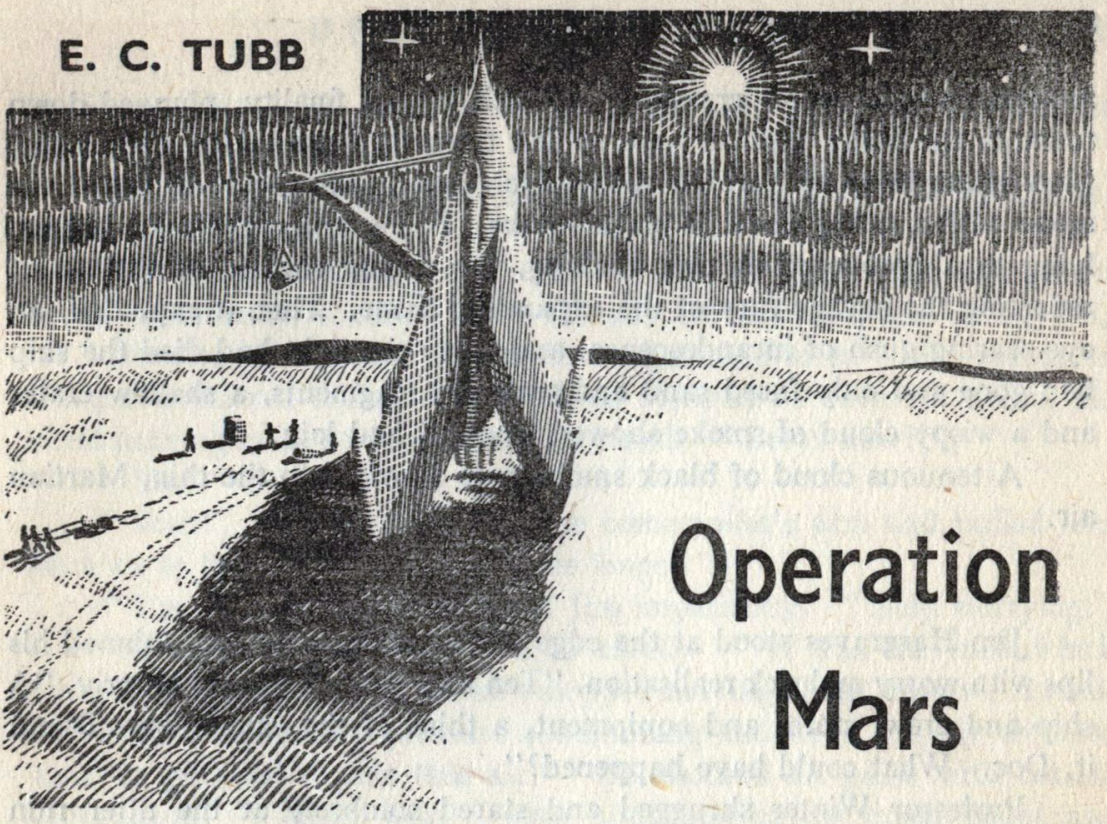
E. C. TUBB



Operation Mars

They were conquerors of a new world, but they found that it would not yield without a grim struggle.

Illustrated by Alan Hunter.

THEY landed like two dreams and a nightmare. Three of them, three ships, their hulls glistening with the reflected light of the distant sun, needle pointed, wide finned, looking like oddly shaped fish against the dark immensity of the star-shot sky. Two of them settled slowly and carefully towards the ochre sands of the desert below, balanced on the thrust of their flaring rockets, steadied by their spinning gyroscopes, landing in predicted safety at the climax of their fifty million mile journey. The third . . .

It fell like a crippled bird, like a crumpled ball of paper, like some alien beast yeilding to death in a distant sea. Fire spurted from it, the intermittent flare of venturis, and the glistening hull jerked and twisted beneath their compelling thrust. Almost it regained stability. Almost it seemed that it would escape from the menace of the desert below as, with its pointed nose aimed towards the stars, the stabbing flame of its rockets lifted it towards safety. Almost — but not quite.

It shuddered, tilted, hung poised a moment between the thrust of

rockets and the tug of gravity then, with a grim finality, plunged down towards the ochre sand. Flame spilled from its ripped hull, the bright, blue-white flame of burning rocket fuel, and burning carbon edged the scene with a rising cloud of black smoke. For a moment it rested there, lying in a groove of its own making, the rolling surface of the desert reflecting the savage fury of the expanding flame. Then it exploded, an eye-searing gush of incandescence, and when the light had died the ship had gone and only fused sand and scattered fragments, a shallow crater and a wispy cloud of smoke showed where it had lain.

A tenuous cloud of black smoke rose slowly into the thin, Martian air.

Jim Hargraves stood at the edge of the seared area and thinned his lips with worry and sick realisation. "Ten men gone," he said bitterly. "A ship and crew, stores and equipment, a third of the expedition. Damn it, Doc. What could have happened?"

Professor Winter shrugged and stared sombrely at the utter ruin of what had once been a space ship. " Who knows? We didn't carry radio and so we can only guess but I'd say that their gyroscopes failed. Trying to land without them, balanced on a rocket exhaust and hoping to maintain stability by hand is trying to do the impossible. It would be easier to balance an egg on the point of a pin."

" The fools!" Jim stared down at the scattered shreds of hull. " Why did they try to land at all? They should have swung into an orbit, missed the planet altogether, and either waited for us to help them or, if they had enough fuel, returned to Earth.

Instead of which they tried to play the hero — and look what happened!"

" They did what they could, Jim," said Winter quietly. " They failed, but they've paid for their failure with their lives."

" So what?" Anger and worry sharpened the commander's voice. " They're dead—but what about us? We needed that ship. We needed what it carried, the stores and men, but we needed the ship more. Without it the whole supply schedule will be thrown to hell." He glared at the crater as if wishing that the dead and disintegrated pilot could hear, then shrugged. " Nothing we can do here now. Nothing we can salvage. We can't even bury the dead. Let's get back to the others."

He turned, his slender body looking surprisingly boyish in the shapeless confines of his thick coverall, and dust plumed from beneath his feet as he headed away from the crater. Slowly Winter followed, his eyes thoughtful as he took a final look at the resting place of the first men

to die on Mars. He ran forward as Hargraves staggered and almost fell. " Anything wrong?"

" No." The commander gulped at the thin air. " I feel giddy, that's all, forget it."

" Sit down for a while and rest." Winter squatted down and pulled at the commander's arm. " It's the air, too thin and low in oxygen, we'll have to take things easy until we get used to it." He waited as Hargraves rested, sitting with his head lowered between his knees, his chest heaving as he re-oxygenated his blood. " Better now?"

" Yes."

" Wait!" Winter caught at the commander's arm and pulled him back on to the sand. " Rest a while longer."

" I'm all right now," snapped Jim impatiently. " Stop worrying."

" That's my job," said Winter calmly. " It was the walk which made you feel giddy, you haven't stopped moving about since we landed, and even with the low-pressure conditioning and weak gravity we need time to get used to this thin air." He checked his pulse with clinical detachment. " Heart beat a little high, respiration much faster and temperature above normal." He shrugged. " Well, we expected it. The preliminary survey proved that we can live here without breathing apparatus providing we keep to the lower regions. It's just a matter of getting acclimatised and avoiding too much heavy labour." He stretched, savouring the tug of gravity again after the long weeks of free fall, and idly traced patterns in the sand. Beside him Hargraves stared across the rolling dunes of the alien desert.

Mars! Even now it seemed a dream, the culmination of a lifetime of hope and, staring at the ochre sand, the dark blue, almost black bowl of the sky in which the faint stars shone in brave defiance of the distant sun, he felt again the surging tide of enthusiasm and conviction which had given him no rest until he had won the command of the Martian expedition.

" It's all true, Jim," said Winter quietly, and turning, Hargraves saw the doctor staring at him with a gentle understanding. " This isn't a dream, this is Mars and you're here at last."

" Yes," said Jim and stared back at the pale blue eyes set in a thin, almost asthetic face. Those eyes gave the lie to the cynical twist of the mouth and in that moment he felt a closer affinity to the tall, thin, stoop-shouldered doctor. Both had been tormented too long by the same dream. He sighed and rose to his feet, brushing the dust from his coverall. " Let's get back to the others."

The camp was a primitive affair. A few flimsy tents had been set up in the shadow of one of the rocket ships and assorted bales and con-

tainers of stores and equipment lay on the sand in ordered confusion. Thirty men lounged on the dust in various attitudes, some resting flat on their backs staring at the sky, others propped on one elbow, a few sitting with their heads lowered between their knees. All gasped and panted as they struggled to accustom themselves to the thin air, recovering from the exertion of unloading and stacking the supplies. Several of them looked up as the two men entered the camp and Hargraves paused, looking around.

" Weeway?"

" Here." A man struggled to his feet.

" Come into the tent. The rest of you take it easy and don't get worried." Jim raised his voice, almost shouting as he remembered the poor carrying power of the thin air. " We expected this and when you've recovered we'll have something to eat. Just relax and don't make any unnecessary movements, and don't talk either." He looked at the dietician. " Ready?"

Weeway nodded and followed the two men into the tent.

" Number Two is a total loss," said Hargraves curtly after they had seated themselves around an upturned crate which served as a table, " and we have a decision to make. I shouldn't have to tell you what it is."

" Number Two carried most of the food and water." Weeway riffled a thin sheaf of onion skin papers and frowned at the closely typed list of figures. " We spread the load as evenly as we could but most of the water tanks were in the wrecked ship." He looked at the commander. " Over half the water and two thirds of the food together with a lot of sugar and other stables. It's quite a loss."

" I know that." Hargraves tried not to let his irritation and worry echo in his voice. " That's why I've called this conference. In a way we are lucky, if a ship had to be lost, then number two is the one we can spare most." He frowned at Weeway's protesting gesture. " I'm not minimising the loss. I know that the food and water, the sugar and other supplies were important, but we still have the pre-fabricated machines, cables, yeast culture, and enough water and food to get along. After all, most of what we lost was off-set by the safety margin, and we allowed for waste and expendables."

" I don't agree." Weeway fumbled with his papers. " The margin wasn't so high to begin with and now that we've lost over half the supplies there is only one logical thing we can do."

" Return to Earth?"

" Yes."

" I was coming to that, Weeway, but I suggest that you reserve

your decision until we have had time to consider the problem as a whole." Hargraves glanced at Winter. " How do you feel about it?"

" I don't know yet." The doctor stared through the open flap of the tent to where the rolling dunes stretched to the near horizon. " Maybe we'd better hear all the data first?"

" I was coming to that." Hargraves relaxed in his chair warm with the comfort that he had an ally and trying not to let his own enthusiasm blind him to the obvious. " The original plan was for one ship to return to Earth, one to remain, and the other to be dismantled. When we had established the colony the waiting ship would have returned to Earth for supplies and men. In a way it was a form of insurance against anything going wrong — we would always have a means of escape should it be necessary." He looked at the doctor. " The psychologists seemed to think that such a plan was essential to prevent breakdown of morale. Were they right?"

" Theoretically, yes," said Winter grimly. " Obviously you don't agree with them."

" Why do you say that?"

" Your use of the past tense, as if the plan were something from a text book instead of something happening at this very moment." He shrugged. " Never mind that now, but to a psychologist, and I am a psychologist, you are rather transparent."

" I see." Hargraves was annoyed, then realising that the doctor was right, forced himself to smile. " You haven't answered my question, Winter."

" About morale?"

" Naturally."

" The psychologists are correct. To have an escape medium can be a tremendous comfort. The mere fact that, at any time you choose, you can get to hell out of a sticky situation, enables you to put up with it. It's all a part of the general adaption syndrome."

" The what?" Weeway blinked and the doctor smiled at his blank expression.

