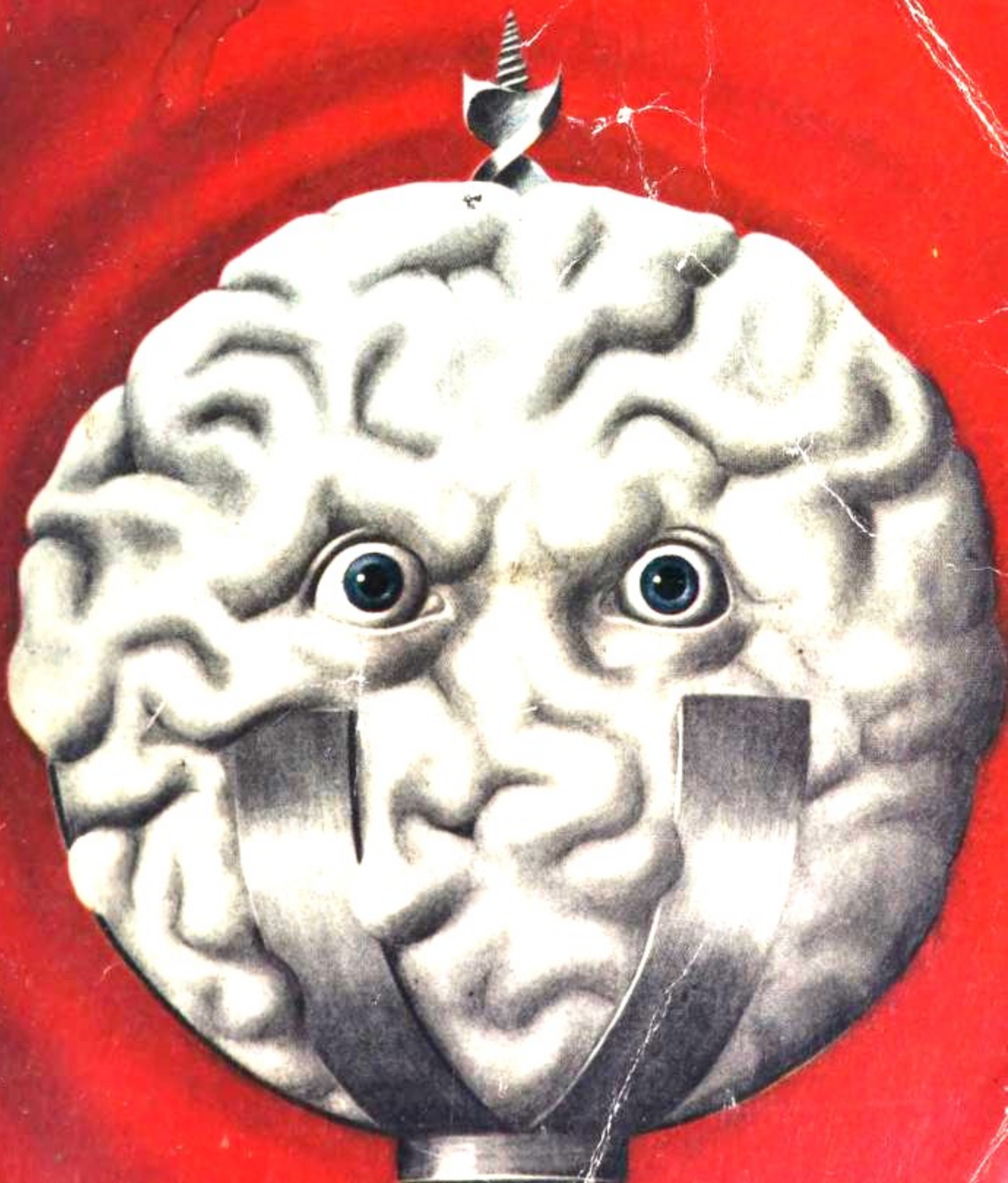
CORONET
SCIENCE
FICTION

Five odysseys to the furthest reaches
of space and time

POSSIBLE TOMORROWS

Edited by GROFF CONKLIN



17849 3

Then there was nothing.

Buildings, an enormous number and variety of them, huge, not one of them less than five stories high, all with ramps instead of stairs. This was to be expected, considering the great size of the people who had lived there, and it followed the familiar pattern.
But there was nothing in those buildings! On this airless world, there was no decay, no rust or corrosion - *and nothing to decay or corrode.* Here and there in inaccessible locations were featureless blobs of metal. The implication was clear: where they hadn't been able to remove a machine, they had melted it down on the spot. The inhabitants themselves had removed all that was worth taking along.
A whole people had packed and moved away, leaving behind only massive, echoing structures.

Also edited by Groff Conklin, and available in Coronet Books:

13 Great Stories of Science-Fiction
7 Trips Through Time and Space

Possible Tomorrows

Science Fiction by

ISAAC ASIMOV
KINGSLEY AMIS
J. T. McINTOSH
JAMES H. SCHMITZ
F. L. WALLACE

edited with an Introduction by
GROFF CONKLIN

CORONET BOOKS
Hodder Fawcett Ltd., London

Originally published in the U.S.A. by
Pyramid Books under the title 'Five-Odd'
This edition first published in Great Britain 1971
Coronet edition 1973

ACKNOWLEDGMENTS

Kingsley Amis, "Something Strange." From My Enemy's Enemy, © 1962 by Kingsley Amis. Reprinted by permission of Harcourt, Brace & World, Inc. From Magazine of Fantasy and Science Fiction, July 1961.

Isaac Asimov, "The Dead Past." Copyright 1956 by Street and Smith Publications, Inc. Reprinted by permission of the author from Astounding Science Fiction, April 1956

J. T. McIntosh, "Unit." Copyright 1957 by Nova Publications, Ltd. Reprinted by permission of the author and Lurton Blassingame from New Worlds, February 1957.

James H. Schmitz, "Gone Fishing." Copyright © 1961 by Condé Nast Publications, Inc. Reprinted by permission of Scott Meredith Literary Agency from Analog Science Fact-Science Fiction, May 1961.

F. L. Wallace, "Big Ancestor." Copyright 1954 by Galaxy Publishing Corporation. Reprinted by permission of Harry Altshuler from Galaxy Magazine, November 1954.

The characters and situations in this book are entirely imaginary and bear no relation to any real person or actual happening

Printed and bound in Great Britain for
Coronet Books,
Hodder Fawcett Ltd,
St. Paul's House, Warwick Lane,
London, EC4P 4AH
by Hazell Watson & Viney Ltd,
Aylesbury. Bucks

ISBN 0 340 17849 3

CONTENTS

INTRODUCTION

It continues to amaze me how the Old Hands in science fiction continue to come up with vivid and original tales about our various possible tomorrows. One would think that they might run out of ideas; but the contrary seems to be true; the ideas run after them.

Basically, you will find as you read, the reason why their stories continue to appeal is not because of their novelty – for, in some instances, there is little novelty at all in their concepts. As I have said many times in the past, the real reason why these creators hold out attention is because they have something to say to us Twentieth Century readers, not just because they entertain. They do both, when they are of top grade, and that is what these five novelettes are – top grade. They give us to think, as well as to enjoy.

One story is by a writer who – as far as I know – has never done a piece of science fiction before; but Kingsley Amis, brilliant "mainstream" novelist and pungent critic of science fiction, proves in his entry that he can equal the best of the science fiction professionals. Our other four authors have been producing quality science fiction for from fifteen to twenty-five years, with rarely a weak item; and those in the present collection are among their most stimulating.

Indeed, these are five meaty and meaningful imaginings, and they need no further introduction. So: on with the feast!

Groff Conklin

THE DEAD PAST

Isaac Asimov

Readers of this story who are up on today's muckraking literature will be familiar with the name of Vance Packard. True, the dangers of electronic spying that Mr. Packard so ominously described in his best-seller *The Naked Society* do not even approach the terrifying possibilities that are unveiled in the tale you are about to read; but Packard's reports of the misuse of lie detectors, bugged rooms, secret television cameras, and other techniques of listening-and-looking-in on the behaviour of Twentieth Century Man are only too suggestive of the final horror Professor Potterley here bestows on the Twenty-First Century world with his innocent-seeming portable chronoscope.

Maybe we should pass a Constitutional Amendment, or something, to bar the use of all mechanical and electronic machines for the invasion of privacy. However, the moral of "The Dead Past" seems to be that no such law-making will ever stop the human animal from exploiting one of the most typical – and dangerous – of all his characteristics, which is curiosity.

No matter how cleanly scientific the original motives for the spying machines – it is said that the hidden television pickup was originally developed for the purpose of studying animal behaviour, child activity, and the private worlds of the mentally ill – they turn out in the end to be as dangerous to the health of society as a triggered hydrogen bomb, though quieter, less lethal, and more insidious. How much more so, then, a device that everyone can have on the cheap, and can use without any social controls whatsoever! We shudder to think . . .

ARNOLD POTTERLEY, PH.D. was a Professor of Ancient History. That, in itself, was not dangerous. What changed the world beyond all dreams was the fact that he *looked* like a Professor of Ancient History.

Thaddeus Araman, Department Head of the Division of

Chronoscopy, might have taken proper action if Dr. Potterley had been owner of a large, square chin, flashing eyes, aquiline nose and broad shoulders.

As it was, Thaddeus Araman found himself staring over his desk at a mild-mannered individual, whose faded blue eyes looked at him wistfully from either side of a low-bridged button nose; whose small, neatly-dressed figure seemed stamped "Milk-and-water" from thinning brown hair to the neatly brushed shoes that completed a conservative middle-class costume.

Araman said pleasantly, "And now what can I do for you, Dr. Potterley?"

Dr. Potterley said in a soft voice that went well with the rest of him, "Mr. Araman, I came to you because you're the top man in chronoscopy."

Araman smiled. "Not exactly. Above me is the World Commissioner of Research and above him is the secretary general of the United Nations. And above both of them, of course, are the sovereign peoples of Earth."

Dr. Potterley shook his head. "They're not interested in chronoscopy. I've come to you, sir, because for two years I have been trying to obtain permission to do some time-viewing – chronoscopy, that is – in connection with my researches on ancient Carthage. I can't obtain such permission. My research grants are all proper. There is no irregularity in any of my intellectual endeavours and yet –"

"I'm sure there is no question of irregularity," said Araman, soothingly. He flipped the thin reproduction-sheets in the folder to which Potterley's name had been attached. They had been produced by Multivac, whose vast analogical mind kept all the department records. When this was over, the sheets could be destroyed, then reproduced on demand in a matter of minutes.

And while Araman turned the pages, Dr. Potterley's voice continued in a soft monotone.

The historian was saying, "I must explain that my problem is quite an important one. Carthage was ancient commercialism brought to its zenith. Pre-Roman Carthage was the nearest ancient analogue to pre-atomic America, at least insofar as its attachment to trade, commerce and business in general was concerned. They were the most daring seamen and explorers before the Vikings; much better at it than the over-rated Greeks.

"To know Carthage would be very rewarding, yet the only knowledge we have of it is derived from the writings of its bitter enemies, the Greeks and Romans. Carthage itself never wrote in its own defense or, if it did, the books did not survive. As a result, the Carthaginians have been one of the favourite sets of villains of history and perhaps unjustly so. Time-viewing may set the record straight."

He said much more.

Araman said, still turning the reproduction-sheets before him, "You must realize, Dr. Potterley, that chronoscopy, or time-viewing, if you prefer, is a difficult process."

Dr. Potterley, who had been interrupted, frowned and said, "I am asking for only certain selected views at times and places I would indicate."

Araman sighed. "Even a few views, even one – It is an unbelievably delicate art. There is the question of focus, getting the proper scene in view and holding it. There is the synchronization of sound, which calls for completely independent circuits."

"Surely my problem is important enough to justify considerable effort."

"Yes, sir. Undoubtedly," said Araman at once. To deny the importance of someone's research problem would be unforgivably bad manners. "But you must understand how long-drawn-out even the simplest view is. And there is a long waiting line for the use of Multivac which guides us in our use of the controls."

Potterley stirred unhappily. "But can nothing be done? For two years –"

"A matter of priority, sir. I'm sorry. Cigarette?"

The historian started back at the suggestion, eyes suddenly widening as he stared at the pack thrust out toward him. Araman looked surprised, withdrew the pack, made a motion as though to take a cigarette for himself and thought better of it.

Potterley drew a sigh of unfeigned relief as the pack was put out of sight. He said, "Is there any way of reviewing matters, putting me as far forward as possible? I don't know how to explain –"

Araman smiled. Some had offered money under similar circumstances which, of course, had gotten them nowhere, either. He said, "The decisions on priority are computer-

processed. I could in no way alter those decisions arbitrarily."

Potterley rose stiffly to his feet. He stood five and a half feet tall. "Then good day, sir."

"Good day, Dr. Potterley. And my sincerest regrets."

He offered his had and Potterley touched it briefly.

The historian left and a touch of the buzzer brought Araman's secretary into the room. He handed her the folder.

"These," he said, "may be disposed of."

Alone again, he smiled bitterly. Another item in his quarter-century's service to the human race. Service through negation.

At least, this fellow had been easy to dispose of. Sometimes, academic pressure had to be applied and even withdrawal of grants.

Five minutes later, he had forgotten Dr. Potterley. Nor, thinking back on it later, could he remember feeling any premonition of danger.

During the first year of his frustration, Arnold Potterley had experienced only that – frustration. During the second year, though, his frustration gave birth to and idea that first frightened and then fascinated him. Two things stopped him from trying to translate the idea into action, and neither barrier was the undoubted fact that his notion was a grossly unethical one.

The first was merely the continuing hope that the government would finally give its permission and make it unnecessary for him to do anything more. That hope had perished finally in the interview with Araman just completed.

The second barrier had been not a hope at all but a dreary realization of his own incapacity. He was not a physicist and he knew no physicists from whom he might obtain help. The Department of Physics at the University consisted of men well-stocked with grants and well-immersed in specialty. At best, they would not listen to him. At worst, they would report him for intellectual anarchy and even his basic Carthaginian grant might easily be withdrawn.

That he could not risk. And yet chronoscopy was the only way to carry on his work. Without it, he would be no worse off if his grant were lost.

The first hint that the second barrier might be overcome had come a week earlier than his interview with Araman, and it had gone unrecognized at the time. It had been at one of the faculty teas. Potterley attended these sessions unfailingly because he conceived attendance to be a duty, and he took his duties seriously. Once there, however, he conceived it to be no responsibility of his to make light conversation or new friends. He sipped abstemiously at a drink or two, exchanged a polite word with the dean or such department heads as happened to be present, bestowed a narrow smile at others, and finally left early.

Ordinarily, he would have paid no attention, at that most recent tea, to a young man standing quietly, even diffidently, in one corner. He would never have dreamed of speaking to him. Yet a tangle of circumstance persuaded him this once to behave in a way contrary to his nature.

That morning at breakfast, Mrs. Potterley had announced somberly that once again she had dreamed of Laurel; but this time a Laurel grown up, yet retaining the three-year-old face that stamped her as their child. Potterley had let her talk. There had been a time when he fought her too-frequent preoccupation with the past and death. Laurel would not come back to them, either through dreams or through talk. Yet if it appeased Caroline Potterley – let her dream and talk.

But when Potterley went to school that morning, he found himself for once affected by Caroline's inanities. Laurel grown up! She had died nearly twenty years ago; their only child, then and ever. In all that time, when he thought of her, it was as a three-year-old.

Now he thought: But if she were alive now, she wouldn't be three, she be nearly twenty-three.

Helplessly, he found himself trying to think of Laurel as growing progressively older; as finally becoming twenty-three. He did not quite succeed.

Yet he tried. Laurel using make-up. Laurel going out with boys. Laurel – getting married!

So it was that when he saw the young man hovering at the outskirts of the coldly circulating group of faculty men, it occurred to him quixotically, that, for all he knew, a youngster such as this might have married Laurel. That youngster himself, perhaps –

Laurel might have met him, here at the University, or

some evening when he might be invited to dinner at the Potterleys. They might grow interested in one another. Laurel would surely have been pretty and this youngster looked well. He was dark in colouring, with a lean intent face and an easy carriage.

The tenuous daydream snapped, yet Potterley found himself staring foolishly at the young man, not as a strange face but as a possible son-in-law in the might-have-been. He found himself threading his way toward the man. It was almost a form of autohypnotism.

He put out his hand. "I am Arnold Potterley of the History Department. You're new here, I think?"

The youngster looked faintly astonished and fumbled with his drink, shifting it to his left hand in order to shake with his right. "Jonas Foster is my name, sir. I'm a new instructor in Physics. I'm just starting this semester."

Potterley nodded. "I wish you a happy stay here and great success."

That was the end of it, then. Potterley had come uneasily to his senses, found himself embarrassed and moved off. He stared back over his shoulder once, but the illusion of relationship had gone. Reality was quite real once more and he was angry with himself for having fallen prey to his wife's foolish talk about Laurel.

But a week later, even while Araman was talking, the thought of that young man had come back to him. An instructor in Physics. A new instructor. Had he been deaf at the time? Was there a short circuit between ear and brain? Or was it an automatic self-censorship because of the impending interview with the Head of Chronoscopy?

But the interview failed and it was the thought of the young man with whom he had exchanged two sentences that prevented Potterley from elaborating his pleas for consideration. He was almost anxious to get away.

And in the autogiro express back to the University, he could almost wish he were superstitious. He could then console himself with the thought that the casual meaningless meeting had really been directed by a knowing and purposeful Fate.

Jonas Foster was not new to academic life. The long and rickety struggle for the doctorate would make anyone a

veteran. Additional work as a post-doctorate teaching fellow acted as a booster shot.

But now he was Instructor Jonas Foster. Professorial dignity lay ahead. And he now found himself in a new sort of relationship toward other professors.

For one thing, they would be voting on future promotions. For another, he was in no position to tell so early in the game which particular member of the faculty might or might not have the ear of the Dean or even of the University President. He did not fancy himself as a campus politician and was sure he would make a poor one, yet there was no point in kicking his own rear into blisters just to prove that to himself.

So Foster listened to this mild-mannered historian who, in some vague way, seemed nevertheless to radiate tension. Nor did Foster shut him up abruptly and toss him out. Certainly that was his first impulse.

He remembered Potterley well enough. Potterley had approached him at that tea (which had been a grizzly affair). The fellow had spoken two sentences to him, stiffly, somehow glassy-eyed, had then come to himself with a visible start and hurried off.

It had amused Foster at the time, but now –

Potterley might have been deliberately trying to make his acquaintance, or rather, to impress his own personality on Foster as that of a queer sort of duck, eccentric but harmless. He might now be probing Foster's views, searching for unsettling opinions. Surely, they ought to have done so before granting him his appointment. Still –

Potterley might be serious, might honestly not realize what he was doing. Or he might realize quite well what he was doing; he might be nothing more or less than a dangerous rascal.

Foster mumbled, "Well, now – " to gain time, and fished out a package of cigarettes, intending to offer one to Potterley and to light it and one for himself very slowly.

But Potterley said at once, "Please, Dr. Foster. No cigarettes."

Foster looked startled. "I'm sorry, sir."

"No. The regrets are mine. I cannot stand the odor. An idiosyncrasy. I'm sorry."

He was positively pale. Foster put away the cigarettes.

Foster, feeling the absence of the cigarette, took the easy

way out. "I'm flattered that you ask my advice and all that, Dr. Potterley, but I'm not a neutrinics man. I can't very well do anything professional in that direction. Even stating an opinion would be out of line, and, frankly, I'd prefer that you didn't go into any particulars."

The historian's prim face set hard. "What do you mean, you're not a neutrinics man? You're not anything yet. You haven't received any grant, have you?"

"This is only my first semester."

"I know that. I imagine you haven't even applied for any grant yet."

Foster half-smiled. In three months at the University, he had not succeeded in putting his initial requests for research grants into good enough shape to pass on to a professional science writer, let alone to the Research Commission.

(His Department Head, fortunately, took it quite well. "Take your time now, Foster," he said, "and get your thoughts well-organized. Make sure you know your path and where it will lead, for once you receive a grant, your specialization will be formerly recognized and, for better or for worse, it will be yours for the rest of your career." The advice was trite enough, but triteness has often the merit of truth, and Foster recognized that.)

Foster said, "By education and inclination. Dr. Potterley, I'm a hyperoptics man with a gravitics minor. It's how I described myself in applying for this position. It may not be my official specialization yet, but it's going to be. It can't be anything else. As for neutrinics, I never even studied the subject."

"Why not?" demanded Potterley at once.

Foster stared. It was the kind of rude curiosity about another man's professional status that was always irritating. He said, with the edge of his own politeness just a trifle blunted, "A course in neutrinics wasn't given at my university."

"Where did you go?"

"M.I.T." said Foster, quietly.

"And they don't teach neutrinics?"

"No, they don't." Foster felt himself flush and was moved to a defense. "It's a highly specialized subject with no great value. Chronoscopy, perhaps, has some value, but it is the only practical application and that's a dead end."

The historian stared at him earnestly. "Tell me this: Do you know where I can find a neutrinics man?"

"No, I don't," said Foster, bluntly.

"Well, then, do you know a school which teaches neutrinics?"

"No, I don't."

Potterley smiled tightly and without humor.

Foster resented that smile, found he detected insult in it, and grew sufficiently annoyed to say, "I would like to point out, sir, that you're stepping out of line."

"What?"

"I'm saying that as an historian, your interest in any sort of physics, your *professional* interest, is –" He paused, unable to bring himself quite to say the word.

"Unethical?"

"That's the word, Dr. Potterley."

"My researches have driven me to it," said Potterley in an intense whisper.

"The research commission is the place to go. If they permit –"

"I have gone to them and have received no satisfaction."

"Then obviously you must abandon this." Foster knew he was sounding stuffily virtuous, but he wasn't going to let this man lure him into an expression of intellectual anarchy. It was too early in his career to take stupid risks.

Apparently, though, the remark had its effect on Potterley. Without any warning, the man exploded into a rapid-fire verbal storm of irresponsibility.

Scholars, he said, could be free only if they could freely follow their own free swinging curiosity. Research, he said, forced into a predesigned pattern by the powers that held the purse-strings became slavish and had to stagnate. No man, he said, had the right to dictate the intellectual interest of another.

Foster listened to all of it with disbelief. None of it was strange to him. He had heard college boys talk so in order to shock their professors and he had once or twice amused himself in that fashion, too. Anyone who studied the history of science knew that many men had once thought so.

Yet it seemed strange to Foster, almost against nature, that a modern man of science could advance such nonsense. No one would advocate running a factory by allowing each individual worker to do whatever pleased him at the mo-

ment, or of running a ship according to the casual and conflicting notions of each individual crewman. It would be taken for granted that some sort of centralized supervisory agency must exist in each case. Why should direction and order benefit a factory and a ship but not scientific research?

People might say that the human mind was somehow qualitatively different from a ship or factory but the history of intellectual endeavour proved the opposite.

When science was young and the intricacies of all or most of the known was within the grasp of an individual mind, there was no need for direction, perhaps. Blind wandering over the uncharted tracts of ignorance could lead to wonderful finds by accident.

But as knowledge grew, more and more data had to be absorbed before worthwhile journeys into ignorance could be organized. Men had to specialize. The researcher needed the resources of a library he himself could not gather, then of instruments he himself could not afford. More and more, the individual researcher gave way to the research-team and the research-institution.

The funds necessary for research grew greater as tools grew more numerous. What college was so small today as not to require at least one nuclear micro-reactor and at least one three-stage computer?

Centuries before, private individuals could no longer subsidize research. By 1940, only the government, large industries, and large universities or research institutions could properly subsidize basic research.

By 1960, even the largest universities depended entirely upon government grants, while research institutions could not exist without tax concessions and public subscriptions. By 2000, the industrial combines had become a branch of the world government and thereafter, the financing of research and, therefore, its direction, naturally became centralized under a department of the government.

It all worked itself out naturally and well. Every branch of science was fitted neatly to the needs of the public, and the various branches of science were co-ordinated decently. The material advance of the last half-century was argument enough for the fact that science was not falling into stagnation.

Foster tried to say a very little of this and was waved

aside impatiently by Potterley who said, "You are parroting official propaganda. You're sitting in the middle of an example that's squarely against the official view. Can you believe that?"

"Frankly, no.'

"Well, why do you say time viewing is a dead end? Why is neutrinics unimportant? You say it is. You say it categorically. Yet you've never studied it. You claim complete ignorance of the subject. It's not even given in your school –"

"Isn't the mere fact that it isn't given proof enough?"

"Oh, I see. It's not given because it's unimportant. And it's unimportant because it's not given. Are you satisfied with that reasoning?"

Foster felt a growing confusion. "It's in the books."

"That's all. The books say neutrinics is unimportant. Your professors tell you so because they read it in the books. The books say so because professors write them. Who says it from personal experience and knowledge? Who does research in it? Do you know of anyone?"

Foster said, "I don't see we're getting anywhere, Dr. Potterley. I have work to do –"

"One minute. I just want you to try this on. See how it sounds to you. I say the government is actively suppressing basic research in neutrinics and chronoscopy. They're even suppressing application of chronoscopy."

"Oh, no."

"Why not? They could do it. There's your centrally directed research. If they refuse grants for research in any portion of science, that portion dies. They've killed neutrinics. They can do it and have done it."

"But why?"

"I don't know why. I want you to find out. I'd do it myself if I knew enough. I came to you because you're a young fellow with a brand-new education. Have your intellectual arteries hardened already? Is there no curiosity in you? Don't you want to *know?* Don't you want *answers?*"

The historian was peering intently into Foster's face. Their noses were only inches apart and Foster was so lost that he did not think to draw back.

He should, by rights, have ordered Potterley out. If necessary, he should have thrown Potterley out.

It was not respect for age and position that stopped him. It was certainly not that Potterley's arguments had con-

vinced him. Rather, it was a small point of college pride.

Why didn't M.I.T. give a course in neutrinics? For that matter, now that he came to think of it, he doubted that there was a single book on neutrinics in the library. He could never recall having seen one.

He stopped to think about that.

And that was ruin.

Caroline Potterley had once been an attractive woman. There were occasions, such as dinners or University functions, when by considerable effort, remnants of the attraction could be salvaged.

On ordinary occasions, she sagged. It was the word she applied to herself in moments of self-abhorrence. She had grown plumper with the years, but the flaccidity about her was not a matter of fat, entirely. It was as though her muscles had given up and grown limp so that she shuffled when she walked while her eyes grew baggy and her cheeks jowly. Even her graying hair seemed tired rather than mreley stringy. Its straightness seemed to be the result of a supine surrender to gravity, nothing else.

Caroline Potterley looked at herself in the mirror and admitted this was one of her bad days. She knew the reason, too.

It had been the dream of Laurel. The strange one, with Laurel grown up. She had been wretched ever since.

Still, she was sorry she had mentioned it to Arnold. He didn't say anything; he never did, any more; but it was bad for him. He was particularly withdrawn for days afterward. It might have been that he was getting ready for that important conference with the big government official – he kept saying he expected no success – but it might also have been her dream.

It was better in the old days when he would cry sharply at her, "Let the dead past *go*, Caroline! Talk won't bring her back, and dreams won't either."

It had been bad for both of them. Horribly bad. She had been away from home that night and had lived in guilt ever since. If she had stayed at home, if she had not gone on an unnecessary shopping expedition, there would have been two of them available. One would have succeeded in saving Laurel.

Poor Arnold had not managed. Heaven knew he tried. He

had nearly died himself. He had come out of the burning house, staggering in agony, blistered, choking, half-blinded, with the dead Laurel in his arms.

The nightmare of that lived on, never lifting entirely.

Arnold slowly grew a shell about himself afterward. He cultivated a low-voiced mildness through which nothing broke, no lightning struck. He grew puritanical and even abandoned his minor vices, his cigarettes, his penchant for an occasional profane exclamation. He obtained his grant for the preparation of a new history of Carthage and subordinated everything to that.

She tried to help him. She hunted up his references, typed his notes and microfilmed them. Then that ended suddenly.

She ran from the desk suddenly one evening, reaching the bathroom in bare time and retching abominably. Her husband followed her in confusion and concern.

"Caroline, what's wrong?"

It took a drop of brandy to bring her around. She said, "Is it true? What they did?"

"Who did?"

"The Carthaginians."

He stared at her and she got it out by indirection. She couldn't say it right out.

The Carthaginians, it seemed, worshipped Moloch, in the form of a hollow, brazen idol with a furnace in its belly. At times of national crisis, the priests and the people gathered and infants, after the proper ceremonies and invocations, were dextrously hurled, alive, into the flames.

They were given sweet-meats just before the crucial moment, in order that the efficacy of the sacrifice not be ruined by displeasing cries of panic. The drums rolled just after the moment, to drown out the few seconds of infant shrieking. The parents were present, presumably gratified, for the sacrifice was pleasing to the gods –

Arnold Potterley frowned darkly. Vicious lies, he told her, on the part of Carthage's enemies. He should have warned her. After all, such propagandistic lies were not uncommon. According to the Greeks, the ancient Hebrews worshipped an ass's head in their Holy of Holies. According to the Romans, the primitive Christians were haters of all men who sacrificed pagan children in their catacombs.

"Then they didn't do it?" asked Caroline.

"I'm sure they didn't. The primitive Phoenicians may

have. Human sacrifice is commonplace in primitive cultures. But Carthage in her great days was not a primitive culture. Human sacrifice often gives way to symbolic actions such as circumcision. The Greeks and Romans might have mistaken some Carthaginian symbolism for the original full rite, either out of ignorance or out of malice."

"Are you sure?"

"I can't be sure yet, Caroline, but when I've got enough evidence, I'll apply for permission to use chronoscopy, which will settle the matter once and for all."

"Chronoscopy?"

"Time-viewing. We can focus on ancient Carthage at some time of crisis, the landing of Scipio Africanus in 202 B.C., for instance, and see with our own eyes exactly what happens. And you'll see. I'll be right."

He patted her and smiled encouragingly, but she dreamed of Laurel every night for two weeks thereafter and she never helped him with his Carthage project again. Nor did he ever ask her to.

But now she was bracing herself for his coming. He had called her after arriving back in town, told her he had seen the government man and that it had gone as expected. That meant failure and yet the little telltale signs of depression had been absent from his voice and his features had appeared quite composed in the teleview. He had another errand to take care of, he said, before coming home.

It meant he would be late, but that didn't matter. Neither one of them was particular about eating hours or cared when packages were taken out of the freezer or even which packages or when the self-warming mechanism was activated.

When he did arrive, he surprised her. There was nothing untoward about him in any obvious way. He kissed her dutifully and smiled, took off his hat and asked if all had been well while he was gone. It was all almost perfectly normal. Almost.

She had learned to detect small things, though, and his pace in all this was a trifle hurried. Enough to show her accustomed eye that he was under tension.

She said, "Has something happened?"

He said, "We're going to have a dinner guest night after next, Caroline. You don't mind?"

"Well, no. Is it anyone I know?"

"No. A young instructor. A newcomer. I've spoken to

him." He suddenly whirled toward her and seized her arms at the elbow, held them a moment, then dropped then in confusion as though disconcerted at having shown emotion.

He said, "I almost didn't get through to him. Imagine that. Terrible, *terrible*, the way we have all bent to the yoke; the affection we have for the harness about us."

Mrs. Potterley wasn't sure she understood, but for a year she had been watching him grow quietly more rebellious: little by little more daring in his criticism of the government. She said, "You haven't spoken foolishly to him, have you?"

"What do you mean, foolishly? He'll be doing some neutrinics for me."

"Neutrinics" was trisyllabic nonsense to Mrs. Potterley, but she knew it had nothing to do with history. She said, faintly, "Arnold, I don't like you to do that. You'll lose your position. It's –"

"It's intellectual anarchy, my dear," he said. "That's the phrase you want. Very well. I am an anarchist. If the government will not allow me to push my researches, I will push them on my own. And when I show the way, others will follow. And if they don't, it makes no difference. It's Carthage that counts and human knowledge, not you and I."

"But you don't know this young man. What if he is an agent for the Commissioner of Research?"

"Not likely and I'll take that chance." He made a fist of his right hand and rubbed it gently against the palm of his left. "He's on my side now. I'm sure of it. He can't help but be. I can recognize intellectual curiosity when I see it in a man's eyes and face and attitude and it's a fatal disease for a tame scientist. Even today it takes time to beat it out of a man and the young ones are vulnerable. Oh, why stop at anything? Why not build your own chronoscope and tell the government to go to –"

He stopped abruptly, shook his head and turned away.

"I hope everything will be all right," said Mrs. Potterley, feeling helplessly certain that everything would not be, and frightened, in advance, for her husband's professorial status and the security of their old age.

It was she alone, of them all, who had a violent presentiment of trouble. Quite the wrong trouble, of course.

Jonas Foster was nearly half an hour late in arriving at

the Potterley's off-campus house. Up to that very evening, he had not quite decided he would go. Then, at the last moment, he found he could not bring himself to commit the social enormity of breaking a dinner appointment an hour before the appointed time. That, and the nagging of curiosity.

The dinner itself passed interminably. Foster ate without appetite. Mrs. Potterley sat in distant absent-mindedness, emerging out of it only once to ask if he were married and to make a depreciating sound at the news that he was not. Dr. Potterley, himself, asked neutrally after his professional history and nodded his head primly.

It was as staid, stodgy – boring, actually – as anything could be.

Foster thought: He seems so harmless.

Foster had spent the last two days reading up on Dr. Potterley. Very casually, of course, almost sneakily. He wasn't particularly anxious to be seen in the Social Science Library. To be sure, history was one of those borderline affairs and historical works were frequently read for amusement or edification by the general public.

Still, a physicist wasn't quite the "general public." Let Foster take to reading histories and he would be considered queer, sure as relativity, and after a while the head of the department would wonder if the new instructor were really "the man for the job."

So he had been cautious. He sat in the more secluded alcoves and kept his head bent when he slipped in and out at odd hours.

Dr. Potterley, it turned out, had written three books and some dozen articles on the ancient Mediterranean worlds, and the later articles – all in *'Historical Reviews'* – had all dealt with pre-Roman Carthage from a sympathetic viewpoint.

That, at least, checked with Potterley's story and had soothed Foster's suspicions somewhat. And yet Foster felt that it would have been much wiser, much safer, to have scotched the matter at the beginning.

A scientist shouldn't be too curious, he thought in bitter dissatisfaction with himself. It's a dangerous trait.

After dinner, he was ushered into Potterley's study and he was brought up sharply at the threshold. The walls were simply lined with books.

Not merely films. There were films, of course, but these were far outnumbered by the books – print on paper. He wouldn't have thought so many books would exist in usable condition.

That bothered Foster. Why should anyone want to keep so many books at home? Surely all were available in the University library, or, at the very worst, at the Library of Congress, if one wished to take the minor trouble of checking out a microfilm.

There was an element of secrecy involved in a home library. It breathed of intellectual anarchy. That last thought, oddly, calmed Foster. He would rather Potterley be an authentic anarchist than a play acting *agent provocateur*.

And now the hours began to pass quickly and astonishingly.

"You see," Potterley said, in a clear, unflurried voice, "it was a matter of finding, if possible, anyone who had ever used chronoscopy in his work. Naturally, I couldn't ask baldly, since that would be unathorized research."

"Yes," said Foster, dryly. He was a little surprised such a small consideration would stop the man.

"I used indirect methods –"

He had. Foster was amazed at the volume of correspondence dealing with small disputed points of ancient Mediterranean culture which somehow managed to elicit the casual remark over and over again: "Of course, having never made use of chronoscopy –" or "Pending approval of my request for chronoscopic data, which appears unlikely at the moment –"

"Now these aren't blind questionings," said Potterley. "There's a monthly booklet put out by the Institute for Chronoscopy in which items concerning the past as determined by time-viewing are printed. Just one or two items.

"What impressed me first was the triviality of most of the items, their insipidity. Why should such researches get priority over my work? So I wrote to people who would be most likely to do research in the directions described in the booklet. Uniformly, as I have shown you, they did *not* make use of my chronoscope. Now let's go over it point by point.'

At last Foster, his head swimming with Potterley's meticulously gathered details, asked, "But why?"

"I don't know why," said Potterley, "but I have a theory. The original invention of the chronoscope was by Sterbinski – you see, I know that much – and it was well-publicized. But then the government took over the instrument and decided to suppress further research in the matter or any use of the machine. But then, people might be curious as to why it wasn't being used. Curiosity is such a vice, Dr. Foster."

Yes, agreed the physicist to himself.

"Imagine the effectiveness, then," Potterley went on, "of pretending that the chronoscope *was* being used. It would then be not a mystery, but a commonplace. It would no longer be a fitting object for legitimate curiosity nor an attractive one for illicit curiosity."

"*You* were curious," pointed out Foster.

Potterley looked a trifle restless. "It was different in my case," he said angrily. "I have something that *must* be done, and I wouldn't submit to the ridiculous way in which they kept putting me off."

A bit paranoid, too, thought Foster, gloomily.

Yet he had ended up with something, paranoid or not. Foster could no longer deny that something peculiar was going on in the matter of neutrinics.

But what was Potterley after? That still bothered Foster. If Potterley didn't intend this as a test of Foster's ethics, what *did* he want?

Foster put it to himself logically. If an intellectual anarchist with a touch of paranoia wanted to use a chronoscope and was convinced that the powers-that-be were deliberately standing in his way, what would he do?

Supposing it were I, he thought. What would I do?

He said slowly, "Maybe the chronoscope doesn't exist at all?"

Potterley stared. There was almost a crack in his general calmness. For an instant, Foster found himself catching a glimpse of something not at all calm.

But the historian kept his balance and said, "Oh, no, there *must* be a chronoscope."

"Why? Have you seen it? Have I? Maybe that's the explanation of everything. Maybe they're not deliberately

holding out on a chronoscope they've got. Maybe they haven't got it in the first place."

"But Sterbinski lived. He built a chronoscope. That much is a fact."

"The books say so," said Foster, coldly.

"Now listen," Potterley actually reached over and snatched at Foster's jacket sleeve. "I need the chronoscope. I must have it. Don't tell me it doesn't exist. What we're going to do is find out enough about neutrinics to be able to –"

Potterley drew himself up short.

Foster drew his sleeve away. He needed no ending to that sentence. He supplied it himself. He said, "Build one of our own?"

Potterly looked sour as though he would rather not have said it point-blank. Nevertheless, he said, "Why not?"

"Because that's out of the question," said Foster. "If what I've read is correct, then it took Sterbinski twenty years to build his machine and several millions in composite grants. Do you think you and I can duplicate that illegally? Suppose we had the time, which we haven't, and suppose I could learn enough out of books, which I doubt, where would we get the money and equipment? The chronoscope is supposed to fill a five-story building, for Heaven's sake."

"Then you won't help me?"

"Well, I'll tell you what. I have one way in which I may be able to find out something –"

"What is that?" asked Potterley at once.

"Never mind. That's not important. But I may be able to find out enough to tell you whether the government is deliberately suppressing research by chronoscope. I may confirm the evidence you already have or I may be able to prove that your evidence is misleading. I don't know what good it will do you in either case, but it's as far as I can go. It's my limit."

Potterley watched the young man go finally. He was angry with himself. Why had he allowed himself to grow so careless as to permit the fellow to guess that he was thinking in terms of a chronoscope of his own? That was premature.

But then why the young fool have to suppose that a chronoscope might not exist at all?

It *had* to exist. It *had* to. What was the use of saying it didn't?

And why couldn't a second one be built? Science had advanced in the fifty years since Sterbinski. All that was needed was knowledge.

Let the youngster gather knowledge. Let him think a small gathering would be his limit. Having taken the path to anarchy there would be no limit. If the boy were not driven onward by something in himself, the first steps would be error enough to force the rest. Potterley was quite certain he would not hesitate to use blackmail.

Potterley waved a last good-bye and looked. It was beginning to rain.

Certainly! Blackmail if necessary, he would not be stopped.

Foster steered his car across the bleak outskirts of town and scarcely noticed the rain.

He *was* a fool, he told himself, but he couldn't leave things as they were. He had to know. He damned his streak of undisciplined curiosity, but he had to know.

But he would go no further than Uncle Ralph. He swore mightily to himself that it would stop there. In that way, there would be no evidence against him, no real evidence. Uncle Ralph would be discreet.

In a way, he was secretly ashamed of Uncle Ralph. He hadn't mentioned him to Potterley partly out of caution and partly because he did not wish to witness the lifted eyebrow, the inevitable half-smile. Professional science-writers, however useful, were a little outside the pale, fit only for patronizing contempt. The fact that, as a class, they made more money than did research scientists, only made matters worse, of course.

Still, there were times when a science-writer in the family could be a convenience. Not being really educated, they did not have to specialize. Consequently, a good science-writer knew practically everything. And Uncle Ralph was one of the best.

Ralph Nimmo had no college degree and was rather proud of it. "A degree," he once said to Jonas Foster, when both were considerably younger, "is a first step down a ruinous highway. You don't want to waste one degree so

you go on to graduate work and doctoral research. You end up a thoroughgoing ignoramus on everything in the world except for one subdivisional sliver of nothing.

"On the other hand, if you guard your mind carefully and keep it blank of any clutter of information till maturity is reached, filling it only with intelligence and training it only in clear thinking, you then have a powerful instrument at your disposal and you can become a science-writer."

Nimmo received his first assignment at the age of twenty-five, after he had completed his apprenticeship and been out in the field for less than three months. It came in the shape of a clotted manuscript whose language would impart no glimmer of understanding to any reader, however qualified, without careful study and some inspired guesswork. Nimmo took it apart and put it together again – after five long and exasperating interviews with the authors, who were biophysicists – making the language taut and meaningful and smoothing the style to a pleasant gloss.

"Why not?" he would say tolerantly to his nephew, who countered his strictures on degrees by berating him with his readiness to hang on the fringes of science. "The fringe is important. Your scientists can't write. Why should they be expected to? They aren't expected to be grandmasters at chess or virtuosos at the violin, so why expect them to know how to put words together? Why not leave that for specialists, too?

"Good Lord, Jonas, read your literature of a hundred years ago. Discount the fact that the science is out of date and that some of the expressions are old-fashioned. Just try to read it and make sense out of it. It's just jaw-cracking, amateurish. Papers are published uselessly; whole articles which are either non-significant, non-comprehensible or both."

"But science-writers don't get recognition, Uncle Ralph," protested the young Foster, who was getting ready to start his college career and was rather starry-eyed about it. "You could be a terrific researcher."

"I get recognition," said Nimmo. "Don't think for a minute I don't. Sure, a biochemist or a strato-meteorologist won't give me the time of day, but they pay me well enough. Just find out what happens when some first-class chemist finds the Commission has cut his year's allowance

for science writing. He'll fight harder for enough funds to afford me, or someone like me, than to get a recording ionograph."

He grinned broadly and Foster grinned back. Actually, he was proud as well as ashamed of his paunchy, round-faced, stub-fingered uncle, whose vanity made him brush his fringe of hair futilely over the desert on his pate and made him dress like an unmade haystack because such negligence was his trademark.

And now Foster entered his uncle's cluttered apartment in no mood at all for grinning. He was nine years older now and so was Uncle Ralph. For nine more years, papers in every branch of science had come to Ralph Nimmo for polishing and a little of each had crept into his capacious mind.

Nimmo was eating seedless grapes, popping them into his mouth one at a time. He tossed a bunch to Foster who caught them by a hair, then bent to retrieve individual grapes that had torn loose and fallen to the floor.

"Let them be. Don't bother," said Nimmo, carelessly. "Someone comes in here to clean once a week. What's up? Having trouble with your grant application write-up?"

"I haven't really got into that yet."

"You haven't? Get a move on, boy. Are you waiting for me to offer to do the final arrangement?"

"I couldn't afford you, uncle."

"Aw, come on. It's all in the family. Grant me all popular publication rights and no cash need change hands."

Foster nooded. "If you're serious, it's a deal."

"It's a deal."

It was a gamble, of course, but Foster knew enough of Nimmo's science-writing to realize it could pay off. Some dramatic discovery of public interest on primitive man or on a new surgical technique, or on any branch of spationautics could mean a very cash-attracting article in any of the mass media of communication.

It was Nimmo, for instance, who had written up for scientific consumption, the series of papers by Bryce and coworkers that elucidated the fine structure of two cancer viruses, for which job he asked for the picayune payment of fifteen hundred dollars, provided popular publication rights were included. He then wrote up, exclusively, the same

work in semidramatic form for use in trimensional video for a twenty-thousand-dollar advance plus rental royalties that were still coming in after five years.

"Foster said bluntly, "What do you know about neutrinics, uncle?"

'Neutrinics?" Nimmo's small eyes looked surprised. "Are you working in that? I thought it was pseudo-gravitic optics."

"It is p.g.o. I just happen to be asking about neutrinics."

"That's a devil of a thing to be doing. You're stepping out of line. You know that, don't you?"

"I don't expect you to call the Commission because I'm a little curious about things."

"Maybe I should before you get into trouble. Curiosity is an occupational danger with scientists. I've watched it work. One of them will be moving quietly along on a problem, then curiosity leads him up a strange creek. Next thing you know they've done so little on their proper problem, they can't justify for a project renewal. I've seen more –"

"All I want to know," said Foster, patiently, "is what's been passing through your hands lately on neutrinics."

Nimmo leaned back, chewing at a grape thoughtfully, "Nothing. Nothing ever. I don't recall ever getting a paper on neutrinics."

"What!" Foster was openly astonished. "Then who does get the work?"

"Now that you ask," said Nimmo, "I don't know. Don't recall anyone talking about it at the annual conventions. I don't think much work is being done there."

"Why not?"

"Hey, there, don't bark. I'm not doing anything. My guess would be –"

Foster was exasperated. "Don't you know?"

"I'll tell you what I know about neutrinics. It concerns the applications of neutrino movements and the forces involved – "

"Sure. Sure. Just as electronics deals with the applications of electron movements and the forces involved and pseudo-gravitics deals with the applications of artificial gravitational fields. I didn't come to you for that. Is that all you know?"

"And," said Nimmo with equanimity, "neutrinics is the basis of time-viewing and that *is* all I know."

Foster slouched back in his chair and massaged one lean cheek with great intensity. He felt angrily dissatisfied. Without formulating it explicitly in his own mind, he had felt sure, somehow, that Nimmo would come up with some late reports, bring up interesting facets of modern neutrinics, send him back to Potterley able to say that the elderly historian was mistaken, that his data was misleading, his deducion mistaken.

Then he could have returned to his proper work.

But now –

He told himself angrily: So they are not doing much work in the field. Does that make it deliberate suppression? What if neutrinics is a sterile discipline? Maybe it is. I don't know. Potterley doesn't. Why waste the intellectual resources of humanity on nothing? Or the work might be secret for some legitimate reason. It might be –

The trouble was, he had to know. He couldn't leave things as they were now. He *couldn't!*

He said, "Is there a text on neutrinics, Uncle Ralph? I mean a clear and simple one? An elementary one?"

Nimmo thought, his plump cheeks puffing out with a series of sighs. "You ask the damnedest questions. The only one I ever heard of was Sterbinski and somebody. I've never seen it, but I viewed something about it once. Sterbinski and LaMarr, that's it."

"Is that the Sterbinski who invented the chronoscope?"

"I think so. Proves the book ought to be good."

"Is there a recent edition? Sterbinski died thirty years ago."

Nimmo shrugged and said nothing.

"Can you find out?"

They sat in silence for a moment, while Nimmo shifted his bulk to the creaking tune of the chair he sat on. Then the science-writer said, "Are you going to tell me what this is all about?"

"I can't. Will you help me anyway, Uncle Ralph? Will you get me a copy of the text?"

"Well, you've taught me all I know on pseudo-gravitics. I should be grateful. Tell you what – I'll help you on one condition."

"Which is?"

The older man was suddenly very grave. "That you be careful, Jonas. You're obviously way out of line whatever

you're doing. Don't blow up your career just because you're curious about something you haven't been assigned to and which is none of your business. Understand?"

Foster nodded, but he hardly heard. He was thinking furiously.

A full week later, Ralph Nimmo eased his rotund figure into Jonas Foster's on-campus two room combination and said, in a hoarse whisper, "I've got something."

"What?" Foster was immediately eager.

"A copy of Sterbinski and LaMarr," he produced it, or rather a corner of it, from his ample topcoat.

Foster almost automatically eyed door and windows to make sure they they were closed and shaded respectively, then held out his hand.

The film-case was flaking with age and when he cracked it the film was faded and growing brittle. He said, sharply, "Is this all?"

"Gratitude, my boy, gratitude!" Nimmo sat down with a grunt, and reached into a pocket for an apple.

"Oh, I'm grateful, but it's so old."

"And lucky to get it at that. I tried to get a film-run from the Congressional Library. No go. The book was restricted."

"Then how did you get this?"

"Stole it." He was biting crunchingly around the core. "New York Public."

"What?"

"Simple enough. I had access to the stacks, naturally. So I stepped over a chained railing when no one was around, dug this up, and walked out with it. They're very trusting out there. Meanwhile, they won't miss it in years. Only you'd better not let anyone see it on you, nephew."

Foster stared at the film as though it were literally hot.

Nimmo discarded the core and reached for a second apple. "Funny thing, now. There's nothing more recent in the whole field of neutrinics. Not a monograph, not a paper, not a progress note. Nothing since the chronoscope."

"Uh huh," said Foster absently.

Foster worked evenings in the Potterley home. He could not trust his own on-campus rooms for the purpose. The evening work grew more real to him than his own grant

applications. Sometimes he worried about it but then that stopped, too.

His work, consisted, at first, simply in viewing and reviewing the text-film. Later it consisted in thinking (sometimes while a section of the book ran itself off through the pocket-projector, disregarded).

Sometimes Potterley would come down to watch, to sit with prim, eager eyes, as though he expected thought-processes to solidify and become visible in all their convolutions. He interefered in only two ways. He did not allow Foster to smoke and sometimes he talked.

It wasn't conversation talk, never that. Rather it was a low-voiced monologue with which, it seemed, he scarcely expected to command attention. It was much more as though he were relieving a pressure within himself.

Carthage! Always Carthage!

Carthage, the New York of the ancient Mediterranean. Carthage, commercial empire and queen of the seas. Carthage, all that Syracuse and Alexandria pretended to be. Carthage, maligned by her enemies and inarticulate in her own defense.

She had been defeated once by Rome and then driven out of Sicily and Sardinia but came back to more than recoup her losses by new dominions in Spain, and raised up Hannibal to give the Romans sixteen years of terror.

In the end, she lost again a second time, reconciled herself to fate and build again with broken tools a limping life in shrunken territory, succeeding so well that jealous Rome deliberately forced a third war. And then Carthage, with nothing but bare hands and tenacity, built weapons and forced Rome into a two year war that ended only with complete destruction of the city, the inhabitants throwing themselves into their flaming houses rather than surrender.

"Could people fight so for a city and a way of life as bad as the ancient writers painted it? Hannibal was a better general than any Roman and his soldiers were absolutely faithful to him. Even his bitterest enemies praised him. There was a Carthaginian. It is fashionable to say that he was an atypical Carthaginian, better than the others, a diamond placed in garbage. But then why was he so faithful to Carthage, even to his death after years of exile? They talk of Moloch – "

Foster didn't always listen but sometimes he couldn't help

himself and he shuddered and turned sick at the bloody tale of child sacrifice.

But Potterley went on earnestly, "Just the same, it isn't true. It's a twenty-five hundred year carnard started by the Greeks and Romans. They had their own slaves, their crucifixions and torture, their gladitorial contests. They weren't holy. The Moloch story is what later ages would have called war propaganda, the big lie. I can prove it was a lie. I can prove it and, by Heaven, I will . . . I will – "

He would mumble that promise over and over again in his earnestness.

Mrs. Potterley visited him also, but less frequently, usually on Tuesdays and Thursdays when Dr. Potterley himself had an evening course to take care of and was not present.

She would sit quietly, scarcely talking, face slack and doughy, eyes blank, her whole attitude distant and withdrawn.

The first time, Foster tried, uneasily, to suggest that she leave.

She said, tonelessly, "Do I disturb you?"

"No, of course not," lied Foster, restlessly. "It's just that . . . that – " He couldn't complete the sentence.

She nodded, as though accepting an invitation to stay. Then she opened a cloth bag she had brought with her and took out a quire of vitron sheets which she proceeded to weave together by rapid, delicate movement of a pair of slender, tetra-faceted depolarizers, whose battery-fed wires made her look as though she were holding a large spider.

One evening, she said softly, "My daughter, Laurel, is your age."

Foster stared, as much at the sudden unexpected sound of speech as at the words. He said, "I didn't know you had a daughter, Mrs. Potterley."

"She died. Years ago."

The vitron grew under the deft manipulations into the uneven shape of some garment Foster could not yet identify. There was nothing left for him to do but mutter inanely, "I'm sorry."

Mrs. Potterley sighed. "I dream about her often." She raised her blue, distant eyes to his.

Foster winced and looked away.

Another evening she asked, pulling at one of the vitron sheets to loosen its gentle clinging to her dress, "What is time-viewing anyway?"

That remark broke into a particularly involved chain of thought and Foster said, snappishly, "Dr. Potterley can explain."

"He's tried to. Oh, my, yes. But I think he's a little impatient with me. He calls it chronoscopy most of the time. Do you actually see things in the past, like the trimensionals? Or does it just make little dot patterns like the computer you use?"

Foster stared at his hand computer with distaste. It worked well enough but every operation had to be manually controlled and the answers were obtained in code. Now if he could use the school computer – Well, why dream, he felt conspicuous enough, as it was, carrying a hand computer under his arm every evening as he left his office.

He said, "I've never seen the chronoscope myself, but I'm under the impression that you actually see pictures and hear sound."

"You can hear people talk, too?"

"I think so." Then, half in desperation, "Look here, Mrs. Potterley, this must be awfully dull for you. I realize you don't like to leave a guest all to himself, but really, Mrs. Potterley, you mustn't feel compelled – "

"I don't feel compelled," she said. "I'm sitting here, waiting."

"Waiting? For what?"

She said, composedly, "I listened to you that first evening. The time you first spoke to Arnold. I listened at the door."

He said, "You did?"

"I know I shouldn't have, but I was awfully worried about Arnold. I had a notion he was going to do something he oughtn't and I wanted to hear what. And then when I heard – "She paused, bending close over the vitron and peering at it.

"Heard what, Mrs. Potterley."

"That you wouldn't build a chronoscope."

"Well, of course not."

"I thought maybe you might change your mind."

Foster glared at her. "Do you mean you're coming down here hoping I'll build a chronoscope, waiting for me to build one?"

"I hope you do, Dr. Foster. Oh, I hope you do."

It was as though, all at once, a fuzzy veil had fallen off her face, leaving all her features clear and sharp, putting color into her cheeks, life into her eyes, the vibrations of something approaching excitement into her voice.

"Wouldn't it be wonderful," she whispered, "to have one. People of the past could live again. Pharaohs and kings and – just people. I hope you build one, Dr. Foster. I really . . . hope – "

She choked, it seemed, on the intensity of her own words and let the vitron sheets slip off her lap. She rose and ran up the basement stairs, while Foster's eyes followed her awkwardly fleeing body with astonishment and distress.

It cut deeper into Foster's nights and left him sleepless and painfully stiff with thought. It was almost a mental indigestion.

His grant requests went limping in, finally, to Ralph Nimmo. He had scarcely had any hope for them. He thought numbly: They wouldn't be approved.

If they weren't, of course, it would create a scandal in the department and probably mean his appointment at the University would not be renewed, come the end of the academic year.

He scarcely worried. It was the neutrino, the neutrino, only the neutrino. Its trail curved and veered sharply and led him breathlessly along uncharted pathways that even Sterbinski and LaMarr did not follow.

He called Nimmo. "Uncle Ralph, I need a few things. I'm calling from off the campus."

Nimmo's face in the video-plate was jovial, but his voice was sharp. He said, "What you need is a course in communication. I'm having a hell of a time pulling your application into one intelligible piece. If that's what you're calling about – "

Foster shook his head impatiently. "That's *not* what I'm calling about. I need these." He scribbled quickly on a piece of paper and held it up before the receiver.

Nimmo yiped. "Hey, how many tricks do you think I can wangle?"

"You can get them, uncle. You know you can."

Nimmo reread the list of items with silent motions of his plump lips and looked grave.

"What happens when you put those things together?" he asked.

Foster shook his head. "You'll have exclusive popular publication rights to whatever turns up, the way it's always been. But please don't ask any questions now."

"I can't do miracles, you know."

"Do this one. You've got to. You are a science-writer, not a research man. You don't have to account for anything. You've got friends and connections. They can look the other way, can't they, to get a break from you next publication time?"

"Your faith, nephew, is touching. I'll try."

Nimmo succeeded. The material and equipment were brought over late one evening in a private touring car. Nimmo and Foster lugged it in with the grunting of men unused to manual labor.

Potterley stood at the entrance of the basement after Nimmo had left. He asked, softly, "What's this for?"

Foster brushed the hair off his forehead and gently massaged a sprained wrist. He said, "I want to conduct a few simple experiments."

"Really?" The historian's eyes glittered with excitement.

Foster felt exploited. He felt as though he were being led along a dangerous highway by the pull of pinching fingers on his nose; as though he could see the ruin clearly that lay in wait at the end of the path, yet walked eagerly and determinedly. Worst of all, he felt the compelling grip on his nose to be his own.

It was Potterley who began it, Potterley who stood there now, gloating; but the compulsion was Foster's own.

Foster said sourly, "I'll be wanting privacy now, Potterley. I can't have you and your wife running down here and annoying me."

He thought: If that offends him, let him kick me out. Let him put an end to this.

In his heart, though, he did not think being evicted would stop anything.

But it did not come to that. Potterley was showing no signs of offense. His mild gaze was unchanged. He said, "Of course, Dr. Foster, of course. All the privacy you wish."

Foster watched him go. He was left still marching along

the highway, perversely glad of it and hating himself for being glad.

He took to sleeping over on a cot in Potterley's basement and spending his weekends there entirely.

During that period, preliminary word came through that his grants – as doctored by Nimmo – had been approved. The Department Head brought the word and congratulated him.

Foster stared back distantly and mumbled, "Good. I'm glad," with so little conviction that the other frowned and turned away without another word.

Foster gave the matter no further thought. It was a minor point, worth no notice. He was planning something that really counted, a climactic test for that evening.

One evening, a second and third and then, haggard and half beside himself for excitement, he called in Potterley.

Potterley came down the stairs and looked about at the homemade gadgetry. He said, in his soft voice, "The electric bills are quite high. I don't mind the expense, but the City may ask questions. Can anything be done?"

It was a warm evening, but Potterley wore a tight collar and a semi-jacket. Foster, who was in his undershirt, lifted bleary eyes and said, shakily, "It won't be for much longer, Dr. Potterley. I've called you down to tell you something. A chronoscope can be built. A small one, of course, but it can be built."

Potterley seized the railing. His body sagged.

He managed a whisper. "Can it be built here?"

"Here in the basement," said Foster, wearily.

"You said – "

"I know what I said," cried Foster, impatiently. "I said it couldn't be done. I didn't know anything then. Even Sterbinski didn't know anything."

Potterley shook his head. "Are you sure? You're not mistaken, Dr. Foster? I couldn't endure it if – "

Foster said, "I'm not mistaken. Damn it, sir, if just theory had been enough, we could have had a time-viewer over a hundred years ago, when the neutrino was first postulated. The trouble was, the original investigators considered it only a mysterious particle without mass or charge that could not be detected. It was just something to even up the bookkeeping and save the law of conservation of mass-energy."

He wasn't sure Potterley knew what he was talking about. He didn't care. He needed a breather. He had to get some of this out of his clotting thoughts. And he needed background for what he would have to tell Potterley next.

He went on. "It was Sterbinski who first discovered that the neutrino broke through the space-time cross-sectional barrier, that it travelled through time and that was why it had remained undetected. It was Sterbinski who first devised a method for stopping neutrinos. He invented a neutrino-recorder and learned how to interpret the pattern of the neutrino stream. Naturally, the stream had been affected and deflected by all matter it had passed through in its passage through time, and the deflections could be analyzed and converted into the images of the matter that had done the deflecting. Time-viewing was possible. Even air vibrations could be detected in this way and converted into sound."

Potterley was definitely not listening. He said, "Yes. Yes. But when can you build a chronoscope?"

Foster said, urgently, "Let me finish. Everything depends on the method used to detect and analyze the neutrino stream. Sterbinski's method was difficult and roundabout. It required mountains of energy. But I've studied pseudo-gravitics, Dr. Potterley, the science of artificial gravitational fields. I've specalized in the behavoir of light in such fields. It's a new science. Sterbinski knew nothing of it. If he had. he would have seen – anyone would have – a much better and more efficient method of neutrinos using a pseudo-gravitic field. If I had known more neutrinics to begin with, I would have seen it at once."

Potterley brightened a bit. "I knew it," he said. "Even if they stop research in neutrinics there is no way the government can be sure that discoveries in other segments of science won't reflect knowledge on neutrinics. So much for the value of centralized direction of science. I thought this long ago, Dr. Foster, before you ever came to work here."

"I congratulate you on that," said Foster, "but there's one thing – "

"Oh, never mind all this. Answer me. Please. When can you build a chronoscope?"

"I'm trying to tell you something, Dr. Potterley. A chronoscope won't do you any good." (This is it, Foster thought.)

Slowly, Potterley descended the stairs. He stood, facing Foster, "What do you mean? Why won't it help me?"

"You won't see Carthage. It's what I've got to tell you. It's what I've been leading up to. You can never see Carthage."

Potterley shook his head slightly. "Oh, no, you're wrong. If you have the chronoscope, just focus it properly – "

"No, Dr. Potterley. It's not a question of focus. There are random factors affecting the neutrino stream, as they affect all sub-atomic particles. What we call the uncertainty principle. When the stream is recorded and interpreted, the random factor comes out as fuzziness, or 'noise' as the communications boys speak of it. The further back in time you penetrate, the more pronounced the fuzziness, the greater the noise. After a while, the noise drowns out the picture. Do you understand?"

"More power," said Potterley in a dead kind of voice.

"That won't help. When the noise blurs out detail, magnifying detail magnifies the noise, too. You can't see anything in a sun-burned film by enlarging it, can you? Get this through your head, now. The physical nature of the universe sets limits. The random thermal motions of air molecules sets limits to how weak a sound can be detected by any instrument. The length of a lightwave or of an electron-wave sets limits to the size of objects that can be seen by any instrument. It works that way in chronoscopy, too. You can only time-view so far."

"How far? How far?"

Foster took a deep breath. "A century and a quarter. That's the most."

"But the monthly bulletin the Commission puts out deals with ancient history almost entirely." The historian laughed shakily. "You must be wrong. The government has data as far back as 3,000 B.C."

"When did you switch to believing them?" demanded Foster, scornfully. "You began this business by proving they were lying; that no historian had made use of the chronoscope. Don't you see why now? No historian, except one interested in contemporary history, could. No chronoscope can possibly see back in time further than 1950 under any conditions."

"You're wrong. You don't know everything," said Potterley.

"The truth won't bend itself to your convenience either. Face it. The government's part in this is to perpetuate a hoax."

"Why?"

Potterley's snubby nose was twitching. His eyes were bulging. He pleaded, "It's only theory, Dr. Foster. Build a chronoscope. Build one and try."

Foster caught Potterley's shoulders in a sudden, fierce grip.

"Do you think I haven't? Do you think I would tell you this before I had checked it every way I knew. I *have* built one. It's all around you. Look!"

He ran to the switches at the power-leads. He flicked them one, one by one. He turned a resistor, adjusted other knobs, put out the cellar lights. "Wait. Let it warm up."

There was a small glow near the center of one wall. Potterley was gibbering incoherently, but Foster only cried again, "Look!"

The light sharpened and brightened, broke up into a light-and-dark pattern. Men and women! Fuzzy. Features blurred. Arms and legs mere streaks. An old-fashioned ground-car, unclear but recognizable as one of the kind that had once used gasoline-powered internal-combustion engines, sped by.

"Foster said, "Mid-twentieth century, somewhere. I can't hook up an audio yet so this is soundless. Eventually, we can add sound. Anyway, mid twenties is almost as far back as you can go. Believe me, that's the best focusing that can be done."

Potterley said, "Build a larger machine, a stronger one. Improve your circuits."

"You can't lick the uncertainty principle, man, any more than you can live on the sun. There are physical limits to what can be done."

"You're lying. I won't believe you. I – "

A new voice sounded, raised shrilly to make itself heard. "Arnold! Dr. Foster!"

The young physicist turned at once. Dr. Potterley froze for a long moment, then said, without turning, "What is it, Caroline? Leave us."

"No!" Mrs. Potterley descended the stairs. "I heard. I

couldn't help hearing. Do you have a time-viewer here, Dr. Foster? Here in the basement?"

"Yes, I do, Mrs. Potterley. A kind of time-viewer. Not a good one. I can't get sound yet and the picture is darned blurry, but it works."

Mrs. Potterley clasped her hands and held them tightly against her breast. "How wonderful. How wonderful."

"It's not at all wonderful," snapped Potterley. "The young fool can't reach further back than – "

"Now, look," began Foster in exasperation –

"Please!" cried Mrs. Potterley. "Listen to me. Arnold, don't you see that as long as we can use it for twenty years back we can see Laurel once again? What do we care about Carthage and ancient times. It's Laurel we can see. She'll be alive for us again. Leave the machine here, Dr. Foster. Show us how to work it."

Foster stared at her and then her husband. Dr. Potterley's face had gone white. Though his voice stayed low and even, its calmness was somehow gone. He said, "You're a fool!"

Caroline said, weakly, "Arnold!"

"You're a fool, I say. What will you see? The past. The dead past. Will Laurel do one thing she did not do? Will you see one thing you haven't seen? Will you live three years over and over again, watching a baby who'll never grow up no matter how much you watch?"

His voice came near to cracking, but held. He stepped closer to her, seized her shoulder and shook her roughly. "Do you know what will happen to you if you do that? They will come to take you away because you'll go mad. Yes, mad. Do you want mental treatment? Do you want to be shut up, to undergo the psychic probe?"

Mrs. Potterley tore away. There was no trace of softness or vagueness about her. She had twisted into a virago. "I want to see my child, Arnold. She's in that machine and I want her."

"She's *not* in the machine. An image is. Can't you understand? An image! Something that's not real!"

"I want my child. Do you hear me?" She flew at him, screaming, fists beating. *"I want my child."*

The historian retreated at the fury of the assault, crying out. Foster moved to step between when Mrs. Potterley dropped, sobbing wildly, to the floor.

Potterley turned, eyes desperately seeking. With a sudden

heave, he snatched at a Lando-rod, tearing it from its support, and whirling away before Foster, numbed by all that was taking place, could move to stop him.

"Stand back!" gasped Potterley, "or I'll kill you. I swear it."

He swung with force, and Foster jumped back.

Potterley turned with fury on every part of the structure in the cellar, and Foster, after the first crash of glass, watched dazedly.

Potterley spent his rage and then he was standing quietly amid shards and splinters, with a broken Lando-rod in his hand. He said to Foster in a whisper, "Now get out of here! Never come back! If any of this cost you anything, send me a bill and I'll pay for it. I'll pay double."

Foster shrugged, picked up his shirt and moved up the basement stairs. He could hear Mrs. Potterley sobbing loudly, and, as he turned at the head of the stairs for a last look, he saw Dr. Potterley bending over her, face convulsed with sorrow.

Two days later, with the school day drawing to a close, and Foster looking wearily about to see if there were any data on his newly-approved projects that he wished to take home, Dr. Potterley appeared once more. He was standing at the open door of Foster's office.

The historian was neatly dressed as ever. He lifted his hand in a gesture that was too vague to be a greeting, too abortive to be a plea. Foster stared stonily.

Potterley said, "I waited till five, till you were – May I come in?"

Foster nodded.

Potterley said, "I suppose I ought to apologize for my behavior. I was dreadfully disappointed; not quite able to master myself. Still, it was inexcusable."

"I accept your apology," said Foster. "Is that all?"

"My wife called you, I think."

"Yes, she has."

"She has been quite hysterical. She told me she had but I couldn't be quite sure – "

"She has called me."

"Could you tell me . . . would you be so kind as to tell me what she wanted?"

"She wanted a chronoscope. She said she had some money of her own. She was willing to pay."

"Did you . . . make any commitments?"

"I said I wasn't in the manufacturing business."

"Good," breathed Potterley, his chest expanding with a sigh of relief. "Please don't take any calls from her. She's not . . . quite – "

"Look, Dr. Potterley," said Foster, "I'm not getting into any domestic quarrels, but you'd better be prepared for something. Chronoscopes can be built by anybody. Given a few simple parts that can be bought through some etherics sales-center, it can be built in the home work-shop. The video part, anyway."

"But no one else will think of it beside you, will they? No one has."

"I don't intend to keep it secret."

"But you can't publish. It's illegal research."

"That doesn't matter any more, Dr. Potterley. If I lose my grants, I lose them. If the University is displeased, I'll resign. It just doesn't matter."

"But you can't do that!"

"Till now," said Foster, "you didn't mind my risking loss of grants and position. Why do you turn so tender about it now? Now let me explain something to you. When you first came to me, I believed in organized and directed research; the situation as it existed, in other words. I considered you an intellectual anarchist, Dr. Potterley, and dangerous. But, for one reason or another, I've been an anarchist myself for months now and I have achieved great things.

"Those things have been achieved not because I am a brilliant scientist. Not at all. It was just that scientific research had been directed from above and holes were left that could be filled in by anyone who looked in the right direction. And anyone might have if the government hadn't actively tried to prevent it.

"Now understand me. I still believe directed research can be useful. I'm not in favor of a retreat to total anarchy. But there must be a middle ground. Directed research can retain flexibility. A scientist must be allowed to follow his curiosity, at least in his spare time."

Potterley sat down. He said, ingratiatingly, "Let's discuss this, Foster. I appreciate your idealism. You're young. You want the moon. But you can't destroy yourself through fancy notions of what research must consist of. I got you into this. I am responsible and I blame myself bitterly. I

was acting emotionally. My interest in Carthage blinded me and I was a fool."