" You should know what I'm talking about, Weeway. It touches your field as regards to diet. Briefly, a man can adapt himself to tremendous stress and conditions far from his norm. Men can adapt themselves to strange diets, alien conditions, low pressure, a thousand variations of mental and physical environment — but they pay for it. If the adaption isn't too great no harm is done. If it is a little too much for full adaption, then a compromise is reached in which the mental and physical health will adjust *for a time*! Unless conditions are then altered breakdown will follow, loss of mental co-ordination and a general lowering of

physical health. Here, on Mars, we are trying to adapt to an environment totally different to any on Earth. Coupled with this is the fear of being stranded — a man can imagine building a boat to cross an ocean or walking across a continent, but no man can visualise crossing space without a rocket ship. To *know* that you can't get back home.

To *know* that you are at the mercy of someone fifty million miles away and that unless they send for you you are helpless, that can build up to quite a mental strain." He stared at the commander. " Does that answer your question?"

" Thank you, yes." Hargraves nodded towards the doctor. " But aren't you overlooking the fact that we are dealing with intelligent men? They know that they won't be stranded here, their own logic will tell them that, and they will accept the necessity of returning the ship to Earth."

" Perhaps." Winter seemed to have lost interest in the conversation. " I told you that it was just a theory."

" The choice then is this. Either we return to Earth in one of the ships—we haven't enough fuel for them both to make the journey under load — or we carry on with the original plan as far as possible. By that I mean we strip down one vessel and send the other back immediately for supplies and men. Before it returns to Mars we set up the power pile, lay the pipe-line to the north polar ice cap, and build shelters to house both men and the yeast culture vats." Hargraves smiled at the two men. " To me the choice is obvious."

" I can't agree." Weeway fluttered his papers. " The figures are plain enough and I say that we won't have enough food or water." He stared at the commander. " How long will it be before the ship can return?"

" About a hundred and twenty days, maybe less; a lot depends on how fast they can service the ship at the other end."

" Then that settles it!" The dietician didn't trouble to hide his triumph. " We haven't enough water."

" We will have as soon as the pipe-line reaches the ice-cap." Hargraves glared at the little man and, when he looked down at his hands, was surprised to find them trembling from the anger boiling within him. " Your argument isn't valid, Weeway, but I take it that you suggest we return to Earth?"

" Yes."

" Winter?"

The doctor sighed, turning reluctantly from the expanse of sand beyond the open flap of the tent, his pale blue eyes misted with an inner dream. " Would it make any difference what I suggested, Jim?"

"No."

"Then I say we stay and chance it. Is that what you want?"

"Yes. Thank you, doctor. I'll give the orders and inform the men." Hargraves smiled as he rose to his feet, feeling some of the anger fade away now that he had made the decision, and stepped outside the tent. He didn't look at the little dietician.

The camp had been established a hundred miles from the edge of the north polar ice cap, at the junction of several *canali*, those strange markings discovered by Schiaparelli and popularly known as "canals." They weren't canals, they were what the Italian astronomer had called them, tremendous channels traversing the face of the planet, a hundred miles wide and several miles deep, and in them the air was just bearable to treated and conditioned lungs. Hargraves stood outside the tent and sucked at the thin, cold, peculiarly dry air. He glanced towards the setting sun and shivered a little as the faint wind, forerunner of the bitterly cold night, bit through his coverall.

"Men," he snapped. "Pay attention." He waited until they gathered around him and, as he waited, he stared at the men of his command, the men who had travelled from distant Earth to turn the red planet into a place where men could live. Like himself they were small, light-boned, lithe-muscled. They wore thick overalls and hoods against the chill and, like himself, they represented the selected cream of millions who had clamoured to be allowed to battle with the great unknown.

Unlike him they were very young.

Twenty-five was the average age. Almost boys with a man's knowledge and a lad's enthusiasm for a hopeless cause. Logic would have kept them at home. Sense would have weighed adventure against security unless, as Hargraves and Winter were, they seethed to the driving ambition of an ancient dream. Looking at them made the commander very conscious of his ten years' seniority and he wondered if Winter, who bested him by two years, felt the same.

"Ship number two is a total loss," he said curtly. "The original plan will have to be changed. As ten men died in the wreck we shall all have to work harder than anticipated. No harm in that, we are here to work, but we have lost more than ten men." He paused, staring at their intent faces, wondering again at the foolhardiness of youth which always bit off more than it could chew — then confounded logic by doing the impossible. "We lost supplies," he continued evenly, "and that means we shall have to make do with short rations for a while. I want to impress on you all the necessity of drinking the absolute minimum. You will be rationed but we can't spare a man to guard the supplies and we must trust each other not to take more than a fair share."

A murmur came from them, a low, almost animal growling, and one man spat noisily on the sand.

" What do you think we are, commander?"

" I know what you are," said Hargraves softly, and smiled. " That is how I know we are going to do what we came here for despite the wrecked ship. Now! Get to work! Three of you prepare a meal and the rest transfer the fuel from ship one to ship three. The pilots will report to me and check their ship for take-off. That is all."

Grimly he turned and re-entered the tent.

The ship had gone before the meal was ready, rising on its blue-white pencil of flame towards the cold stars and the warm promise of its distant goal. Jim stared after it, craning his head as it climbed ever higher, staring as every man in the colony stared; then, as the brilliant point of its exhaust dwindled and died, he sighed and turned towards the tent and the bleak reality waiting for him in columns of figures and inescapable summaries.

Winter followed him into the tent, a mess tin in each hand, grunting as he set them down on the improvised table. " Well, Jim, so the new Cortez has burned his boats behind him." He sipped at the enriched soup, tepid even though boiled in pressure cookers, and tore off a piece of bread from a lump he produced from a pocket. " Happy now?"

" Aren't you?"

" In a way." Winter pushed a mess tin towards the commander. " Eat up before it gets cold." He squinted into his own container. " This seems wrong somehow, soup and bread for our first meal, we should have had champagne."

" I'll settle for what we have, and wish that we had more of it." Hargraves drank his soup as if it were tasteless and chewed mechanically on a mouthful of bread. " I'm worried, Doc."

" I guessed as much. I think Weeway guessed too, you can't fool an expert in his own field."

" What Weeway doesn't know won't hurt him." Hargraves spoke with a surprising bitterness. " You heard what he said, he wanted to go back home, run back like a whipped dog, beaten before he even started."

" Weeway is a good man," said the doctor quietly. " You can't blame him for stating an opinion." He drank the last of the soup and wiped out the tin with a piece of bread. " He was right, you know."

" I know."

" I thought that you did, a normal man doesn't get into a temper at hearing the truth unless the truth is something he doesn't want to admit, or want others to recognise. What's on your mind, Jim?"

" Can't you guess?" Hargraves slammed down his empty mess tin and gazed sombrely through the open tent flap towards the darkening desert. " This entire project is being run all to hell. Look at what happened. They sent one preliminary survey rocket, only one mind you, and it took them two months to discover that men can live here, breathe here, and that there is water at the pole. On the basis of that report they launched this expedition."

" Any harm in that, Jim?"

" Not if it were done properly, but was it?" He snorted with disgust. " Three ships and forty men. We've already lost one ship and ten men and look at what we have to do. There's the rocket ship to dismantle, the power pile to be set up, and we can't site it within a mile of the camp for fear of leaking radiation. Then we have to assemble the hull sections to form the yeast plant, run a pipe-line over a hundred miles to the pole, build shelters against the cold and the possibility of storms, try to grow plant life, survey what we can of the planet, keep the men fit and happy and then, if we have any spare time at all, try to show a profit."

" Profit?" Winter stared his amazement. " Are you joking?"

" This colonisation project was pushed through Parliament on the understanding that we would become self-supporting as soon as possible." Hargraves didn't try to hide the weariness in his voice. " More. The promise was made that any artifacts, minerals and rare metals found would be used to offset the cost." He shrugged.

" A racket, of course. No one really expects us to mine refined uranium or dig up statues of solid gold, but that form of propaganda was the most effective to get us voted the money we needed. Even then they cut us to the bone and that is why I'm worried about what will happen now that one of our ships is a mass of scattered atoms."

" It will be replaced, Jim. We couldn't help what happened."

" I know that, Doc., but I'm not so certain that it will be replaced at all. They allocated us three ships, one to be stripped down and the others to form our supply line. Now that we have lost one it is probable that we can expect only half the amount of supplies until it has been replaced — and space ships don't grow on trees."

" I think that you're worrying about something which will never happen, Jim. Another ship will be supplied. Public opinion will force them to give us one and the last thing the public would stand for is for us to be abandoned." Winter smiled reassuringly at the commander. " Snap out of it, Jim. Why, man, we've only just arrived and already

you're worrying about being let down. Why should they let us down anyway? It doesn't make sense."

" A lot of things don't make sense, Doc., our being here for one. Haven't you ever wondered why the military didn't start the colony? They have men and ships, a base at Tycho on the Moon, and an apparently unlimited expense account. They could have done it easily; you know why they didn't?"

" I'd thought about it," admitted the doctor, " But a man of my age can't afford to look a gift horse in the mouth."

" Public opinion." Hargraves didn't seem to have heard Winter's remarks. " Millions for defence — but not a penny for conquest. The military are too busy building their base on the Moon and to send ships and trained men to Mars would be to slow their programme too much. So we are the results of compromise. If we succeed all well and good, we've set up a nice, useful colony. If we fail then there's no harm done. The blame gets put on us and not the organisation. Appropriations to the military won't be cut and we can serve as an example to all those voters who insist on flogging the dead horse of altruistic interplanetary conquest." He shrugged. " There it is, Winter, and now you know why I daren't run back to Earth and admit defeat. If we fail this time there may never be a second opportunity — not as far as we are concerned anyway."

" It makes sense," said the doctor slowly, then looked at the commander. " But if you knew this project was to be run on a shoestring, that the dice were loaded against you from the start, why did you accept command?"

" Why?" Hargraves shrugged and pulled the hood closer around his face. " Beggars can't be choosers, Winter, and half a loaf is better than none." He looked at the near horizon, at where the shrunken ball of the sun had almost lowered itself beneath the edge of the desert. " We'll get what rest we can tonight, the men still need time to get conditioned, but tomorrow we start work."

Silently he led the way towards the still-intact but fuelless rocket ship which would serve as shelter during the bitterly cold night.

Morning came with a wash of orange and gold, of yellow and sprawling pink as the sun rose above the horizon and bathed the desert with glory. With the coming of the first light the camp stired with life as men, breathing easier now after a night in which bodies and lungs had adjusted to low gravity and little oxygen, set to work to dismantle the rocket. Hargraves sat in his tent, Weeway and the doctor beside

him, frowning down at his papers as he planned the schedule of operations.

" The shelters and power pile will both be ready for construction at the same time, that is as soon as the men finish dismantling the ship. I've given orders for the waste reclamation unit to be set up, the recovered water may taste a little but that won't hurt us. The supplies of distilled water must be reserved for the yeast culture vats, under no circumstances must that supply be touched."

" How about the water line to the pole?" Weeway leaned forward, his face anxious. " Can't we get that built first?"

" Hardly. The water line, power line and yeast vats are each complementary to the other. We need power, of course, and the pile will be set up as soon as possible, but we need water and food as well and the yeast won't grow without power for the irradiation lamps." He sighed as he looked down at the scattered papers. " This is where we are going to miss those ten men. I've allocated eight for the water line, ten for shelters and yeast station, and the other eight for the power pile. That leaves the cook and us three as spares. You'll supervise the yeast station, Weeway. You keep an eye on the pile and watch health in general, Doc., and I'll supervise the water line and move from crew to crew." He looked at the others. " Any questions? No? Right, then we'll get to work. All hands on dismantling the ship and then we'll split into crews."

Silently they left the tent, the fine, red dust pluming in little swirling clouds from beneath their scuffling feet.

The machine devised for laying the pipe-line was a marvel of compact efficiency. Hargraves stared at it, then at the eight men standing by its sleek sides, and shivered a little at the touch of a freezing wind. It was growing dark and around the remains of the dismantled ship battery-power lights sprayed the desert with cold brilliance.