Foster broke in, "You mean you've changed completely in two days? Carthage is nothing? Government suppression of research is nothing?"

"Even a fool like myself can learn, Foster. My wife taught me something. I understand the reason for government suppression of neutrinics now. I didn't two days ago. And understanding, I approve. You saw the way my wife reacted to the news of a chronoscope in the basement. I had envisioned a chronoscope used for research purposes. All *she* could see was the personal pleasure of returning neurotically to a personal past, a dead past. The pure researcher, Foster, is in the minority. People like my wife would outweigh us.

"For the government to encourage chronoscopy would have meant that everyone's past would be visible. The government officers would be subjected to blackmail and improper pressure, since who on earth has a past that is absolutely clean. Organized government might become impossible."

Foster licked his lips. "Maybe. Maybe the government has some justification in its own eyes. Still, there's an important principle involved here. Who knows what other scientific advances are beeing stymied because scientists are being stifled into walking a narrow path? If the chronoscope becomes the terror of a few politicians, it's a price that must be paid. The public must realize that science must be free and there is no more dramatic way of doing it than to publish my discovery, one way or another, legally or illegally."

Potterley's brow was in a perspiration, but his voice remained even. "Oh, not just a few politicians, Dr. Foster. Don't think that. It would be my terror, too. My wife would spend her time living with our dead daughter. She would retreat further from reality. She would go mad living the same scenes over and over. And not just my terror. There would be others like her. Children searching for their dead parents or their own youth. We'll have a whole world living in the past. Midsummer madness."

Foster said, "Moral judgments can't stand in the way. There isn't one advance at any time in history that mankind hasn't had the ingenuity to pervert. Mankind must also have the ingenuity to prevent. As for the chronoscope,

your delvers into the dead past will get tired soon enough. They'll catch their loved parents in some of the things their loved parents did and they'll lose their enthusiasm for it all. But all this is trivial. With me, it's a matter of an important principle."

"Potterley said, "Hang your principle. Can't you understand men and women as well as principle? Don't you understand that my wife will live through the fire that killed our baby? She won't be able to help herself. I know her. She'll follow through each step, trying to prevent it. She'll live it over and over again, hoping each time that it won't happen. How many times do you want to kill Laurel?" A huskiness had crept into his voice.

A thought crossed Foster's mind. "What are you really afraid she'll find out, Dr. Potterley? What happened the night of the fire?"

The historian's hands went up quickly to cover his face and they shook with his dry sobs. Foster turned away and stared uncomfortably out the window.

Potterley said after a while, "It's a long time since I've had to think of it. Caroline was away. I was baby-sitting. I went in to the baby's bedroom mid-evening to see if she had kicked off the bedclothes. I had my cigarette with me. I smoked in those days. I must have stubbed it out before putting it in the ashtray on the chest of drawers. I was always careful. The baby was all right. I returned to the living room and fell asleep before the video. I awoke, choking, surrounded by fire. I don't know how it started."

"But you think it may have been the cigarette, is that it?" said Foster. "A cigarette which, for once, you forgot to stub out?"

"I don't know. I tried to save her, but she was dead in my arms when I got out."

"You never told your wife about the cigarette, I suppose."

Potterley shook his head. "But I've lived with it."

"Only now, with a chronoscope, she'll find out. Maybe it wasn't the cigarette. Maybe you did stub it out. Isn't that possible?"

The scant tears had dried on Potterley's face. The redness had subsided. He said, "I can't take the chance. But it's not just myself, Foster. The past has its terrors for most people. Don't loose those terrors on the human race."

Foster paced the floor. Somehow, this explained the reason for Potterley's rabid, irrational desire to boost the Carthaginians, deify them, most of all disprove the story of their fiery sacrifices to Moloch. By freeing them of the guilt of infanticide by fire, he symbolically freed himself of the same guilt.

So the same fire that had driven Potterley on to causing the construction of a chronoscope was now driving him on to its destruction.

Foster looked sadly at the older man. "I see your position, Dr. Potterley, but this goes above personal feelings. I've got to smash this throttling hold on the throat of science."

Potterley said, savagely, "You mean you want the fame and wealth that goes with such a discovery."

"I don't know about the wealth, but that, too, I suppose. I'm no more than human."

"You won't suppress your knowledge?"

"Not under any circumstances."

"Well, then – " and the historian got to his feet and stood for a moment, glaring.

Foster had an odd moment of terror. The man was older than he, smaller, feebler, and he didn't look armed. Still –

Foster said, "If you're thinking of killing me or anything insane like that, I've got the information in a safe-deposit vault where the proper people will find it in case of my disappearance or death."

Potterley said, "Don't be a fool," and stalked out.

Foster closed the door, locked it, and sat down to think. He felt silly. He had no information in any safety-deposit vault, of course. Such a melodramatic action would not have occurred to him ordinarily. But now it had.

Feeling even sillier, he spent an hour writing out the equations of the application of pseudo-gravitic optics to neutrinic recording, and some diagrams for the engineering details of construction. He sealed it in an envelope and scrawled Ralph Nimmo's name over the outside.

He spent a rather restless night and the next morning, on the way to school, dropped the envelope off at the bank, with appropriate instructions to an official, who made him sign a paper permitting the box to be opened after his death.

He called Nimmo to tell him of the existence of the en-

velope, refusing querulously to say anything about its contents.

He had never felt so ridiculously self-conscious as at that moment.

That night and the next, Foster spent in only fitful sleep, finding himself face to face with the highly practical problem of the publication of data unethically obtained.

The *Proceedings of the Society for Pseudo-Gravitics,* which was the journal with which he was best acquainted, would certainly not touch any paper that did not include the magic footnote: "The work described in this paper was made possible by Grant No. so-and-so from the Commission of Research of the United Nations."

Nor, doubly so, would the *Journal of Physics.*

There were always the minor journals who might overlook the nature of the article for the sake of the sensation, but that would require a little financial negotiation on which he hesitated to embark. It might, on the whole, be better to pay the cost of publishing a small pamphlet for general distribution among scholars. In that case, he would even be able to dispense with the services of a science-writer, sacrificing polish for speed. He would have to find a reliable printer. Uncle Ralph might know one.

He walked down the corridor to his office and wondered anxiously if perhaps he ought to waste no further time, give himself no further chance to lapse into indecision and take the risk of calling Ralph from his office phone. He was so absorbed in his own heavy thoughts that he did not notice that his room was occupied until he turned from the clothes-closet and approached his desk.

Dr. Potterley was there and a man he did not recognize.

Foster stared at them. "What's this?"

Potterley said, "I'm sorry, but I had to stop you."

Foster continued staring. "What are you talking about?"

The stranger said, "Let me introduce myself." He had large teeth, a little uneven, and they showed prominently when he smiled. "I am Thaddeus Araman, Department Head of the Division of Chronoscopy. I am here to see you concerning information brought to me by Professor Arnold Potterley and confirmed by our own sources – "

Potterley said, breathlessly, "I took all the blame, Dr. Foster. I explained that it was I who persuaded you against

your will into unethical practices. I have offered to accept full responsibility and punishment. I don't wish you harmed in any way. It's just that chronoscopy must be put an end to."

Araman nodded. "He has taken the blame as he says, Dr. Foster, but this thing is out of his hands now."

Foster said, "So? What are you going to do? Blackball me from all consideration for research grants?"

"That is in my power," said Araman.

"Order the University to discharge me?"

"That, too, is in my power."

"All right, go ahead. Consider it done. I'll leave my office now, with you. I can send for my books later. If you insist, I'll leave my books. Is that all?"

"Not quite," said Araman. "You must engage to do no further research in chronoscopy, to publish none of your findings in chronoscopy, and, of course, to build no chronoscope. You will remain under surveillance indefinitely to make sure you keep that promise."

"Supposing I refuse to promise? What can you do? Doing research out of my field may be unethical, but it isn't a criminal offense."

"In the case of chronoscopy, my young friend," said Araman, patiently, "it is a criminal offense. If necessary, you will be put in jail and kept there."

"Why?" shouted Foster. "What's magic about chronoscopy?"

Araman said, "That's the way it is. We cannot allow further developments in the field. My own job is, primarily, to make sure of that, and I intend to do my job. Unfortunately, I had no knowledge, nor did anyone in the department, that the optics of pseudo-gravity fields had such immediate application to chronoscopy. Score one for general ignorance, but henceforward, research will be steered properly in that respect, too."

Foster said, "That won't help. Something else may apply that neither you nor I dream of. All science hangs together. It's one piece. If you want to stop one part, you've got to stop it all."

"No doubt that is true," said Araman, "in theory. On the practical side, however, we have managed quite well to hold chronoscopy down to the original Sterbinski level for fifty years. Having caught you in time, Dr. Foster, we hope to

continue doing so indefinitely. And we wouldn't have come this close to disaster, either, if I had accepted Dr. Potterley at something more than face value."

He turned toward the historian and lifted his eyebrows in a kind of humorous self-deprecation. "I'm afraid, sir, that I dismissed you as a history professor and no more on the occasion of our first interview. Had I done my job properly and checked on you, this would not have happened."

Foster said, abruptly, "Is anyone allowed to use the government chronoscope?"

"No one outside our division under any pretext. I say that since it is obvious to me that you have already guessed as much. I warn you, though, that any repetition of that fact will be a criminal, not an ethical, offense."

"And your chronoscope doesn't go back more than a hundred twenty-five years or so, does it?"

"It doesn't."

"Then your bulletin with its stories of time-viewing ancient times is a hoax?"

Araman said, coolly, "With the knowledge you now have, it is obvious you know that for a certainty. However, I confirm your remark. The monthly bulletin is a hoax."

"In that case," said Foster, "I will not promise to suppress my knowledge of chronoscopy. If you wish to arrest me, go ahead. My defense at the trial will be enough to destroy the vicious card-house of directed research and bring it tumbling down. Directing research is one thing; suppressing it and depriving mankind of its benefits is quite another."

Araman said, "Oh, let's gomething straight, Dr. Foster. If you do not co-operate, you will go to jail directly. You will *not* see a lawyer, you will *not* be charged, you will *not* have a trial. You will simply stay in jail."

"Oh, no," said Foster, "you're bluffing. This is not the Twentieth Century, you know."

There was a stir outside the office, the clatter of feet, a high-pitched shout that Foster was sure he recognized. The door crashed open, the lock splintering, and three intertwined figures stumbled in.

As they did so, one of the men raised a blaster and brought its butt down hard on the skull of another.

There was a *whoosh* of expiring air, and the one whose head was struck went limp.

"Uncle Ralph!" cried Foster.

Araman frowned. "Put him down in that chair," he ordered, "and get some water."

Ralph Nimmo, rubbing his head with a gingerly sort of disgust, said, "There was no need to get rough, Araman."

Araman said, "The guard should have been rough sooner and kept you out of here, Nimmo. You'd have been better off."

"You know each other?" said Foster.

"I've had dealings with the man," said Nimmo, still rubbing. "If he's here in your office, nephew. you're in trouble."

"And you, too," said Araman, angrily. "I know Dr. Foster consulted you on neutrinics literature."

Nimmo corrugated his forehead, then straightened it with a wince as though the action had brought pain. "So?" he said. "What else do you know about me?"

"We will know everything about you soon enough. Meanwhile that one item is enough to implicate you. What are you doing here?"

"My dear Mr. Araman," said Nimmo, some of his jauntiness restored, "day before yesterday, my jackass of a nephew called me. He had placed some mysterious information – "

"Don't tell him! Don't say anything!" cried Foster.

Araman glanced at him coldly. "We know all about it, Dr. Foster. The safety-deposit box has been opened and its contents removed."

"But how can you know – " Foster's voice died away in a kind of furious frustration.

"Anyway," said Nimmo, "I decided the net must be closing around him and after I took care of a few items, I came down to tell him to get off this thing he's doing. It's not worth his career."

"Does that mean you know what he's doing?" asked Araman.

"He never told me," said Nimmo, "but I'm a science-writer with a hell of a lot of experience. I know which side of an atom is electronified. The boy, Foster, specializes in pseudo-gravitic optics and coached me on the stuff himself. He got me to get him a textbook on neutrinics and I kind of skip-viewed it myself before handing it over. I can put the two together. He asked me to get him certain pieces of physical equipment, and that was evidence, too. Stop me if

I'm wrong, but my nephew has built a semiportable, low-power chronoscope. Yes, or . . . yes?"

"Yes." Araman reached thoughtfully for a cigarette and paid no attention to Dr. Potterley – watching silently, as though all were a dream – who shied away, gasping, from the white cylinder. "Another mistake for me. I ought to resign. I should have put tabs on you, too, Nimmo, instead of concentrating too hard on Potterley and Foster. I didn't have much time of course and you've ended up safely here, but that doesn't excuse me. You're under arrest, Nimmo."

"What for?" demanded the science-writer.

"Unathorized research."

"I wasn't doing any. I can't, not being a registered scientist. And even if I did, it's not a criminal offense."

Foster said, savagely, "No use, Uncle Ralph. This bureaucrat is making his own laws."

"Like what?" demanded Nimmo.

"Like life imprisonment without trial."

"Nuts," said Nimmo. "This isn't the Twentieth Cen – "

"I tried that," said Foster. "It doesn't bother him."

Nimmo shouted, "Look here, Araman. My nephew and I have relatives who haven't lost touch with us, you know. The professor has some also, I imagine. You can't just make us disappear. There'll be questions and a scandal. This *isn't* the Twentieth Century. So if you're trying to scare us, it isn't working."

The cigarette snapped between Araman's fingers and he tossed it away violently. He said, "Damn it, I don't know *what* to do. It's never been like this before. Look! You three fools know nothing of what you're trying to do. You understand nothing. Will you listen to me?"

(Foster sat silently, eyes angry, lips compressed. Potterley's hands writhed like intertwined snakes.)

Araman said, "The past to you is the dead past. If any of you have discussed the matter, it's dollars to nickels you've used that phrase. The dead past. If you knew how many times I've heard those three words, you'd choke on them, too.

"When people think of the past, they think of it as dead, far away and gone, long ago. We encourage them to think so. When we report time-viewing, we always talk of views centuries in the past even though you gentlemen knew

seeing more than a century or so is impossible. People accept it. The past means Greece, Rome, Carthage, Egypt, the Stone Age. The deader the better.

"Now you three know a century or a little more is the limit, so what does the past mean to you? Your youth. Your first girl. Your dead mother. Twenty years ago. Thirty years ago. Fifty years ago. The deader the better. But when does the past really begin?"

He paused in anger. The others stared at him and Nimmo stirred uneasily.

"Well," said Araman, "when did it begin? A year ago? Five minutes ago? One second ago? Isn't it obvious that the past begins an instant ago? The dead past is just another name for the living present. What if you focus the chronoscope in the past of one-hundredth of a second ago? Aren't you watching the present? Does it begin to sink in?"

Nimmo said, "Damnation."

"Damnation," mimicked Araman. "After Potterley came to me with his story night before last, how do you suppose I checked up on both of you? I did it with the chronoscope, spotting key moments to the very instant of the present."

"And that's how you knew about the safety-deposit box?" said Foster.

"And every other important fact. Now what do you suppose would happen if we let news of a home chronoscope get out? People might start out by watching their youth, their parents and so on, but it wouldn't be long before they'd catch on to the possibilities. The housewife will forget her poor, dead mother and take to watching her neighbor at home and her husband at the office. The businessman will watch his competitor; the employer his employee.

"There will be no such thing as privacy. The party-line, the prying eye behind the curtain will be nothing compared to it. The video stars will be closely watched at all times by everyone. Every man his own peeping-Tom and there'll be no getting away from the watcher. Even darkness will be no escape because chronoscopy can be adjusted to the infrared and human figures can be seen by their own body heat. The figures will be fuzzy, of course, and the surroundings will be dark, but that will make the titillation of it all the greater, perhaps. Even the men in charge of the machine now experiment sometimes in spite of all the regulations against it."

Nimmo seemed sick. "You can always forbid private manufacture – "

Araman turned on him fiercely. "You can, but do you expect it to do good? Can you legislate successfully against drinking, smoking, adultery, or gossiping over the back fence? And this mixture of nosiness and prurience will have a worse grip on humanity than any of those. In a thousand years of trying we haven't even been able to wipe out the heroin traffic and you talk about legislating against a device for watching anyone you please at any time you please that can be built in a home workshop."

Foster said, suddenly, "I won't publish."

Potterley burst out, half in sobs. "None of us will talk. I regret – "

Nimmo broke in. "You said you didn't tab me on the chronoscope, Araman."

"No time," said Araman, wearily. "Things don't move any faster on the chronoscope than in real life. You can't speed it up like the film in a book-viewer. We spent a full twenty-four hours trying to catch the important moments during the last six months of Potterley and Foster. There was no time for anying else and it was enough."

"It wasn't," said Nimmo.

"What are you talking about?" There was a sudden, infinite alarm on Araman's face."

"I told you my nephew, Jonas, had called me to say he had put important information in a safety-deposit box. He acted as though he were in trouble. He's my nephew. I had to try to get him off the spot. It took a while and then I came here to tell him what I had done. I told you when I got here, just after your man conked me, that I had taken care of a few items."

"What for instance?"

"Just this: I sent the details of the portable chronoscope off to half a dozen of my regular publicity outlets."

Not a word. Not a sound. Not a breath. They were all past any demonstration.

"Don't stare like that," cried Nimmo. "Don't you see my point? I had popular publication rights. Jonas will admit that. I knew he couldn't publish scientifically in any legal way. I was sure he was planning to publish illegally and was preparing the safety-deposit box for that reason. I thought

if I put through the details prematurely, all the responsibility would be mine. His career would be saved. And if I were deprived of my science-writing license as a result, my exclusive possession of the chronometric data would set me up for life. Jonas would be angry, I expected that, but I could explain the motive and we would split the take fifty-fifty. Don't stare at me like that. How did I know – "

"Nobody knew anything," said Araman bitterly, "but you all just took it for granted that the government was stupidly bureaucratic, vicious, tyrannical, given to suppressing research for the hell of it. It never occurred to any of you that we were trying to protect mankind as best we could."

"Don't sit there talking," wailed Potterley. "Get the names of the people who were told – "

"Too late," said Nimmo, shrugging. "They've had better than a day. There's been time for the word to spread. My outfits will have called any number of physicists to check my data before going on with it and physicists will call one another to pass on the news. Once scientists put neutrinics and pseudo-gravitics together, home chronoscopy becomes obvious. Before the week is out, five hundred people will know how to build a small chronoscope and how will you catch them all?" His plump cheeks sagged. "I suppose there's no way of putting the mushroom cloud back into that nice, shiny uranium sphere."

Araman stood up. "We'll try, Potterley, but I agree with Nimmo. It's too late. What kind of a world we'll have from now on, I don't know, I can't tell, but the world we know has been destroyed completely. Until now, every custom, every habit, every tiniest way of life has always taken a certain amount of privacy for granted, but that's all gone now."

He saluted each of the three with elaborate formality. "You have created a new world among the three of you. I congratulate you. Happy goldfish bowl to you, to me, to everyone, and may each of you fry in hell forever."

SOMETHING STRANGE

Kingsley Amis

It has sometimes been said, by in-group science fiction pundits (that is, science fiction writers who also like to be considered critics) that "mainstream" authors, as they call them – writers who ordinarily deal with things as they are, rather than with science-fantastic day-dreams – always fail to produce good science fiction when they try. This assumption is quite understandable, for two reasons. First, it is occasionally true. Second, the critics who say it is always true are, I suppose, trying to protect their investment in the idea of science-fiction-as-clique, and themselves as clique-masters.

This story proves both contentions false. Not only has Kingsley Amis written an overwhelmingly vivid piece of science fiction, but he has written one better than almost any "pro" in the field could do. It is this good, I think, because Amis *is* a mainstream writer, who is experienced at creating vividly real characters and situations – something the professional science fictioneers find almost impossible to achieve.

Most remarkable of all, Amis the "comic novelist" has, in this story, turned to the realm of psychological horror. He has created an extrapolation from the psychological torture chambers of today's "isolation stress experiments," which test future astronauts' reaction to total separation from their kind, and has succeeded brilliantly in showing what such experiments could do in the hands of a ruthless dictatorship.

SOMETHING STRANGE happened every day. It might happen during the morning, while the two men were taking their readings and observations and the two women busy with the domestic routine: the big faces had come during the morning. Or, as with the little faces and the coloured fires, the strange thing would happen in the afternoon, in the middle of Bruno's maintenance programme and Clovis's transmission to Base, Lia's rounds of the garden and Myri's work on her story. The evening was often undisturbed, the night less often.

They all understood that ordinary temporal expressions had no meaning for people confined indefinitely, as they

were, to a motionless steel sphere hanging in a region of space so empty that the light of the nearest star took some hundreds of years to reach them. The Standing Orders devised by Base, however, recommended that they adopt a twenty-four-hour unit of time, as was the rule on the Earth they had not seen for many months. The arrangement suited them well: their work, recreation and rest seemed to fall naturally into the periods provided. It was only the prospect of year after year of the same routine, stretching further into the future than they could see, that was a source of strain.

Bruno commented on this to Clovis after a morning spent repairing a fault in the spectrum analyser they used for investigating and classifying the nearer stars. They were sitting at the main observation port in the lounge, drinking the mid-day cocktail and waiting for the women to join them.

"I'd say we stood up to it extremely well," Clovis said in answer to Bruno. "Perhaps too well."

Bruno hunched his fat figure upright. "How do you mean?"

"We may be hindering our chances of being relieved."

"Base has never said a word about our relief."

"Exactly. With half a million stations to staff, it'll be a long time before they get round to one like this, where everything runs smoothly. You and I are a perfect team, and you have Lia and I have Myri, and they're all right together – no real conflict at all. Hence no reason for a relief."

Myri had heard all this as she laid the table in the alcove. She wondered how Clovis could not know that Bruno wanted to have her instead of Lia, or perhaps as well as Lia. If Clovis did know, and was teasing Bruno, then that would be a silly thing to do, because Bruno was not a pleasant man. With his thick neck and pale fat face he would not be pleasant to be had by, either, quite unlike Clovis, who was no taller but whose straight, hard body and soft skin were always pleasant. He could not think as well as Bruno, but on the other hand many of the things Bruno thought were not pleasant. She poured herself a drink and went over to them.

Bruno had said something about its being a pity they could not fake their personnel report by inventing a few quarrels, and Clovis had immediately agreed that that was impossible. She kissed him and sat down at his side. "What do you think about the idea of being relieved?" he asked her.

"I never think about it."

"Quite right," Bruno said, grinning. "You're doing very nicely here. Fairly nicely, anyway."

"What are you getting at?" Clovis asked him with a different kind of grin.

"It's not a very complete life, is it? For any of us. I could do with a change, anyway. A different kind of job, something that isn't testing and using and repairing apparatus. We do seem to have a lot of repairing to do, don't we? That analyser breaks down almost every day. And yet . . ."

His voice trailed off and he looked out of the port, as if to assure himself that all that lay beyond it was the familiar starscape of points and smudges of light.

"And yet what?" Clovis asked, irritably this time.

"I was just thinking that we really ought to be thankful for having plenty to do. There's the routine, and the fruits and vegetables to look after, and Myri's story. . . . How's that going, by the way? Won't you read us some of it? This evening, perhaps?"

"Not until it's finished, if you don't mind."

"Oh, but I do mind. It's part of our duty to entertain one another. And I'm very interested in it personally."

"Why?"

"Because you're an interesting girl. Bright brown eyes and a healthy, glowing skin – how do you manage it after all this time in space? And you've more energy than any of us."

Myri said nothing. Bruno was good at making remarks there was nothing to say to.

"What's it about, this story of yours?" he pursued. "At least you can tell us that."

"I have told you. It's about normal life. Life on Earth before there were any space stations, lots of different people doing different things, not this ——

"That's normal life, is it, different people doing different things? I can't wait to hear what the things are. Who's the hero, Myri? Our dear Clovis?"

Myri put her hand on Clovis's shoulder. "No more, please, Bruno. Let's go back to your point about the routine. I couldn't understand why you left out the most important part, the part that keeps us busiest of all."

"Ah, the strange happenings." Bruno dipped his head in a characteristic gesture, half laugh, half nervous tremor. "And the hours we spend discussing them. Oh yes. How could I have failed to mention all that?"

"If you've got any sense you'll go on not mentioning it,"

Clovis snapped. "We're all fed up with the whole business."

"You may be, but I'm not. I want to discuss it. So does Myri, don't you, Myri?"

"I do think perhaps it's time we made another attempt to find a pattern," Myri said. This was a case of Bruno not being pleasant but being right.

"Oh, not again." Clovis bounded up and went over to the drinks table. "Ah, hallo, Lia," he said to the tall, thin blonde woman who had just entered with a tray of cold dishes. "Let me get you a drink. Bruno and Myri are getting philosophical—looking for patterns. What do you think? I'll tell you what I think. I think we're doing enough already. I think patterns are Base's job."

"We can make it ours too," Bruno said. "You agree, Lia?"

"Of course," Lia said in the deep voice that seemed to Myri to carry so much more firmness and individuality in its tone than any of its owner's words or actions.

"Very well. You can stay out of this if you like, Clovis. We start from the fact that what we see and hear need not be illusions, although they may be."

"At least that they're illusions that any human being might have, they're not special to us, as we know from Base's reports of what happens to other stations."

"Correct, Myri. In any event, illusions or not, they are being directed at us by an intelligence and for a purpose."

"We don't know that," Myri objected. "They may be natural phenomena, or the by-product of some intelligent activity not directed at us."

"Correct again, but let us reserve these less probable possibilities until later. Now, as a sample, consider the last week's strange happenings. I'll fetch the log so that there can be no dispute."

"I wish you'd stop it," Clovis said when Bruno had gone out to the apparatus room. "It's a waste of time."

"Time's the only thing we're not short of."

"I'm not short of anything," he said, touching her thigh. "Come with me for a little while."

"Later."

"Lia always goes with Bruno when he asks her."

"Oh yes, but that's my choice," Lia said. "She doesn't want to now. Wait until she wants to."

"I don't like waiting."

"Waiting can make it better."

"Here we are," Bruno said briskly, returning. "Right. . . .

Monday. *Within a few seconds the sphere became encased in a thick brownish damp substance that tests revealed to be both impermeable and infinitely thick. No action by the staff suggested itself. After three hours and eleven minutes the substance disappeared.* It's the *infinitely thick* thing that's interesting. That must have been an illusion, or something would have happened to all the other stations at the same time, not to speak of the stars and planets. A total or partial illusion, then. Agreed?"

"*Tuesday. Metallic object of size comparable to that of the sphere approaching on collision course at 500 kilometres per second. No countermeasures available. Object appeared instantaneously at 35 million kilometres' distance and disappeared instantaneously at 1500 kilometres.* What about that?"

"We've had ones like that before," Lia put in. "Only this was the longest time it's taken to approach and the nearest it's come before disappearing."

"Incomprehensible or illusion," Myri suggested.

"Yes, I think that's the best we can do at the moment. Wednesday: a very trivial one, not worth worth discussing. *A being apparently constructed entirely of bone approached the main port and made beckoning motions.* Whoever's doing this must be running out of ideas. Thursday. *All bodies external to the sphere vanished to all instruments simultaneously, reappearing to all instruments simultaneously two hours later.* That's not a new one either, I seem to remember. Illusion? Good. Friday. *Beings resembling terrestrial reptiles covered the sphere, fighting ceaselessly and eating portions of one another. Loud rustling and slithering sounds.* The sounds at least must have been an illusion, with no air out there, and I never heard of a reptile that didn't breathe. The same sort of thing applies to yesterday's performance. *Human screams of pain and and extreme astonishment approaching and receding. No visual or other accompaniments.*" He paused and looked round at them. "Well? Any uniformities suggest themselves?"

"No," Clovis said, helping himself to salad, for they sat now at the lunch table. "And I defy any human brain to devise any. The whole thing's arbitrary."

"On the contrary, the very next happening – today's when it comes – might reveal an unmistakable pattern."

"The one to concentrate on," Myri said, "is the approach-

ing object. Why did it vanish before striking the sphere?"

Bruno stared at her. "It had to, if it was an illusion."

"Not at all. Why couldn't we have had an illusion of the sphere being struck? And supposing it wasn't an illusion?"

"Next time there's an object, perhaps it will strike," Lia said.

Clovis laughed. "That's a good one. What would happen if it did, I wonder? And it wasn't an illusion?"

They all looked at Bruno for an answer. After a moment or two, he said: "I presume the sphere would shatter and we'd all be thrown into space. I simply can't imagine what that would be like. We should be . . . Never to see one another again, or anybody or anything else, to be nothing more than a senseless lump floating in space for ever. The chances of – "

"It would be worth something to be rid of your conversation," Clovis said, amiable again now that Bruno was discomfited. "Let's be practical for a change. How long will it take you to run off your analyses this afternoon? There's a lot of stuff to go out to Base and I shan't be able to give you a hand."

"An hour, perhaps, after I've run the final tests."

"Why run tests at all? She was lined up perfectly when we finished this morning."

"Fortunately."

"Fortunately indeed. One more variable and we might have found it impossible."

"Yes," Bruno said abstractedly. Then he got to his feet so abruptly that the other three started. "But we didn't, did we? There wasn't one more variable, was there? It didn't quite happen, you see, the thing we couldn't handle."

Nobody spoke.

Excuse me, I must be by myself."

"If Bruno keeps this up," Clovis said to the two women, "Base will send us a relief sooner than we think."

Myri tried to drive the thought of Bruno's strange behaviour out of her head when, half an hour later, she sat down to work on her story. The expression on his face as he left the table had been one she could not name. Excitement? Dislike? Surprise? That was the nearest – a kind of persistent surprise. Well, he was certain, being Bruno, to set about explaining it at dinner. She wished he were more pleasant, because he did think well.

Finally expelling the image of Bruno's face, she began re-

reading the page of manuscript she had been working on when the screams had interrupted her the previous afternoon. It was part of a difficult scene, one in which a woman met by chance a man who had been having her ten years earlier, with the complication that she was at the time in the company of the man who was currently having her. The scene was an eating alcove in a large city.

"Go away," Volsci said, "Or I'll hit you."

Norbu smiled in a not-pleasant way. "What good would that do? Irmy likes me better than she likes you. You are more pleasant, no doubt, but she likes me better. She remembers me having her ten years ago more clearly than she remembers you having her last night. I am good at thinking, which is better than any amount of being pleasant."

"She's having her meal with me," Volsci said, pointing to the cold food and drinks in front of them. "Aren't you, Irmy?"

"Yes, Irmy," Norbu said. "You must choose. If you can't let both of us have you, you must say which of us you like better."

Irmy looked from one man to the other. There was so much difference between them that she could hardly begin to choose: the one more pleasant, the other better at thinking, the one slim, the other plump. She decided being pleasant was better. It was more important and more significant – better in every way that made a real difference. She said: "I'll have Volsci."

Norbu looked surprised and sorry. "I think you're wrong."

"You might as well go now," Volsci said. "Ila will be waiting."

Irmy felt quite sorry too. "Good-bye, Norbu," she said.

Myri smiled to herself. It was good, even better than she had remembered – there was no point in being modest inside one's own mind. She must be a real writer in spite of Bruno's scoffing, or how could she have invented these characters, who were so utterly unlike anybody she knew, and then put them into a situation that was so completely outside her experience? The only thing she was not sure about was whether she might not have overplayed the part about feeling or dwelt on it at too great length. Perhaps *extremely sorry* was a little heavy; she replaced it by *sorrier than before*. Excellent: now there was just the right touch of restraint in the middle of all the feeling. She decided she could finish off the scene in a few lines.

"Probably see you at some cocktail hour," Volsci said, she wrote, then looked up with a frown as the buzzer sounded at her door. She crossed her tiny wedge-shaped room – its rear wall was part of the outer wall of the sphere, but it had no port – threw the lock and found Bruno on the threshold. He was breathing fast, as if he had been hurrying or lifting a heavy weight, and she saw with distaste that there were drops of sweat on his thick skin. He pushed past her and sat down on her bed, his mouth open.

"What is it?" she asked, displeased. The afternoon was a private time unless some other arrangements were made at lunch.

"I don't know what it is. I think I must be ill."

"Ill? But you can't be. Only people on Earth get ill. Nobody on a station is ever ill. Base told us that. Illness is caused by – "

"I don't think I believe some of the things that Base says."

"But who can we believe if we don't believe Base?"

Bruno evidently did not hear her question. He said: "I had to come to you – Lia's no good for this. Please let me stay with you, I've got so much to say."

"It's no use, Bruno. Clovis is the one who has me. I thought you understood that I didn't – "

"That's not what I mean," he said impatiently. "Where I need you is in thinking. Though that's connected with the other, the having. I don't expect you to see that. I've only just begun to see it myself."

Myri could make nothing of this last part. "Thinking? Thinking about what?"

He bit his lip and shut his eyes for a moment. "Listen to this," he said. "It was the analyser that set my mind going. Almost every other day it breaks down. And the computer, the counters, the repellers, the scanners and the rest of them – they're always breaking down too, and so are their power supplies. But not the purifier or the fluid-reconstitutor or the fruit and vegetable growers or the heaters or the main power source. Why not?"

"Well, they're less complicated. How can a fruit grower go wrong? A chemical tank and a water tank is all there is to it. You ask Lia about that."

"All right. Try answering this, then. The strange happenings. If they're illusions, why are they always outside the sphere? Why are there never any inside?"

"Perhaps there are," Myri said.

"Don't. I don't want that. I shouldn't like that. I want everything in here to be real. Are you real. I must believe you are."

"Of course I'm real." She was now thoroughly puzzled.

"And it makes a difference, doesn't it? It's very important that you and everything else should be real, everything in the sphere. But tell me: whatever's arranging these happenings must be pretty powerful if it can fool our instruments and our senses so completely and consistently, and yet it can't do anything – anything we recognise as strange, that is – inside this puny little steel skin. Why not?"

"Presumably it has its limitations. We should be pleased."

"Yes. All right, next point. You remember the time I tried to sit up in the lounge after midnight and stay awake?"

"That was silly. Nobody can stay awake after midnight. Standing Orders were quite clear on that point."

"Yes, they were, weren't they?" Bruno seemed to be trying to grin. "Do you remember my telling you how I couldn't account for being in my own bed as usual when the music woke us – you remember the big music? And – this is what I'm really after – do you remember how we all agreed at breakfast that life in space must have conditioned us in such a way that falling asleep at a fixed time had become an automatic mechanism? You remember that?"

"Naturally I do."

"Right, Two questions, then. Does that strike you as a likely explanation? That sort of complete self conditioning in all four of us after . . . just a number of months?"

"Not when you put it like that."

"But we all agreed on it, didn't we? Without hesitation."

Myri, leaning against a side wall, fidgeted. He was being not pleasant in a new way, one that made her want to stop him talking even while he was thinking at his best. "What's your other question, Bruno?" Her voice sounded unusual to her.

"Ah, you're feeling it too, aren't you?"

"I don't know what you mean."