" You know what has to be done," he said curtly. " You've all had tuition in operating the machine and you all know how important it is to get water piped from the pole. You'll work in relays, six men on while the other two rest. When you reach the pole set up the pumps and start sending us water right away. I'll send food and water out to you, come myself at times, and, if possible, I'll arrange for a relief crew but don't rely on them, we've enough to do here as it is." He shivered to the mounting cold. " It's a pity that you've got to start at night but you have lights and every hour counts. Right?"

They nodded and set to work. Two of them strained against the cables attached to the " small " atomic pile—converted from one of the

reactors in the ship — and hauled it away into the desert. Cables snaked from it back to the machine and motors hummed as one of the operators threw a switch. The pile would be dragged out and forward, the radiation spillage from its thin shielding was too great to permit of too close proximity, and would be wheeled forward by the long haulage lines whenever necessary. The pipe-laying machine itself was mobile and, as the motors whined, it moved slowly forward, its wide treads churning at the dust, its forward scoops digging deep into the sand, the whirling blades forcing sand back into the hopper. From the rear of the machine a four-inch pipe, glistening and still warm from the electronic furnace within the machine, slowly protruded, expelled from an orifice at the same speed as that of the machine. It sagged a little and one of the operators caught it in his gloved hands, easing it gently down on to the surface.

Slowly both men and machines moved towards the distant pole.

Hargraves stared after them, wanting to take a more active part and yet knowing that there was little he could do. From the settlement to the pole stretched a hundred miles of desert and the machine, in theory at least, could lay a mile of piping in ninety minutes. In theory that was, working in optimum conditions, on a level surface without uneven dunes, shifting dust, storms, hidden rocks, clogged parts and time-consuming breaks in the tough, but brittle pipe of fused sand.

Without considering the human element, the fatigue, the monotony of plodding mile after mile over a barren waste and the never-ending labour of servicing the machine, examining the sand for pieces of hidden rock which, if not found, could cause damage and breakdown. A hundred miles. Say a hundred and fifty hours. Double it for slow progress, accidents and bad terrain. Double it again for weariness, storms, mechanical breakdown and unpredictable situations. Add ten days to establish the pumping station and get the essential water flowing from the pole. Say forty days just to make sure.

Hargraves shrugged. If everything worked out according to schedule they wouldn't have anything to worry about. He tried not to think of what would happen if anything went wrong. The supply rocket couldn't return for more than a hundred days. He only hoped that it would return then.

Two weeks later they experienced their first storm.

It began as a gentle murmur of wind, a thin, droning, scarcely noticeable shifting of the thin air. With the wind came the dust. It plumed like a drifting cloud of smoke before the breeze. It rose, coiling

and writhing like the fumes from a cigarette, dimming the tiny ball of the sun and hiding everything beneath a growing red pall. Men coughed and swore and coughed again. They dabbed at streaming eyes and dug fingers into their clogged ears but even then they didn't worry. The dust was like a thick fog, uncomfortable and annoying, rather than anything else. Certainly it was nothing like the dust storms they had known back on Earth.

But as the dust thickened the air so the wind increased in violence. It tore at the dunes lifting greater and greater quantities of the red sand, It hid the sun and drove against bare skin and blood oozed from lacerated flesh as the tiny, razor-sharp grains cut and tore. Abruptly the storm changed from being a mere annoyance into something positively dangerous. A restless cloud of sand filled the universe and men whimpered as they struggled to breathe in the almost solid air.

The storm lasted three days and when it finally died the settlement had vanished beneath a sea of ochre dust.

Hargraves stared, red-eyed and unshaven, at the undulating dunes. He felt sick, ill, his lungs seeming to burn within his chest and his parched body was a living, thirsty flame. Winter struggled from beneath the collapsed tent, Weeway following him, and together they stared at the desolation.

"Water." Winter staggered and almost fell. "We've got to have water."

"It's out there." Hargraves gestured towards the dunes. "Buried beneath the sand." He licked cracked lips and lurched forward. "Here I think, or . . ." He stared helplessly about him. "Was it here? Can you remember, Weeway?"

"More towards the south I think." The dietician stumbled as his feet drove through the powder-fine dust. "It's hard to tell. Nothing looks the same."

Around them men began digging their way out of the sand. Red-eyed men, dirty, gaunt and ill-looking. Some of them nursed ugly wounds where the sand-blast effect of the storm had stripped the skin from their flesh. All licked parched lips and all had the same water-hungry expression. Hargraves gestured towards them, his voice a rasping croak as he shouted instructions.

"Each man stay where you are. Now." He pointed towards a man. "Where were you when you took shelter?"

"The waste-reclamation unit. I've had that stink in my nose for three days now."

"Right. Don't move." Hargraves pointed again. "You, Where did you shelter?"

" Behind some boxed supplies, equipment I think."

" Right. And you?"

" In the mess tent. I'm the cook."

" Good." Hargraves drew lines in the dust at his feet. " Mess tent . . . Waste reclamation unit . . . Admin. tent . . . Supplies . . . " He stared down at the crude map. " As far as I can make out the water should be — here!" He pointed towards a spot where great dunes lifted their smooth bulk, then swung his finger towards the men. " You, you, you and you. Come over here." Impatiently he waited as they stumbled towards him. " Wait." He studied the map again then, stepping with a carefully measured pace, strode over the sand and halted at the base of one of the great dunes. " Dig here. As far as I can make out the water is below where I stand."

Impatiently he began to dig, driving his gloved hands into the sifting dust and flinging it in swirling clouds behind him.

They found the water. They lifted the precious thin-metal containers and rolled them across the sand to where the doctor tapped them and passed out the essential fluid. They found the water — and they found something else. Two men huddled against the drums, their faces twisted and ugly with torment, their eyes starting from their heads and their skins blue and cracked from lack of water and oxygen. Two men—dead!

Hargraves stared down at them and within him two emotions struggled at the same time. Two men dead—and that much food and water saved. Two men dead—and four hands less with which to build a new world. Sick with himself he turned away and joined the group clustered around the water containers.

Time enough for mourning when the work was done.

Professor Winter sniffed appreciatively at his mess tin and sipped at the tepid soup it contained. He smiled, sipped again then, savouring the warm fluid, emptied the tin in three enormous swallows. He sighed, wiping his bearded lips, and the tin clattered as he let it fall to the sand. " That was good," he said with deep feeling. " I'd give whatever wages I'd hope to earn if I were anywhere else for a second helping."

" No chance of that." Weeway frowned down into his empty container. " That's the last meal you get for twenty-four hours."

" How's the food lasting?" Hargraves looked up from where he sat writing in his log. The commander seemed tired, his thin cheeks burned with an unhealthy flush beneath his thick stubble and his eyes held a peculiar glitter. Weeway shrugged.

" Not so good. I warned you what would happen. You would

insist that with the lower gravity the men could work harder on less food but it doesn't work out that way."

"I could have told you that." Winter stroked his beard, drawing the hairs across his parted lips. "Work, whether in terms of foot-pounds or calories, remains the same. It takes work to adapt to a lower gravity even though it requires less muscular effort. I'll admit that here we should be able to do more work with less food than we could on Earth, but it doesn't work out in a direct ratio." He pursed his lips. "What I'm really worried about is the water."

"Why, Doc?" Hargraves closed his book. "Want a bath?"

"I'd like one," Winter said seriously. "I'd like to soak every man here in water for three days." He looked at the commander. "How's the pipe-line progressing, Jim?"

"I don't know." Hargraves bit his lip. "We were so busy digging ourselves out after the storm that I didn't have time to go out to them. I sent a detail with food and water and two men as relief. They should be back soon."

"That ——— storm!" Weeway glared at the deep blue of the sky. "If it hadn't been for that we'd have been comfortable by now. "Fifteen days' work wasted! The atomic pile and mercury boilers clogged and choked with dust! The yeast plant rendered useless and all the supplies buried! Damn that storm! Damn it to hell!"

"Five men dead," said Winter quietly. "And half the rest suffering from lacerations. Not to mention the dehydration and the excessive water consumption necessary to restore health. If we get caught in another storm like the last we may as well give up."

"That's why I'm pressing on with the yeast plant." Hargraves nodded to where a glistening metal structure rose against the rust-coloured desert. "Once that is built we can shelter inside. I wish that the power plant was as near completion."

"How long do you estimate, Jim?"

"I don't know. The trouble is that the men are beginning to slow down. They complain of aches in their bones, a burning of their lungs, and a constant fatigue. They're not malingering, I feel the same." He stared at Winter. "What's the diagnosis, Doc.?"

"Ligament strain owing to the lower gravitation could cause the aches. They forget that things only weigh a third as much here and they exert as much strength to move it as if they were on Earth. The fatigue and pain in the lungs is caused by the air."

"I see." Hargraves stared at his hands. "Any suggestions?"

"Move slower, take things easier, stop trying to do the impossible." Winter lifted his hand at the commander's expression. "I know what

you're going to say, but you're wrong, Jim. You are trying to build this colony in a matter of days — and you can't do it. Not with the men you have. Not while they can't draw a normal breath and have to get along on reduced oxygen. I know all about your theory but believe me, as a doctor I warn you that it won't work. Never mind the low gravity. The human body is a machine, it must have fuel — oxygen, food and water, and it can only give out the energy put in. None of us are getting that energy."

" We must build the colony," said Hargraves doggedly. " That's the only thing I care about."

" That's the only thing any of us here cares about, but that doesn't mean that we aren't able to see the obvious." Winter rubbed at his beard. " Good food would help, rich and plenty of it. That, together with water and rest would restore the health of the men."

" We haven't got the food," snapped Weeway. " I warned you at the start that it was madness to stay here after the wreck, and after, when you tried to justify yourself with your ridiculous theory of lower food consumption, I warned you again. We should have returned to Earth."

" Thank you," said Hargraves bitterly. " Do you feel better now?"

" I'm in charge of feeding here. That's why I came, to supervise the diet and yeast plant. What's the good of having an expert if you won't listen to him?"

" Shut up!"

" What!"

" Stop it, Weeway." Winter gripped the dietician's arm. " I know that it is only human nature to say ' I told you so,' but don't do it. We didn't go back to Earth, we can't now if we wanted to, so forget your outraged pride and concentrate on constructive suggestions." He looked at the commander. " You'll have to slow down, Jim. If you don't you'll have a collection of cripples on your hands."

" If I do we'll all be dead!" Hargraves jerked to his feet, his face flaming with anger. " Damn it, Winter! What are you trying to do? We've been here thirty days now and what have we done so far? A few miles of pipe-line may have been laid. The yeast plant has almost been built. The atomic power pile is in worse condition now than when we unloaded it from the ship. Five men are dead. Food and water have been used. It will be eighty days at the least before the supply ship can return. I'll tell you this," he said harshly. "Unless we get the culture vats going and water piped from the pole we won't last that eighty days. Water consumption is higher than anticipated and Weeways knows the food position. Unless we get our own food and water soon the supply

ship will arrive too late." He turned as a man stumbled across the sand towards him. " What now?"

" Jim!" The man staggered, swayed fell sprawling in the dust. He writhed on the fine, red sand, looking like a crippled spider as his arms and legs thrust at the yielding surface. He half-rose, his knees digging into the grit then, as if his last dregs of energy had drained away, collapsed at the feet of the commander.

" Doc!" Gently Hargraves knelt beside the limp figure. " Fetch water! Hurry!"

He winced as he watched the man drink. It was something no human should have to see — or human have to suffer. The man clutched at the container as if he clutched at life itself and a slobbering, crooning, moaning sound trickled from between his cracked and swollen lips as Winter let a thin stream of the precious fluid drip between them. Hargraves stared at the red eyes and bearded face of the exhaustd man.

" I know you," he said slowly. " You're one of the men I sent out to the pipe laying detail." Alarm clawed at the soft lining of his stomach and worry turned his voice into a rasping snarl. " Well? How are they? How much pipe has been laid Damn it man, don't just lie there! Answer me!"

" Steady, Jim." Winter fought away the man's clutching hands as he tilted the water container. " This man is almost dead from dehydration and exposure. Give him time. He'll answer your questions as soon as he finds a voice to answer them with."

" I can't wait for that, Doc! What's happened to those men? Don't you realise that our lives depend on getting that pipe laid?" Irritably he glared at the twitching figure of the prostrate man. " Can't you speed his recovery?"

" I'm doing all I can!" Anger touched the doctor's gaunt cheeks with spots of red. " He'll recover soon enough. He'll answer your questions just as soon as his tongue's soaked up some water and stopped trying to imitate a piece of leather. Damn it all, Jim! Haven't you any feelings at all?"

" Get him talking," snapped the commander, and turned away to supervise the construction crew labouring at the yeast plant. Winter stared after him, his eyes thoughtful, then shrugged and concentrated again on the exhausted man.

When he could speak his tale was soon told.

" We couldn't find them," he whispered and his eyes held the shadow of haunting dread. " We looked everywhere, then Connor, one

of the other men with me, had the idea of digging for the pipe and tracing the machine that way."

"And did you?" Hargraves didn't attempt to hide his impatience. The man nodded.

"Yes. We dug and dug until we found the pipe. It wasn't easy, the storm had buried everything beneath the sand and a four-inch pipe could have been anywhere. It took us three days to find it. It took four more to find the machine."

"And the crew? What about them?"

"Dead," said the man dully. "At least all we could find were dead. Six of them. Jackson, I knew him back home. Wilson, Denray and three others. All dead."

"Then the whole eight of them must be dead." Hargraves gripped his temples between the thumb and fore-finger of his right hand and squeezed hard. "The storm of course. They had no shelter and must have lost track of their water and supplies. Damn it! Damn it all to hell! Thirteen men dead already and nothing done. Seventeen left to complete the job. Seventeen!"

"We can't do it, Jim." Winter shivered as the freezing chill of the night air cut through his coverall. "We haven't a chance now."

"What do you want me to do then?" Hargraves stared at the doctor. "Give up? Do you want us to sit here and wait for death like a bunch of morons? Don't talk like a fool, man. We've got to do it!"

"You're the fool, Jim, not I." Anger roughened the doctor's voice. "We can't do it—and you know it! You've got seventeen men, little food and water, and the few men left are reaching their limit. Be realistic, Jim. This project was planned for three ships and forty men The wrecked ship cut us down by ten men and more than half of the essential supplies. We even lost the sand-car which could have carried the men out to the pole. We never did have enough food and water to last us until the supply ship could return and the storm cost us more than lost time and labour. The whole thing is hopeless, Jim. I know it, Weeway knows it, and, if you'd stop being a stubborn fool, you'd know it too."

"Would I, Doc?" Hargraves stared sombrely at the glittering splendour of the night sky. "Maybe you're right. Maybe cold facts and figures do mean something after all. I wouldn't know. Perhaps I am a fool. Perhaps a lot of things, but one thing I do know. Unless we can establish the colony we won't get a second chance."

"That's nonsense." Weeway stepped forward from where he had been listening. The dietician looked worn out and his face showed

mottled patches of frostbite beneath the edges of his protecting hood. "This is only a temporary set-back. We can always try again."

"With what? You know as well as I do the trouble we had getting money voted to this project. We had to fill the right people with the most God-awful guff and if we fail we'll be the laughing stock of the world."

"Afraid of being laughed at, Jim?"

"No! But I am afraid of what we stand for being laughed at. I don't want to hear the mocking sniggers of ignorant fools whenever the planets and inter-planetary flight are mentioned. Too many men have spent too many years fighting that laughter. Boys, men, all the starry-eyed dreamers who clung to their private faith that one day mankind would spread outwards to the planets. We are the results of that faith. Can we let them down?"

"We've had trouble." Weeway slumped tiredly down on to the end of an upturned box. "Anyway, the Moon base has proved that space travel is no idle dream, and they will understand."

"The dreamers will, but will the rest?" Hargraves shook his head. "The Moon isn't a planet, Weeway, and it doesn't offer the same challenge. Men will never be able to colonise the Moon, all they can do is to live there with artificial aid, cooped up in their domes and fed by a stream of supply ships from Earth. Mars isn't like that. We don't want to set-up a base here, we want to live on the planet and be self-supporting, and our success or failure will be judged by previous experience. We've lost a few men—but what of it? Men are always lost on expeditions. We've had a storm—but you know what they think of a storm on Mars. Dust and thin air, nothing like the storms in the Dust Bowl or the Sahara, and the survey rocket wasn't here long enough to tell them differently. We've run out of food—then why didn't we go on half-rations? You know what they will think and say as well as I do. You know how impossible it is to convince fools with ready-made minds of anything different. No, Weeway, if we fail the entire project will be shelved for another fifty years."

"If we don't go back we'll die. Is that better than mocking laughter?"

"To me, yes, but there is another reason." Hargraves stared at them, letting his eyes drift slowly from the bearded face of the doctor to the frostbitten features of the dietician. "I've lived for this all my life. I've worked for it, begged, pleaded, cajoled, used every fair and dirty trick I know and all for one thing. To get to Mars. To build a colony here. To do something, anything, to lift the eyes of

men from their neighbour's back yard and make them think of something other than their own pretty pride and jingoism."

"I see." Winter smiled at the commander. "Is that the only reason?"

"No. There is another, far more decisive than my own personal convictions." He smiled at them, a thin smile, devoid of any trace of triumph or humour. "We can't go back. There is no ship to take us."

"That doesn't matter," snapped Weeway. "With care we may be able to last until the supply ship returns. If we seal the yeast plant, concentrate on minimum rations, make no exertions and pressurise the building, we can hold out. To do otherwise is madness."

"No."

"I say we can. Now that there are fewer men to feed the supplies may just last out. I've checked the figures and, even though it will be a race against time, we have a chance. Your way we have no chance at all."

"No."

"You blind, egotistical fool!" Weeway jumped upright, his hands shaking with anger. "You have no right to condemn us all to death merely because you're afraid of being laughed at. Who do you think you are? God?"

"No," said the commander dully. "I'm not God, but I am the commander and you and the men will do as I order." He looked at the quivering figure of the dietician. "No," he repeated slowly, "I am not God. I'm just a man trying to do something men have dreamed of doing for centuries. Perhaps I'm just selfish. Perhaps Columbus was selfish when he wanted to find a new world, I wouldn't know about that, but one thing I do know. We are going to establish this colony, Weeway, or die in the attempt."

"You're mad!" Weeway gulped and stared down at his shaking hands. "Mad," he muttered again. "Mad!" Still quivering he left the tent. Hargraves stared after him as he strode towards the bulk of the yeast plant, its smooth metal glimmering in the bright starlight, and when he finally lost sight of the little man and turned towards the doctor his eyes held a tormenting doubt.

"Do you think that I'm insane?"

"No." Winter reached for some papers and frowned as he scribbled quick figures. "Not as Weeway means it at least, but all of us are a little abnormal, if we weren't we wouldn't be here." He grunted and sucked at his lower lip. "The whole problem seems to be one of water. This dry air literally sucks the moisture from our bodies and the evaporation rate is incredible. On Earth we could make do with a pint a day,

even less if we had to, but not here. To stay alive and working each man needs five pints a day—and that is sheer drinking water."

"We can go dirty for a while longer." Hargraves looked at the scribbled figures. " Can we do it?"

" No."

" But . . . ?"

" We can't do it, not and have five pints of water per man per day." Winter shrugged. " It's no good, Jim. Weeway has the only solution. If we seal and pressurise the building, increase the humidity and make no waste motion, we'll cut the ration down by at least a half. The man knows what he's talking about."

" What about the waste-reclamation unit?" Hargraves ignored the other's suggestion. " We can save something from that."

" Hardly enough to make it worth the trouble, certainly not enough to compensate for the full-time labour of one man."

" I see." Hargraves sighed and stared at the doctor. " You know what you're saying, don't you?"

" Perhaps." Winter looked steadily at the commander.

" You are giving me a choice. We can do as Weeway suggests, stop all work, seal ourselves in, and wait for the supply rocket to bring us food and water. If anything happens to the ship, if for some reason it is delayed, or damaged in flight, or crashes on landing—we die. On the other hand we can take a gamble. We can go all out in an attempt to get our own water and food and chance to luck that we won't be stopped by another storm. If we win through we'll be safe even though the rocket does come late, or doesn't come at all." He shrugged. " Personally I prefer to hold my fate in my own hands."

" Then you intend to finish the pipe-line?"

" Yes."

" And if we get caught in another storm, or if the food runs out, or the water, or the machine breaks down beyond repair?" Winter stared at the commander " What then?"

" Then we die. But until then we work on the pipe-line—all of us!" Grimly he turned and strode into the night.

It took fifty days. It took endless labour and the full-time employment of every man for, weakened as they were, it took double crews to haul the power pile, service the machine and watch for hidden pieces of rock beneath the sand. It took fanatical determination and the spur of flaming thirst. It took scarce food and it took six pints of water per man per day. Finally, eighty days after landing, after heart-stopping

breakdowns and stoppages, the pipe-line reached the north polar ice cap of Mars.

Hargraves smiled when he heard the news. His teeth were blackened and dirt cracked in the seams of his sunken cheeks, matted hair covered lips and chin and his chest heaved in the too-thin air of the higher regions, but he smiled for the first time in fifty days.

" What now, Jim ?" Winter swayed a little on unsteady feet as he stared at the commander. " Are you staying to build the pumping station ?"

" No. We'll leave five men here and all the food we carry. They can build the station, the parts are all pre-fabricated, and they can start the pumps as soon as they are ready. The rest of us will return to camp. We've still plenty to do back there."

" I wish we could have been sited nearer to the pole." Winter scratched at his beard. " Damn it! I could do with a wash."

" We all could and we'll have one soon, baths too." Hargreaves smiled with anticipation. " I think that we'll build a swimming bath, have showers on every corner and make a lake in the middle of the settlement. We'll soak in water three times a day and drink it until we burst." He became serious as he saw the doctor's expression. " I'm sorry, Doc, but getting this pipe-line finished has been a big worry, and I'm glad that it's done. Now we've got nothing to worry about."

" So you think our troubles are over ?"

" Don't you ?" Hargraves laughed with sheer relief. " Water was always the problem. Men can live weeks without food but only days without water. No matter what happens now we can last until the supply ship arrives."

" I hope that you're right," said Winter slowly. He didn't seem to be convinced.

Hargraves found out why after they had returned to the settlement.

Weeway broke the news. The dietician had collapsed while working on the pipe-line and since then had taken over from the cook. He entered the Admin. tent, interrupting the commander at his daily task of completing the log. Winter followed him and Hargraves felt a touch of fear as he saw the doctor's set expression. Slowly he closed the book.

" Anything wrong ?"

" When are you going to start on the yeast plant ?" Emotion made the dietician's voice shriller than normal.

Hargraves sighed.

"Still riding your hobby horse?" He smiled at the doctor. "Sit down you two, I was going to call you anyway, it's time we had a discussion."

"The yeast plant?" Weeway slumped into a chair. "I want a straighter answer, Hargraves."

"You'll get one." Hargraves didn't trouble to disguise his impatience. "There are other matters to be taken into consideration, the power pile for example, I was considering getting that into operation next."

"We've got to have food before that." Something in Winter's voice sent a chill along the commander's spine. He stared at the doctor.

"What do you mean? Weeway told me that the food would last and we've got to have power soon. The accumulators are running dangerously low."

"The food won't last." Winter stared at his hands. "I didn't want to tell you this, I've known for several days now, but there seemed no point in worrying you." He looked at Hargraves. "We haven't got as much food as we thought."