"I think you will in a minute. Try my other question. The night of the music was a long time ago, soon after we arrived here, but you remember it clearly. So do I. And yet when I try to remember what I was doing only a couple of months earlier, on Earth, finishing up my life there, getting ready for this, it's just a vague blur. Nothing stands out."

"It's all so remote."

"Maybe. But I remember the trip clearly enough, don't you?"

Myri caught her breath. I feel surprised, she told herself. Or something like that. I feel the way Bruno looked when he left the lunch table. She said nothing.

"You're feeling it now all right, aren't you?" He was watching her closely with his narrow eyes. "Let me try to describe it. A surprise that goes on and on. Puzzlement. Symptoms of physical exertion or strain. And above all a . . . a sort of discomfort, only in the mind. Like having a sharp object pressed against a tender part of your body, except that this is in your mind."

"What are you talking about?"

"A difficulty of vocabulary."

The loudspeaker above the door clicked on and Clovis's voice said: "Attention. Strange happening. Assemble in the lounge at once. Strange happening."

Myri and Bruno stopped staring at each other and hurried out along the narrow corridor. Clovis and Lia were already in the lounge, looking out of the port.

Apparently only a few feet beyond the steelhard glass, and illuminated from some invisible source, were two floating figures. The detail was excellent, and the four inside the sphere could distinguish without difficulty every fold in the naked skin of the two caricatures of humanity presented, it seemed, for their thorough inspection, a presumption given added weight by the slow rotation of the pair that enabled their every portion to be scrutinised. Except for a scrubby growth at the base of the skull, they were hairless. The limbs were foreshortened, lacking the normal narrowing at the joints, and the bellies protuberant. One had male characteristics, the other female, yet in neither case were these complete. From each open, wet, quivering toothless mouth there came a loud, clearly audible yelling, higher in pitch than any those in the sphere could have produced, and of an unfamiliar emotional range.

"Well, I wonder how long this will last," Clovis said.

"Is it worth trying the repellers on them?" Lia asked. "What does the radar say? Does it see them?"

"I'll go and have a look."

Bruno turned his back on the port. "I don't like them."

"Why not?" Myri saw he was sweating again.

"They remind me of something."

"What?"

"Im trying to think."

But although Bruno went on trying to think for the rest of that day, with such obvious seriousness that even Clovis did his best to help with suggestions, he was no nearer a solution when they parted, as was their habit, at five minutes to midnight. And when, several times in the next couple of days, Myri mentioned the afternoon of the caricatures to him, he showed little interest.

"Bruno, you are extraordinary," she said one evening. "What happened to those odd feelings of yours you were so eager to describe to me just before Clovis called us into the lounge?"

He shrugged his narrow shoulders in the almost girlish way he had. "Oh, I don't know what could have got into me," he said. "I expect I was just angry with that confounded analyser and the way it kept breaking down. It's been much better recently."

"And all that thinking you used to do."

"That was a complete waste of time."

"Surely not."

"Yes, I agree with Clovis, let Base do all the thinking."

Myri was disappointed. To hear Bruno resigning the task of thought seemed like the end of something. This feeling was powerfully underlined for her when, a little later, the announcement came over the loudspeaker in the lounge. Without any preamble at all, other than the usual click on, a strange voice said: "Your attention, please. This is Base calling over your intercom."

They all looked up in great surprise, especially Clovis, who said quickly to Bruno: "Is that possible?"

"Oh yes, they've been experimenting," Bruno replied as quickly.

"It is perhaps ironical," the voice went on, "that the first transmission we have been able to make to you by the present means is also the last you will receive by any. For some time the maintenance of space stations has been uneconomic, and the decision has just been taken to discontinue them altogether. You will therefore make no further reports of any kind, or rather you may of course continue to do so on the understanding that nobody will be listening. In many cases it has fortunately been found possible to arrange for the collection of station staffs and their return to Earth; in others, those involving a journey to the remoter parts of the

galaxy, a prohibitive expenditure of time and effort would be entailed. I am sorry to have to tell you that your own station is one of these. Accordingly, you will never be relieved. All of us here are confident that you will respond to this new situation with dignity and resource.

"Before we sever communication for the last time, I have one more point to make. It involves a revelation which may prove so unwelcome that only with the greatest reluctance can I bring myself to utter it. My colleagues, however, insisted that those in your predicament deserve, in your own interests, to hear the whole truth about it. I must tell you, then, that contrary to your earlier information we have had no reports from any other station whose contents resembles in the slightest degree your accounts of the strange happenings you claim to have witnessed. The deception was considered necessary so that your morale might be maintained, but the time for deceptions is over. You are unique, and in the variety of mankind that is no small distinction. Be proud of it. Goodbye for ever."

They sat without speaking until five minutes to midnight. Try as she would, Myri found it impossible to conceive their future, and the next morning she had no more success. That was as long as any of them had leisure to come to terms with their permanent isolation, for by midday a quite new phase of strange happenings had begun. Myri and Lia were preparing lunch in the kitchen when Myri, opening the cupboard where the dishes were kept, was confronted by a flattish, reddish creature with many legs and a pair of unequally-sized pincers. She gave a gasp, almost a shriek, of astonishment.

"What is it?" Lia said, hurrying over, and then in a high voice: "Is it alive?"

"It's moving. Call the men."

Until the others came, Myri simply stared. She found her lower lip shaking in a curious way. *Inside* now, she kept thinking. Not just outside. *Inside*.

"Let's have a look," Clovis rapped. "I see. Pass me a knife or something." He rapped at the creature, making a dry, bony sound. "Well, it works for tactile and aural as well as visual, anyway. A thorough illusion. If it is one."

"It must be," Bruno said. "Don't you recognise it?"

"There is something familiar about it. I suppose."

"You suppose? You mean you don't know a crab when you see one?"

"Oh, of course," Clovis looked slightly sheepish. "I remember now. A terrestrial animal, isn't it? Lives in the water. And so it must be an illusion. Crabs don't cross space as far as I know, and even if they could they'd have a tough time carving their way through the skin of the sphere."

His sensible manner and tone helped Myri to get over her astonishment, and it was she who suggested that the crab be disposed of down the waste chute. At lunch she said: "It was a remarkably specific illusion, don't you think? I wonder how it was projected."

"No point in wondering about that," Bruno told her. "How can we ever know? And what use would the knowledge be to us if we did know?"

"Knowing the truth has its own value."

"I don't understand you."

Lia came in with the coffee just then. "The crab's back," she said. "Or there's another one there, I can't tell."

More crabs, or simulacra thereof, appeared at intervals for the rest of the day, eleven of them in all. It seemed, as Clovis put it, that the illusion-producing technique had its limitations, inasmuch as none of them saw a crab actually materalize: the new arrival would be "discovered" under a bed or behind a bank of apparatus. On the other hand, the depth of illusion produced was very great, as they all agreed when Myri, putting the eighth crab down the chute, was nipped in the finger, suffered pain and exuded a few drops of blood.

"Another new departure," Clovis said. "An illusory physical process brought about on the actual person of one of us. They're improving."

Next morning there were the insects. The main apparatus room was found to be infested with what, again on Bruno's prompting, they recognised as cockroaches. By lunch-time there were moths and flying beetles in all the main rooms, and a number of large flies became noticeable towards the evening. The whole of their attention became concentrated upon avoiding these creatures as far as possible. The day passed without Clovis asking Myri to go with him. This had never happened before.

The following afternoon a fresh problem was raised by Lia's announcement that the garden now contained no fruits or vegetables – none, at any rate, that were accessible to her senses. In this the other three concurred. Clovis put the feelings of all of them into words when he said: "If this is an

illusion, it's as efficient as the reality, because fruits and vegetables you can never find are the same as no fruits and vegetables."

The evening meal used up all the food they had. Soon after two o'clock in the morning Myri was aroused by Clovis's voice saying over the loudspeaker: "Attention, everyone. Strange happening. Assemble in the lounge immediately."

She was still on her way when she became aware of a new quality in the background of silence she had grown used to. It was a deeper silence, as if some sound at the very threshold of audibility had ceased. There were unfamiliar vibrations underfoot.

Clovis was standing by the port, gazing through it with interest. "Look at this, Myri," he said.

At a distance impossible to gauge, an oblong of light had become visible, a degree or so in breadth and perhaps two and a half times as high. The light was of comparable quality to that illuminating the inside of the sphere. Now and then it flickered.

"What is it?" Myri asked.

"I don't know, it's only just appeared." The floor beneath them shuddered violently. "That was what woke me, one of those tremors. Ah, here you are, Bruno. What do you make of it?"

Bruno's large eyes widened further, but he said nothing. A moment later Lia arrived and joined the silent group by the port. Another vibration shook the sphere. Some vessel in the kitchen fell to the floor and smashed. Then Myri said: "I can see what looks like a flight of steps leading down from the lower edge of the light. Three or four of them, perhaps more."

She had barely finished speaking when a shadow appeared before them, cast by the rectangle of light on to a surface none of them could identify. The shadow seemed to them of a stupefying vastness, but it was beyond question that of a man. A moment later the man came into view, outlined by the light, and descended the steps. Another moment or two and he was evidently a few feet from the port, looking in at them, their own lights bright on the upper half of him. He was a well-built man wearing a grey uniform jacket and a metal helmet. An object recognisable as a gun of some sort was slung over his shoulder. While he watched them, two other figures, similarly accoutred, came down the

steps and joined him. There was a brief interval, then he moved out of view to their right, doing so with a demeanour of one walking on a level surface.

None of the four inside spoke or moved, not even at the sound of heavy bolts being drawn in the section of outer wall directly in front of them, not even when that entire section swung away from them like a door opening outwards and the three men stepped through into the sphere. Two of them had unslung the guns from their shoulders.

Myri remembered an occasion, weeks ago, when she had risen from a stooping position in the kitchen and struck her head violently on the bottom edge of a cupboard door Lia had happened to leave open. The feeling Myri now experienced was similar, except that she had no particular physical sensations. Another memory, a much fainter one, passed across the far background of her mind: somebody had once tried to explain to her the likeness between a certain mental state and the bodily sensation of discomfort, and she had not understood. The memory faded sharply.

The man they had first seen said: "All roll up your sleeves."

Clovis looked at him with less curiosity than he had been showing when Myri first joined him at the port, a few minutes earlier. "You're an illusion," he said.

"No I'm not. Roll up your sleeves, all of you."

He watched them closely while they obeyed, becoming impatient at the slowness with which they moved. The other man whose gun was unslung, a younger man, said: "Don't be hard on them, Allen. We've no idea what they've been through."

"I'm not taking any chances," Allen said. "Not after that crowd in the trees. Now this is for your own good," he went on, addressing the four. "Keep quite still. All right, Douglas."

The third man came forward, holding what Myri knew to be a hypodermic syringe. He took her firmly by her bare arm and gave her an injection. At once her feelings altered, in the sense that, although there was still discomfort in her mind, neither this nor anything else seemed to matter.

After a time she heard the young man say: "You can roll your sleeves down now. You can be quite sure that nothing bad will happen to you."

"Come with us," Allen said.

Myri and the others followed the three men out of the

sphere, across a gritty floor that might have been concrete and up the steps, a distance of perhaps thirty feet. They entered a corridor with artificial lighting and then a room into which the sun was streaming. There were twenty or thirty people in the room, some of them wearing the grey uniform. Now and then the walls shook as the sphere had done, but to the accompaniment of distant explosions. A faint shouting could also be heard from time to time.

Allen's voice said loudly: "Let's try and get a bit of order going. Douglas, they'll be wanting you to deal with the people in the tank. They've been conditioned to believe they're congenitally aquatic, so you'd better give them a shot that'll knock them out straight away. Holmes is draining the tank now. Off you go. Now you, James, you watch this lot while I find out some more about them. I wish those psycho chaps would turn up – we're just working in the dark." His voice moved further away. "Sergeant – get these five out of here."

"Where to, sir?"

"I don't mind where – just out of here. And watch them."

"They've all been given shots, sir."

"I know, but look at them, they're not human any more. And it's no use talking to them, they've been deprived of language. That's how they got the way they are. Now get them out right away."

Myri looked slowly at the young man who stood near them: James. "Where are we?" she asked.

James hesitated. "I was ordered to tell you nothing," he said. "You're supposed to wait for the psychological team to get to you and treat you."

"Please."

"All right. This much can't hurt you, I suppose. You four and a number of other groups have been the subject of various experiments. This building is part of Special Welfare Research Station No. 4. Or rather it was. The government that set it up no longer exists. It has been removed by the revolutionary army of which I'm a member. We had to shoot our way in here and there's fighting still going on."

"Then we weren't in space at all."

"No."

"Why did they make us believe we were?"

"We don't know yet."

"And how did they do it?"

"Some new form of deep-level hypnosis, it seems, probably renewed at regular intervals. Plus various apparatus for producing illusions. We're still working on that. Now, I think that's enough questions for the moment. The best thing you can do is sit down."

"Thank you. What's hypnosis?"

"Oh, of course they'd have removed knowledge of that. It'll all be explained to you later."

"James, come and have a look at this, will you?" Allen's voice called. "I can't make make much of it."

Myri followed James a little way. Among the clamour of voices, some speaking languages unfamiliar to her, others speaking none, she heard James ask: "Is this the right file? Fear Elimination?"

"Must be," Allen answered. "Here's the last full entry. *Removal of Bruno V and substitution of Bruno VI accomplished, together with memory-adjustment of other three subjects. Memo to Preparation Centre: avoid repetition of V personality-type with strong curiosity-drives.* Started catching on to the set-up, eh? Wonder what they did with him."

"There's that psycho hospital across the way they're still investigating; perhaps he's in there."

"With Brunos I to IV, no doubt. Never mind that for the moment. Now. *Procedures: penultimate phase. Removal of all ultimate confidence: severance of communication, total denial of prospective change, inculcation of 'uniqueness' syndrome, environment shown to be vioable, unknowable crisis in prospect (food deprivation).* I can understand that last bit. They don't look starved, though."

"Perhaps they've only just started them on it."

"We'll get them fed in a minute. Well, all this still beats me, James, *Reactions. Little change. Responses poor. Accelerating impoverishment of emotional life and its vocabulary: compare portion of novel written by Myri VII with contributions of predecessors. Prognosis: further affective deterioration: catatonic apathy: failure of experiment.* That's comfort, anyway. But what has all this got to do with fear elimination?"

They stopped talking suddenly and Myri followed the direction of their gaze. A door had been opened and the man called Douglas was supervising the entry of a number of others, each supporting or carrying a human form wrapped in a blanket.

"This must be the lot from the tank," Allen or James said.

Myri watched while those in the blankets were made as comfortable as possible on benches or on the floor. One of them, however, remained totally wrapped in his blanket and was being paid no attention.

"He's had it, has he?"

"Shock, I'm afraid." Douglas's voice was unsteady. "There was nothing we could do. Perhaps we shouldn't have . . ."

Myri stooped and turned back the edge of the blanket. What she saw was much stranger than anything she had experienced in the sphere. "What's the matter with him?" she asked James.

"Matter with him? You can die of shock, you know."

"I can do what?"

Myri, staring at James, was aware that his face had become distorted by a mixture of expressions. One of them was understanding: all the others were painful to look at. They were renderings of what she herself was feeling. Her vision darkened and she ran from the room, back the way they had come, down the steps, across the floor, back into the sphere.

James was unfamiliar with the arrangement of the rooms there and did not reach her until she had picked up the manuscript of the novel, hugged it to her chest with crossed arms and fallen on to her bed, her knees drawn up as far as they would go, her head lowered as it had been before her birth, an event of which she knew nothing.

She was still in the same position when, days later, somebody sat heavily down beside her. "Myri. You must know who this is. Open your eyes, Myri. Come out of there."

After he had said this, in the same gentle voice, some hundreds of times, she did open her eyes a little. She was in a long, high room, and near her was a fat man with a pale skin. He reminded her of something to do with space and thinking. She screwed her eyes shut.

"Myri. I know you remember me. Open your eyes again."

She kept them shut while he went on talking.

"Open your eyes. Straighten your body."

She did not move.

"Straighten your body, Myri. I love you."

Slowly her feet crept down the bed and her head lifted. . . .

UNIT

J. T. McIntosh

This brilliant Scotsman first began writing for American publication in 1950, and has since had a sizable number of first-rate science fictions in our magazines. Oddly enough, though "Unit" (one of his best creations) has never seen the American light before, having appeared previously in the British *New Worlds* in 1957, and nowhere else.

It is a pleasure to remedy that omission: for the story surely is one of the best in the parapsychological area, and specifically in the rarefied region which Theodore Sturgeon, in his classic *More than Human,* defined as "homo gestalt." This involves the creation of a *complete* "personality" out of the separate talents of a small, close knit group of individuals.

The existence of the so-called "psi" talents, whether simple telepathy, or the more unlikely levitation, or something as sophisticated and complex as the fused personality of the multi-individual gestalt "man", is still a matter of heated controversy among psychologists, with the enormous majority opting for the non-existence of such phenomena. However, in science fiction we can *assume* their reality, particularly since they make such lovely tales as the present one possible.

And who knows? It is always "possible" that there may be a sudden leap into this arcane and admittedly unlikely region of mind powers. The ancient alibi supporting such an assumption still holds: Try to imagine describing radio to Eighteenth Century Rationalists! Maybe the same this will turn out to be true about parapsychology and Twentieth Century Scientists.

WHEN A.D. CALLED ME on the phone and invited me to lunch I knew he wanted something. I'd known A.D. a long time, quite long enough to know when he was merely being friendly and when he had something up his sleeve.

A.D. Young was something in the U.A., a very important

international octopus whose tentacles reached almost all the settlements in the galaxy. What he did in the organization I didn't know, but I suspected he was something more than a forty-five-year-old office boy. His approach smelled like he was offering me a job.

I was interested, because at the time I didn't have a job. And I'd reached the age of being concerned over being out of work. Oh, I had the odd thousand or two in my bank account, and if I starved it would be the first time. It wasn't in that way I was worried.

The trouble is, as you get older you learn more, you get better at things, and you expect more out of life. I was the same age as A.D. – forty-five, unmarried, a high-grade executive with no executions scheduled. Twenty years since I'd been happy to take any job that was going at any salary, just for the hell of it, but now I'd got used to four good meals a day and various other things that demand a good fat five-figure income.

At the moment I had no income at all. I shouldn't have told Bently what I thought of him. Or if I'd told him, I shouldn't have told him so he understood. Or if I'd told him so he understood I should have waited until I was in a position to fire him instead of having him fire me.

I think that makes my interest in A.D.'s proposition clear. I wasn't much interested in the U.A., not at the time. I was interested in anything paying not less than $30,000 a year.

When I saw him A.D. came straight to the point. "I know you're free, Edgar," he said. "I checked. How about taking a job with the U.A.?"

"The U.A.?" I said, as if I'd never heard of it before.

"Unit Authority," said A.D. helpfully.

"You've got the wrong number, A.D.," I told him. "I'm quite satisfied with myself as I am."

"I don't mean as a Uniteer. I mean as a Unit Father."

I liked the idea. It made A.D.'s very good cigar taste even better. Unit Fathers were very important people. I'd get my $30,000. I showed no sign of my interest, however.

"Don't bother to be coy," said A.D. "You get paid the same whether you need the job or not."

"I don't need the job," I retorted. "And what gives you the idea I'm so concerned about money?"

"Observation," said A.D. drily.

There was no answer to that so I didn't look for one.

"What sort of job would my Unit be doing?" I asked cautiously. "And would it be here on Earth or in some God-forsaken hole at the other end of the galaxy?"

A.D. shook his head. "You don't get told that. Your Unit might be running a factory right here . . . or it might be sent to Perryon."

"Perryon," I murmured. "That's certainly a God-forsaken hole, from what I've heard of it."

"I'm surprised you've heard of it."

"Oh, I know this and that," I said. "Know the alphabet and everything." But still I wasn't satisfied. Something still smelled. It wasn't necessarily a bad smell, just a smell.

"You've got something else in mind, A.D.," I said. "You never waste a stone on anything less than three birds. I like to know what I'm letting myself in for. Come on, give."

"You'd have to know anyway," said A.D., unperturbed. "I know you, Edgar. On the right you carry your wallet, and on the left you carry your heart. You never let one get the better of the other. I understand that. You'll be a good Unit Father. You've got the right mixture of hard-headedness and humanity."

"I weep tears of gratitude," I said. "Now what's the build-up for?"

"My daughter," said A.D. quietly, "is volunteering for a Unit. Today."

"What for?" I asked, astonished.

"That doesn't matter. What does matter is this – I can't stop her, and when she's a Uniteer she won't know who she was before. I may never see her again. I certainly won't be allowed to tell her I'm her father. I won't be able to do anything for her."

He paused. I didn't say anything.

"After Lorraine has volunteered for a Unit," A.D. went on, "she and I will be nothing to each other. I'll be able to pull strings to find out how she's getting on. I may be able to think of some excuse to meet her at the U.A. Depot now and then. But that's all. Now do you understand?"

I nodded.

"I won't see you very often either," A.D. said. "But at least I'll know you're looking after the unit Lorraine will be in. That's something."

"You'll be able to swing that?" I asked curiously.

"Yes."

I paused, thinking it over. I didn't offer A.D. my sympathy. A.D. wasn't the kind of man who wanted or needed sympathy.

I had identified all the smells now. "That's the three birds," I ruminated. "One, your old friend is out of a job and you can give him one. Two, you need Unit Fathers anyway. Three, you want someone to keep an eye on Lorraine after she a Uniteer."

"Four," said A.D., "you don't sell out. You know that if you spread it around that I told you where your Unit was going and fixed things so that my daughter was assigned to a Unit headed by a friend of mine, I'd be due for a bath in boiling oil. But you'll keep it to yourself."

"Okay," I said. "To all four."

"You'll do it?"

"I'll do it. My wallet has persuaded my heart – or the other way round."

So we went down to the Unit depot and I became a father.

That afternoon I watched my children coming in. Coming in, not being born. It's time we dropped that metaphor.

I sat with a technician behind one-way glass and watched a psychologist interviewing people. I'd been interviewed too. I'd passed as a Unit Father, *summa cum laude*. They told me I should have been a Unit Father long ago. I told them I'd never happened to meet the right woman. They looked as if they'd heard that one before.

I didn't see A.D. around the place. He was one of the men behind the scenes, apparently. He had certainly pulled the right strings, for Lorraine was the first person I saw interviewed.

I'd met Lorraine once or twice, usually when she was just on the point of dashing off somewhere. We were no more than names to each other.

In fact it was only when I had time for a long, steady stare at her, behind the glass in the U.A. depot, that I realized Lorraine was a beauty. She had the kind of face and figure that had to grow on you before you suddenly realized how lovely the girl was.

Her nose was too small and her forehead too high. She looked too flat until she got excited or angry, and then you saw that she had the usual dimensions after all.

"Now tell me, Miss Young," said the psychologist, pleasantly, "just why are you here?"

"Do I have to tell you that?" Lorraine asked, biting her lip.

"No. But we'll find out anyway, in the tests."

She took another bite. Then she looked up suddenly, defiantly. "Well, if you must know," she said, "it's this or suicide."

She expected to shock the psychologist, but she should have known better. In the first place, he was a good psychologist, and in the second, he saw scores of people every week who had come to volunteer for a Unit because it was that or suicide.

He nodded. "Why?" he asked simply.

"I've lost the man I'm in love with," she said.

He didn't look surprised or ask if it was that serious. Obviously it was that serious, or she wouldn't be here. He wasn't necessarily believing what she was saying anyway. It would all come out, as he'd already said, in the tests.

"We want volunteers, Miss Young," said the psychologist, "but we don't want people who have come here on impulse and will regret it later. If you – "

"I won't go back on it."

"It's not that. You can't. Are you sure that . . . in three months' time, say, you'd still want to do this."

"In three months' time," said Lorraine bitterly, "I wouldn't be around to volunteer for a Unit."

"When did this happen, Miss Young? I mean, how long have you – "

"We broke up two weeks' ago."

"That's a fair time," the psychologist admitted. "If you're quite sure, I can't refuse to accept you."

"I'm quite sure."

After that came the preliminary testing, and I saw most of that too. It took a long time, and after a while the technician beside me went away and left me to watch alone. I was interested because it was Lorraine.

I wondered what A.D. was like as a father. Was it his fault that at twenty-two Lorraine felt her life was a wreck? Perhaps, I thought, if only because she'd been spoiled. She'd always had everything she wanted, and so it seemed like the end of the world when a man she wanted didn't want her.

I learned a lot about Lorraine as I watched her being

tested by every conceivable psychological test – intelligence, stability, aptitude, personality, psychosomatic, word-association, everything I'd heard of and a few I hadn't.

Then I realized, as I should have done long ago, that all this didn't matter. Lorraine as she was now was going to cease to exist in a few minutes or hours, and the Lorraine I was going to know would only begin to grow after that.

I got up and followed the technician. Lorraine was still doing the exhaustive psychological tests.

Though it was now late afternoon, the technician told me that I'd see the completion of my Unit before the depot closed for the day. It was open until midnight, and it did most of its business, so the technician told me, in the evening. People who had meant to volunteer for a Unit on a certain day kept leaving it later and later until at last they had to go or leave it until the next day.

The next person I saw being interviewed was Dick Lowson. That wasn't his name, but it was the name he was given later, the name under which I knew him.

Men and women who join Units have to make a clean break with their previous life. They're usually given new names and sometimes even new faces. Lorraine's Christian name wasn't changed, for some reason, but her surname was. She became Lorraine Watterson – not that that matters.

Dick was a tall, thin man of about thirty, with hair going out like the tide. He was moody, dreamy, indifferent.

"How would you describe your problem, yourself?" the psychologist asked.

Dick stared straight at us, gathering his thoughts. I moved uncomfortably. "He can't see us," the technician murmured. "He's just staring into space."

"How many people have you got behind that glass?" Dick asked. He shrugged and turned away. "Doesn't make any difference. Bring them in here if you like. How would I describe my problem – does that matter?"

"Yes," said the psychologist.

Dick shrugged. "All right, I'll try to tell you. I was a boy wonder. Straight A's in every subject, and pretty good outside college too. Plenty of money from spare-time jobs, social success, girls . . . I had six girls on a string when I was fifteen – wonder why I bothered. By the time I was twenty I'd done it all. For seven or eight years I did it all

over again, getting less and less fun out of it – making money, climbing on the next man's back, winning games, buying things selling things, and reducing the number of virgins in the United States. Last three years I haven't bothered doing anything very much. Nothing seems worth while."

He sighed. "Now clean the slate and let me start over again."

The psychologist nodded. "You IQ's very high," he commented.

"Sure. Ain't I lucky? Everybody wants to be smart. A fundamental error. If you're dumb, things are simple. The smarter you are, the more complicated things get. Are you going to make me dumb?"

"No. You'll be the brains of a Unit."

"Thanks for nothing."

"And you'll like it."

"Good. What do I do now?"

The psychologist told him what to do now.

In the dark passageway I murmured: "That must be awful."

"What must be awful?" the technician asked.

"Having done everything before you're thirty."

"He hasn't done everything. He just thinks he has."

"Well, it must be awful to *think* you've done everything before you're thirty."

"Neurosis," said the technician. "We'll soon fix that."

"What exactly is this clearing process?"

"We just sponge everything off the brain. Experience, memories, language, neurosis – the lot. That leaves capacity and damn little else. Then we can train them right."

"Sounds a bit inhuman."

"Nonsense. Uniteers are happier, saner, and much more useful than anyone else. Far more than you and me."

"Then why don't we go and volunteer?"

The technician grinned. "Why do Christians stay out of heaven as long as they can?"

I saw a lot of people being interviewed, and naturally not many of them were assigned to my Unit. The depot handled about twenty people a day, four Units.

I'm ignoring those who weren't assigned to my group. I soon forgot the others anyway. All of them, except Lorraine

and Helen, got new names later. Perhaps it wasn't worth while changing a name like Helen – there's so many of them.

Helen would have been a very beautiful girl but for one thing. It was a big thing, though.

Her face was less alive than a face on a magazine cover. Her changes of expression were even deader. Smile: pull cheek muscles. Laugh: open mouth, oscillate vocal cords. Frown: corrugate forehead. A robot could have done it as well.

"What do you mean, are the cops after me?" she demanded. "Why should the cops be after me?"

"All that concerns us," said the psychologist, "is how far they are after you."

He was a good psychologist. He knew what to say to make contact.

Helen cooled down. "You mean you don't care?"

"Not in the least. After you're cleared you can't possibly have criminal tendencies."

"Why, you louse, are you suggesting I – "

"No, I'm not suggesting anything. How far after you are the cops?

"A long way. But they might catch up," Helen admitted. "Say, if clearing removes criminal tendencies, how come criminals can't volunteer?"

"They can, after they've served their sentences. We're not allowed to take criminals here as an alternative to prison. If we did, why, anybody could do anything he liked and volunteer for a Unit when he was caught, to avoid the jail sentence."

"I get it," said Helen. "Well, I'm in the clear." She looked thoughtful. "I wonder what I'll be like afterwards?"

"Wonderful," said the psychologist.

"Thanks," she said. "I guess you don't mean it, but thanks anyway."

After Helen came Brent.

Brent was a young, healthy, handsome moron. Society had warped him, but even in his original state he couldn't have been much of an asset to himself or anybody else.

"What good's he going to be?" I asked, rather resenting Brent's presence in my Unit. Lorraine, Dick and even Helen had all had something I could appreciate, but this big, goodlooking idiot didn't strike me as valuable material.

"You ought to know," said the technician reprovingly, "that you can't get anything done without a certain amount of stupidity and ignorance."

I looked at him sharply, scenting sarcasm, but the only light where we were was from the room beyond, heavily filtered, and I couldn't tell whether he meant what he said or not.

There was a long pause after Brent. People were interviewed, but the psychologist never made the sign to warn us that the person being interviewed was a possible recruit for my Unit.

"May take a while," the technician whispered. "It's always toward the end that forming a Unit gets difficult. In the beginning anyone will do. It's like putting five cakes in a box. The first four can be almost any size, but the last has to be just the right size and shape."

"How about me?" I asked. "What am I??'

"The box," said the technician.

I thought of asking why so comparatively little trouble was taken over the Unit Fathers, why all the Uniteers were thoroughly cleared and then trained for weeks, emerging as something in the order of supermen, while the Unit Father, theoretically at least the boss of the whole show, was just an ordinary human being, tested only briefly and given no psycholigical repair-work at all. However, I didn't have to ask. I could guess.

People are still suspicious of the Units. They use them, but they don't entirely trust them. There's a flavor of inhumanity about the whole system. The public doesn't like being at the mercy of people whose brains have been tampered with.

Hence the Unit Fathers – essentially ordinary human beings, in no way processed, cleared or otherwise mentally modified. A brake on the supernormal Uniteers. A safeguard. A token to show that ordinary people were the masters, Units the servants.

Our last member came in just before the depot closed. I noted the psychologist's sign and leaned forward eagerly.

Ione was a snub-nosed, wistful, reckless, restless creature whom I liked at sight. I wondered why a girl like Ione should be volunteering for a Unit – at nineteen.

"I won't be altogether different, will I?" she asked wistfully. "I like some things about the way I am now."

"The saner people are when they come in here," said the psychologist, "the less they change."

"I don't have to have my parent's consent, do I?"

"Not now. That was changed a couple of years ago. Would your parents be against this?"

"My parents are against everything," said Ione with a brief flash of bitterness.

So that was it.

Ione was an unwanted child. And nineteen years after arriving unwanted she volunteered for a Unit. It made sense.

Lorraine and Ione represented the two opposites who both landed up in Units quite often. The spoiled children, the children so protected from the world that when the world finally kicked them in the teeth it was an incredible, crippling shock. And the unwanted children, the children who had been brought up by indifferent parents and who had realized early that the love which other children took for granted was not for them. The first group over-confident, expecting too much of life. The second group expecting and finding too little.

Now that my Unit was complete I reviewed it mentally.

Lorraine, a girl who had always had everything she wanted, and let herself be broken to pieces the first time she wanted something and the world said no.

Dick, a man bored with a life in which things had come too easily and too early.

Helen, without moral sense or feminine warmth, hard as diamond.

Brent, bruised by a world in which everybody was quicker and cleverer than he was.

And Ione, a girl who should have been loved and admired but had always been unwanted and resented.

It was a group of useless people, five men and women who had grappled with the world and with life and had failed.

Five failures – and they were going to blend into some thing new, wonderful and perfect.

I saw quite a lot of the clearing and re-training processes. I didn't see A.D. again – he was being careful – and he didn't see Lorraine. He had known he wouldn't, of course. After the first day she wouldn't have known him anyway.

The ordinary human being's mind is an overgrown wilder-

ness. There are beautiful flowers and trees in it, but none of the flowers are as tough as the weeds. The weeds tangle up huge areas and lurk in the shadows of the loveliest plants and shrubs. They suck most of the nourishment from the soil and often strangle the more delicate blooms. Sometimes when you look into such a jungle you can see nothing but weeds.

Psychiatry for centuries waged a hopeless war on the weeds. Psychiatrists could cut a weed down, but that was like trying to stop the sea with a cardboard box.

What could be done, however, was clear the wilderness and start again.

As a reversed current prevents permanent magnetism being stored in a piece of equipment, a certain artificial neural current could cancel out everything in a mind – not by painting over what was there already, but by balancing it, nullifying it, totally erasing it. It was like re-recording on magnetic tape.

And the cleared mind was capable of wonderful things. It learned rapidly and correctly. No longer did it know that *blond men hit you.* Its calculations for the safety of the body it controlled weren't biased by the command *when there's danger always jump left.* It wasn't necessary anymore for men to fall in love with every woman who reminded them of their mothers. When a particular pattern of light and shade fell on their eyes women no longer had sickening, blinding migraine.

All this wouldn't have been much good if the weeds had been able to spring up rapidly again.

They didn't. The weeds of the mind gain strength with age. A weed could grow in a cleared mind, but it would be thirty years before it could take firm hold. And usually adults, unlike children, were able to recognize these weeds for what they were and pull them out easily, long before they became a danger.

The Units had grown out of this clearing process.

As mankind's boundaries were set wider and wider, as technology and education and social science and economics and politics and the human span of life grew, as man outgrew the planets and moved out into the galaxy, the task of directing things became more and more difficult and complex.

More electronic brains were used every week, but getting

the right answer from an electronic brain depended on punching the right buttons. Cybernetics *helped* to do things, it could never do them.

Hence the Units. Five cleared human beings, specially trained for a job and trained to work together, each to perform some function and trust the other four to do the rest, could do things no electronic brain could do and no group of a thousand individuals could do.

You see, the Units never made mistakes. That sounds like an exaggeration, but it isn't. When they did things which turned out to be wrong, subsequent investigation showed that their decision had still been right. Essential information might have been missing. Immediate action might have been called for on a basis of guesswork. The choice might have been among half a dozen courses of action each of which was wrong. Or they might have done the thing too late. Units could make *that* kind of mistake – their timing could be wrong. But being reasonable, being 100 per cent sane, being complete, being trained, being a Unit, no Unit could be *wrong* if it tried.