"What?" Anger throbbed in the commander's voice. "Weeway checked, he told me he had, and I accepted his figures." He glared at the dietician. "Are you trying to tell me that you can't count now? Or that you don't know your own job?"

"I know my job," snapped Weeway. "I know it better than you know your men. Some of the food was stolen."

"Stolen!" Hargraves stared blankly from one man to the other. "I don't believe it."

"It's true right enough," said Winter heavily. "It must have happened when we were all out working on the pipe-line. Someone's helped himself to the supplies and gorged himself in secret. Weeway found out about it when he took over from the cook and told me."

"Why wasn't I informed?"

"What could you have done, Jim? Blame the cook? Kill him perhaps? What good would that have done? To broadcast it would only have upset the men and made them worry. No, Jim. Right or wrong I decided to keep it a secret and, if you're wise, you'll do the same. We can't get the food back now and if the men know that there's a thief among them it will hurt morale. The only thing you can do is to rush ahead with the yeast plant and cover up that way."

"I see." Hargraves stared down at the sand between his feet. "Much gone?"

"Yes."

"The swine! If I was certain as to who it was I'd . . ." The

commander swallowed and unclenched his hands. "What's the position?"

"We have enough food to last maybe ten days. The yeast culture takes two weeks before they are ready for harvest and the plant isn't ready for them yet."

"It will be ready in a day, I'll put ten men to work on it." Hargraves bit his lips with annoyance. "I'd relied on the food lasting out. It will take a few days for the water to reach us from the pole and we could have used the reserved supplies until the power pile was ready to supply the distillation apparatus." He swore, bitterly, briefly, scraping the gutter for invective to curse the unknown thief. "It's going to be risky. If we use the water for the yeast vats the men will have nothing to drink until we distil more. Unless we use it then there is a danger of starvation." He shrugged. "Let us pray that nothing goes wrong at the pumping station."

"Then I can use the water?" Weeway rose to his feet. "I'll need all of it."

"Get busy then," snapped Hargraves. "I'll expect our first home-grown meal two weeks from now."

He frowned after the dietician as the little man ran towards the glistening building.

Two days later the yeast plant had been completed and the special yeast cultures floated in their sugar solutions. Weeway hovered over them like a mother over her new-born child, testing, adjusting, frowning at the dying strength of the irradiating lamps and pursing his lips at the faltering song of the pumps. He had used almost all the water, leaving a scant few pints and begrudging even that, and now, with mounting thirst, the men of the settlement waited for the water to arrive from the pole.

Two days later it came.

Hargraves heard the shout from the men as they spotted the erratic flow from the end of the pipe and ran towards them as they clustered around the flow. They laughed, capered, thrust their heads beneath the icy shower and swallowed it in tremendous gulps. They swallowed it then, with a shocking change from jubilation to despair, retched in horrible misery on the arid sand.

Hargraves strode among them, his arms like flails as he knocked them away from the water, his voice shrill as he shouted in the thin air.

"Fools! The water is salt. Salt, do you understand? Salt!" He pushed a man away and beckoned to Winter. "Get a couple of reliable men and have them stand guard over the water. These fools will kill themselves if they drink it." He scooped up a little in his palm,

tasted it, then spat on the sand. "Pure saline. To be expected when you think of it. The high evaporation rate would have deposited most of the free salt on the planet at the poles. It will have to be distilled."

"Yes." Winter swallowed as he stared at the gushing water. And how long will that take ?"

"I don't know, the power plant is pretty badly clogged from the storm. I've got men working on it now, but it may take a few days yet." "Can we run the distilling without it ?"

"Hardly. The accumulators are low and what power is left is needed for the irradiation lamps." Hargraves looked away from the hypnotic fascination of the gushing stream of ice cold water. "I'd hoped to have the pile operating by now but I misjudged. The men will just have to wait."

"They can't wait, Jim, you know that."

"They'll have to. Until we get power we can't distil. Guard the water and I'll get on with the power station." Irritably he swung away.

The next day two men died. They died in convulsive agony, their stomachs bloated with water and their faces twisted with pain and horrible emotion. They had drunk the salt water. They had gulped it down in an insane hope that they could beat their thirst by sheer intake, drinking more and more as the strong saline increased the torment of their dehydrated bodies. Finally, the combination of water-swollen stomachs and salt had killed them and they had writhed away their lives on the arid Martian sand. The final irony was that they were the very men Winter had set to prevent others doing the same thing.

Hargraves stared down at their twisted figures, his coverall thick with dust from where he had travelled from the site of the power pile, and as he stared the spurting water from the end of the pipe made little tinkling noises as if in alien mockery or ironic salutation.

"The fools!" Winter glanced at the commander. "Shall we bury them?"

"No."

"But . . ?"

"Leave them here. Let them lie as a warning to the others. The idiots. The damn wasteful, stupid, dolts!" Angrily he kicked at the swollen figures. "Let them lie there until they rot. We needed those men. We need every man we can get and yet they had to do a thing like that." Bitterly he turned away. "Leave them. At least they may be useful there if only to warn some other fool who feels inclined to let his stomach run away with his brains."

"We've got to have water, Jim," said Winter quietly. "This is just the start. Another two days and the men will be thirst-crazed and

you'll have to beat them away from this pipe with a gun—if you had a gun. How soon before we can hope for power?"

"A week, maybe more."

"They can't last that long, Jim. Three days more and we'll all be dead."

"I know what you mean, Doc." Hargreaves nodded and led the way towards the yeast plant "There's only one thing to do now."

Weeway almost cried when he heard the news.

"But, Jim! Give me ten days. Ten more days and we'll have all the food we need. Can't we wait just ten more days?"

"We can't wait twenty-four hours, Weeway." Hargraves stared grimly at the dietician. "We need food, I'll admit that, but we need water more. Those men out there are crazy with thirst and unless they get water the power pile will never be put into operation. The only drinking water on Mars is in those vats and we've got to have it."

"But the yeast?"

"You have spare cultures haven't you?"

"Yes but . . ." Weeway stared fondly at his vats. "They are coming on so well, a fine healthy breed, and if the spare culture should turn out infected we haven't anything to replace them."

"We must chance that." Hargraves wetted his finger in the solution and grimaced at the taste of sugar. "Damn it! It's sweet and that will accentuate their thirst." He shrugged. "It can't be helped, if we had the power to distil this we wouldn't need to do it." He glanced at Winter. "See to it that supplies of water are sent out to the power site. I'll rely on you to see to the rationing."

Winter nodded, his thin features grim as he helped Weeway drain the vats, not looking after Hargraves as he strode from the building, passing the gushing water pipe with its two silent guardians, and heading out into the desert.

Behind him the gushing water seemed to tinkle with ironic laughter.

The power plant, like the pipe laying machine, was a marvel of compact engineering. The atomic pile merely provided the "fire" which heated mercury into a vapour which drove the turbines and generators. In theory the whole thing could have been assembled in a matter of hours and current flowing from the generators within two days. In theory.

But now the components were clogged with the fine, abrasive dust. Bearings had to be exposed and cleaned, wires re-connected, the boilers checked and assembled. Eight men laboured over the assembly,

working until they had to rest, their places taken by those who had fallen out earlier. It took them five days and after that they had to regulate the pile to optimum efficiency and replace the water distillation apparatus which had been lost in the wreck. That took another four days.

And then there was no more food.

Hargraves had sent the last of it to the polar station, sending it with four men who were to relieve those who waited among the snow and ice. They would get drinking water at the pole. They would melt snow, use the pump-distillation apparatus powered by the "small" atomic pile used to power the pipe laying machine, and be able to build an ice house for shelter. They had to work, those men. They had to keep the hoppers filled with crushed ice and see that the pumps kept working. They would work—but they would live. The rest . . .

Hargraves didn't like to think about it. He stared down at the bubbling surface of the yeast cultivation vats and within him his stomach clawed at his sanity with its message of desperate hunger. The food had gone, only the yeast remained, and it would be two weeks before it was ready for harvest.

Two weeks—and they were almost dead of starvation as it was. Two weeks with nothing to eat, with their lean, gaunt bodies weakened by exposure and hard work, starvation and battling with an alien environment, their minds dulled and death less than a breath away.

Grimly they settled down to wait.

After the first three days there was surprisingly little discomfort.

The hunger pains had gone by then, a numb lassitude and apathy taking their places. The men had been on starvation rations for so long that the final transition from the little food to no food at all was something they hadn't the spirit to wonder at. They rested on the metal floor of the yeast plant, sleeping when they could, moving, when they moved at all, like tired old men, like boneless creatures, like snails, lacking even the strength to stand in a gravity only one third of normal. Winter moved among them, forcing them to drink plenty of water and Weeway tried experimenting with boiled coveralls and pulped leather. He made some nauseating soups and vile stew, using the discarded yeast culture, adding chemicals and trying to make something which would both satisfy and nourish, knowing that he was doomed to failure even before he began.

Hargraves spent a lot of time scribbling figures in the thick film of fine, red dust coating the floor. Ninety nine days. Add another eleven before the yeast would be ready for harvest, then add at least two and

more likely fifteen days before the supply ship could arrive. They had taken the optimum flight out and the flight back would have taken longer, the return flight longer still. Allow time for the rocket to be serviced, checked, loaded. Say three days. He sighed as he read the answer.

They didn't stand a chance.

Winter came over to him the next day and slumped wearily at his side. The doctor looked ill, his gaunt cheeks were flushed and his pale eyes glittered, but that was nothing out of the ordinary. They all looked ill. They were all ill.

"Well, Doc?" Hargraves tried to be cheerful. "Ten more days and we can live like kings."

"Ten more days and we'll all be dead," said Winter grimly. "Make no mistake about that." He stared at the huddled figures of the men. "Look at them. Hardly any of them has strength to walk and some of them can hardly raise the energy to swallow. I give them two days, Jim. We might hold out for a little longer, then . . ." It didn't need his expressive gesture for the commander to know what he meant.

"How is it that we are better off than they are?" Hargraves frowned at the silent figures huddled about the room. "We've all had the same food, the same amount of water. Why are they so weak while we are so active ?"

"We're responsible for them and that gives us a greater incentive," explained the doctor. "Also, like it or not, they have done most of the slog-work but the real reason is more subtle than that."

"Yes?"

"They have sub-consciously given up the struggle. It is one of the attributes of starvation that it brings apathy, despair, a kind of numb acceptance, and it takes a tremendous effort of will to do even the most simple tasks. If food were put down before them now, half of them would just stare at it and wait to be fed. We aren't like that because we are still worrying. We still hope to live long enough to enjoy the yeast and to welcome the supply ship."

"And we will!" Hargraves stared at the culture vats. "We could eat the yeast now and replace it when the supply ship arrives. Weeway . . . ."

"No." Winter shook his head. "That's the one thing we can't do. The growth is controlled and guided every step of the way. The yeast would provide us with a few meals at the most, not enough to last for long, and if the ship didn't arrive on schedule . ." He shrugged.

" We can't afford to eat the cultures. The yeast doesn't reach full nutrition until ready for harvest and once we eat what's in the vats we strip ourselves of the final chance of survival if anything should happen to the rocket." He hesitated. " There may be another way."

" We've done all we can," protested the young commander. " Now all we can do is to wait."

" If we do that—we die!" Winter shook his head. " No, Jim. That isn't the way out."

" Then what is?" Irritation made Hargraves raise his voice a little and one of the huddled shapes stirred, groaned, then slumped again into a dream-world of steaming food and savoury dishes.

" Look, Jim," said Winter, and something in the doctor's voice made the young man stare at him with sudden hope. " How intelligent are we? By that I mean how strong is our instinct for survival? We are dying, and nothing we can do can alter that fact. Nothing that is except one thing."

Slowly the commander rose and, with Winter at his side, stumbled painfully from the room. He passed through the bright lights and clean smell of the culture room and Weeway stared at him with burning eyes. He paused for a moment, and then he emerged into the light.

Thunder and roaring echoed through the darkness!

It hammered from the rolling dunes and sent flat echoes thrumming from the near horizon. With the sound came a flaring brilliance of blue-white flame. It grew, lengthened, and, as the dawn threw pale fingers of light over the horizon, something silver gleamed and sparkled against the deep, star-shot, blue-black Martian sky.

"The rocket!" Winter almost screamed the words. "The supply ship! Early! But how?"

Hargraves shuddered, a knife falling from his hand, and as he stared at the descending vessel, understanding came.

"Fools!" He stared at Winter and laughed with tremendous relief and thankfulness. "None of us remembered. None of us at all."

"What do you mean?"

"The days, man! The days! Don't you see? All our calculations were based on days. *Twenty-four hour days.* I forgot, we all forgot. The Martian day is longer than that of Earth. *We've been here longer than we knew!*"

"It would make a difference," whispered Winter, and he swallowed as he stared at the huddled forms of the dead men at the pipe-line. "Several days' difference, and they must have sent us supplies as soon as they could. God! *What did we almost do?*"

Hargraves didn't hear him. He stood, his head thrown back, staring at the slender perfection of the descending rocket ship. They would have food aboard, and water, and men to replace those who had died. They might have medals and pompous words of encouragement and praise. They might even have wooden crosses for the unmarked graves.

But that didn't matter now.

The colony was saved! They had food and water and power from the atomic station. They would have replacements and supplies. They had won! Mars had fallen to the conquering foot of Man and the battle was over!

He laughed as he watched the rocket land. He laughed, then coughed as a thin wind stirred the red dust, blowing it in a fine mist about his bared head. He coughed, then laughed, and kept on laughing.

He felt wonderful!

E. C. TUBB

"Operation Mars" by E. C. Tubb, although a complete story in itself, comprises the opening chapters of a book, "Alien Dust" by E. C. Tubb, to be published by Messrs T. V. Boardman in March, 1955.

An opinion of some new science-fiction books

From KENNETH F. SLATER

There are a lot of books piled up here, some good, some bad, some indifferent. One of the good ones is Margot Bennett's THE LONG WAY BACK (*The Bodley Head,* 10/6, 206 *pp*). Miss Bennett has pictured a rather strange negro civilisation arisen in Africa some long years after the " Big Bang " has wrecked the world; a civilisation which it is not too easy to understand and which believes itself to be the first to discover atomic energy. Faced with a threat of war (against the empire of yellow men) an expedition is sent to the old land of Britain to discover what natural resources may exist in this unexplored jungle-clad country. It is with the adventures of this expedition that the story is mainly concerned, and while I found them interesting I was continually losing the thread by attempting to relate the practices and rites of the natives of Britain with present day things; to see from what these peculiar customs had been derived. Some were easy—the " I-Spy " men obviously came from some war-time secret police; but why call the god "Thay"?—unless from "they." Either Miss Bennett was too subtle for me or else I was searching for something with no existence. But—which ever it was—it did detract from an otherwise excellent story. Opinions differ on the worth of Dr. E. E. Smith's writings, and I'll not comment on TRIPLANETARY, (*Boardman,* 9/6, 287 *pp.*) except to say here is the first British book publication of the first of the epic " LENSMAN " series.

Captain W. E. Johns is well-known for his "Biggles" stories, and no-one would deny that they are excellent juvenile adventure yarns, but like so many others, Captain Johns has had a smack at a science fiction novel and whilst he's not failed as miserably as some, the result is not good. KINGS OF SPACE (*Hodder & Stoughton,* 7/6 192pp.) is a juvenile, of course, and the first third of the book is devoted to the meeting of Group Captain Timothy Clinton, R.A.F., and his son Rex, with Professor Lucius "Brainy" Brane, M.A.; then to some discussion—tedious, and somewhat erroneous if you happen to be a Clarke & Ley man—and comparisons of aeronautics and astronautics. Finally, the gyroscopic, helicoptered, cosmic-jetted cosmobile takes off at " gravity one." We then meet dragons on the moon, brontosaurii on Venus and mosquitos on Mars, and return to earth to meet plain ordinary spies who try to steal the Spacemaster. Well, perhaps a youngster who has never read any s.f. before might be enthralled by this story, but any-

one who has read Robert A. Heinlein's juvenile s.f. would most definitely not find anything of interest in it. Which, of course, brings me to STARMAN JONES (*Sidgwick & Jackson*, 7/6). The top line of the dustwrapper (the same as the American one by the by, and not very good) says " Science Fiction for Boys," so I put on my short trousers to get the best possible enjoyment out of Mr Heinlein's excellent yarn of the starways of tomorrow. Max Jones, the hero, is of course a youngster. Flung onto the mercies of a world of " Guilds " and restricted employment, Max wangles his way onto a starship as a steward, gets a chance to transfer to a technical guild, and finally finishes up as an astrogator—the top man in the trades of the spaceways. All told in Heinlein's usual very plausible style, with those incidents which go to make his background so convincing.

Also for Juveniles is Arthur C. Clarke's THE YOUNG TRAVELLER IN SPACE (*Phoenix*, 7/6, 72pp., with 1 colour plate, 31 monochrome plates and six diagrams) There is nothing in here that will be new to readers of NEBULA, I imagine, but if you have any young friend who is in line for a gift from you, this would be a very good idea. Clearly and interestingly written, in Mr Clarke's usual attention holding style, it condenses what he said in " The Exploration of Space " into a length suitable for the young enquiring mind. For the adult, WORLDS IN SPACE by Martin Caidin (*Sidgwick & Jackson*, 17/6, 212pp., plus 64 pages of illustration) is one of the latest of the growing number of books that deal seriously with the problems of astrogation and the conquest of space. Mr Caidin stays rather closer to home than Mr Clarke; WORLDS IN SPACE deals primarily with setting up the satellite station, then the first expedition to the moon, and the erection of a permanent base there. Only in his final chapter does he take us "Beyond the Moon." But he does a thorough job of these elements in space travel — " robots into space," "The weakest link—man" and "the first space ships" are the chapter headings of the first three of the ten chapters. Consideration is given to the problems of communication, of supply, and of a multitude of other factors. A really fine work, although doubtless the technically minded will be inclined to argue over this or that. Due praise must be given to Fred L. Wolff for his illustrations, which add considerably to the worth of this book.

Another technical contribution is made by Leonard G. Cramp, with SPACE, GRAVITY & THE FLYING SAUCER (*Werner Laurie*, 10/6 182pp.). Having myself, in the past, been knocked down and brutally assaulted (in a letter) by Arthur C. Clarke for daring to suggest that space travel might be possible by some means other than a rocket, I am a little astonished when a member of that august body, The British Interplanetary Society, produces a book dicussing seriously such possibilities. I do not have the technical knowledge to argue with Mr Cramp, even if I wished to do so, and therefore I will content myself by saying that he has presented in a far more scientific way much of the available "infor-

mation" and theory on the Saucers; he has stripped it of a great deal of the more obvious "sensation-mongering," and tried to draw conclusions on how the Saucer works. To give you some idea of the range he has covered, on one page appear two plates— the first is titled "Electromagnetic Repulsion of a Conductor;" the second— "Levitation of a heavy table"!

For those who prefer anthologies, there is WORLDS OF TOMORROW, edited by August Derleth (*Weindenfeld & Nicholson*, 9/6, 224pp.) has fifteen stories, two of them by Arthur C. Clarke and the others ranging from Bradbury (The Smile) all the way down the alphabet to Donald Wandrei (Strange Harvest). Quite a respectable selection of some of the better but less often reprinted stories.

Working the permutations of the possible anthologies, Sam Moskowitz came up with the EDITOR'S CHOICE IN SCIENCE FICTION (*McBride*, N.Y., 3.50. 285pp.). containing stories selected by Sam Moskowitz (with the assistance of the editorial director of the McBride Company, and of magazines represented), these are old favourites, the only "stranger" being BLUEBOOK. John Campbell of Astounding offered WHAT THIN PARTITIONS, a recent item jointly penned by Mark Clifton and Alex Apostolides, while Donald Kennicot went back to 1932 for THE WALL OF FIRE by Jack Kirkland, and Mary Gnaedinger of the late FFM went away back to 1895 for Robert W. Chambers' THE DEMOISELLE d'YS (actually published in FFM in 1939).

The unwieldy title originally given in U.S.A. to Fredric Brown's novel of a man's total subjection of himself to an ideal, THE LIGHTS IN THE SKY ARE STARS, has been curtailed to PROJECT JUPITER on its republication over here (*Boardman*, 9/6, 222pp.). If anything, that is the one thing the story needed to improve it, although some readers may find it goes at somewhat pedestrian pace. Patrick Moore has (apart from his serious work, which is excellent) had published his fourth juvenile s.f. adventure, THE FROZEN PLANET (*Museum*, 7/6, 184pp.), which deals with a strange madness attacking the people of the earth, the remnants of a war-destroyed Martian civilisation and the usual man of "science" plus his intrepid and younger partners who save the world. I far prefer his earlier work, the effort of writing which was shared by A. L. Helm, OUT INTO SPACE (*Museum*, 9/6, 144pp.). in which Bob and Ann, visiting their astronomer uncles are taken on a number of imaginary trips to the moon, and to the planets. This is wholly delightful, and should be intensely interesting— as well as instructive — to the youngster. It has eight excellent full-page plates, and a number of illustrations in the text.

That, of course, far from covers the current crop. Let us call it a fair cross-section, and if you think I've been a little heavy on the non-fiction side, I can assure you that you are wrong. There is more non-fiction published along these lines every day. I wonder if that means anything...?

SCIENTIFILM PREVIEWS

News and advance Film Reviews Direct From Hollywood's

FORREST J. ACKERMAN

In March 1953, it appeared as a magazine story, *Deadly City*, by October 1954, it had been translated to celluloid as *Target —Earth!*; and by the time this NEBULA appears the picture should be scheduled for release on the European side of the Atlantic. Paul W. Fairman wrote it, originally, under his pseudonym of Ivar Jorgenson (he qualifies as the American Vargo Statten when it comes to sporting nomdeplumes). If you're familiar with the story, you'll find it's been fairly faithfully adhered to. Writer - actor - director - producer Wyott Ordung, who played in *Invasion U.S.A.*, originally scripted *Robot Monster*, and was everything *but* the monster in *The Monster from Beneath the Sea*, collaborated on the original scenario of this one with James Nicholson, an s.f. fan I went to high school with back in 1929, who was at one time Vice-Pres. of the Boys' Scientfiction Club and later the manager of a Hollywood Theater (so he should know what movie audiences want).

Target—Earth! tells a story somewhat similar in theme in its opening phases to the after-the-atom last-people-on-earth plot of an earlier scientifilm, *Five* (Arch Oboler). A handful of characters in a big American metropolis awake from drugged or drunken sleeps to find the city has been deserted during the night. Several million people have disappeared in a mass exodus. Why? What would drive the population of a major city away from its shops and homes? Each of the isolated individuals remaining roams the silent city in search of another human being. Eventually they find each other and band together, fearful of the unknown.

At last the unknown manifests itself. We first glimpse a giant shadow moving across the side of a skyscraper. It is not long till we learn that the shadow was projected by a robot, a warrior machine from another world: specifically, Venus. Unfortunately, I found the robot on the unconvincing side—he generated no fear in me—I felt that this interplanetary menace was indeed no more than a collection of tin cans and a big metal barrel, and there was a man inside that metal, and that man was Walter Willis. I wasn't scared a bit, even tho—Gort help us—the robot projected a killing ray à la my favourite automaton of *The Day the Earth Stood Still.*

It will probably not come as a surprise to anyone to learn, whether they read the original story or not, that the Invaders are repelled and the Earth saved. This is not one of the Ten Top scientifilms of all time, but then

the producer didn't set out to compete with War Of The Worlds.