The Unit Fathers were kind of team managers. Sometimes a Unit on its own was too refined an instrument for ordinary things like booking accommodation, getting on a train, or taking a day off. Leaving a Unit to attend to such things was like using a scalpel to cut bread.

It wasn't just that a bread-knife could do the job as well. A bread-knife could do the job a whole lot better.

Hence, me. Unit Father – bread-knife.

It took only three or four months to train a Unit. That included all the general information the Uniteers individually had to have about life. True, there were enormous gaps, but only gaps which could quickly and quite easily be filled.

At the end of three months my Unit and I were on a ship bound for Perryon.

2.

There is plenty of time to get to know people on spaceship trips. None of them are longer than about two months, but two months is a long time when you have nothing to do but eat and sleep.

On ocean trips at least you can play tennis and swim and lean on the rail. In a spaceship the most exciting game you can play is chess. Playing cards isn't impossible, but the technique of handling metal cards and sliding them over the magnetized table destroys most players' concentration.

We hadn't really met socially before the trip. The five who made up the Unit proper had been trained to work with each other and I'd seen them all at every stage from birth to maturity, so to speak. Yet it was only on the *Violin Song* that we had time to sit together and get to know each other.

The first day out of New York I had morning coffee with Dick.

"Let's get to business," he said briskly. "As I understand it, we're being sent to Perryon to arbitrate between the two main factions there. But the real reason is because Perryon might be the base of the Traders. That right?"

I was a little startled by this blunt statement. In essence it was correct, but when I'd been told about it the matter hadn't been reduced to its essentials like this.

"Correct," I said.

"If we find that's so, that Perryon *is* the Traders' base, what are we supposed to do about it?"

"Just 'take appropriate action,'" I said.

Dick nodded. "Carte blanche. That's good. Okay, I'm going to check on Perryon. I've got a dozen books. Be seeing you."

He shot himself across the saloon, disdaining the handholds.

This, then, was the new, dynamic Dick, the brains of my Unit. A very single-minded young man.

He'd covered a lot in a few words. Officially we were going to Perryon as arbitrators. Perryon, like many another place at many another time, had a North-South squabble. My Unit was taking the place of a governor, with all the governor's power and far more than the governor's responsibilities.

Probably even if the question of the Traders hadn't arisen a Unit would have been sent to do this job. It was about time that Perryon, an impecunious, inhospitable, though climatically mild world, had its first Unit.

The Traders, or Free Traders, were smugglers.

Before space travel was an accomplished fact it had

always been assumed that if we ever did get to the planets and to other stars freight rates would be fantastically high. Why this was assumed isn't clear. The kind of ships we use cost nothing to run and not very much to service. Two months is a long run, most journeys taking less time. Hold space is nothing in the star lanes. It costs very little more to transport things between Earth and Arcturus than between Paris and New York. In some cases it actually costs less to move things light-years between worlds than a few hundred miles on Earth, depending on how much handling is needed.

This led to difficulties. Newly-settled planets didn't bother to develop certain industries. It wasn't worth while when the products of New York, Berlin and London cost only a little more than they cost in New York, Berlin and London.

This in turn led to economic chaos. Capital which was spent on the colonies didn't stay in the colonies, it came back to traders, not to the investors. Demand for many kinds of goods began to exceed the supply. Earth hadn't the space to expand any more; the colonies had, and didn't use it.

So heavy tariffs went on most goods being exported to the colonies. Not on newspapers, magazines, books, movies, phonograph records, but on washing-machines, cars, radio sets, furniture, typewriters, clothes. The tariff wasn't imposed to protect local industries, it was imposed to force local industries to start.

A new balance was achieved.

Then, of course, smuggling started. It was too easy. Anyone who had a ship could pack it full of, say, washing-machines and sell them at a profit of forty dollars on some planet where the duty-protected washing-machines were expensive and not very good. Three thousand washing-machines at forty dollars' clear profit a time is $120,000. The expenses of the trip could be as low as fifteen thousand dollars.

Any way you looked at it, the Traders were on to a good thing.

The chances that Perryon was the Traders' base weren't high. But it was known they had to have a base somewhere, on some settled planet. It was also known that their base couldn't be Earth.

With the kind of space travel we used, the only places

anyone could get to were the places everyone could get to. It was as if all travel were by railroad – where the lines went, any train could go. Where they didn't go, no train could go.

Part of our work was to check Perryon – one of nearly fifty worlds on which the Traders' base might be.

While I was still sitting there – I say sitting because that's easy to say, not because it's accurate – Lorraine came through, using the handholds. She carried a towel and a clean fallsuit, apparently on her way to have a bath.

When she saw me, however, she pulled herself over beside me and strapped herself about the middle, fastening her towel on another strap.

"Say, Edgar," she began. "You knew me before, didn't you?"

"Before you volunteered for a Unit?" I asked. Obviously that was what she meant, but I wanted time to consider my answer.

"Yes. What was I like?"

She meant, compared with what she was like now.

I looked at her. Physically, of course, she was exactly the same, except perhaps that she was a shade more alert now than she had been before, a little easier and more assured in her manner, and held herself more proudly.

Temperamentally she wasn't the same girl. She was serene now, but not serene-placid, more serene-enthusiastic. She had developed a sense of humor she had shown no sign of having before.

"Don't act as if it were top secret information," she said. It isn't. They'd have told me at the depot, but they'd have told me just what they wanted me to know. Why did I volunteer?"

"You were going to commit suicide otherwise," I said.

"No!" she exclaimed incredulously. "What for?"

"A man."

"Good God. I must have been crazy. They should have told me about that. Did you know the man?"

"No."

"Did you know me well?"

"No."

"You're not much help," Lorraine complained.

"Uniteers aren't supposed to be interested in their previous history," I said.

"Oh, I'm not desperate to know about mine," Lorraine remarked, shrugging her shoulders. "Only they might tell us a little more. Was I rich or poor, sociable or lonely, sought after or ignored? Did men write sonnets to me or pretend not to see me in the street? Was I a good girl or a loose woman?"

"Forget it," I said. "It doesn't matter."

"No, I guess it doesn't," she agreed mildly. "Tell me one thing, though. Which do you prefer – the girl I am now or the girl I was?"

"The girl you are now," I said instantly.

She smiled and unstrapped herself. "Well, that's something," she said, and pushed off with her feet.

I watched her fly gracefully out of the saloon. Some people think women look their best in spaceships. All the curves are high curves, with no gravity straining at pectoral, abdominal, gluteal and thigh muscles. On the other hand the fallsuit which is usually worn in space – a one-piece garment caught at wrists and ankles – is seldom glamorous.

Thinking of fallsuits made me glance behind me. Lorraine had left her towel and clean suit behind.

I threw back my head and laughed. That was supposed to be impossible. People who had been cleared just *didn't* forget things. so this towel wasn't here. I was imagining things.

I unstrapped Lorraine's things and myself and started after her.

She was in the so-called bath when I reached the so-called bathroom. One bathroom was allocated to the six of us.

If you want to make some money and be blessed by thousands of spaceship travellers, get busy and think up some satisfactory way of getting washed in free fall. The ordinary toilet functions aren't too badly catered for, but when it comes to taking a bath human ingenuity so far hasn't distinguished itself.

You could quite easily be sprayed by water, like a shower, but when the water bounces off you in all directions, and off the walls, and back again, how are you going to escape drowning? Water and air in space are the very devil. Surface tension is enough to keep droplets of water

together, not enough to keep big globules in one piece. When you touch water it runs all over you.

The only way to take a bath is this. You put on an air-mask and go into a tank full of water, with a complicated water-lock to enable you to get in and out without taking all the water in the tank with you.

Lorraine was in the tank. Her discarded clothes hung from a strap. Apparently she hadn't remembered leaving her things with me.

I left them on another strap and was just leaving when I heard a muffled tapping.

I was puzzled. Why should Lorraine be tapping the inside of her tank? Unless she'd taken in with her something hard with which to do the tapping it must be quite painful, banging the inside of a metal tank with bare knuckles against water resistance.

The tapping went on, insistent.

I tried the water-lock. Naturally it didn't move.

I tapped back. There was a pause, then the tapping inside resumed, quicker and stronger.

Not content with forgetting things, Lorraine seemed to have locked herself into a water-tank. I grinned again.

Then I saw that the tank was locked on the outside.

These tanks are like ordinary bathroom doors – they have a catch inside. But there was also a lock, used presumably when a tank was empty or out of order or being used for something else. Someone had locked Lorraine in.

I looked in another bathroom. There was a key in the lock of its bath. I removed it, took it back and tried it on the lock of Lorraine's tank. It fitted.

Lorraine came out dressed in an air-mask and grabbed her towel and fallsuit. "Be a gentleman, Edgar," she said. "Retreat."

"Why?" I asked. "Don't they remove all your inhibitions when they clear you?"

"Yes," she said primly. "But you still have yours."

"I'm not leaving you alone anyway," I said more soberly. "Someone's trying to kill you. And he might try again."

Lorraine stared at me for a moment. After that she wasted no time in getting herself dried and into the fallsuit. Then we went in search of the rest of the Unit.

This was the Unit's first job.

They very soon reached the conclusion that my guess was right and that someone had really tried to kill Lorraine.

The tiny facemask can manufacture air for about fifteen minutes. But for the accident of Lorraine leaving her towel behind no one would have gone near the bathroom for at least half an hour. At the end of that time someone would have asked "Where's Lorraine?" and after another quarter of an hour it would have been established that I'd seen her going to have a bath. We'd go looking for her, find the tank unlocked by this time, of course, with Lorraine drowned inside it. We'd have presumed that her mask was faulty.

If Lorraine hadn't realized almost as soon as she got into the tank that she'd left her things behind, and tried to come out to go and get them, she wouldn't have discovered that she was locked in until I'd been and gone.

The chances were altogether too much in favor of Lorraine being drowned for the incident to be anything else but a carefully-planned attempt at murder.

Dick left us for a while to get information and a passenger list from the captain. When he came back the Unit went to work again.

I wasn't in this. I sat in the room and listened, but I couldn't help them and I didn't understand much of what was going on. Someone would begin to say something, then stop. Lorraine and Dick would speak at once. Brent would begin something, Helen would take it up, Dick would shake his head. Lorraine would look up suddenly, Ione would interpret the look and for a moment they'd all be chattering excitedly.

It didn't look at all impressive at first. Then you realized that every time anybody stopped speaking, a whole process of thought had been followed out and discarded.

You see it happening sometimes with people who have quick minds and know each other very well. Someone begins to ask something, after a word or two another begins to answer, then the first speaker interrupts, satisfied.

I once saw a class of bright schoolboys running a competitive quiz. One question and answer went like this:

"A man asleep one night dreamed that –"

"The answer is, how could he –"

"That's right."

The Unit worked like that. They didn't have telepathy

and they didn't need it. Language and knowledge of each other's processes of thought were enough.

Dick had to do more talking than anybody else, because the others had much more difficulty in understanding what he was thinking than he had in understanding them. However, even Dick generally didn't have to say very much before the others grasped what he was driving at.

Having reached the tentative conclusion that the most probable motive for the attempt to murder Lorraine was that the Traders did have interests on Perryon and didn't want the Unit to investigate there, they turned their attention to the passenger list. It contained quite a lot of information about the people on board. Nevertheless, I didn't think for a moment that the Unit would be able to establish the identity of the assassin just from that.

They thought so, however. They came up with three names and declared confidently that the assassin must be one of these three. They didn't give their reasons. Then we went to see the captain again.

Captain Rawlson was in full charge of his ship, and we were merely six passengers, theoretically. But the fact that we were a Unit, with the full backing of the U.A. in anything we did, and still stronger backing behind that, made him nervous and ready to fall over himself in an effort to help us.

I was the spokesman, though Dick had told me what to say.

"If you and two of your officers come with us," I said, while we call on these three people, we'll be able to find the right one."

"How?" the captain asked, bewildered.

"I couldn't answer that, so I turned to Dick.

"Just by interpreting their reaction to seeing us," Dick said.

"But . . . what then?" asked the captain. He still wanted to give us all the help possible but he couldn't arrest a man because we thought he looked guilty.

"I don't know," I said, taking over again. "It will depend on circumstances. At least after that we'll know whom to watch."

The captain still looked doubtful, but couldn't very well refuse. He and two of his officers came with us and we went in search of the three people on our list.

We called on the woman first, a Mrs. Walker. Rhoda Walker turned out to be an attractive widow of twenty-eight, very quick and alert and smart and metallic. She reminded me of Helen before Helen was cleared. Of course Helen herself wouldn't know about that.

The moment I saw her I thought we'd come to the right place. She looked not only the kind of woman who would commit a murder, but also the kind of person who would think up a scheme like that to do it.

Lorraine did the talking. "Sorry to trouble you, Mrs. Walker," she said pleasantly. "Someone just tried to kill me, and I wondered if you could help us to find out who it was."

"Kill you? Here in the ship?" the woman exclaimed.

Lorraine nodded. "Frankly, Mrs. Walker, we think it might have been you," she said in the same pleasant tone.

Rhoda Walker looked around the party. "I begin to understand," she said softly. "You're a Unit, going to Perryon. Someone doesn't want you to get there – as a Unit."

"That was the conclusion we reached," Lorraine agreed. "I believe you're returning to Perryon to marry again, Mrs. Walker?"

For the first time the woman showed surprise. "How do you know that?" she demanded.

"We're good at guessing," said Dick. "How old are you, Mrs. Walker?"

She looked at the captain, holding himself in the doorway with me. All the Uniteers had packed themselves into the small cabin. The three officers and I were looking in from the doorway.

"Do I have to answer these questions?" Mrs. Walker asked the captain.

He hesitated. "Please do, Mrs. Walker," he said at last. "I may tell you –"

"No, you may not," said Dick quickly.

"All right," said the woman. She turned her head to look at Brent hovering behind her. "But kindly stay over there where I can see you all."

"Excuse me," said Brent politely, and slipped his hand down inside her fallsuit. There was a very brief struggle, and Brent came away holding a tiny gun. Rhoda's suit had been torn open, showing a curiously robust brassiere. To

wear a bra at all in space was unnecessary and unusual. However, the reason was now obvious. The gun had come from a tiny holster between her breasts.

"Now you *will* answer questions," said the captain with some satisfaction. "Carrying arms aboard ship is illegal. I can arrest you here and now."

"Go ahead," said Rhoda. She had already recovered her poise and was calmly fastening the top of her suit again.

"I'm sure you don't really mean that, Mrs. Walker," said the captain. "Incarceration aboard a spaceship is most uncomfortable."

Lorraine settled the issue by carrying on as if nothing had happened. "Dick asked how old you were, Mrs. Walker," she said.

"Twenty-eight. It's on the passenger-list, if you cared to look."

"We have looked. I think you're about thirty-four."

Rhoda shrugged but made no other answer.

"Your son is about fourteen," Lorraine remarked. "At least, he would have been if he'd lived."

Rhoda jerked convulsively. "How do you do it?' she asked. She didn't really care – she asked that question to cover something else.

"Did you try to kill Lorraine?" Dick asked.

"No," said Rhoda.

Dick turned away. "It's true," he said. "She knows something, and we'll be back to find out what. But meantime we want to find someone else. Let's go."

I opened my mouth to suggest that if Rhoda Walker knew anything we'd better get it from her here and now, for at least half a dozen good reasons. But I didn't say anything. Dick knew what he was doing.

Brent looked at the captain, waving the gun. "Do I give it to her or to you?" he asked.

"To me," said the captain, a trifle dazed. "You can get it from me at the end of the trip, Mrs. Walker."

"Come back some other time and see me socially," said Rhoda, as we went out.

'Don't worry," said Dick over his shoulder. "We will."

I couldn't understand how it was done any more than the captain could. But I had the beginning of an idea.

The ordinary person, guessing, makes use of a lot of things

he doesn't even know. Some of them are useful and liable to help him, while others are worse than useless and liable to give him the wrong answer every time. Take the lucky fellow. He's weighed the chances unconsciously and always veers toward the thing which might pay off and away from the thing which is going to entail more risk than it's worth. Then take the unlucky fellow. He always has good reasons for doing the wrong thing. He can always find ways to lose money. Tell him the right thing to do, he'll go away to do it, and later you'll find that between leaving you and doing the thing he's thought of some much better thing to do and has lost money, crashed his car, offended a customer, landed in jail or broken a leg.

The unlucky fellow has some sort of command that everything he does must turn out wrong. He tells you so himself. *Everything I do turns out wrong.* He says that twenty times a week. That or something like it.

Now the Uniteers have absolutely no bias any way. Even when they make blind guesses, the guesses are really blind, not modified by desire or hope or fear. And when they have reason to think a thing might be so, they know what the reason is, how likely it is, and how to check it.

How Lorraine had guessed Rhoda Walker was going back to Perryon to marry again I didn't know. Her guess was right, but probably Lorraine would still have got some of what she wanted if it had been wrong. Then Dick asked how old she was – marking time perhaps, but her reaction had told Lorraine that she was older than she pretended. Meantime Brent had been hovering about unobtrusively, watching Rhoda closely. Perhaps she had made a tiny movement toward the gun. After that Lorraine had made another good guess, a little off the target – and instantly realized that it was off the target, and shot again.

Like fortune-tellers, Lorraine and Dick hadn't had to guess about particular things. They told her some of what they *had* guessed.

And Dick had led us away as soon as he was completely certain that Rhoda wasn't the assassin. There was something else we could get from her, he said. The fact that he hadn't tried meant that he didn't want to get it – not yet.

The second person we called on was a false lead. I won't go into details. The Unit questioned him closely and made a

lot of intelligent guesses about him, but he wasn't the man we were looking for.

Jack Kelman, the last suspect, was surprised to see us, but friendly enough. He was a small, restless man, restless enough not to be able to relax even in free fall.

"Sure, shoot," he said. "I got nothing to hide."

Ione was sniffing. "Perfume," she said.

None of the rest of us could smell anything. Ione's sense of smell had been sharper that that of the rest of us before she'd been cleared, and it still was.

"Helen!" said Dick sharply.

That was cover. Helen moved, but it was Brent again who threw himself on Kelman.

Again there was a gun. This time it was fired. At one period it had been pointing at Lorraine, but when it went off, still in Kelman's hand, with Brent holding his wrist, it blew the lower half of Jack Kelman away.

The women got outside quickly. Being cleared they probably couldn't be sick even at such a sight. Nevertheless, none of them had any desire to stay and watch.

"Let's get back to Rhoda Walker's cabin," said Dick.

The captain protested. A man had been killed. There were things to be done . . .

"If you don't want more than one death on your ship," said Dick, "let's get back to Rhoda Walker's cabin."

The captain made no further protest.

Rhoda Walker was floating in the middle of her cabin. She hadn't been shot, she'd been strangled. If anything, the sight of her was less pleasant than Kelman had been. A desperate and fruitless attempt to make her look like the victim of a sexual assault hadn't improved her general appearance.

The captain, Dick and I reached quick agreement. The captain obviously didn't share my suspicion that Brent could have taken Kelman's gun away from him as easily as he had taken Rhoda's – without the gun going off. It was easily established that it had been Kelman's hands which had choked the life out of Rhoda. And the captain was ready – in fact eager – to believe that Rhoda or Kelman or both had made the attempt on Lorraine's life.

Thus the matter was quickly settled, officially.

As Dick said later: "There wasn't much we could have learned from them, Edgar. They were small-time crooks

hired to do a job. Look how easily they panicked. The people who hired them certainly wouldn't have allowed them to know much. It was more important to get them both out of the way."

"So you gave Rhoda a chance to go to Kelman, warn him, tell him we suspected her and be murdered for her trouble?" I suggested. "Not to mention giving Kelman a chance to go for his gun and get himself accidentally shot?"

"If we hadn't handled it that way," said Dick simply, "how could we have handled it?"

I began to see why people distrusted the Units and insisted on having unit Fathers in charge.

3.

Having been told so plainly that someone didn't want us on Perryon, we nevertheless reserved judgment and didn't conclude that it must be the Traders. It was quite possible that the people who didn't want us there had a stake in the North-South dispute we were supposed to be going there to settle.

The wars in Lilliput arose over the momentous question – whether to break eggs at the smaller or larger end. Swift meant to be satirical in choosing this as a cause for war, but satire has a habit of being less satirical than the truth.

Perryon's main point at issue, we discovered when we arrived, was whether Terran or galactic history should be taught in schools.

Benoit City was the main town in the north and Sedgeware the capital in the south. Benoit City Council declared that since Perryon was a new world the children would be much better off with an understanding of the current state of the galaxy than with knowledge of the old, dead, useless lore of Earth. Sedgeware immediately retaliated with a course in Terran history from the earliest days to the present, saying that Earth was the mother world and people without knowledge of their heritage were primitive savages.

Presently books on Earth were unobtainable in Benoit City and information about the colonies was difficult to procure in Sedgeware.

Then the people of chilly Benoit City took to wearing new, fanciful clothes which had only one thing in common –

none of them resembled anything ever worn on Earth. Since the people of Earth had at one time or another worn everything which constituted sensible clothing for the human race, the people of Benoit City had quite a job to find anything radically different, and often had to go to enormous extremes, just to be different. Meantime the people of warm Sedgeware wore nothing which wasn't of precise Terran cut, and while the women got by all right in summer clothes the men sweltered in double-breasted suits and felt hats.

In the Assembly the North delegates always voted for complete independence of Earth and the Southerns fought tooth and nail anything which broke the ties with Earth. Soon it was impossible to have a joint assembly at all, and two new Senates sat in Benoit and Sedgeware.

The first acts of violence arose over street names. Benoit City started it by changing all street names which savored of Earth – High Street, Fifth Avenue, Broadway, Main Street, King Street, Queen Street, Willowbank. Sedgeware changed all its streets to names of Terran towns. Then maurauders in Benoit City defaced the pure-Perryon street names and raiders in Sedgeware tore down the Earth names.

After that it wasn't long before any party of Southerners found in Benoit City were assumed to be there to commit sabotage. Soon after the first fights, the first deaths were reported . . .

When we arrived, the two factions weren't far short of open war. And that was all it was about.

In Benoit City on the day we arrived Lorraine and I stood at the window of the former governor's residence and watched people pass outside. We could hardly believe our eyes.

A child of five, sex unknown, went past wearing what looked like a model spaceship. A girl hobbled past in a dress shaped like a waterpipe. A man wore a box-shaped garment about his hips and a shirt in the shape of a sphere. The sphere idea was quite common. Apparently the perfect sphere was passed as non-Terran. The next man we saw wore what looked like a big cannon-ball about his middle and smaller cannon-balls everywhere else. A girl came along in the first skintight outfit we'd seen, with holes cut for her naked breasts to stick through. The idea, we guessed, was that this must be true Perryon style because it certainly wasn't anything else.

"Wonder if it's safe to walk outside looking like we do?" Lorraine murmured. "Or must I get a square bra and rectangular panties?"

This wasn't necessary, we found. The split wasn't because the North hated Earth and the South loved it. The Northerners weren't fighting with Earth, they were fighting with the South Perryonians over Earth.

We spent the first week at the residence in Benoit City and the second week in Sedgeware. We suspected that the Perryonians would be counting almost to the second the time we spent in the North and in the South, ready to squawk if one was favored over the other.

For Perryon was proud of us. We were the planet's first Unit. Even in Benoit City it was realized that we weren't there to rule Perryon on Earth's behalf, but to help the world independent of Earth. We did a few little jobs in the first few days that helped a lot – small stuff as far as a Unit was concerned, but very useful to the local people, and they were grateful.

We managed to settle a labor dispute, for example, simply by interpreting one side to the other. We showed the engineers who were going to dam a river exactly where and how to do it, and solved a troublesome case for the Benoit City police. These were just spare-time jobs, but they got a lot of publicity which didn't do our status in the community any harm.

So far we didn't interfere in the North-South arguments. We wanted to know more before we tackled that problem. Nevertheless, we were actually asked by the two Senates to act as liaison officers, and performed our first duties in a manner not too unsatisfactory to either side.

In the course of our local research it was easy to look for evidences of Trade activity. We found about what we expected. The Traders dealt with Perryon, obviously – all sorts of goods which hadn't paid duty were to be seen both in Benoit City and in Sedgeware.

But we didn't find any evidence that Perryon was the Traders' base.

We knew already that none of the Traders' ships were on any official register. People had been bribed to describe them, and the information thus gained indicated that the Traders' ships were small and specially built to be easily

hidden. They weren't to be found on any world masquerading as ordinary cargo ships. When not in use they were probably buried in deep holes specially made for them in deserted spots, holes which would be covered carefully while the ships were away so that no aerial survey would reveal anything.

So we knew we weren't going to see any large, suspicious, tarpaulin-covered objects in back yards, objects which would turn out to be unregistered Trader ships. We were looking for more subtle indications than that.

And we didn't find any. There was no sign on Perryon of Trader money, for example.

There's no point in making a kill unless you can benefit by it. Criminals through the ages have been notoriously unable to hang on to their loot until the hue and cry has died down before emerging as rich and powerful citizens.

We investigated all the people on Perryon who seemed to have a lot of money. That was easy, for there were about six of them.

Perryon was a poor planet and would probably always be a poor planet. Her natural resources weren't high, and the world had only been colonized because it was so similar to Earth. It was a comfortable world to live on, probably the most comfortable after Earth of all the worlds so far settled. But if Perryon didn't have the discomforts of Fryon and Gersten and Parionar, it didn't have their rewards either.

A rich man stood out on Perryon like a sore thumb. All the men we investigated, except one, had brought their money to Perryon and how they had made it could be easily checked. The one exception was a financial genius who was making money like Henry Ford – only since he was operating on Perryon instead of Earth, cars weren't enough and he had to run businesses in electronics, engineering, publishing, textiles, mining, banking and a dozen other things. We checked Robert G. Underwood very thoroughly without finding any hint that his coffers might be swelled by Trader profits.

Toward the end of the second week, Dick and I were discussing things at the residency in Sedgeware. Outside on the lawn Brent, Ione and Helen were sunning themselves. Lorraine was in town conferring with the police chief. We worked very closely with the police of both Benoit City and Sedgeware.

Since their clearing and training Ione and Helen had become almost dumb. And Brent had been dumb anyway. Dick and Lorraine did most of the Unit's talking between them, though occasionally when some Unit representative had to be sent somewhere merely to make an appearance and pick up facts Helen or Ione was sent.

"You're sure there's no danger?" I asked, nodding at the three on the lawn. Anyone who wanted to take a shot at them could do so without hindrance. We had no guards in attendance.

"Oh yes," said Dick confidently. "Making an attempt on Lorraine's life in the ship, something that might have passed off as an accident, was one thing. Jack Kelman was just a thug hired to do a job, Rhoda Walker an assistant in case he needed one. But trying anything here would merely prove that there was something here for a Unit to find, and the U.A. would probably send out about six Units to make sure it was found."

"It's all very well for you," I commented. "It isn't your responsibility to look after the safety of the Unit – it's mine."

"Believe me," said Dick, "if something happened to a member of this Unit – any member – you wouldn't care half as much about it as we would."

"I don't quite get that," I said. "Suppose you lost Ione, say. The four of you who were left would still have plenty of brains and drive and personality and brawn, wouldn't you? Would it make all that difference? Surely the Unit would function much as before?"

Dick shook his head very decidedly. "Absolutely not," he said. "We're trained so that we each cover so much. We *could* have been trained so that the four of us without Ione could do a decent job . . . but we weren't. When anything happens to any one of us, you're supposed to take his place – but frankly, Edgar, you'd be no good at all."

"Seems to me," I remarked, "that it's a queer way to build up a working force – useless if one member is missing."

Dick grinned. "What a wonderful argument *that* is. You could make a car with only three wheels. Does that mean that if you make a car with four, you should make it so that it can run quite well on three? Should you construct your car so that it will run if necessary without a carburettor, or without the gas pump, or the oil pump?"

"All right, you win," I grunted.

"That analogy isn't too bad. The five of us are the engine, the transmission, the body, the wheels and the controls. Without any one of us, what good is the car?"

The phone rang. Strictly I should have answered, but Dick was nearest. He picked it up.

People who are cleared don't lose their emotions. They are said to feel all the more pleasant emotions much more clearly and strongly than ordinary people, and though the less pleasant emotions like fear and anger and desperation don't necessarily affect them the way they do us, they're still there.

But cleared people don't have to show these emotions. If they're with others who are showing theirs, they do, usually, just to be sociable. They seldom make demonstrations which are artificial as far as they're concerned.

Dick was so calm I thought this was just a routine call. So it was a shock when he put the phone down and said:

"Someone just shot six bullets into Lorraine. She won't live. Let's get down to the hospital, shall we?"

It took a while before even the considerable authority we could wield got us in to see Lorraine. They'd been operating when we arrived. There was a faint chance to save her life, apparently, but so faint that it was mentioned only for the sake of accuracy.

"Don't you understand, idiot," Dick said heatedly to the head surgeon, for once letting his exasperation with ordinary uncleared people show, "that that's exactly why we've got to see her right away? She's a member of a Unit. With the rest of us helping her, she'll pull through if there's a ghost of a chance. But if –"

The head surgeon walked away.

Cleared or not, Dick was raging. It was as if someone was insisting on amputating his right leg and he knew the leg didn't have to be amputated.

"Cool down," I said. "We've got to do this their way."

"While Lorraine dies!" Dick exclaimed.

On Earth the Units are commoner and better understood. People know that if a Uniteer has a baby, for example, the other members of the Unit are always with her. The husband, whoever he is, stays outside as usual, but the four other members of her Unit are there beside her, helping her. Not that they need to be there for a confinement.

They do need to be there when it's something really serious.

You see, in one way cleared people aren't as sensible as the rest of us. If they're in supreme danger, if they're badly injured, they refuse to give up. They won't lapse into unconsciousness and cease to take any responsibility for what happens to them. They go on fighting until at last they die.

That's if they're on their own – or surrounded by ordinary people, which comes to the same thing as far as a cleared person is concerned.

If the Unit is there, they trust it completely, as usual. The Unit tells them to sleep, or concentrate on something, or block off something, or go into deep trance for days at a time if necessary, and they do exactly as they're told.

Uniteers aren't medically qualified, but they do know far more about their own bodies and about some aspects of healing than doctors do.

I sent Ione to find out what had happened, Brent to check on conditions at the hospital to make sure that whoever had done this didn't have a chance to make absolutely sure. Helen to see the police chief and Dick to find out from some responsible doctor exactly what Lorraine's injuries were. I gave them four minutes.

I myself went to see the medical supervisor. He'd be up-to-date in his information and would know that Uniteers shared everything – even operations.

That was what I hoped. What I found was an old man who tried to argue with me.

"I know it's done," he agreed, "but surely it's merely a sort of Unit privilege. Now in this case I understand the woman has two bullets through the right lung and one in the stomach. It's purely a surgical –"

"Doctor Green," I said savagely, "if you delay us ten seconds more, I'll have you broken and thrown into the street."

The doctor drew himself erect. "Intimidation won't get you anywhere, young man," he snapped. "I'm in charge here and I haven't refused your request, merely –"

"Merely delayed us so that when we get to Lorraine it may be too late. Dr. Green, if Lorraine dies you may be charged with murder."

That got through and frightened him. It wasn't an idle threat either, and perhaps he could see that. If Lorraine died

and later investigation showed that the assistance of her Unit might have saved her life, Green would be hounded by the U.A. So he climbed down, trying to pretend that wasn't what he was doing. He and I arrived back at the theater just as Dick, Brent and Helen got back from their errands. We had to wait ten seconds for Ione.

We went in. We were lucky, we were able to stop the heavy sedation they were putting Lorraine under. Trouble with medicine is, it's ninety-five per cent generalization. Since Lorraine had been shot six times, with three wounds which could be classed as fatal, they were naturally treating her for shock as well.

Which was wrong, for Lorraine wasn't, couldn't be, suffering from shock.

When she first opened her eyes, we were all there. She was conscious only for a few seconds, but even that dumbfounded the doctors. She shouldn't have regained consciousness at all.

They all spoke to her, rapidly, quietly. Dick told her briefly and with bluntness which shocked the doctors exactly what her injuries were and how serious they were. He told her what to do. Helen, who as a woman could tell her more than Dick could, amplified his recommendations. Ione added a word or two. Brent said her name, but I gathered it carried a promise that she need devote no attention to self-defense – he was taking that over.

In less than half a minute it was over. The Unit could cover a lot of ground in a very short time.

When she went under again Dick breathed a sigh of relief. "She's okay," he said "She'll sleep for about six hours. We'll have to be back here then." He looked at the doctors round us. "And before you do a thing to her, check with us, understand?"

The chief surgeon still hadn't recovered from the shock of seeing Lorraine open her eyes. "I don't understand this . . ." he began.

"That's what I was telling you," said Dick. "You don't understand it at all. Get this for a start. Lorraine's cleared. That means she has much more control of her so-called autonomous nerve centre than you've ever known any one to have. When she suffers an injury the brain doesn't cut out just to save itself, it wants to know if there's anything it can do and won't go out of phase until it's satisfied. That's

why we had to be here. We told her she'd be all right and that she could sleep for six hours with everything under control."

"But you don't know –"

Dick sighed. "I know exactly what her injuries are and exactly how she can help them to heal. Doctor, if Lorraine felt like it she could step up her thyroid activity or cut it down. She could stimulate or diminish her heartbeat. She has some control over all the endocrine glands and can exert a small influence over the behaviour of most groups of cells she decides to concentrate on. If you looked at her wounds now you'd be astonished to find how clean they are already."

The surgeon looked at me. I nodded. I'd seen one or two demonstrations at the U.A. depot.

"I'll believe you," said the surgeon. Obviously it was an effort.

We held a discussion with the doctors about Lorraine's treatment and then went out – except Brent. He had taken charge of Lorraine. He had promised her that it was safe to sleep, and he was going to keep his promise.

The doctors still believed Lorraine was going to die, obviously. That didn't worry us.

We compared notes. Apparently Lorraine had just left the police chief and was walking in the street when a man in a gray suit fired six shots into her from twenty yards' range, jumped into a car and was driven off. The car had already been found abandoned. It had been stolen anyway.

There had been no pursuit because there weren't many cars in Sedgeware and the only one in the street at the time had been going the other way. The only description we could get of the assassin was that he was tall and wore a gray suit. There had been someone in the car, but there was no description of him at all.

I couldn't help remarking: "You'd just been proving this wouldn't happen, Dick."

"I know," said Dick. "This seems crazy. It's been Lorraine both times. Could someone be trying to kill Lorraine, independent of the Unit?"

My thoughts somersaulted. Lorraine, though she no longer knew it, was A.D.'s daughter. And A.D. was mixed up in all sorts of things and might have all sorts of enemies.

"Could be," I said. "I'll tell you what I know later."

"Tell me what you know now," said Dick, though we were still standing in the corridor outside the operating theater.

I told him.

"We'll check on that," said Dick. "But it doesn't sound likely."

"You thought it wasn't likely that Lorraine would be shot."

Dick nodded. One thing about Uniteers – you can't needle them. Dick had made a mistake, and it didn't bother him. He didn't blame himself for not having foreseen the attempt on Lorraine's life.