Tobor the Great, another robotale (and you can hardly fail to notice that "tobor" is "robot" spelled backwards), is about an anthropomorphical servomechanism designed to take the place of man on the pioneer trip to the moon. This proxy pilot, however, is stolen by enemy agents (who evidently read "Frankenstein" in a foreign edition) and they rig the robot to turn on its creator. All comes right by the final reel, tho, with the robot-controlled spaceship in line for Luna.

England's own Charles Eric Maine, s.f. fan and Esperantist turned successful pro, will follow his *Spaceways* success with a cinemascript based on his story "Time Slip"—about a man who undergoes the anachronistic adventure of living backward! We seem indeed to be moving into a backward era with *Green Planet Sram* scheduled for production in Dnalgne—excuse me, I mean England. Be sure to read all about it in a future issue of *Aluben*. . .

A year in the making, the first scientifilm employing the Dual-Nine process has been completed. Producer Rick Strauss recently invited Curt Siodak, Edward Spiegel, Martin Varno and myself to a private screening of it: *Destruction Orbit*. Scripted by Strauss (an up-from-the-ranks s.f. enthusiast who has just made his first professional sale of a s.f. story), this futuristic film is melodramatic space opera where Earth boy gets Venus girl (colonial) in the end, but not before both have been very nearly fried alive by skirting too close to the sun. Picture-first of Canterbury's Science Fiction Series — opens with a nice astronautical montage while a spaceman's voice soliloquizes that "It's a lonely thing to be a spaceman. Space is usually big and broad and deep and—empty," but just as our story opens it's ablaze with rays and exploding spaceships in the best Hamilton-Cummings-Smith tradition. This bigtime space battle is the best part of the picture, as the forces of the Solar Federation attempt to wipe out the colonial rebels of the Free Planets. Later there are some interesting scenes on the asteroid Icarus. The Dual-Nine process permits a profusion of instruments to jam the interior of the enemy rocket. In the genre of Flash Gordon, *Destruction Orbit* should appeal well to Buck Rogers enthusiasts.

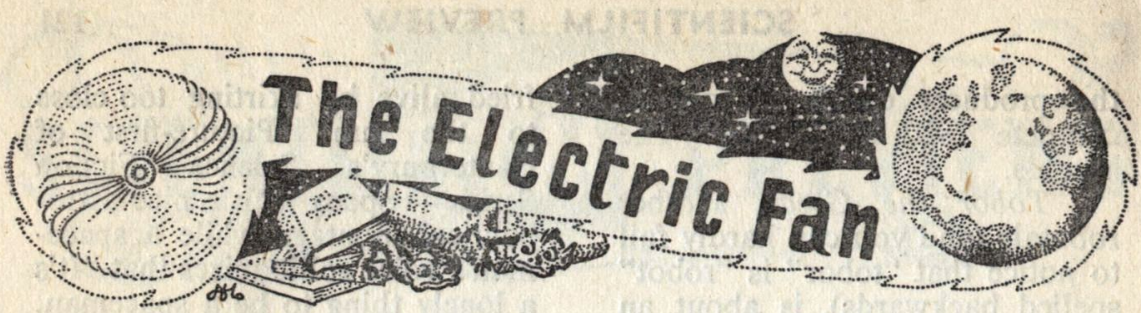
According to Hollywood schedules, in future issues of NEBULA I will have the following films to report on:

To Walk The Night, a classic modern novel by Wm. Sloane about a beautiful, mysterious and *unearthly* woman. . .

Bride Of The Atom, starring Bela Lugosi. . .

Forbidden Universe, budget: $800,000, with Paul Blaisdell (s.f. illustrator) as artist; Jacque (*Project Moonbase*) Fresco as chief technician and model maker. . .

Hell In The Heavens, time-travel ahead to the time when the city of Los Angeles has grown to a *state,* with technical advisorship handled by—Forrest J. Ackerman.



WALTER A. WILLIS

Looks at British fandom

When I wasn't notified of any deadline for this issue, I unassumingly asumed I had been given the push. I didn't even console myself with the reflection that shortly hordes of enraged readers would be marching on Glasgow shouting for Peter Hamilton's blood. Most of them, I realised, would do no more than sob broken-heartedly for a few days over the demise of this column—after all there are, as you may have noticed, stories and things in the magazine as well; the rest of this high quality paper is not there just to keep my column from being soiled. I decided to wait with quiet dignity until John W. Campbell or Horace Gold cabled me and then start again under another name. I never did like that Electric Fan title anyway.

But I've just had a hurried note from Pete and it seems I'm still on the payroll after all. It was just a clerical error in the vast Nebula Organisation. (I suppose they call it a clerical error because it could happen to a bishop). Anyhow it means I have to do this instalment in a hurry and I mention the fact so that literary critics won't complain of the absence of the usual polished brilliance of style or fan editors that I've ignored their magazine. I haven't time to get out the polishing rags or search my friends' bookcases for my fanmags.

BEM No. 3, *Tom White & Mal Ashworth, 3 Vine St., Cutler Heights, Bradford 4, Yorks, 40 pages. 9d. per copy.*

Another fine issue of this cheerful and very pleasant fanmag. The best of the contents are an article by Robert Bloch, Wisconsin's finest attempt to make amends to the world for Senator McCarthy, and a parody of Dostoevsky by Bob Shaw. This latter is probably the best parody on Dostoevsky ever to appear in a fanmag. . . I think I am safe in saying that. . .and for it we are indirectly indebted to Groff Conklin. I happen to know that he said once that Bob Shaw was a second Dostoevsky (or was it a secondhand Dostoevsky?) whereupon Bob immediately read "Crime And Punishment" to see if it was true, and this is the hilarious result. You don't have to know Dostoevsky to appreciate it though—in fact it's better if you can ignore altogther that whirring noise coming from his grave. There is also a fine piece of satire by Nigel Lindsay about an eskimo fan (incidentally did you hear about the new 3D film, "Mobius Dick"? The first film with unlimited running time) and other entertaining hit-or-miscellania by Vince Clarke, Paul Enever and Archie Mercer. And

as usual the edtorials almost outclass the contents.

ALPHA, No. 7, *Dave Vendelmans and Jan Jansen, 130 Strydhoflaan, Berchen, Antwerp, Belgium, 22 pages, 9d per copy.*

This is the first manifestation outside the English-speaking world of the peculiar form of self-expression known as the fan magazine. The editors are two young Belgians who, fortunately, write better English than most of us. Contents include fiction, articles, reports, and reviews, all of a high standard and excellently presented. The mag is intended to be of interest to British and U.S. readers, and succeeds. Don't forget the postage on letters to Europe is 4d.

PHANTASMAGORIA, No. 2 (New Series), *Derek Pickles and Stan Thomas, 197 Cutler Heights Lane, Bradford 4, Yorks, 24 pages (small size), no price asked, but send 6d for sample.*

This issue is notable for a brilliant little humorous fantasy by Nigel Lindsay about a Bradford trolley-bus called Dolly who migrated to Devon and had an affair with a petrol bus. These transports of joy come to a rude end with a most original denouement. All I can say about it is that if vehicular transport were governing the country this story would be banned.

OPERATION FANTAST No. 16, *Ken Slater, 22 Broad St., Syston, Leics., 22 pages, 7/- for four issues, including membership of the OF organisation. Printed.*

This, the first issue in far too long of this very reputable magazine, still shows signs of the troubles Ken has been having lately. Best among the contents is an article by J. T. McIntosh on how to write science fiction and sell it. However the magazine is only one of the benefits of the Operation Fantast organisation, which everyone with more than a passing interest in sf would do well to join. KFS and his multi-tentacled organisation will get you books and magazines from all over the world, arrange contacts, and generally help you to get more out of science fiction.

I've also received a copy of THE IMMORTAL STORM, a history of science fiction fandom by Sam Moskowitz, published by the Asfo Press at 713 Coventry Road, Deatur, Georgia, U.S.A., at $5.00 a copy. You should be able to get it through Ken Slater (address above). There are two reasons why you might like to. In the first place, if you are interested in the origins and development of this strange and fascinating microsm you'll find all the answers here.

The second reason is that although. . .or perhaps because. . . Moskowitz has no sense of humour, he has written here what is in some ways one of the funniest books ever. He accomplishes this remarkable feat by treating his subject with deadpan seriousness throughout, as if the events he described were of world-shaking significance. A random quotation will show you what I mean. "But again stark drama was preparing her lines. . . and what was to follow. . .was to deal catastrophe to fandom as a whole. Ragnorak had caught the entire fan world napping!" Fascinating.

RESEARCH SURVEY RESULTS

J. STUART MACKENZIE

It is now quite some time since this magazine published the *Space Times Survey of Fandom* questionnaire, and finally I have been able to " close down " the survey and begin an analysis of the results.

A word of explanation is perhaps due for the delay ; as most readers know, NEBULA has a large overseas circulation, but those overseas readers may not receive their copy of the magazine until as much as two months after the U.K. reader. Time therefore had to be allowed for these readers to get their " *Neb.*", complete the questionnaire, and mail it back. This meant in effect a wait of five months, and even then the forms were still coming in. Another delaying factor that most readers will not perhaps have appreciated is the considerable amount of work that has to be done on each questionnaire *before* the analysis can start. In fact, as I write this article, the full analysis is not yet complete : this is a sort of *hors d'oeuvre* specially for you.

When you send out a questionnaire like the one so many of you filled in, there are various things to look for : one of them, regrettably, is the inaccuracy of the chap who fills in the details. It is surprising to see how many people read, for example, the British Reprint Edition of " *Imagination* "—there isn't one—or whose answers to the numbers of magazines or pocket books they read in three months is impossibly large . . . and each time this happened I had to ignore that section of that particular questionnaire for the analysis. You see, if the figures aren't accurate, they are not only useless, but in fact dangerous, as they might give a false picture in the end-survey. In fact, the percentage of rejects wasn't too high, compared with the usual commercial results—just over 6% were rejected for *part only* of the answers, and under 0.05% were rejected entirely because they were obviously facetious.

One of the questions that you will ask is " Why are all the tables given in percentages ? Why doesn't he give the actual numbers ? " There are two main reasons for this.

First of all, most people are better able to grasp the idea of a percentage than to compare actual figures : it is easier to get an overall picture. Secondly, because in each section of the questionnaire there were some replies I had to reject, by using the percentage figures we keep the comparisons alike. That makes for easier appreciation of the results.

I would like to say a word or two about the magazine popularity poll, because there is sure to be a lot of argument about this in the future, when all the analysis is complete, and the figures in it are not identical with those set out below. First of all, this analysis is only of the questionnaires sent in that were published in NEBULA. And secondly—this is important —I have only used for the magazine poll those questionnaires which voted on *all five* British magazines. If someone hadn't read, or didn't vote on, any one or more of the magazines, I didn't count his vote because he wasn't able to assess all of them and thus give an opinion which, statistically, is significant, or has a real meaning.