We left the hospital. Nothing was said about taking extra care now, but I noticed Ione wasn't even listening to what Dick and I were saying. She was looking about her like a lynx. With Brent guarding Lorraine, she had taken over the job of protecting us.

"Next thing," said Dick. "Could it have been meant to happen just like this? Lorraine seriously hurt, but not dead? After all, an old explosive gun was used. If it had been a new gun, it wouldn't have been worth taking what was left to the hospital."

Unexpectedly it was Helen who answered that. "One in the shoulder, two in the legs, two through a lung and one in the stomach," she said. "The best marksman in the galaxy couldn't do that and expect the victim to live afterwards."

That disposed of that.

When Lorraine wasn't around, Helen talked more. She brought up the next point.

"Could this be a Benoit City stratagem to turn us against Sedgeware?" she asked.

Dick considered it. "No," he said. "Because obviously it won't."

We got back to the house. Already there was a police guard there. Tyburn, the Sedgeware police chief, was taking no more chances.

I saw right away when the three Uniteers who remained tried to get down to business that what Dick had said about all five being essential was all too true. There was no Unit any more – just four people, including me. Four people who could make mistakes like any other four people.

"But we'll get a session with Lorraine tomorrow," said Dick.

"No, you won't," I retorted.

Dick looked at me in surprise. "The fact that she's in hospital won't stop us," he said. "We can sit round her bed and –"

"So far," I said grimly, "I've only got your word for it that Lorraine will live. And we're not to take any chances with her."

Dick nodded reluctantly. "Anyway, she won't take sedation so she'll have a lot of pain for a day or two," he said. "Might not be at her best. We'll wait a couple of days."

"We'll wait more than that," I said. "Officially I'm in charge of this Unit, remember?"

It was decided that meantime the Unit should function as fact-finding individuals. We all carried guns and kept our eyes open.

The difference between the kind of investigation you read of in fiction and the one we were engaged in was that in fiction the people behind the spy ring or crime cartel or whatever it is introduce themselves to the investigators in the first few hours – though not, of course, as the leaders of the spy ring or crime cartel. The fictional detective merely has to sift through the people he knows, remembering that the more harmless his suspect, the more likely he is to be the villain of the piece.

Now with us the position was exactly the opposite. Assuming our opponents had the slightest knowledge of the capabilities of a Unit, and at least average intelligence, we knew they'd have stayed out of our way. None of the people we'd met in Benoit City or Sedgeware could possibly be involved with our enemies.

Just as the Unit had identified Jack Kelman and Rhoda Walker they could identify people involved in the other attempt to kill Lorraine. The fact that we hadn't done so meant that we hadn't met any of them.

And we weren't going to, either. Detectives may be underrated. Few people underrate Units any more.

During the next few days we learned almost all there was to be known about Perryon. We visited the other cities. Nineteen towns, in addition to Benoit City and Sedgeware,

had more than twenty thousand inhabitants. One of us visited each of them.

And Helen, after one such visit, came up with what might be the answer to the North-South problem.

Benoit City and Sedgeware were the clear leaders of the two sections of Perryon, and the people of these two cities were also the leaders of the North-South squabble. But Twendon, a hundred miles to the north of Sedgeware, and Foresthill, two hundred miles south of Benoit City, were only a little behind them in economic and political importance. And neither Twendon nor Foresthill had ever taken much part in the dispute. Being in the south of the northern hemisphere and in the north of the southern section, they could understand both points of view, steered a middle course, and didn't think it mattered much anyway.

Now the Unit, once it was functioning again, could quite easily sway the balance of power and make Twendon the capital of the South and Foresthill the capital of the North. The influence and importance of the Benoit City and Sedgeware would wane, and so would the importance of the issues they stood for.

We neen't tell anyone, even the people of Twendon and Foresthill, what we were doing.

None of us saw any sign that Perryon was the Traders' base, and none of our efforts to find out who had shot Lorraine bore any fruit.

Lorraine was going to be all right, eventually. She had been so seriously injured that there was no question of her leaving hospital for some weeks, and even Dick didn't insist on a Unit session in the hospital for four or five days.

But at last we'd done all we could do without some guidance from the Unit as a whole, and since Lorraine herself insisted that she could take part in a brief Unit session we all went to the hospital and got busy.

I wasn't present this time. I was fully occupied keeping doctors and nurses out of the way. Understandably, they were all against this. I had some sympathy with their point of view. Lorraine was still in anything but good shape, and though she was by now out of danger, her body was fully occupied with healing without having to cope with a strenuous Unit session as well.

And they are strenuous. The man who works with his brain while his body does nothing can be fully as tired at

the end of a day's work as a laborer. Fit Uniteers can work together all day – but a fit Uniteer could also walk upstairs, and it would be some time before Lorraine could do that.

I had made Dick promise to go easy on Lorraine. He kept his promise, after a fashion. They were with her for only half an hour. But I saw her afterwards, and she was dead beat.

"No more for another week at least, Lorraine," I promised her.

She managed a faint smile. "It took more out of me than I thought," she admitted. "Another thing, Edgar – don't trust our conclusions too much. Dick's satisfied, but I know I wasn't playing my full part."

Dick, when we got back to the residency, was jubilant. "Even at half strength the Unit can get somewhere," he said. "Edgar, you'll have to send a new report back to U.A. on Earth. We've been barking up the wrong tree."

I waited.

"Someone hired Jack Kelman to kill Lorraine," said Dick. "The Traders, we thought – and we were right. Someone hired someone else to kill her here in Sedgeware. The Traders again, we thought – and again we were right.

"I told you before Lorraine was shot why I thought no further attempt would be made on us. Because that would make it clear that Perryon *had* something to hide, and in a few weeks, even if they killed the lot of us, there would be half a dozen Units out from Earth to investigate the whole thing – and they'd get results.

"Well, somebody did shoot Lorraine. So the first thing we considered today was how that changed the situation. The obvious answer was that all the Traders wanted was time. They wanted time to pull something off, or make their escape, or get themselves properly hidden, before a properly functioning Unit got busy on Perryon. They didn't care what happened in two months, they just didn't want the Unit checking on them *now*."

"That makes sense," I said with some interest. "So we've got to get busy now and –"

Dick was shaking his head. "We threw that out," he said. "Four people hired to kill Lorraine. Hired, remember. We don't know that, but it's a safe guess. And hired by the

Traders. That's another safe guess. What does that add up to?"

I wasn't entering into competition with a Unit. "You tell me," I suggested.

"That wherever the Traders' base is, it isn't here," said Dick.

The way I've told this, maybe that's been obvious all along. I don't know. But it hit me like the six shells which had ploughed their way through Lorraine.

All really brilliant stratagems are simple. You conceal the essential thing so that your antagonists question everything else, but never think about that. You strew the field with difficulties which they'll solve, while the simple, ingenuous flaw is there in full view all the time. Like Poe's purloined letter.

The Units on Parionar would also be looking for Trader activities. But on Parionar no Uniteer would be assassinated.

The Traders had happened to pick on Perryon, and us. They'd had the sense not to try anything complicated or too obvious. We couldn't bite if it was too obvious.

And the really clever thing about it was that the conclusions which were reached wouldn't be reached by a Unit but by the remaining members of a Unit. Naturally we'd report that Perryon was almost certainly the Traders' base, at any rate a spot to be investigated soon and thoroughly. Meantime the Traders, wherever they really were, would be lying low – and not giving any Unit in their vicinity anything to work on.

"The only thing is," I said, "that this is completely negative. It gives us nothing positive to report."

"We can make a guess," said Dick. "At one time both Jack Kelman and Rhoda Walker were on Fryon. Now the Traders must have contacted them sometime. And they wouldn't do it on Earth if they could help it. Fryon is the only world other than Earth which both Kelman and Walker visited. Rhoda Walker had been on Perryon, Kelman never. Fryon may not be the Traders' base, of course – but it's very probably where the contact was made."

I remembered scanning the information on the *Violin Song's* passenger list about Kelman and Rhoda Walker.

"But they were on Fryon at different times," I objected. "And it was months ago."

Dick nodded. "I suspect they were recruited on Fryon, but not for any definite job. Just as people the Traders could call on. It was much later they got their instructions."

I wasn't convinced about Fryon, but I didn't have to be. If the Unit said it was so, it was my job to report it.

4.

One of the guards came in with a wire. He shouldn't have left his post to deliver it, but that's typical of frontier worlds. It's only in highly organized communities that people pay rigid attention to detail.

The wire was from U.A. on Earth – in code, of course, but I didn't need any printed key to decipher it.

The name and address read: Edgar Williamson, Unit Father, Perryon. Just that. And if either my name or designation had been left out I'd still have got it. At such times I felt I was somebody.

"From U.A.," I said. "'Reason here to suspect Perryon. What progress?'" I looked at it a shade bitterly. "That's like U.A. They know we've got a member badly injured, and they still expect progress."

I took a sheet of paper and wrote. I handed the result to Dick.

My message read: *Perryon is not Traders' base. Williamson.*

Dick was frowning.

"Something wrong with that?" I asked.

"You can't send this," he said. "Remember how they'll treat anything we send them. They'll take it as fact and act on it. It's only our guess that the Traders had Lorraine attacked as a red herring."

"But Units always work on guesses like that."

"Yes, if they're sure enough. Lorraine wasn't more than fifty per cent effective when we decided that. We could be wrong."

I hesitated. My impulse was still to send the first message. It appealed to my sense of the dramatic to send a terse, unequivocal reply like that.

Dick, however, was the real boss of the Unit, not me. If

he wouldn't take the responsibility for sending that message, the Unit wouldn't take it, and I had no right to send it.

"All right," I said reluctantly. "How about this?"

My substitute message consisted of one word: *Pending.*

Dick nodded. "Perfect," he said with a grin.

Since we could do no more on the question of the Traders meantime, we devoted our attention to that other job – settling Perryon's North-South altercation.

Dick, consulted by a manufacturing firm in Sedgeware, fixed things so that a big contract went to Twendon. He went to Twendon to fix up the details. He gave good reasons for his recommendation, without admitting either in Sedgeware or in Twendon that the real reason was that by this much Twendon was elevated in industrial importance and Sedgeware diminished.

Ione, on a visit to the North – we were staying in Sedgeware while Lorraine was in hospital there – went to Foresthill instead of Benoit City. She spent some time there, for no obvious reason. We knew that every move by every one of us was closely examined for special significance, and we knew that people would be wondering what Ione's visit to Foresthill portended. At least some people would guess that Foresthill was soon to assume a special importance.

Helen opened a new library at Twendon. Her speech, without being blatant, hinted that Twendon was the real cultural center of the South.

We began to be a trifle unpopular in Sedgeware. We could no longer hide the fact that we didn't regard Sedgeware as the popular capital for the South.

We replied apologetically that it couldn't be helped – Sedgeware was already overdeveloped and Twendon was the coming power in the region.

Some people thought this over, and knowing we must be right, withdrew capital from Sedgeware and invested it in Twendon. Young men and women from the smaller towns, looking for a job, no longer went to Sedgeware but to Twendon instead.

Helen and Ione began to appear in clothes which were anything but normal Earth wear. They were smart, simple, mostly in bright towelling, easy to change and wash. They were exactly right for Sedgeware's warm, humid climate, and it might have been an accident that they were in no

way like the fashions of Earth. Soon the women of Sedgeware were copying them.

Dick and Brent and I went around in shorts. Gradually the fanatically Terran appearance of everybody and everything in Sedgeware began to change.

In less than a week we had given the Sedgeware to Twendon change-over such a push that only we ourselves could have stopped it. It would be some months before Twendon was the acknowledged leader in the South, acknowledged even by Sedgeware, but the change could no longer be prevented.

We completed our preliminary campaign by moving from Sedgeware to Twendon ourselves as soon as Lorraine could be moved. Though it wasn't actually stated, we gave the impression that we believed Lorraine would get much better treatment there. It was true, anyway. Twendon realized that we were putting it on the map, and was duly grateful.

At long range we had been taking steps to do the same thing with Benoit City and Foresthill. We had to be more subtle in this case. The second time you try a thing it isn't so easy.

We had one piece of good luck. Perryon needed a new spaceport. It was to be built with funds from Earth, not local funds. The merchants of Earth were always prepared to finance such schemes because, despite the local tariffs, there was still a huge volume of trade between Earth and all the planets, and even poor Perryon was worth a major spaceport.

We got in touch with U.A. on Earth and had the site of the proposed spaceport changed from Benoit City to Foresthill.

It wouldn't be built for some time yet, but everybody knew that it was being built at Foresthill instead of Benoit City – and nobody knew that we'd made the change.

Gradually Foresthill began to grow in power, like Twendon. And already we could see some of the results of our labors. Sedgeware and Benoit City still fought, were still deadly rivals, but it didn't matter so much. Soon it wouldn't matter at all.

A long radiogram arrived from U.A., Earth. It was addressed to the Unit Fathers on Gersten, Camisac, Fryon,

Parionar, Maverick, Perryon – forty-seven in all, and it read:

Trader activity must be stopped. Three fleets are cruising in your areas and a direct call from any one of you will bring one of them to you within twelve hours. We know the Traders are based on one of your worlds. Surely it is not beyond the capabilities of the Unit on the right world to establish the presence of the Traders?

Please send out, each of you, on the open wave, your estimation of the probability that your world is the Trader base. Impossibility, one. Complete certainty, ten. Send nothing but this figure unless you have reason to believe that the base may be on some particular world not your own. Send this in code.

We repeat – we find this continued silence from forty-seven units almost incredible. The Traders cannot possibly be so well hidden that no Unit can discover them – unless they have developed a different form of interstellar travel. If any of you has heard any hint that this may be so, report it immediately.

"Yes, it is odd at that," Dick murmured, as he read the message. "How is it that the Traders haven't been discovered – by forty-seven Units?"

He looked up at me. "Lorraine's out of all danger now, Edgar. We've got to have a real high-power session."

I nodded. The U.A., like many another semi-military authority, was accepting no excuses. We had a complete Unit on Perryon, and the services of a complete Unit were expected of us – even if one of us was in hospital.

We went to the hospital. Lorraine's bed was moved to a small private ward and the door locked.

"You look healthy enough now, Lorraine," I said.

"Yes, I've put on fourteen pounds – isn't that awful?" she exclaimed. Even cleared, a woman is still a woman.

"You could stand it," I grinned.

"No – three or four, maybe, but not fourteen. Let's get started. If I can lose a few pounds in nervous energy, so much the better."

It was like the last session I'd seen, and I understood no more of what was going on. But though I hadn't seen the Unit at work the last time, just after Lorraine had been

shot, I could see that this was very different. Lorraine lay back in bed, relaxed, yet even I could feel the vitality of her contribution.

It's always a guess who supplies what in a Unit. Even the Uniteers themselves don't know. As I watched this session I got the idea that Lorraine was the real force behind this Unit. The heart, if you like. Dick was the brain, undoubtedly, and as such was very important. However, the brain in a human being is not the most vital thing. The heart controls the brain, not the other way round. The brain is tired when the heart makes it, alert when the heart allows it to be. Death almost always comes down in the last resort to heart failure.

Any time the Unit seemed to be stopped, it was Lorraine who started things going again. Brent, Helen and Ione introduced things, but they had to be taken up by Dick or Lorraine before they came to anything. Dick's suggestions and conclusions were never summarily thrown out except by Lorraine.

Seeing Lorraine's importance to the Unit, I wasn't surprised when I realized that the first thing they had done this time was throw out all the conclusions they'd reached the last time. Presently I saw that they were really on to something, though I had no idea what it was. Soon after this I gathered that they were looking for something, trying to locate something or other by not looking for it, but by probabilities – the way they had drawn up a list of three possible assassins in the ship from the passenger list.

I wondered if they thought they could determine the Traders' base by inspired guesswork. It seemed unlikely. If that had been possible, one of the other forty-six Units would have done it long since.

Yet I knew Units, like individuals, differed in their capabilities. And I thought mine was a particularly good Unit. I knew, of course, that most Unit Fathers thought that – just as most parents thought their child the most wonderful in the world.

Suddenly the session was suspended – suspended, not stopped. They were all looking at me, except Lorraine, who had closed her eyes, suddenly looking tired again.

"Edgar," said Dick. "Go and find out who the first man was who opened this North-South split. Who actually started it. The first speech in the Assembly, the first article

in a paper, whatever it was. Go back as far as you can. Never mind the later people, the people who took it up. Get two names – someone in Benoit City and someone in Sedgeware."

I got up. "Do I have to keep my interest secret?" I asked.

"No – we'll be ready to follow it up as soon as you've got it. Try the newspapers, the Assembly records before the split, the police. You'll probably have to go to Benoit City. Come back when you've got two names."

I didn't ask for any more information. I left them – reflecting wryly that this showed exactly how important Unit Fathers were. When his Unit was in full cry it ordered him about like an errand-boy, and he did as he was told.

I went to the *Twendon Times* office and asked to see the librarian. It wasn't the librarian they took me to see but the chief editor. If I was only an errand-boy to my Unit, I was a very important person to everybody else.

"I only want to have a look at your files," I protested. "I needn't take up your time, Mr. Carse."

"I know all that's in the files," the lean, hungry-looking man behind the desk informed me. "Is there a story in this, Mr. Williamson?"

"There will be."

"What do you want to know? Shoot."

"Who started the trouble between Benoit City and Sedgeware?" I asked abruptly.

He couldn't give me a straight, immediate answer. He knew everything the newspaper had reported, as he claimed, but I had to keep directing him. He suggested a lot of things, but there was always something earlier.

At last he said doubtfully: "Well, I guess the first thing of all was an article that came in . . . we didn't run it, but all the Sedgeware newspapers did. Only thing is, you wouldn't know that was the beginning until afterwards – when you knew everything, I mean."

"That's what I want," I said confidently. "What was in the article, and who wrote it?"

Dick had asked for two names. I had one of them, and it had taken me less than half an hour to get it. The other wasn't going to be so easy to get.

I flew to Benoit City. It took fifty-five minutes.

Benoit City had never been as friendly toward us as

Sedgeware. That was natural, for Benoit City was never as friendly toward anybody as Sedgeware was.

North and South are pretty much the same anywhere. The North is business-like, in a hurry, brash, confident, hard, cynical, with the heart of gold well concealed by the pocketbook. The South is hospitable, friendly, easy-going, lazy, romantic, tradition-loving, happy, optimistic.

Again I went to the local newspaper. Again I was shown into the presence of the chief, only this time he was called the managing editor. His name was Morrissey.

Morrisey heard what I had to say, then said immediately: "What you're looking for is something a visiting actress said. It was . . ."

He told me what it was, and he was right. That had set things moving so that in Benoit City a short time later the council had voted against the teaching of Earth in schools.

But I was at a loss. The actress had been on a tour of the galaxy and had probably forgotten Perryon by this time. She wasn't in this, I was certain.

"Who spoke to her," I asked, "before she said that? Who in this city, I mean?"

"Just one of my reporters. Jenson. I'll get him for you."

"No," I said quickly. "Don't say anything to him."

"If there's a story," said the editor bluntly, "is it mine?"

"It's yours," I said. "But you'll have to share it with Carse of the *Twendon Times.*"

"That's all right," he said. "They don't circulate here."

I left him and flew back to Twendon.

I'd been away from the ward where the Unit was deliberating for three hours. But they were still at it when I got back. I cast an anxious glance at Lorraine.

She grinned weakly. "I think I've lost my fourteen pounds," she said. "But we're through now. Go away, all of you, and let me sleep."

Dick, Helen, Ione, Brent and I filed out.

"Before we do anything else," I said, "that reply has to go to the U.A. Do you realize we got the radiogram four hours ago?"

"Is that all?" said Dick. "Seems like years." He was tired too. "Send *Nine*. And put out a direct call for a fleet."

I gaped at him.

"I'd like to make it *Ten,*" Dick said, "but we're not quite certain enough."

I got the two calls away without delay. It's no use being impatient with a Unit. They won't tell you anything until they're good and ready.

"Now we have twelve hours," said Dick, "to do a lot of work."

"Seven," I said. "Twelve hours was maximum. The fleet will be here in seven hours."

Dick groaned. "And we can't take Lorraine with us," he said. "Oh well. What was that first name?"

"Look," I said, "I have to know something. You don't need to tell me the whole story, but I've got to know what we're trying to do."

"Instead of trying to keep us away," said Dick, "the Traders wanted us here. They even started the domestic squabble here to make sure a Unit was sent out. We were supposed to be sent here, lose Lorraine on the way, or here, it didn't matter, decide this wasn't the Trader base, decide Fryon was, and give that to U.A. as our conclusion."

"You mean the Traders thought they could outsmart a Unit?" I exclaimed.

"A Unit minus one," Dick reminded me. "But even when they knew Lorraine wasn't dead, I don't think they were worried. Which means they were very confident."

"Which means they were crazy!" I exclaimed.

Dick shook his head. "Which means they had a Unit of their own," he said.

I didn't say it was impossible, I didn't say anything.

We started out to look for George Zamorey, who was the man who had written the article which sparked off the Sedgeware attitude.

He was a young, nice-looking fellow. When he saw us he looked puzzled, but not puzzled enough.

"So you're the one," said Dick. "I thought we'd have to go further, find who told you to say that."

"I don't know what you're talking about," said Zamorey.

"Oh yes, you do. Have you by any chance got four friends?"

He was watching Zamorey very closely, Zamorey's reaction couldn't have been right, however. Dick was disappointed, and made no effort to hide it.

"What do you know, Zamorey?" he demanded.

"I don't know what you –"

"We haven't time," said Dick impatiently. "Brent, you'll have to persuade him."

I never liked strong-arm methods, and if I'd known more of what was going on I'd have stopped Brent. I wish I had anyway, Zamorey must have had a poison sac in his mouth. After five minutes of Brent's treatment Zamorey went limp and we found he was dead.

"One lead gone," said Dick. "We'll have to be more careful with the other one."

We flew to Benoit City, all of us. I went straight to Morrissey and had him send for Jenson.

He was almost too quick for us. He came all right, but almost before he'd opened the door, certainly before he'd entered the room, he'd seen us, slammed the door and was running along the corridor.

We chased him. Dick and I were useless, and Brent, though powerful, was slow. It was Ione who tore after Jenson like a greyhound. Brent was next, then Helen, then Dick, with me last.

Nevertheless I saw the capture. Ione sent herself flying at Jenson's legs and he came down. Jenson might have handled Ione, but he certainly couldn't handle Brent, who was on him in an instant.

When I came up, panting, Jenson was being held firmly by Brent and Dick was asking: "Who are your four friends, Jenson?"

To my amazement Jenson made no further resistance. He surrendered immediately and told us all we wanted to know.

Dick didn't find it strange. He said later that Jenson, being a sort of Uniteer himself, knew better than any ordinary person what he was up against and didn't waste any time pretending not to know what we were talking about. It still seemed incredible to me that Jenson cracked right away and told us everything.

It was much later that Lorraine, who always liked me, told me the real reason.

Units aren't loyal. They work for good, they work for law and order, they work for progress, because they consider these things better than evil, anarchy and regression. But they aren't loyal. Loyalty is trust beyond reason, and no Unit ever trusted beyond reason.

Units work for the U.A. because the U.A. is working for

things they agree about. But if a Unit finds itself in an impossible position, it won't fight to the last man. It'll surrender.

As Jenson surrendered. This is what he told us.

The U.A., after all, wasn't the only organization which could make and train a Unit. The Traders had realized that to have any chance against the U.A. they'd have to have a Unit of their own. They'd bribed a psychologist to join them, clear five of the Traders and train them as a Unit working for them.

We should have guessed this sooner. It was inevitable that sooner or later anything used by the forces of law and order should be used by the other side too.

"If Kelman or West had done his job properly," Jenson told us, "we'd have beaten you. We knew what you'd decide. We could think as you were going to think. You were to decide our base was Fryon. The Unit on Fryon was to get certain hints once you'd given them the lead. Five of our ships were to be found and destroyed. After that the Traders would go under cover, and it would have been years before the U.A. bothered us again."

"Very clever," Dick agreed. "Only you were bound to fall anyway, Jenson."

Jenson frowned at that. "Because there were so many Units against us? That wouldn't have mattered. We'd have –"

"No, because you weren't a good Unit," said Dick.

"Nonsense. We're every bit as good as you."

Dick shook his head. "No. Because you had to be trained to serve the Traders. You were given a bias."

"I know what you mean," said Jenson, "but you're wrong. We didn't have to be biased. We were Traders already, remember."

"That doesn't matter," said Dick. "You see, whenever you were cleared, you ceased to be Traders. Cleared, you became law abiding, and if you'd been properly trained you'd have been a genuine Unit. You'd have realized the Traders couldn't be allowed to continue, and refused to work for them. They probably didn't tell you about it, but the men who trained you had to instil a compulsion – loyalty to the Traders. And you know as well as I do that *any* compulsion decreases the efficiency of a Unit."

Jenson shut his mouth firmly and wouldn't say another

word. I think despite the compulsion he realized the truth of what Dick was saying.

We rounded up the rest of the Trader Unit ourselves. It was easy and undramatic. Like Jenson, each of the members we found realized the game was up and gave no trouble.

But there was a grandstand ending to the episode nevertheless – and everybody on Perryon saw at least some of it.

In a message to the police, when we were handing over the Trader Unit, we mentioned the fleet and its time of arrival. We knew that somehow the Traders would get this information. Although the police in general weren't under Trader control, the Traders were bound to have some access to all the important official information.

The time we gave was an hour out.

When the Trader fleet took off to make its getaway before the arrival of the fleet, it ran right into them.

I've said already that the lucky man really manufactures his luck. Units always seem to be lucky, because they fix things so that chance is generally working for them, not against them.

Only a Unit would have gambled on the chance that the Traders, warned, would rush to their ships and try to get away, giving themselves an hour's leeway. So only for a Unit could it pay off.

The Trader ships tried to fight, which was a mistake. Probably why they fought was because the Traders were angry. They hadn't expected anything like this.

From Benoit City we saw the first Trader ship gleaming dull red, then rosy pink, then white. It seemed to light the whole sky. As it came down in a giant arc it must have been visible over a quarter of the surface of Perryon. And before it struck another ship had begun to glow.

The Traders scored a hit on one patrol ship. But it, ten times the size of the Trader ships and with more than ten times their defenses, merely glowed with a curious green light and withdrew rapidly from the battle.

Two Trader ships glowed at once and slanted down across the sky, tracing fairy patterns. It was an incredibly beautiful sight. I stared at the wonder of it, and only as the first ship struck with a shock which could be felt but not heard realized with sudden horror that there had been men on that ship.

When I remembered that the battle couldn't be over too soon for me, I understood how an executioner must feel. We had sent those ships up to meet a patrol.

Before that we had left Rhoda Walker to go and warn Kelman and be strangled. We had staged an accident in which Kelman died.

I realized as yet another incandescent ship blazed across the night sky just what it was to be a Unit Father.

The Uniteers were amoral. They worked for the general good – but they did it like this, without mercy, without remorse, without the irrational but very human feelings of pity that often stop ordinary human beings doing harsh things they know should be done . . . for the general good.

Still another ship blazed through the colors of fire. I turned away. I couldn't take pleasure any more in the excellent job we had done.

"Let's go back to Twendon," I said, "and tell Lorraine all about it."

"Yes, we'll do that," Dick agreed. And he too turned his back on the destruction of the Traders.

GONE FISHING

James H. Schmitz

There probably will never come a society of human beings without its human parasites. The notion that material progress through the invention and development of the technical bases for a universally high standard of living will bring with it a perfecting of man's moral fiber – if it ever really existed, as it may have in some naive minds during the Nineteenth Century – simply will not work. It is not only the lure of "something for nothing" that makes such parasites – con men, blackmailers, what have you – tick, it is also the excitement of using one's wits, the hatred or contempt of conventional society, or the feeling of power that comes from putting something over on another person. These are basic supra-economic motivations for people like Schmitz's "anti-hero."

If all this is so, the only cure (for individual parasites, anyhow) is somehow to change their motivations. This is a noble goal, but just try and do it! Whether the pretty drastic punishment that is envisioned in this story as being used against the successful sharpie who got caught would actually reform him in "real" life is a matter of acerb controversy. However, what is not controversial is the fact that in telling us about it the author has had a ball, and helps us to have one, too. CHARMINGLY VIOLENT!

BARNEY CHARD, thirty-seven – financier, entrepreneur, occasional blackmailer, occasional con man, and very competent in all these activities – stood on a rickety wooden lake dock, squinting against the late afternoon sun, and waiting for his current business prospect to give up the pretense of being interested in trying to catch fish.

The prospect, who stood a few yards farther up the dock, rod in hand, was named Dr. Oliver B. McAllen. He was a retired physicist, though less retired than was generally assumed. A dozen years ago he had rated as one of the country's top men in his line. And, while dressed like an

aging tramp in what he had referred to as fishing togs, he was at the moment potentially the country's wealthiest citizen. There was a clandestine invention he'd fathered which he called the McAllen Tube. The Tube was the reason Barney Chard had come to see McAllen.

Gently raising and lowering the fishing rod, and blinking out over the quiet water, Dr. McAllen looked preoccupied with disturbing speculations not concerned with his sport. The man had a secrecy bug. The invention, Barney thought, had turned out to be bigger than the inventor. McAllen was afraid of the Tube, and in the forefront of his reflections must be the inescapable fact that the secret of the McAllen Tube could no longer be kept without Barney Chard's co-operation. Barney had evidence of its existence, and didn't really need the evidence. A few hints dropped here and there would have made McAllen's twelve years of elaborate precaution quite meaningless.

Ergo, McAllen must be pondering now, how could one persuade Mr. Chard to remain silent?

But there was a second consideration Barney had planted in the old scientist's mind. Mr. Chard, that knowledgeable man of the world, exuded not at all by chance the impression of great quantities of available cash. His manner, the conservatively tailored business suit, the priceless chip of a platinum watch . . . and McAllen needed cash badly. He'd been fairly wealthy himself at one time; but since he had refrained from exploiting the Tube's commercial possibilities, his continuing work with it was exhausting his capital. At least that could be assumed to be the reason for McAllen's impoverishment, which was a matter Barney had established. In months the old man would be living on beans.

Ergo again, McAllen's thoughts must be running, how might one not merely coax Mr. Chard into silence, but actually get him to come through with some much-needed financial support? What inducement, aside from the Tube, could be offered someone in his position?

Barney grinned inwardly as he snapped the end of his cigarette out on the amber-tinted water. The mark always sells himself, and McAllen was well along in the process. Polite silence was all that was necessary at the moment. He lit a fresh cigarette, feeling a mild curiosity about the little lake's location. Wisconsin, Minnesota, Michigan seemed equally probable guesses. What mattered was that half an

hour ago McAllen's Tube had brought them both here in a wink of time from his home in California.

Dr. McAllen thoughtfully cleared his throat.

"Ever do any fishing, Mr. Chard?" he asked. After getting over his first shock at Barney's revelations, he'd begun speaking again in the brisk, abrupt manner Barney remembered from the last times he'd heard McAllen's voice.

"No," Barney admitted smiling. "Never quite got around to it."

"Always been too busy, eh?"

"With this and that," Barney agreed.

McAllen cleared his throat again. He was a roly-poly little man; over seventy now but still healthy-looking with an apple-cheeked, sunburned face. Over a pair of steel rimmed glasses his faded blue eyes peered musingly at Barney. "Around thirty five, aren't you?"

"Thirty seven."

"Married?"

"Divorced."

"Any particular hobbies?"

Barney laughed. "I play a little golf. Not very seriously."

McAllen clicked his tongue. "Well, what do you do for fun?"

"Oh . . . I'd say I enjoy almost anything I get involved in." Barney, still smiling, felt a touch of wariness. He'd been expecting questions from McAllen, but not quite this kind.

"Mainly making money, eh? Well," McAllen conceded, "that's not a bad hobby. Practical, too. I . . . whup! Just a moment."

The tip of the slender rod in his left hand dipped slightly, and sixty feet out beyond the end of the old dock a green and white bobber began twitching about. Then the bobber suddenly disappeared. McAllen lifted the rod tip a foot or two with a smooth, swift motion, and paused.

"Hooked!" he announced, looking almost childishly pleased.

The fish on the far end of the line didn't seem to put up much of a struggle, but the old man reeled it in slowly and carefully, giving out line from time to time, then taking it back. He seemed completely absorbed. Not until the fish had been worked close to the dock was there a brief minor commotion near the surface. Then McAllen was down on one knee, holding the rod high with one hand, reaching

out for his catch with the other. Barney had a glimpse of an unimpressive green and silver disk, reddish froggy eyes. "*Very* nice crappie!" McAllen informed him with a broad smile. "Now –" He placed the rod on the dock, reached down with his other hand. The fish's tail slapped the water; it turned sideways, was gone.

"Lost it!" Barney commented, surprised.

"Huh?" McAllen looked around. "Well, no, young man – I *turned* him loose. He wasn't hooked bad. Crappies have delicate lips, but I use a barbless hook. Gives them better than a fighting chance." He stood up with the rod, dusting the knees of his baggy slacks. "Get all the eating fish I want anyway," he added.

"You really enjoy that sport, don't you?" Barney said curiously.

McAllen advised him with the seriousness of the true devotee to try it sometime. "It gets you. It can get to be a way of living. I've been fishing since I was knee-high. Three years ago I figured I'd become good enough to write a book on the subject. I got more arguments over that book – sound arguments too, I'd say – than about any paper I've published in physics." He looked at Barney a moment, still seriously, and went on. "I told you wetting a line would calm me down after that upset you gave me. Well, it has – fishing is as good a form of therapy as I know about. Now I've been doing some thinking. I'd be interested . . . well, I'd like to talk some more about the Tube with you, Mr. Chard. And perhaps about other things too."

"Very gratifying to hear that, doctor," Barney said gravely. "I did regret having to upset you, you know."

McAllen shrugged. "No harm done. It's given me some ideas. We'll talk right here." He indicated the weather-beaten little cabin on the bank behind Barney. "I'm not entirely sure about the California place. That's one reason I suggested this trip."

"You feel your houseman there mightn't be entirely reliable?"

"Fredericks unreliable? Heavens, no! He knows about the Tube, of course, but Fredericks *expects* me to invent things. It wouldn't occur to him to talk to an outsider. He's been with me for almost forty years."

"He was," remarked Barney, "listening in on the early part of our conversation today."

"Well, he'll do that," McAllen agreed. "He's very curious about anyone who comes to see me. But otherwise . . . no, it's just that in these days of sophisticated listening devices one shouldn't ever feel too sure of not being overheard."

"True enough." Barney glanced up at the cabin. "What makes you so sure of it here, doctor?"

"No reason why anyone would go to the trouble," McAllen said. "The property isn't in my name. And the nearest neighbor lives across the lake. I never come here except by the Tube so I don't attract any attention."

He led the way along the dock. Barney Chard followed, eyes reflectively on the back of McAllen's sunburned neck and the whisps of unclipped white hair sticking out beneath his beaked fishing cap. Barney had learned to estimate accurately the capacity for physical violence in people he dealt with. He would have offered long odds that neither Dr. McAllen nor Fredericks, the elderly colored man of all work, had the capacity. But Barney's right hand, slid idly into the pocket of his well-tailored coat, was resting on a twenty-five calibre revolver. This was, after all, a very unusual situation. The human factors in themselves were predictable. Human factors were Barney's specialty. But here they were involved with something unknown – the McAllen Tube.

When it was a question of his personal safety, Barney Chard preferred to take no chances at all.

From the top of the worn wooden steps leading up to the cabin, he glanced back at the lake. It occurred to him there should have been at least a suggestion of unreality about that placid body of water, and the sun low and red in the west beyond it. Not that he felt anything of the kind. But less than an hour ago they had been sitting in McAllen's home in Southern California, and beyond the olive-green window shades it had been bright daylight.

"But I can't . . . I really can't imagine," Dr. McAllen had just finished bumbling, his round face a study of controlled dismay on the other side of the desk, "whatever could have brought you to these . . . these extraordinary conclusions, young man."

Barney had smiled reassuringly, leaning back in his chair. "Well, indirectly, sir, as the pictures indicate, we might say it was your interest in fishing. You see, I happened to notice you on Mallorca last month . . ."

By itself, the chance encounter on the island had seemed only moderately interesting. Barney was sitting behind the wheel of an ancient automobile, near a private home in which a business negotiation of some consequence was being conducted. The business under discussion happened to be Barney's but it would have been inexpedient for him to attend the meeting in person. Waiting for his associates to wind up the matter, he was passing time by studying an old man who was fishing from a small boat offshore, a hundred yards or so below the road. After a while the old fellow brought the boat in, appeared a few minutes later along the empty lane carrying his tackle and an apparently empty gunnysack, and truged unheedingly past the automobile and its occupant. As he went by, Barney had a sudden sense of recognition. Then in a flash, his mind jumped back twelve years.

Dr. Oliver B. McAllen. Twelve years ago the name had been an important one in McAllen's field; then it was not so much forgotten as deliberately buried. Working under government contract at one of the big universities, McAllen had been suddenly and quietly retired. Barney, who had a financial interest in one of the contracts, had made inquiries; he was likely to be out of money if McAllen had been taken from the job. Eventually he was informed, in strict confidence, that Dr. McAllen had flipped. Under the delusion of having made a discovery of tremendous importance, he had persuaded the authorities to arrange a demonstration. When the demonstration ended in complete failure, McAllen angrily accused some of his most eminent colleagues of having sabotaged his invention, and withdrew from the university. To protect the once great scientist's name, the matter was being hushed up.

So Mallorca was where the addled old physicist had elected to end his days – not a bad choice either, Barney had thought, gazing after the retreating figure. Pleasant island in a beautiful sea – he remembered having heard about McAllen's passion for angling.

A day later, the Mallorca business profitably concluded, Barney flew back to Los Angeles. That evening he entertained a pair of tanned and shapely ladies whose idea of high fun was to drink all night and go deep-sea fishing at dawn. Barney shuddered inwardly at the latter notion, but promised to see the sporting characters to the Sweetwater

Beach Municipal Pier in time to catch a party boat, and did so. One of the girls, he noticed not without satisfaction – he had become a little tired of the two before morning – appeared to turn a delicate green as she settled herself into the gently swaying half-day boat beside the wharf. Barney waved them an amiable farewell and was about to go when he noticed a plump old man sitting in the stern of the boat among other anglers, rigging up his tackle. Barney checked sharply, and blinked. He was looking at Oliver B. McAllen again.

It was almost a minute before he felt sure of it this time. Not that it was impossible for McAllen to be sitting in that boat, but it did seem extremely unlikely. McAllen didn't look in the least like a man who could afford to commute by air between the Mediterranean and California. And Barney felt something else trouble him obscurely as he stared down at the old scientist; a notion of some kind was stirring about in the back corridors of his mind, but refused to be drawn to view just then.

He grew aware of what it was while he watched the party boat head out to sea a few minutes later, smiled at what seemed an impossibly fanciful concoction of his unconscious, and started towards the pier's parking lot. But when he had reached his car, climbed in, turned on the ignition, and lit a cigarette, the notion was still with him and Barney was no longer smiling. Fanciful it was, extremely so. Impossible, in the strict sense, it was not. The longer he played it around, the more he began to wonder whether his notion mightn't hold water after all. If there was anything to it, he had run into one of the biggest deals in history.

Later Barney realized he would still have let the matter drop there if it hadn't been for other things, having nothing to do with Dr. McAllen. He was between operations at present. His time wasn't occupied. Furthermore he'd been aware lately that ordinary operations had begun to feel flat. The kick of putting over a deal, even on some other hard, bright character of his own class, unaccountably was fading. Barney Chard was somewhat frightened because the operator game was the only one he'd ever found interesting; the other role of well-heeled playboy wasn't much more than a manner of killing time. At thirty-seven he was realizing that he was bored with life. He didn't like the prospect.

Now here was something which might again provide him with some genuine excitement. It could simply be his imagination working overtime, but it wasn't going to do any harm to find out. Mind humming with pleased though still highly skeptical speculations, Barney went back to the boat station and inquired when the party boat was due to return.

He was waiting for it, well out of sight, as it came chugging up to the wharf some hours later. He had never had anything to do directly with Dr. McAllen, so the old man wouldn't recognize him. But he didn't want to be spotted by his two amazons who might feel refreshed enough by now to be ready for another tour of the town.

He needn't have worried. The ladies barely made it to the top of the stairs; they phoned for a cab and were presently whisked away. Dr. McAllen meanwhile also had made a telephone call, and settled down not far from Barney to wait. A small gray car, five or six years old but of polished and well-tended appearance, trundled presently up the pier, came into the turnaround at the boat station, and stopped. A thin Negro, with hair as white as the doctor's, held the door open for McAllen. The car moved unhurriedly off with them.

The automobile's license number produced Dr. McAllen's California address for Barney a short while later. The physicist lived in Sweetwater Beach, fifteen minutes' drive from the pier, in an old Spanish type house back in the hills. The chauffeur's name was John Emanuel Fredericks; he had been working for McAllen for an unknown length of time. No one else lived there.

Barney didn't bother with further details about the Sweetwater Beach establishment at the moment. The agencies he usually employed to dig up background information were reasonably trustworthy, but he wanted to attract no more attention than was necessary to his interest in Dr. McAllen.

That evening he took a plane to New York.

Physicist Frank Elby was a few years older than Barney, an acquaintance since their university days. Elby was ambitious capable, slightly dishonest; on occasion he provided Barney with contraband information for which he was generously paid.

Over lunch Barney broached a business matter which

would be financially rewarding to both of them, and should not burden Elby's conscience unduly. Elby reflected, and agreed. The talk became more general. Presently Barney remarked, "Ran into an old acquaintance of ours the other day. Remember Dr. McAllen?"

"Oliver B. McAllen? Naturally. Haven't heard about him in years. What's he doing?"

Barney said he had only seen the old man, hadn't spoken to him. But he was sure it was McAllen.

"Where was this?" Elby asked.

"Sweetwater Beach. Small town down the Coast."

Elby nodded. "It must have been McAllen. That's where he had his home."

"He was looking hale and hearty. They didn't actually institutionalize him at the time of his retirement, did they?"

"Oh, no, No reason for it. Except on the one subject of that cockeyed invention of his, he behaved perfectly normally. Besides he would have hired a lawyer and fought any such move. He had plenty of money. And nobody wanted publicity. McAllen was a pretty likeable old boy."

"The university never considered taking him back?"

Elby laughed. "Well, hardly! After all, man – a matter transmitter!"

Barney felt an almost electric thrill of pleasure. Right on the nose, Brother Chard! Right on the nose.

He smiled. "Was that what it was supposed to be? I never was told all the details."

Elby said that for the few who were informed of the details it had been a seven-day circus. McAllen's reputation was such that more people, particularly on his staff, had been ready to believe him than were ready to admit it later. "When he'd left – you know, he never even bothered to take that 'transmitter' along – the thing was taken apart and checked over as carefully as if somebody thought it might still suddenly start working. But it was an absolute Goldberg, of course. The old man had simply gone off his rocker."

"Hadn't there been any indication of it before?"

"Not that I know of. Except that he'd been dropping hints about his gadget for several months before he showed it to anyone," Elby said indifferently. The talk turned to other things.

The rest was routine, not difficult to carry out. A small

cottage on Mallorca, near the waterfront, was found to be in McAllen's name. McAllen's liquid assets were established to have dwindled to something less than those of John Emanuel Fredericks, who patronized the same local bank as his employer. There had been frequent withdrawals of large, irregular sums throughout the past years. The withdrawals were not explained by McAllen's frugal personal habits; even his fishing excursions showed an obvious concern for expense. The retention of the Mediterranean retreat, modest though it was, must have a reason beyond simple self-indulgence.

Barney arranged for the rental of a bungalow in the outskirts of Sweetwater Beach, which lay uphill from the old house in which McAllen and Fredericks lived, and provided a good view of the residence and its street entry. He didn't go near the place himself. Operatives of a Los Angeles detective agency went on constant watch in the bungalow, with orders to photograph the two old men in the other house and any visitors at every appearance, and to record the exact times the pictures were taken. At the end of each day the photographs were delivered to an address from where they promptly reached Barney's hands.

A European agency was independently covering the Mallorca cottage in the same manner.

Nearly four weeks passed before Barney obtained the exact results he wanted. He called off the watch at both points, and next day came up the walk to McAllen's home and rang the doorbell. John Fredericks appeared, studied Barney's card and Barney with an air of mild disapproval, and informed him that Dr. McAllen did not receive visitors.

"So I've been told," Barney acknowledged pleasantly. "Please be so good as to give the doctor this."

Fredericks' white eyebrows lifted by the barest trifle as he looked at the sealed envelope Barney was holding out. After a moment's hesitation he took it, instructed Barney to wait, and closed the door firmly.

Listening to Fredericks' footsteps receding into the house, Barney lit a cigarette, and was pleased to find that his hands were as steady as if he had been on the most ordinary of calls. The envelope contained two sets of photographs, dated and indicating the time of day. The date was the same for both sets; the recorded time showed the pictures had been taken within fifteen minutes of one another. The

central subject in each case was Dr. McAllen, sometimes accompanied by Fredericks. One set of photographs had been obtained on Mallorca, the other in Sweetwater Beach at McAllen's house.

Barring rocket assists, the two old men had been documented as the fastest moving human beings in all of history.

Several minutes passed before Fredericks reappeared. With a face which was now completely without expression, he invited Barney to enter, and conducted him to McAllen's study. The scientist had the photographs spread out on a desk before him. He gestured at them.

"Just what – if anything – is this supposed to mean, sir?" he demanded in an unsteady voice.

Barney hesitated, aware that Fredericks had remained in the hall just beyond the study. But Fredericks obviously was in McAllen's confidence. His eavesdropping could do no harm.

"It means this, doctor –" Barney began, amiably enough; and he proceeded to tell McAllen precisely what the photographs meant. McAllen broke in protestingly two or three times, then let Barney conclude his account of the steps he had taken to verify his farfetched hunch on the pier without further comment. After a few minutes Barney heard Fredericks' steps moving away, and then a door closing softly somewhere, and he shifted his position a trifle so that his right side was now toward the hall door. The little revolver was in the right-hand coat pocket. Even then Barney had no real concern that McAllen or Fredericks would attempt to resort to violence; but when people are acutely disturbed – and McAllen at least was – almost anything can happen.

When Barney finished, McAllen stared down at the photographs again, shook his head, and looked over at Barney.

"If you don't mind," he said, blinking behind his glasses, "I should like to think about this for a minute or two."

"Of course, doctor," Barney said politely. McAllen settled back in the chair, removed his glasses and half-closed his eyes. Barney let his gaze rove. The furnishings of the house were what he had expected – well-tended, old, declining here and there to downright shabby. The only reasonably new piece in the study was a radio-phonograph. The walls of the study and of the section of a living room he could

see through a small archway were lined with crammed bookshelves. At the far end of the living room was a curious collection of clocks in various types and sizes, mainly antiques, but also some old metallic pieces with modernistic faces. Vacancies in the rows indicated Fredericks might have begun to dispose discreetly of the more valuable items on his employer's behalf.

McAllen cleared his throat finally, opened his eyes, and settled the spectacles back on his nose.

"Mr. Chard," he inquired, "have you had scientific training?"

"No."

"Then," said McAllen, "the question remains of what your interest in the matter is. Perhaps you'd like to explain just why you put yourself to such considerable expense to intrude on my personal affairs – "

Barney hesitated perceptibly. "Doctor," he said, "there is something tantalizing about an enigma. I'm fortunate in having financial means to gratify my curiosity when it's excited to the extent it was here."

McAllen nodded. "I can understand curiosity. Was that the only motive?"

Barney gave him his most disarming grin. "Frankly no. I've mentioned I'm a businessman – "

"Ah!" McAllen said, frowning.

"Don't misunderstand me. One of my first thoughts admittedly was that here were millions waiting to be picked up. But the investigation soon made a number of things clear to me."

"What were they?"

"Essentially, that you had so sound a reason for keeping your invention a secret that to do it you were willing to ruin yourself financially, and to efface yourself as a human being and as a scientist."

"I don't feel," McAllen observed mildly, "that I really have effaced myself, either as a human being or as a scientist."

"No, but as far as the public was concerned you did both."

McAllen smiled briefly. "That strategem was very effective – until now. Very well, Mr. Chard. You understand clearly that under no circumstances would I agree to the commercialization of . . . well, of my matter transmitter?"

Barney nodded. "Of course."

"And you're still interested?"

"Very much so."

McAllen was silent for a few seconds, biting reflectively at his lower lip. "Very well," he said again. "You were speaking of my predilection for fishing. Perhaps you'd care to accompany me on a brief fishing trip?"

"Now?" Barney asked.

"Yes, now. I believe you understand what I mean . . . I see you do. Then, if you'll excuse me for a few minutes – "

Barney couldn't have said exactly what he expected to be shown. His imaginings had run in the direction of a camouflaged vault beneath McAllen's house – some massively-walled place with machinery that powered the matter transmitter purring along the walls . . . and perhaps something in the style of a plastic diving bell as the specific instrument of transportation.

The actual experience was quite different. McAllen returned shortly, having changed into the familiar outdoor clothing – apparently he had been literal about going on a fishing trip. Barney accompanied the old physicist into the living room, and watched him open a small but very sturdy wall safe. Immediately behind the safe door, an instrument-panel had been built in the opening.

Peering over the spectacles, McAllen made careful adjustments on two sets of small dials, and closed and locked the safe again.

"Now, if you'll follow me, Mr. Chard – " he crossed the room to a door, opened it, and went out. Barney followed him into a small room with rustic furnishings and painted wooden walls. There was a single, heavily curtained window; the room was rather dim.

"Well," McAllen announced, "here we are."

It took a moment for that to sink in. Then, his scalp prickling eerily, Barney realized he was standing farther from the wall than he had thought. He looked around, and discovered there was no door behind him now, either open or closed.

He managed a shaky grin. "So that's how your matter transmitter works!"

"Well," McAllen said thoughtfully, "of course it isn't really a matter transmitter. I call it the McAllen Tube. Even an educated layman must realize that one can't simply

disassemble a living body at one point, reassemble it at another, and expect life to resume. And there are other considerations – "

"Where are we?" Barney asked. "On Mallorca?"

"No. We haven't left the continent – just the state. Look out the window and see for yourself."

McAllen turned to a built-in closet, and Barney drew back the window hangings. Outside was a grassy slope, uncut and yellowed by the summer sun. The slope dropped sharply to a quiet lakefront framed by dark pines. There was no one in sight, but a small wooden dock ran out into the lake. At the far end of the dock an old rowboat lay tethered. And – quite obviously – it was no longer the middle of a bright afternoon; the air was beginning to dim, to shift towards evening.

Barney turned to find McAllen's mild, speculative eyes on him, and saw the old man had put a tackle box and fishing rod on the table.

"Your disclosures disturbed me more than you may have realized," McAllen remarked by way of explanation. His lips twitched in the shadow of a smile. "At such times I find nothing quite so soothing as to drop a line into water for a while. I've some thinking to do, too. So let's get down to the dock. There ought to be a little bait left in the minnow pail."

When they returned to the cabin some time later, McAllen was in a pensive mood. He started a pot of coffee in the small kitchen, then quickly cleaned the tackle and put it away. Barney sat at the table, smoking and watching him, but made no attempt at conversation.

McAllen poured the coffee, produced sugar and powdered milk, and settled down opposite Barney. He said abruptly, "Have you had any suspicions about the reasons for the secretive mumbo jumbo?"

"Yes," Barney said, "I've had suspicions. But it wasn't until *that* happened" – he waved his hand at the wall out of which they appeared to have stepped – "that I came to a definite conclusion."

"Eh?" McAllen's eyes narrowed suddenly. "What was the conclusion?"

"That you've invented something that's really a little too good."

"Too good?" said McAllen. "Hh-m-m. Go on."

"It doesn't take much power to operate the thing, does it?"

"Not," said McAllen dryly, "if you're talking about the kind of power one pays for."

"I am. Can the McAllen Tube be extended to any point on Earth?"

"I should think so."

"And you financed the building of this model yourself. Not very expensive. If the secret leaked out, I'd never know who was going to materalize in my home at any time, would I? Or with what intentions."

"That," McAllen nodded, "is about the size of it."

Barney crushed out his cigarette, lit a fresh one, blew out a thin streamer of smoke. "Under the circumstances," he remarked, "it's unfortunate you can't get the thing shut off again, isn't it?"

McAllen was silent for some seconds. "So you've guessed that, too," he said finally. "What mistake did I make?"

"None that I know of," Barney said. "But you're doing everything you can to keep the world from learning about the McAllen Tube. At the same time you've kept it in operation – which made it just a question of time before somebody else noticed something was going on, as I did. Your plans for the thing appear to have gone wrong."

McAllen was nodding glumly. "They have," he said. "They have, Mr. Chard. Not irreparably wrong, but still – " He paused. "The first time I activated the apparatus," he said, "I directed it only at two points. Both of them within structures which were and are my property. It was fortunate I did so."

"That was this cabin and the place on Mallorca?"

"Yes. The main operational sections of the Tube are concealed about my California home. But certain controls have to be installed at any exit point to make it possible to return. It wouldn't be easy to keep those hidden in any public place.

"It wasn't until I compared the actual performance of the Tube with my theoretical calculations that I discovered there was an unforeseen factor involved. To make it short, I could not – to use your phrasing – shut the Tube off again. But that would certainly involve some extremely dis-

astrous phenomena at three different points of our globe."

"Explosions?" Barney asked.

"Weee-ll," McAllen said judiciously, "implosions might come a little closer to describing the effect. The exact term isn't contained in our vocabulary, and I'd prefer it *not* to show up there, at least in my lifetime. But you see my dilemma, don't you? If I asked for help, I revealed the existence of the Tube. Once its existence was known, the research that produced it could be duplicated. As you concluded, it isn't really too difficult a device to construct. And even with the present problem solved, the McAllen Tube is just a little too dangerous a thing to be at large in our world today."

"You feel the problem can be solved?"

"Oh, yes." McAllen took off his glasses and rubbed his eyes. "That part of it's only a matter of time. At first I thought I'd have everything worked out within three or four years. Unfortunately I badly underestimated the expense of some of the required experimentation. That's what's delayed everything."

"I see. I had been wondering," Barney admitted, "why a man with something like this on his mind would be putting in *quite* so much time fishing."

McAllen grinned. "Enforced idleness. It's been very irritating really, Mr. Chard. I've been obliged to proceed in the most inexpensive manner possible, and that meant – very slowly."

Barney said, "If it weren't for that question of funds, how long would it take to wind up the operation?"

"A year – perhaps two years." McAllen shrugged. "It's difficult to be too exact, but it certainly wouldn't be longer than two."

"And what would be the financial tab?"

McAllen hesitated. "A million is the bottom figure, I'm afraid. It should run closer to a million and a half."

"Doctor," Barney said. "Let me make you a proposition."

McAllen looked at him. "Are you thinking of financing the experiments, Mr. Chard?"

"In return," Barney said, "for a consideration."

"What's that?" McAllen's expression grew wary.

"When you retired," Barney told him, "I dropped a nice piece of money as a consequence. It was the first beating I'd taken, and it hurt. I'd like to pick that money up again. All

right. We're agreed it can't be done on the McAllen Tube. The Tube wouldn't help make the world a safer place for Barney Chard. But the Tube isn't any more remarkable than the mind that created it. Now I know a company which could be top of the heap in electronic precision work – one-shot specialities is what they go in for – if it had your mind as technical advisor. I can buy a controlling interest in that company tomorrow, doctor. And you can have the million and a half paid off in not much more time than you expect to take to get your monster back under control and shut down. Three years of your technical assistance and we're clear."

McAllen's face reddened slowly. "I've considered hiring out, of course," he said. "Many times. I need the money very badly. But aren't you overlooking something?"

"What?"

"I went to considerable pains," said McAllen, "to establish myself as a lunatic. It was distasteful, but it seemed necessary to discourage anyone from making too close an investigation of some of my more recent lines of research. If it became known now that I was again in charge of a responsible project – "

Barney shook his head. "No problem, doctor. We'd be drawing on outside talent for help in specific matters – very easy to cover up any leads to you personally. I've handled that general sort of thing before."

McAllen frowned thoughtfully. "I see. But I'd have – There wouldn't be so much work that – "

"No," Barney said. "I guarantee that you'll have all the time you want for your own problem." He smiled. "Considering what you told me, I'd like to hear that one's been solved myself!"

McAllen grinned briefly. "I can imagine. Very well. Ah . . . when can you let me have the money, Mr. Chard?"

The sun was setting beyond the little lake as Barney drew the shades over the cabin window again. Dr. McAllen was half inside the built-in closet at the moment, fitting a pair of toggle switches to the concealed return device in there.

"Here we go," he said suddenly.

Three feet from the wall of the room the shadowy suggestion of another wall, and of an open door, became visible.

Barney said dubiously, "We came out of *that?*"

McAllen looked at him, sad, "The appearance is different on the exit side. But the Tube's open now – Here, I'll show you."

He went up to the apparition of a door, abruptly seemed to melt into it. Barney held his breath, and followed. Again there was no sensory reaction to passing through the Tube. As his foot came down on something solid in the shadowiness into which he stepped, the living room in Sweetwater Beach sprang into sudden existence about him.

"Seems a little odd from that end, the first time through, doesn't it?" McAllen remarked.

Barney let out his breath.

"If I'd been the one who invented the Tube," he said honestly, "I'd never have had the nerve to try it."

McAllen grinned. "Tell you the truth, I did need a drink or two the first time. But it's dead-safe if you know just what you're doing."

Which was not, Barney felt, too reassuring. He looked back. The door through which they had come was the one by which they had left. But beyond it now lay a section of the entrance hall of the Sweetwater Beach house.

"Don't let that fool you," said McAllen, following his gaze. "If you tried to go out into the hall at the moment, you'd find yourself right back in the cabin. Light rays passing through the Tube can be shunted off and on." He went over to the door, closed and locked it, dropping the key in his pocket. "I keep it locked. I don't often have visitors, but if I had one while the door was open it could be embarrassing."

"What about the other end?" Barney asked. "The door appeared in the cabin when you turned those switches. What happens now? Suppose someone breaks into the cabin and starts prowling around – is the door still there?"

McAllen shook his head. "Not unless that someone happened to break in within the next half-minute." He considered. "Let's put it this way, the Tube's permanently centered on its two exit points, but the effect ordinarily is dissipated over half a mile of the neighborhood at the other end. For practical purposes there is no useful effect. When I'm going to go through I bring the exit end down to a focus point . . . does that make sense? Very well. It remains focused for around sixty or ninety seconds, depending on

how I set it; then it expands again." He nodded at the locked door. "In the cabin, that's disappeared by now. Walk through the space where it's been, and you'll notice nothing unusual. Clear?"

Barney hesitated. "And if that door were still open here, and somebody attempted to step through after the exit end had expanded – "

"Well," McAllen said, moving over to a wall buzzer and pressing it, "that's what I meant when I said it could be embarrassing. He'd get expanded too – disastrously. Could you use a drink, Mr. Chard? I know I want one."

The drinks, served by Fredericks, were based on a rather rough grade of bourbon, but Barney welcomed them. There was an almost sick fascination in what was a certainty now: he was going to get the Tube. That tremendous device was his for the taking. He was well inside McAllen's guard; only carelessness could arouse the old man's suspicions again, and Barney was not going to be careless. No need to hurry anything. He would play the reserved role he had selected for himself, leave developments up to the fact that McAllen had carried the burden of his secret for twelve years, with no more satisfactory confidant than Fredericks to trust with it. Having told Barney so much, McAllen wanted to tell more. He would have needed very little encouragement to go on talking about it now.

Barney offered no encouragement. Instead, he gave McAllen a cautiously worded reminder that it was not inconceivable they had an audience here, at which McAllen reluctantly subsided. There was, however, one fairly important question Barney still wanted answered today. The nature of the answer would tell him the manner in which McAllen should now be handled.

He waited until he was on his feet and ready to leave before presenting it. McAllen's plump cheeks were flushed from the two highballs he had put away; in somewhat awkward phrases he had been expressing his gratitude for Barney's generous help, and his relief that because of it the work on the Tube now could be brought to an end.

"Just one thing about that still bothers me a little, doctor," Barney said candidly.

McAllen looked concerned. "What's that, Mr. Chard?"

"Well . . . you're in good health, I'd say." Barney smiled. "But suppose something did happen to you before you

succeeded in shutting the McAllen Tube down." He inclined his head toward the locked door. "That thing would still be around waiting for somebody to open it and step through . . ."

McAllen's expression of concern vanished. He dug a forefinger cheerfully into Barney's ribs. "Young man, you needn't worry. I've been aware of the possibility, of course, and believe me I'm keeping *very* careful notes and instructions. Safe deposit boxes . . . we'll talk about that tomorrow, eh? Somewhere else? Had a man in mind, as a matter of fact, but we can make better arrangements now. You see, it's really so ridiculously easy at this stage."

Barney cleared his throat. "Some other physicist – ?"

"*Any* capable physicist," McAllen said decidedly. "Just a matter, you see of how reliable he is." He winked at Barney. "Talk about that tomorrow too – or one of these days."

Barney stood looking down, with a kind of detached surprise, at a man who had just pronounced sentence of death casually on himself, and on an old friend. For the first time in Barney's career, the question of deliberate murder not only entered an operation, but had become in an instant an unavoidable part of it. Frank Elby, ambitious and money-hungry, could take over where McAllen left off. Elby was highly capable, and Elby could be controlled. McAllen could not. He could only be tricked; and, if necessary killed.

It was necessary, of course. If McAllen lived until he knew how to shut the Tube down safely, he simply would shut it down, destroy the device and his notes on it. A man who had gone to such extreme lengths to safeguard the secret was not going to be talked out of his conviction that the McAllen Tube was a menace to the world. Fredericks, the morose eavesdropper, had to be silenced with his employer to assure Barney of his undisputed possession of the Tube.

Could he still let the thing go, let McAllen live? He couldn't, Barney decided. He'd dealt himself a hand in a new game, and a big one – a fantastic, staggering game when one considered the possibilities in the Tube. It meant new interest, it meant life for him. It wasn't in his nature to pull out. The part about McAllen was cold necessity. A very ugly necessity, but McAllen – pleasantly burbling

something as they walked down the short hall to the front door – already seemed a little unreal, a roly-poly, muttering, fading small ghost.

In the doorway Barney exchanged a few words – he couldn't have repeated them an instant later – with the ghost, became briefly aware of a remarkably firm hand clasp, and started down the cement walk to the street. Evening had come to California at last; a few houses across the street made dim silhouettes against the hills, some of the windows lit. He felt, Barney realized, curiously tired and depressed. A few steps behind him, he heard McAllen quietly closing the door to his home.

The walk, the garden, the street, the houses and hills beyond, vanished in a soundless violent explosion of white light around Barney Chard.

His eyes might have been open for several seconds before he became entirely aware of the fact. He was on his back looking up at the low raftered ceiling of a room. The light was artificial, subdued; it gave the impression of nighttime outdoors.

Memory suddenly blazed up. "Tricked!" came the first thought. Outsmarted. Outfoxed. And by – Then that went lost in a brief, intense burst of relief at the realization he was still alive, apparently unhurt. Barney turned sharply over on his side – bed underneath, he discovered – and stared around.

The room was low, wide. Something undefinably odd – He catalogued it quickly. Redwood walls, Navaho rugs on the floor, bookcases, unlit fireplace, chairs, table, desk with a typewriter and reading lamp. Across the room a tall dark grandfather clock with a bright metal disk instead of a clock-face stood against the wall. From it came a soft, low thudding as deliberate as the heartbeat of some big animal. It was the twin of one of the clocks he had seen in McAllen's living room.

The room was McAllen's, of course. Almost luxurious by comparison with his home, but wholly typical of the man. And now Barney became aware of its unusual feature; there were no windows. There was one door, so far to his right he had to twist his head around to see it. It stood half open; beyond it a few feet of a narrow passage lay within his range of vision, lighted in the same soft manner as the room. No sound came from there.

Had he been left alone? And what had happened? He wasn't in McAllen's home or in that fishing shack at the lake. The Tube might have picked him up – somehow – in front of McAllen's house, transported him to the Mallorca place. Or he might be in a locked hideaway McAllen had built beneath the Sweetwater Beach house.

Two things were unpleasantly obvious. His investigations hadn't revealed all of McAllen's secrets. And the old man hadn't really been fooled by Barney Chard's smooth approach. Not, at any rate, to the extent of deciding to trust him.

Hot chagrin at the manner in which McAllen had handed the role of dupe back to him flooded Barney for a moment. He swung his legs over the side of the bed and stood up. His coat had been hung neatly over the back of a chair a few feet away; his shoes stood next to the bed. Otherwise he was fully clothed. Nothing in the pockets of the coat appeared to have been touched; billfold, cigarette case, lighter, even the gun, were in place; the gun, almost startingly, was still loaded. Barney thrust the revolver thoughtfully into his trousers pocket. His wrist watch seemed to be the only item missing.

He glanced about the room again, then at the half-open door and the stretch of narrow hallway beyond. McAllen must have noticed the gun. The fact that he hadn't bothered to take it away, or at least to unload it, might have been reassuring under different circumstances. Here, it could have a very disagreeable meaning. Barney went quietly to the door, stood listening a few seconds, became convinced there was no one within hearing range, and moved on down the hall.

In less than two minutes he returned to the room, with the first slow welling of panic inside him. He had found a bathroom, a small kitchen and pantry, a storage room twice as wide and long as the rest of the place combined, crammed with packaged and crated articles, and with an attached freezer. If it was mainly stored food, as Barney thought, and if there was adequate ventilation and independent power, as seemed to be the case, then McAllen had constructed a superbly self-sufficient hideout. A man might live comfortably enough for years without emerging from it.

There was only one thing wrong with the setup from Barney's point of view. The thing he'd been afraid of. Nowhere was there an indication of a window or of an exit

door. The McAllen Tube, of course, might make such ordinary conveniences unnecessary. And if the Tube was the only way in or out, then McAllen incidentally had provided himself with an escape-proof jail for anyone he preferred to keep confined. The place might very well have been built several hundred feet underground. A rather expensive proposition but, aside from that, quite feasible.

Barney felt his breath begin to quicken, and told himself to relax. Wherever he was, he shouldn't be here long. McAllen presently would be getting in contact with him. And then –

His glance touched the desk across the room, and now he noticed his missing wrist watch on it. He went over, picked it up, and discovered that the long white envelope on which the watch had been placed was addressed to him.

For a moment he stared at the envelope. Then, his fingers shaking a little, he tore open the envelope and pulled out the typewritten sheets within.

The letterhead, he saw without surprise, was OLIVER B. McALLEN.

The letter read:

Dear Mr. Chard:

An unfortunate series of circumstances, combined with certain character traits in yourself, make it necessary to inconvenience you in a rather serious manner.

To explain: The information I gave you regarding the McAllen Tube and my own position was not entirely correct. It is not the intractable instrument I presented it as being – it can be "shut off" again quite readily and without any attendant difficulties. Further, the decision to conceal its existence was not reached by myself alone. For years we – that is, Mr. Fredericks, who holds a degree in engineering and was largely responsible for the actual construction of the Tube – and I, have been members of an association of which I cannot tell you too much. But I may say that it acts, among other things, as the present custodian of some of the more dangerous products of human science, and will continue to do so until a more stable period permits their safe release.

To keep developments such as the McAllen Tube out of irresponsible hands is no easy task these days,

but a variety of effective devices are employed to that end. In this instance, you happened upon a "rigged" situation, which had been designed to draw action from another man, an intelligent and unscrupulous individual who lately had indicated a disturbing interest in events connected with the semipublic fiasco of my "matter transmitter" some years ago. The chances of another person becoming aware of the temporal incongruities which were being brought to this man's attention were regarded as so remote that they need be given no practical consideration. Nevertheless, the unexpected happened: you became interested. The promptness with which you acted on your chance observations shows a bold and imaginative manner of thinking on which you may be genuinely congratulated.

However, a perhaps less commendable motivation was also indicated. While I appeared to stall on coming to decisions you may have regarded as inevitable, your background was being investigated by the association. The investigation confirmed that you fall within a personality category of which we have the greatest reason to be wary.

Considering the extent of what you had surmised and learned, falsified though the picture was, this presented a serious problem. It was made more acute by the fact that the association is embarking on a "five-year-plan" of some importance. Publicity during this period would be more than ordinarily undesirable. It will therefore be necessary to see to it that you have no opportunity to tell what you know before the plan is concluded. I am sure you can see it would be most unwise to accept your simple word on the matter. Your freedom of movement and of communication must remain drastically restricted until this five-year period is over.

Within the next two weeks, as shown by the clock in your quarters, it will have become impossible for me or for any member of the association to contact you again before the day of your release. I tell you this so that you will not nourish vain hopes of changing the situation in your favor, but will adjust as rapidly as you can to the fact that you must spend the next five years

by yourself. What ameliorations of this basic condition appeared possible have been provided.

It is likely that you will already have tried to find a way out of the cabin in which you were left. The manner of doing this will become apparent to you exactly twenty-four hours after I conclude and seal this letter. It seemed best to advise you of some details of your confinement before letting you discover that you have been given as much limited freedom as circumstances allowed.

Sincerely yours,
OLIVER B. MCALLEN.

Barney dropped the letter on the desk, stared down at it, his mouth open. His face had flushed red. "Why, he's crazy!" he said aloud at last. "He's crazier than – " He straightened, looked uneasily about the room again.

Whether a manaic McAllen made a more desirable jailer than a secret association engaged in keeping dangerous scientific developments under cover could be considered an open question. The most hopeful thought was that Dr. McAllen was indulging an unsuspected and nasty sense of humor.

Unfortunately, there wasn't the slightest reason to believe it. McAllen was wise to him. The situation was no gag – and neither was it necessarily what McAllen wanted him to think. Unless his watch had been reset, he had been knocked out by whatever hit him for roughly five hours – or seventeen, he amended. But he would have been hungry if it had been the longer period; and he wasn't.

Five hours then. Five hours wouldn't have given them time to prepare the "cabin" as it was prepared: for someone's indefinite stay. At a guess, McAllen had constructed it as a secure personal retreat in the event of something like a nuclear holocaust. But, in that case, why vacate it now for Barney Chard?