TABLE ONE

AGE GROUPS

	Under 20	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	Over 50	All of Survey
Percentage of answers	11.3	21.0	27.4	21.8	7.3	6.4	1.6	3.2	100.0
Average Age	17.5	22.0	26.8	31.8	39.5	43.3	45.0	54.5	29.0
Years of reading s-f.	2.9	7.2	9.6	16.0	22.7	18.4	26.5	20.3	11.8
Occupations, as % of total of the group :									
Professional	—	—	25.7	42.8	17.1	11.4	3.0	—	100.0
Technical	8.3	16.7	32.8	12.8	12.2	6.0	3.1	8.1	100.0
Semi-skilled	9.5	57.1	18.9	14.5	—	—	—	—	100.0
Clerical	21.4	7.1	42.8	14.3	7.2	7.2	—	—	100.0
Distributives	12.2	63.2	—	24.6	—	—	—	—	100.0
Unskilled and Manual	6.9	5.0	50.1	26.0	—	12.0	—	—	100.0
Students	83.3	16.7	—	—	—	—	—	—	100.0
Residence Area :									
London	9.1	18.3	38.1	19.8	7.3	3.6	1.8	2.0	100.0
Midland	7.7	6.8	24.9	38.5	7.4	—	6.9	7.8	100.0
Northern	—	24.9	26.1	19.0	14.2	15.8	—	—	100.0
Scottish (inc. N.I.)	40.1	29.2	—	11.0	—	19.7	—	—	100.0
South-Western	14.3	21.4	29.3	20.8	—	—	—	14.2	100.0
Other	16.7	33.5	8.2	26.0	9.2	6.4	—	—	100.0

Now, about the analysis of occupations. This was rather a problem, but finally I grouped the various jobs into the headings you see in the tables, because these are broad headings sometimes used in Government statistics, and the meaning is fairly straightforward. *Professional* means people like doctors, dentists, professors at universities (oh, yes, more than one sent in a questionnaire!) and engineers with degrees. I have counted the Higher National Cert. as a degree, incidentally. *Technical* are all those people doing technical jobs, such as, radio engineers, telecommunications engineers, dental mechanics, laboratory workers, and so on, who don't actually have a degree or qualification, but who are definitely technicians. The other groups are, I think, straightforward. *Distributive trades*, incidentally, includes shop-assistants, waiters, and so on.

Another controversial point will be the areas of residence, so perhaps I'd better tell you what they are. London area is inside a line drawn east through Ipswich to meet a line drawn north from Portsmouth. South-Western is everything to the west of that area, together with South Wales—actually, South Wales and a line drawn from the Bristol Channel to the "top left" corner of London area. Midland is all of England between the first two and south of a line drawn halfway between Birmingham and Manchester, together with North Wales. Northern is north of this to the Scottish border, together with the Isle of Man. Scottish is, of course, Scotland, together with—Walter Willis will shoot me for this!—Northern Ireland. I didn't get any replies from the Channel Islands, so they don't have to be considered. Everywhere else I have called "Other," to avoid too many sub-divisions.

Table One, as you can see, divides all the questionnaires into age-groups of five years each, except for the first and last groups, and analyses the answers for each age-group as a percentage of all the answers. For example, 27.4% of the answers came from people aged between 25 and 29 on their last birthday, 42.8% of the "Professional" group are aged between 30 and 34, 38.1% of the people in the London area are between 25 and 29. These few examples should help you to read the table properly.

Table Two, below, analyses the answers a different way. In this table, we have analysed *each age-group* into jobs and residence, so that you can cross-refer. For example, in the "Professional Group" Table One tells you that 25.7% of all the professional people are aged between 25 and 29. Now if we look at this age group in Table Two, we see that 29.0% of all the people between 25 and 29 are professionally employed, and that 61.8% of all those people in that age group live in the London area . . . and so on. Now if you multiply the 25.7% by 29.0% (which is, remember, 29/100) you get 7.453%, which is the percentage of all the people in the survey who are professionals aged 25 to 29, and similarly, by multiplying the 25.7% by 61.8%, giving 45.883%, we find that 45.88% of all the professional people in the survey between 25 and 29 live in the London area. Then you can cross-multiply again to get the percentage of all the people in the survey who are professionals in the London area, and so on. Space obviously prevents my setting out tables of all these different combinations, but I'll give you one example to show you how it works:

12.5% of all the survey are clerical workers. 16.9% of all the survey live in the Northern area. So 12.5 x 16.9/100 is the percentage of clerical workers living in the Northern area who sent in questionnaires. I'll leave you to work it out . . .

Before I go on to set out Table Two, I want to answer in advance a question that will certainly be asked; "It isn't necessarily true that the distribution of jobs is the same in all the areas—there are probably more professionals in the London area per head of population than in, say, the Midland area, and this will not allow us to cross-multiply." There is an answer to this: every questionnaire has been examined, and separate analyses made for each area. *Then* those analyses have been "stratified" to make them conform to the *known* working population structure for each area. (These figures are obtainable from the 1951 Census, and the Board of Trade and Ministry of Labour publications). This means that I have adjusted the figures where necessary to make sure I have a proportionately equal number of each type of employment in each area, so that you *can* cross-multiply safely. Just another reason why it takes so long to make an analysis of this kind. . . .

Here, then, is . . .

TABLE TWO

	Under 20	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	Over 50	All of Survey
Occupations, as % of total in each age-group:									
Professional	—	—	29.0	55.6	64.8	52.0	51.8	—	31.2
Technical	14.3	15.4	25.8	11.2	30.0	14.0	48.2	100.0	20.6
Semi-skilled	14.3	46.2	12.9	11.0	—	—	—	—	17.5
Clerical	21.4	6.4	19.4	7.5	5.2	10.0	—	—	12.5
Distributives	7.2	19.2	—	8.4	—	—	—	—	5.9
Unskilled and Manual	7.1	6.4	12.9	6.3	—	24.0	—	—	7.3
Students	35.7	6.4	—	—	—	—	—	—	5.0
TOTALS	100.0	100.0	100.0	100.0	100 0	100.0	100.0	100.0	100.0
Residence areas:									
London	35.7	38.5	61.8	40.7	44.4	26.0	56.3	27.0	44.4
Midland	7.2	3.8	8.8	18.5	11.1	—	43.7	18.7	9.7
Northern	—	19.2	14.7	14.8	33.2	42.4	—	—	16.9
Scottish	28.5	11.6	—	3.7	—	22.0	—	—	8.1
South-Western	14.3	11.4	11.8	11.1	—	—	—	52.3	11.3
Other	14.3	15.5	2.9	11.2	11.3	9.6	—	2.0	9.6
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Here is a little more information aboutyourselves: some six out of every ten smoke, but nearly eight out of every ten drink, mostly beer as a favourite drink. There were very few who could not drive a car or ride a motor-cycle, and after the age of thirty the great majority are married, with about half of them either owning their house or buying it through a building society. I'm sorry to say that very few ladies indeed completed questionnaires—far less than one per cent of the total! I better not comment on this, or I will be storing up trouble for myself in a big way.

Before I end this survey with the Popularity Poll of British Magazines, I want to make something clear: the results given above are only those extracted from the questionnaires printed in this magazine and sent to me. Many NEBULA readers received questionnaires through fan-channels, and sent them in: in fact, nearly all British fans seem to be regular readers of "Neb," which isn't surprising. But it *is* safe to say that the results, with the qualifications that I have put upon their interpretation, are a fair sample of the survey as a whole. To those readers who sent in money for the final results, I would say that just as soon as I can get through the many hundreds of questionnaires I'll get those results out. But don't forget that the whole survey covers almost all the English-speaking world, including the U.S.A., and there are an awful lot of things to be done. In fact, if I had known that the response was to have been so great I would probably never have started the thing!

As a matter of interest to other statisticians, I would like to add that the actual response from the NEBULA questionnaire is in the region of 7% of total circulation, but the response from the thousands of questionnaires sent out through fan channels is very nearly 80%, which is probably a world record for a non-compulsory survey. The NEBULA sample is over 30% of the total. I'm sorry I cannot be more precise, but the circulation of NEBULA is, after all, a business secret.

Popularity Poll of British Science-Fiction Magazines

The scoring method is to allow one point for a first place, two for a second, and so on. Therefore in the first part of the table it is the high percentages which are best, whereas in the second part it is the lowest percentages which are the best, as this indicates more firsts, seconds and thirds than fourths and fifths.

AGE GROUPS

	Under 20	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	Over 50	All of Survey
First Places (percentages):									
Authentic	50.0	33.2	28.6	24.0	20.2	19.6	—	33.6	29.4
Nebula	35.7	33.5	37.1	44.6	58.8	50.1	100.0	66.4	42.1
New Worlds	7.2	29.6	28.8	19.4	21.0	30.3	—	—	23.0
Science-Fantasy	7.1	3.7	2.9	9.3	—	—	—	—	4.0
British S-F. Mag. (Vargo Statten)	—	—	2.6	2.7	—	—	—	—	1.5
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Points scored (percentages):									
Authentic	16.2	12.8	17.0	13.6	18.7	12.0	26.6	8.9	15.0
Nebula	11.4	10.6	12.0	13.8	11.3	8.0	20.0	8.9	11.7
New Worlds	16.0	11.6	15.4	17.1	18.0	10.7	6.7	11.1	14.6
Science-Fantasy	21.0	17.3	20.9	21.1	16.7	11.9	13.2	11.2	18.8
British S-F Mag. (Vargo Statten)	35.4	47.7	34.7	34.4	35.3	57.4	33.5	59.9	39.9
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

★ FANALYSIS ★

The reader sending in the FIRST Story Ratings to be opened by the Editor (in which the reader lists the stories in this issue in order of his preference) will receive a Cash Prize of £1.

The winner of the Year's Subscription for his ratings of the stories in NEBULA 9 was Terry Jeeves, of Sharrard Grove, Sheffield.

The results of the Poll on the stories in No. 9 was as follows:

1. **Project One**
   By E. C. Tubb 36.4%
2. **Ordeal In Space**
   By Robert Heinlein 24.1%
3. **Aspect**
   By Bob Shaw 12.1%
3. **Curtain Call**
   By James White 12.1%
5. **Alcoholic Ambassador**
   By Dan Morgan 8.4%
6. **Cul De Sac**
   By Lan Wright 6.9%

Dear Sir: As a comparatively new reader of your magazine, I would like to compliment you on the inclusion in recent issues of stories in which themes normally taboo in contemporary magazines appear. Examples of this include the semi-political themes of "Tea Party" and "Closing Time"; the slightly religious flavour of "Aspect" and of course the very unique central idea in "Cold Storage."

These are the types of stories which make NEBULA quite different from the other magazines in this field. Please keep this kind of thing to the fore.

JAMES ENGLISH,
Sydney, Australia.

**NEBULA will certainly remain distinctive, James, and I'm glad you like this policy. I believe that science-fiction readers are quite sufficiently adult and educated to read stories which touch lightly on unusual subjects, if these stories are well written and of sound plot, and if the said "subjects" are not merely dragged in for vulgar effect.*

Dear Sir: I've just finished No. 10. I didn't care much for ANACHRONISM. Humour is not international, so if you must have humourous tales—and I think you must have—sometimes, then I suggest you stick to British authors for that particular purpose.

I found far more real humour in Project Starship which I thoroughly enjoyed.

Closing Time is not the sort of thing I want to read. I read fiction for entertainment, and science-fiction to take me further away from the real world. I don't want to be reminded of it's problems while I'm relaxing.

The Marriage Prompters is a re-write, with a new twist, of a story I read not so long ago. It's not an improvement on the original.

Final Curtain I found amusing, and By Needle and Thread not bad.

On the whole the performance was not up to standard. That's my opinion.

J. PARRY,
London, N.W.1.

Dear Ed: First place in Nebula 10 to PROJECT STAR SHIP. Sydney Bounds has written a fine traditional s.f. story, and the best story I have yet read by him.

BY NEEDLE AND THREAD slips easily into second place. A fine human story with an unusual presentation.

Now the judging becomes difficult, with so many evenly matched stories to choose between. But I think that I would choose ANACHRONISM for third place. This is one of those rare treats — a good humourous s.f. story. It was beautifully handled.

And finally—an amazing thing—Ted Tubb pushed down into last place. This just shows what keen competition he had. Actually, I liked CLOSING TIME, but it was more a fragment than a story. But Ted Tubb's brilliant style can make even a fragment very interesting reading.

I noticed, in Guided Missives, that a few readers have been asking for some of the Special Features to be dropped. My vote is for them to stay just as they are. I think you have a varied and interesting series of features, which take up the right proportion of space in the mag. NEB would not be the same, or so good without them.

ALAN HUNTER,
Bournemouth.

**Many thanks for your letters of comment on NEBULA 10 I'll be looking forward to more detailed commentaries like this both from yourselves and from other readers in future.*

New Worlds to Conquer

IN THE

BRITISH SCIENCE FICTION MAGAZINE

Editor—VARGO STATTEN

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