Too many questions, he thought. Better just keep looking around.

The blank metal face on the grandfather clock swung back to reveal a group of four dials, each graduated in a different manner, only one of them immediately familiar. Barney studied the other three for some seconds; then their meaning suddenly came clear. The big clock had just finished

softly talking away the fourth hour of the first day of the first month of Year One. There were five figures on the Year Dial.

He stared at it. A five-year period of – something seemed to be the key to the entire setup.

Barney shook his head. Key it might be, but not one he could read without additional data. He snapped the cover disk shut on the unpleasantly suggestive dials, and began to go mentally over McAllen's letter.

The business that in twenty-four hours – twenty now – the manner of leaving the cabin would become "apparent" to him – that seemed to dispose of the possibility of being buried underground here. McAllen would hardly have provided him with a personal model of the Tube; he must be speaking of an ordinary door opening on the immediate environment, equipped with a time lock.

In that case, where was the door?

Barney made a second, far more careful search. Three hours later, he concluded it. He'd still found no trace of an exit. But the paneling in any of the rooms might slide aside to reveal one at the indicated time, or a section of the floor might swing back above a trap door. There was no point in attempting to press the search any further. After all, he only had to wait.

On the side, he'd made other discoveries. After opening a number of crates in the storage room, and checking contents of the freezer, he could assume that there was in fact more than enough food here to sustain one man for five years. Assuming the water supply held out – there was no way of checking on it; the source of the water like that of the power and the ventilation lay outside the area which was accessible to him – but if the water could be depended on, he wouldn't go hungry or thirsty. Even tobacco and liquor were present in comparably liberal quantities. The liquor he'd seen was all good; almost at random he had selected a bottle of cognac and brought it and a glass to the main room with him. The thought of food wasn't attractive at the moment. But he could use a drink.

He half filled the glass, emptied it with a few swallows, refilled it and took it over to one of the armchairs. He began to feel more relaxed almost at once. But the truth was, he acknowledged, settling back in the chair, that the situation was threatening to unnerve him completely. Every-

thing he'd seen implied McAllen's letter came close to stating the facts; what wasn't said became more alarming by a suggestion of deliberate vagueness. Until that melodramatically camouflaged door was disclosed – seventeen hours from now – he'd be better off if he didn't try to ponder the thing out.

And the best way to do that might be to take a solid load on rapidly, and then sleep away as much of the intervening time as possible.

He wasn't ordinarily a hard drinker, but he'd started on the second bottle before the cabin began to blur on him. Afterwards, he didn't remember making it over to the bed.

Barney woke up ravenous and without a trace of hangover. Making a mental adjustment to his surroundings took no more time than opening his eyes; he'd been dreaming Dr. McAllen had dropped him into a snake pit and was sadistically dangling a rope twelve feet above his head, inviting him to climb out. To find himself still in the softly lit cabin was – for a few seconds, at any rate – a relief.

The relief faded as he sat up and looked at his watch. Still over an hour to go before McAllen's idiotic door became "apparent." Barney swore and headed for the bathroom to freshen up.

There was an electric shaver there, the end of its cord vanishing into the wall. Barney used it as meticulously as if he were embarking on a day of normal activities, prepared a breakfast in the kitchen and took it to the main room. He ate unhurriedly, absorbed in his thoughts, now and then glancing about the room. After a few minutes he uneasily pushed back the plate and stood up. If McAllen's twenty-four hours began with the moment the big clock in the room had been started, the door should be in evidence by now.

Another tour of the place revealed nothing and left him nervous enough to start biting his nails. He moved about the room, looking over things he'd already investigated. A music-cabinet – he'd thought it was a radio at first, but it was only an elaborate hi-fi record player; two enclosed racks of records went with it – mainly classical stuff apparently. And a narrow built-in closet with three polished fishing rods and related gear, which would have allowed for speculation on the nature of the cabin's surroundings, except

that McAllen might feel compelled to have a sampling of his toys around him wherever he was. Barney closed the closet door morosely, stood regarding the two crowded bookcases next to it. Plenty of books – reflecting the McAllen taste again. Technical tomes. Great Literature. Dickens, Melville, the Life of Gandhi.

Barney grunted, and was turning away when another title caught his eye. He glanced back at it, hauled out the book:

"Fresh Water Game Fish; Tested Methods of Their Pursuit." The author: O. B. McAllen.

Barney was opening the book when the cabin's door also opened.

Bright light – daylight – filled the room with so sudden a gush that Barney's breath caught in his throat. The book seemed to leap out of his hands. With the same glance he saw then the low, wide picture window which abruptly had appeared in the opposite wall, occupying almost half its space—and, in the other wall on the far left, a big door which was still swinging slowly open into the room. Daylight poured in through window and door. And beyond them—

For seconds he stared at the scene outside, barely aware of what he was looking at, while his mind raced on. He had searched every inch of the walls. And those thick wooden panels hadn't simply slid aside; the surfaces of doorframe and window were flush with the adjoining wall sections. So the McAllen Tube was involved in these changes in the room —and he might have guessed, Barney thought, that McAllen would have found more than one manner of putting the space-twisting properties of his device to use. And then finally he realized what he was seeing through the window and beyond the door. He walked slowly up to the window, still breathing unevenly.

The scene was unfamiliar but not at all extraordinary. The cabin appeared to be part way up one side of a heavily forested, rather narrow valley. It couldn't be more than half a mile to the valley's far slope which rose very steeply, almost like a great cresting green wave, filling the entire window. Coming closer Barney saw the skyline above it, hazy, summery, brilliantly luminous. This cabin of McAllen's might be in one of the wilder sections of the Canadian Rockies.

Or – and this was a considerably less happy thought – it

probably could have been set up just as well in some area like the Himalayas.

But a more immediate question was whether the cabin actually *was* in the valley or only appearing to be there. The use of the Tube made it possible that this room and its seeming surroundings were very far apart in fact. And just what would happen to him then if he decided to step outside?

There were scattered sounds beyond the open door: bird chirpings and whistles, and the continuous burring calls of what Barney decided would be a wild pigeon. Then a swirl of wind stirred the nearer branches. He could feel the wash of the breeze in the room.

It looked and sounded – and felt – all right.

Barney scowled undecidedly, clearing his throat, then discovered that a third item had appeared in the room along with the door and window. In the wall just this side of the door at shoulder-height was a small ivory plate with two black switches on it. Presumably the controls for door and window . . .

Barney went over, gingerly touched the one on the right, watching the window; then flicked up the switch. Instantly, the window had vanished, the wood paneling again covered the wall. Barney turned the switch down. The window was back.

The door refused to disappear until he pushed it shut. Then it obeyed its switch with the same promptness.

He went back across the room, returned with one of McAllen's fishing poles, and edged its tip tentatively out through the door. He wouldn't have been surprised if the tip had disintegrated in that instant. But nothing at all occurred. He dug about with the pole in the loose earth beyond the doorsill, then drew it back. The breeze was flowing freely past him; a few grains of soil blew over the sill and into the room. The room seemed to be concealing no grisly tricks and looked to be safe enough.

Barney stepped out on the sill, moved on a few hesitant steps, stood looking about. He had a better view of the valley here – and the better view told him immediately that he was not in the Canadian Rockies. At least, Canada, to his knowledge, had no desert. And, on the left, this valley came to an end perhaps a little more than a mile away from the cabin, its wooded slopes flowing steeply down to a landscape

which was dull rust-red – flat stretches alternating with worn rock escarpments, until the desert's rim rose toward and touched the hazy white sky. Not so very different from –

Barney's eyes widened suddenly. Could he be in the Sierras – perhaps not more than three or four hours' drive from Los Angeles?

Three or four hours' drive if he had a car, of course. But even so –

He stared around, puzzled. There were no signs of a human being, of human habitation. But somebody else must be here. Somebody to keep guard on him. Otherwise there was nothing to stop him from walking away from this place – though it might very well be a long, uncomfortable hike to any civilized spot.

Even if this did turn out to be the Himalayas, or some equally remote area, there must be hill tribes about if one went far enough – there should even be an occasional airplane passing overhead.

Barney stood just outside the door, frowning, pondering the situation again, searching for the catch in it. McAllen and his friends, whatever else they might be, weren't stupid. There was something involved here that he hadn't become aware of yet.

Almost without thought then, he turned up his head, squinting at the bright hazy sky above him –

And saw IT.

His breath sucked in and burst from his lungs in a half-strangled, terrified squawk as he staggered backward into the cabin, slammed the door shut, then spun around and began slapping frantically at the switches on the wall-plate until door and window were gone, and only the cabin's soft illumination was around him again. Then he crouched on the floor, his back against the wall, shaking with a terror he could hardly have imagined before.

He knew what the catch was now. He had understood it completely in the instant of glancing up and seeing that tiny brilliant blue-white point of light glare down at him through the incandescent cloud layers above. Like a blazing, incredibly horrible insect eye . . .

This world's sun.

THE END OF YEAR ONE

Barney Chard came up out of an uneasy sleep to the

sudden sharp awareness that something was wrong. For some seconds he lay staring about the unlit cabin, mouth dry, heart hammering with apprehension. Then he discovered it was only that he had left the exit door open and the window switched on. . . Only? This was the first time since they had left him here that he had gone to sleep without sealing the cabin first – even when blind drunk, really embalmed.

He thought of climbing out of bed and taking care of it now, but decided to let the thing ride. After all he knew there was nothing in the valley – nothing, in fact, on this world – of which he had realistic reason to be afraid. And he felt dead tired. Weak and sick. Feeling like that no longer alarmed him as it had done at first; it was a simple physical fact. The sheet under him was wet with sweat, though it was no more than comfortably warm in the room. The cabin never became more than comfortably warm. Barney lay back again, trying to figure out how it had happened he had forgotten about the window and the door.

It had been night for quite a while when he went to sleep, but regardless of how long he'd slept, it was going to go on being night a good deal longer. The last time he had bothered to check – which, Barney decided on reflection, might be several months ago now – the sunless period had continued for better than fifty-six hours. Not long before dropping on the bed, he was standing in front of the big clock while the minute hand on the hour slid up to the point which marked the end of the first year in Earth time he had spent in the cabin. Watching it happen, he was suddenly overwhelmed again by the enormity of his solitude, and it looked as if it were going to turn into another of those periods when he sat with the gun in his hand, sobbing and swearing in a violent muddle of self-pity and helpless fury. He had decided to knock off the lamenting and get good and drunk instead. And he would make it a drunk to top all drunks on this happy anniversary night.

But he hadn't done that either. He had set everything up, downright festively – glasses, crushed ice, a formidable little squad of fresh bottles. But when he looked at the array, he suddenly felt sick in advance. Then there was a wave of leaden heaviness, of complete fatigue. He hadn't had time to think of sealing the cabin. He had simply fallen into the bed then and there, and for all practical purposes passed out on the spot.

Barney Chard lay wondering about that. It had been, one might say, a rough year. Through the long days in particular, he had been doing his level best to obliterate his surroundings behind sustained fogs of alcoholism. The thought of the hellishly brilliant far-off star around which this world circled, the awareness that only the roof and walls of the cabin were between himself and that blazing alien watcher, seemed entirely unbearable. The nights, after a while, were easier to take. They had their strangeness too, but the difference wasn't so great. He grew accustomed to the big green moon, and developed almost an affection for a smaller one, which was butter-yellow and on an orbit that made it a comparatively infrequent visitor in the sky over the valley. By night he began to leave the view window in operation and finally even the door open for hours at a time. But he had never done it before when he wanted to go to sleep.

Alcoholism, Barney decided, stirring uneasily on the sweat-soiled, wrinkled sheet, hadn't been much of a success. His body, or perhaps some resistant factor in his mind, let him go so far and no farther. When he exceeded the limit, he became suddenly and violently ill. And remembering the drunk periods wasn't pleasant. Barney Chard, that steel-tough lad, breaking up, going to pieces, did not make a pretty picture. It was when he couldn't keep that picture from his mind that he most frequently had sat there with the gun, turning it slowly around in his hand. It had been a rather close thing at times.

Perhaps he simply hated McAllen and the association too much to use the gun. Drunk or sober, he brooded endlessly over methods of destroying them. He had to be alive when they came back. Some while ago there had been a space of several days when he was hallucinating the event, when McAllen and the association seemed to be present, and he was arguing with them. He came out of that period deeply frightened by what he was doing. Since then he hadn't been drinking as heavily.

But this was the first time he'd gone to sleep without drinking at all.

He sat upon the edge of the bed, found himself shaking a little again after that minor effort, but climbed to his feet anyway, and walked unsteadily over to the door. He stood there looking out. The cloud layers always faded away during

the night, gathered again at dawn. But now the sky was almost clear. A green glow over the desert to the left meant the larger moon was just below the horizon. The little yellow moon rode high in the sky above it. If they came up together, this would be the very bright part of the night during which the birds and other animal life in the valley went about their pursuits as if it were daytime. He could hear bird chirpings now against the restless mutter of the little stream which came down the center of the valley, starting at the lake at the right end and running out into stagnant and drying pools a short distance after it entered the desert.

He discovered suddenly he had brought the gun along from the bed with him and was holding it without having been in the least aware of the fact. Grinning twistedly at the old and useless precaution, he shoved the gun into his trousers pocket, brought out matches, a crumpled pack of cigarettes, and began to smoke. Very considerate of them to see to it he wouldn't run out of minor conveniences . . . like leaving him liquor enough to drink himself to death on any time he felt like it during these five years.

Like leaving him the gun –

From the association's standpoint those things were up to him, of course, Barney thought bitterly. In either unfortunate event, he wouldn't be on *their* consciences.

He felt a momentary spasm of the old hate, but a feeble one, hardly more than a brief wash of the early torrents of rage. Something had burned out of him these months; an increasing dullness was moving into its place –

And just what, he thought, startled, was he doing outside the cabin door now? He hadn't consciously decided to go that far; it must have been months, actually, since he had walked beyond the doorway at all. During the first few weeks he had made half a dozen attempts to explore his surroundings at night, and learned quickly that he was confined to as much of the valley as he could see from the cabin. Beyond the ridges lay naked desert and naked mountain ranges, silent and terrifying in the moonlight.

Barney glanced up and down the valley, undecided but not knowing quite what he was undecided about. He didn't feel like going back into the cabin, and to just stand here was boring.

"Well," he said aloud, sardonically, "it's a nice night for a walk, Brother Chard."

Well, why not? It was bright enough to see by now if he kept away from the thickest growths of trees, and getting steadily brighter as the big moon moved up behind the distant desert rim. He'd walk till he got tired, then rest. By the time he got back to the cabin he'd be ready to lie down and sleep off the curious mood that had taken hold of him.

Barney started off up the valley, stepping carefully and uncertainly along the sloping, uneven ground.

During the early weeks he had found a thick loose-leaf binder in the back of one of the desk drawers. He thought it might have been left there intentionally. Its heading was NOTES ON THE TERRESTRIAL ECOLOGICAL BASE OF THE EIGHTEENTH SYSTEM, VOLUME III. After leafing through them once, it had been a while before Barney could bring himself to study the notes in more detail. He didn't at that time, want to know too much about the situation he was in. He was still numbed by it.

But eventually he went over the binder carefully. The various reports were unsigned, but appeared to have been compiled by at least four or five persons – McAllen among them; his writing style was not difficult to recognize. Leaving out much that was incomprehensible or nearly so, Barney could still construe a fairly specific picture of the association project of which he was now an unscheduled and unwilling part. Selected plants and animals had been moved from Earth through the McAllen Tube to a world consisting of sand, rock and water, without detected traces of indigenous life in any form. At present the Ecological Base was only in its ninth year, which meant that the larger trees in the valley had been nearly full-grown when brought here with the soil that was to nourish them. From any viewpoint, the planting of an oasis of life on the barren world had been a gigantic undertaking, but there were numerous indications that the McAllen Tube was only one of the array of improbable devices the association had at its disposal for such tasks. A few cryptic paragraphs expressed the writer's satisfaction with the undetailed methods by which the Base's localized climatic conditions were maintained.

So far even the equipment which kept the cabin in uninterrupted operation had eluded Barney's search. It and the other required machinery might be buried somewhere in the valley. Or it might, he thought, have been set up just as easily some distance away, in the desert or among the

remotely towering mountain ranges. One thing he had learned from the binder was that McAllen had told the truth in saying no one could contact him from Earth before the full period of his exile was over. The reason had seemed appalling enough in itself. The world had moved to a point in its orbit where the radiance of its distant sun was thickening between it and Earth, growing too intense to be penetrated by the forces of the McAllen Tube. Another four years would pass before the planet and the valley emerged gradually from behind that barrier again.

He walked, rested, walked again. Now and then he was troubled by a burst of violent sweating, followed by shivering fits until his clothes began to dry again. The big moon edged presently over the ridge above him, and in the first flood of its light the opposite slope of the valley took on the appearance of a fanciful sub-oceanic reef. The activity of the animal life about Barney increased promptly. It was no darker now than an evening hour on Earth, and his fellow occupants of the Ecological Base seemed well-adjusted to the strange shifts of day and night to which they had been consigned.

He pushed through a final thicket of shrubbery, and found himself at the edge of the lake. Beyond the almost circular body of water, a towering wall of cliffs sealed the upper end of the valley. He had come almost a mile, and while a mile – a city mile, at least – wouldn't have meant much to Barney Chard at one time, he felt quite exhausted now. He sat down at the edge of the water, and, after a minute or two, bent forward and drank from it. It had the same cold, clear flavor as the water in the cabin.

The surface of the water was unquiet. Soft-flying large insects of some kind were swarming about, stippling the nearby stretch of the lake with their touch, and there were frequent swift swirls as fish rose from beneath them to take down the flyers. Presently one of them broke clear into the air – a big fish, thickbodied and shining, looking as long as Barney's arm in the moonlight – and dropped back with a splash. Barney grinned twistedly. The NOTES indicated Dr. McAllen had taken some part in stocking the valley, and one could trust McAllen to see to it that the presence of his beloved game fish wasn't overlooked even in so outlandish a project.

He shifted position, became aware of the revolver in his

pocket and brought it out. A wave of dull anger surged slowly through him again. What they did with trees and animals was their own business. But what they had done to a human being . . .

He scrambled suddenly to his feet, drew his arm back, and sent the gun flying far out over the lake. It spun through the moonlight, dipped, struck the surface with less of a splash than the fish had made, and was gone.

Now why, Barney asked himself in amazement, did I do that? He considered it a moment, and then, for the first time in over a year, felt a brief touch of something not far from elation.

He wasn't going to die here. No matter how politely the various invitations to do himself in had been extended by McAllen or the association, he was going to embarrass them by being alive and healthy when they came back to the valley four years from now. They wouldn't kill him then; they'd already shown they didn't have the guts to commit murder directly. They would have to take him back to Earth.

And once he was there, it was going to be too bad for them. It didn't matter how closely they watched him; in the end he would find or make the opportunity to expose them, pull down the whole lousy, conceited crew, see them buried under the shambles an outraged world would make of the secret association . . .

THE END OF YEAR TWO

The end of Year Two on the Ecological Base in the Eighteenth System arrived and went by without Barney's being immediately aware of the fact. Some two hours later, he glanced at his wrist watch, pushed back the chair, got up from the desk and went over to the big grandfather clock to confirm his surmise.

"Well, well, Brother Chard," he said aloud. "Another anniversary . . . and three of them to go. We're almost at the halfway mark –"

He snapped the cover plate back over the multiple clock faces, and turned away. Three more years on the Ecological Base was a gruesome stretch of time when you thought of it as a whole . . .

Which was precisely why he rarely let himself think of it as a whole nowadays.

This last year, at any rate, Barney conceded to himself, had to be regarded as an improvement on the first. Well, he added irritably, and what wouldn't be? It hadn't been delightful; he'd frequently felt almost stupefied with boredom. But physically, at least, he was fit – considerably fitter, as a matter of fact, than he'd ever been in his life.

Not very surprising. When he got too restless to be able to settle down to anything else, he was walking about the valley, moving along at his best clip regardless of obstacles until he was ready to drop to the ground wherever he was. Exertion ate up restlessness eventually – for a while. Selecting another tree to chop into firewood took the edge off the spasms of rage that tended to come up if he started thinking too long about that association of jerks somewhere beyond the sun. Brother Chard was putting on muscle all over. And after convincing himself at last – after all, the animals weren't getting hurt – that the glaring diamond of fire in the daytime sky couldn't really be harmful, he had also rapidly put on a Palm Beach tan. When his carefully rationed sleep periods eventually came round, he was more than ready for them, and slept like a log.

Otherwise: projects. Projects to beat boredom, and never mind how much sense they made in themselves. None of them did. But after the first month or two he had so much going that there was no question any more of not having something to do. Two hours allotted to work out on the typewriter a critical evaluation of a chapter from one of McAllen's abstruse technical texts. If Barney's mood were sufficiently sour, the evaluation would be unprintable; but it wasn't being printed, and two hours had been disposed of. A day and a half – Earth Standard Time – to construct an operating dam across the stream. He was turning into an experienced landscape architect; the swimming pool in the floor of the valley beneath the cabin might not have been approved by Carstairs of California, but it was the one project out of which he had even drawn some realistic benefit.

Half an hour to improve his knife-throwing technique.

Fifteen minutes to get the blade of the kitchen knife straightened out afterwards.

Then:

Two hours to design a box trap for the capture of one of the fat gray squirrels that always hung about the cabin.

Fifty minutes on a new chess problem. Chess, Barney had discovered, wasn't as hairy as it looked.

Five hours to devise one more completely foolproof method of bringing about the eventual ruin of the association. That made no more practical sense than anything else he was doing – and couldn't, until he knew a great deal more about McAllen's friends than he did now.

But it was considerably more absorbing, say, than even chess.

Brother Chard could beat boredom. He could probably beat another three years of boredom.

He hadn't forgiven anyone for making him do it.

THE END OF YEAR FIVE

For some hours, the association's Altiplano station had been dark and almost deserted. Only the IMT transit lock beneath one of the sprawling ranch houses showed in the vague light spreading out of the big scanning plate in an upper wall section. The plate framed an unimpressive section of the galaxy, a blurred scattering of stars condensing toward the right, and somewhat left of center, a large misty red globe.

John Emanuel Fredericks, seated by himself in one of the two Tube operator chairs, ignored the plate. He was stooped slightly forwards, peering absorbedly through the eyepieces of the operator scanner before him.

Melvin Simms, Psychologist, strolled in presently through the transit lock's door, stopped behind Fredericks, remarked mildly, "Good evening, doctor."

Fredericks started and looked around. "Never heard you arrive, Mel. Where's Ollie?"

"He and Spalding dropped in at Spalding's place in Vermont. They should be along in a few minutes."

"Spalding?" Fredericks repeated inquiringly. "Our revered president intends to observe the results of Ollie's experiment in person?"

"He'll represent the board here," Simms said. "Whereas I, as you may have guessed, represent the outraged psychology department." He nodded at the plate. "That the place?"

"That's it. ET Base Eighteen."

"Not very sharp in the Tube, is it?"

"No. Still plenty of interfering radiation. But it's thinned out enough for contact. Reading 0.19, as of thirty minutes

ago." Fredericks indicated the chair beside him. "Sit down if you want a better look."

"Thanks." The psychologist settled himself in the chair, leaned forward and peered into the scanner. After a few seconds he remarked, "Not the most hospitable-looking place – "

Fredericks grunted. "Any of the ecologists will tell you Eighteen's an unspoiled beauty. No problems there – except the ones we bring along ourselves."

Simms grinned faintly. "Well, we're good at doing that, aren't we? Have you looked around for uh . . . for McAllen's subject yet?"

"No. Felt Ollie should be present when we find out what's happened. Incidently, how did the meeting go?"

"You weren't tuned in?" Simms asked, surprised.

"No. Too busy setting things up for contact."

"Well" – Simms sat back in his chair – "I may say it was a regular bear garden for a while, doctor. Psychology expressed itself as being astounded, indignant, offended. In a word, they were hopping mad. I kept out of it, though I admit I was startled when McAllen informed me privately this morning of the five-year project he's been conducting on the quiet. He was accused of crimes ranging . . . oh, from the clandestine to the inhumane. And, of course, Ollie was giving it back as good as he got."

"Of course."

"His arguments," Simms went on, pursing his lips reflectively, "were not without merit. That was recognized. Nobody enjoys the idea of euthanasia as a security device. Many of us feel – I do – that it's still preferable to the degree of brainwashing required to produce significant alterations in a personality type of Chard's class."

"Ollie feels that, too," Fredericks said. "The upshot of the original situation, as he saw it, was that Barney Chard had been a dead man from the moment he got on the association's trail. Or a permanently deformed personality."

Simms shook his head. "Not the last. We wouldn't have considered attempting personality alteration in his case."

"Euthanasia then," Fredericks said. "Chard was too intelligent to be thrown off the track, much too unscrupulous to be trusted under any circumstances. So Ollie reported him dead."

The psychologist was silent for some seconds. "The point

might be this," he said suddenly. "After my talk with McAllen this morning, I ran an extrapolation on the personality pattern defined for Chard five years ago on the basis of his background. Results indicate he went insane and suicided within a year.'

"How reliable are those results?" Fredericks inquired absently.

"No more so than any other indication in individual psychology. But they present a reasonable probability . . . and not a very pleasant one."

Fredericks said, "Oliver wasn't unaware of that as a possible outcome. One reason he selected Base Eighteen for the experiment was to make sure he couldn't interfere with the process, once it had begun.

"His feeling, after talking with Chard for some hours, was that Chard was an overcondensed man. That is Oliver's own term, you understand. Chard obviously was intelligent, had a very strong survival drive. He had selected a good personal survival line to follow – good but very narrow. Actually, of course, he was a frightened man. He had been running scared all his life. He couldn't stop."

Simms nodded.

"Base Eighteen stopped him. The things he'd been running from simply no longer existed. Ollie believed Chard would go into a panic when he realized it. The question was what he'd do then. Survival now had a very different aspect. The only dangers threatening him were the ones inherent in the rigid personality structure he had maintained throughout his adult existence. Would he be intelligent enough to understand that? And would his survival urge – with every alternative absolutely barred to him for five years – be strong enough to overcome those dangers?"

"And there," Simms said dryly, "we have two rather large questions." He cleared his throat. "The fact remains, however, that Oliver B. McAllen is a good practical psychologist – as he demonstrated at the meeting."

"I expected Ollie would score on the motions," Fredericks said. "How did that part of it come off?"

"Not too badly. The first motion was passed unanimously. A vote of censure against Dr. McAllen."

Fredericks looked thoughtful. "His seventeenth – I believe?"

"Yes. The fact was mentioned. McAllen admitted he could do no less than vote for this one himself. However, the next motion to receive a majority was, in effect, a generalized agreement that men with such . . . ah . . . highly specialized skills as Barney Chard's and with comparable intelligence actually would be of great value as members of the association, if it turned out that they could be sufficiently relieved of their more flagrant antisocial tendencies. Considering the qualification, the psychology department could hardly avoid backing that motion, The same with the third one – in effect again that Psychology is to make an unprejudiced study of the results of Dr. McAllen's experiment on Base Eighteen, and report on the desirability of similar experiments when the personality of future subjects appears to warrant them.'

"Well," Fredericks said, after a pause, "as far as the association goes, Ollie got what he wanted. As usual." He hesitated. "The other matter –"

"We'll know that shortly." Simms turned his head to listen, added in a lowered voice, "They're coming now."

Dr. Stephan Spalding said to Simms and Fredricks: "Dr. McAllen agrees with me that the man we shall be looking for on Base Eighteen may be dead. If this is indicated, we'll attempt to find some evidence of his death before normal ecological operations on Eighteen are resumed.

"Next, we may find him alive but no longer sane. Dr. Simms and I are both equipped with drug-guns which will then be used to render him insensible. The charge is sufficient to insure he will not wake up again. In this circumstance, caution will be required since he was left on the Base with a loaded gun.

"Third, he may be alive and technically sane, but openly or covertly hostile to us." Spalding glanced briefly at each of the others, then went on, "It is because of this particular possibility that our contact group here has been very carefully selected. If such has been the result of Dr. McAllen's experiment, it will be our disagreeable duty to act as Chard's executioners. To add lifelong confinement or further psychological manipulation to the five solitary years Chard already has spent would be inexcusable.

"Dr. McAllen has told us he did not inform Chard of the actual reason he was being marooned –"

"On the very good grounds," McAllen interrupted, "that if Chard had been told at the outset what the purpose was, he would have preferred killing himself to allowing the purpose to be achieved. Any other human being was Chard's antagonist. It would have been impossible for him to comply with another man's announced intentions."

Simms nodded. "I'll go along on that point, doctor."

Spalding resumed, "It might be a rather immaterial point by now. In any event, Chard's information was that an important 'five-year-plan' of the association made it necessary to restrict him for that length of ime. We shall observe him closely. If the indications are that he would act against the association whenever he is given the opportunity, our line will be that the five-year-plan has been concluded, and that he is, therefore, now to be released and will receive adequate compensation for his enforced seclusion. As soon as he is asleep, he will, of course, receive euthanasia. But up to that time, everything must be done to reassure him."

He paused again, concluded, "There is the final possibility that Dr. McAllen's action has had the results he was attempting to bring about. . . Ollie, you might speak on that yourself."

McAllen shrugged. "I've already presented my views. Essentially, it's a question of whether Barney Chard was capable of learning that he could live without competing destructively with other human beings. If he has grasped that, he should be aware by now that Base Eighteen is presently one of the most interesting spots in the known universe."

Simms asked: "Do you expect he'll be grateful for what has occurred?"

"We-e-ll," McAllen said judiciously, turning a little pale, "that, of course, depends on whether he *is* still alive and sane. But if he has survived the five years, I do believe that he will not be dissatisfied with what has happened to him. However" – he shrugged again – "let's get ahead with it. Five years has been a long time to find out whether or not I've murdered a man."

In the momentary silence that followed, he setted himself in the chair Fredericks had vacated, and glanced over at Simms. "You stay seated, Mel," he said. "You represent Psychology here. Use your chair scanner. The plate's still showing no indications of clearing, John?"

"No," said Fredericks. "In another two hours we might have a good picture there. Hardly before."

McAllen said, "We won't wait for it. Simms and I can determine through the scanners approximately what has been going on." He was silent for a few seconds; then the blurred red globe in the plate expanded swiftly, filled two thirds of the view space, checked for a moment, then grew once more; finally stopped.

McAllen said irritably, "John, I'm afraid you'll have to take over. My hands don't seem steady enough to handle this properly."

A minute or two passed. The big plate grew increasingly indistinct, all details lost in a muddy wash of orange-brown shades. Green intruded suddenly; then McAllen muttered, "Picking up the cabin now."

There was a moment of silence, then Fredericks cleared his throat. "So far so good, Oliver. We're looking into the cabin. Can't see your man yet – but someone's living here. Eh, Simms?"

"Obviously," the psychologist acknowledged. He hesitated. "And at a guess it's no maniac. The place is in reasonably good order."

"You say Chard isn't in the cabin?" Spalding demanded.

Fredericks said, "Not unless he's deliberately concealing himself. The exit door is open. Hm-m-m. Well, the place isn't entirely deserted, after all."

"What do you mean?" asked Spalding.

"Couple of squirrels sitting in the window," Simms explained.

"In the window? Inside the cabin?"

"Yes," said Fredericks. "Either they strayed in while he was gone, or he's keeping them as pets. Now, should we start looking around outside for Chard?"

"No," Spalding decided. "The Base is too big to attempt to cover at pin-point focus. If he's living in the cabin and has simply gone out, he'll return within a few hours at the most. We'll wait and see what we can deduce from the way he behaves when he shows up." He turned to McAllen. "Ollie," he said, "I think you might allow yourself to relax just a little. This doesn't seem at all bad!"

McAllen grunted. "I don't know," he said. "You're overlooking one thing."

"What's that?"

"I told Chard when to expect us. Unless he's smashed the clock, he knows we're due today. If nothing's wrong – wouldn't he be waiting in the cabin for us?"

Spalding hesitated. "That is a point. He seems to be hiding out. May have prepared an ambush, for that matter. John –"

"Yes?" Fredericks said.

"Step the tubescope down as fine as it will go, and scan that cabin as if you were vacuuming it. There may be some indication –"

"He's already doing that," Simms interrupted.

There was silence again for almost two minutes. Forefinger and thumb of Fredericks' right hand moved with infinite care on a set of dials on the side of the scanner, otherwise neither he nor Simms stirred.

"Oh-hoo-hoo-haw!" Dr. John Fredericks cried suddenly. "Oh-hoo-hoo-HAW! A message, Ollie! Your Mr. Chard has left you a . . . hoo-hoo . . . message."

For a moment McAllen couldn't see clearly through the scanner. Fredericks was still laughing; Simms was saying in a rapid voice, "It's quite all right, doctor! Quite all right. Your man's sane, quite sane. In fact you've made, one might guess, a one hundred per cent convert to the McAllen approach to life. Can't you *see* it?"

"No," gasped McAllen. He had a vague impression of the top of the desk in the main room of the cabin, of something white – a white card – taped to it, of blurred printing on the card. "Nothing's getting *that* boy unduly excited any more," Simms' voice went on beside him. "Not even the prospect of seeing visitors from Earth for the first time in five years. But he's letting you know it's perfectly all right to make yourself at home in his cabin until he gets back. Here, let me – "

He reached past McAllen, adjusted the scanner. The printing on the card swam suddenly into focus before McAllen's eyes.

The message was terse, self-explanatory, to the point:

GONE FISHING,

Regards,
B. Chard

BIG ANCESTOR

F. L. Wallace

People who still believe that man was created supreme among the beasts, as Adam was created master of all he surveyed (except Eve), blithely close their eyes to the anthropological, embryological, and paleontological evidence. Most modern scientists worth their salt believe that the direct ancestors of man were extremely humble animals.

The dominant scientific school of thought, probably the most valid on the present evidence, holds that those ancestors lived and evolved through the eons of the Great Reptiles – tyrannosaurs and the rest – because they were small, skulking, and only a nuisance to the dominant life-form of the time. They could scuttle in the lush undergrowth or scamper through the high prehistoric trees, keeping well out of the way of the monster saurian "elites" that ruled the roost for hundreds of thousands of years. And thus they survived – an occasional meal for their "betters", but more usually a mere pest. Vermin.

So now the question arises, evolution being an inexorable creator of change, what is to follow man? Mr. Wallace has some pungent ideas on this: so pungent, indeed, that the amiable alien he dreams up doubts whether his human companions can stand the news, once it is revealed to them. It turns out that they can, but it is a hard lesson, for them and for us readers-of-today. A hard but salutary one, engendering a sense of proportion which is essential if a truly civilized humility is to be achieved. Unfortunately, many people find it hard to be that civilized. . . .

IN REPOSE, Taphetta the Ribboneer resembled a fancy giant bow on a package. His four flat legs looped out and in, the ends tucked under his wide, thin body, which constituted the knot at the middle. His neck was flat, too, arching out in another loop. Of all his features, only his head had appreciable thickness and it was crowned with a dozen long though narrower ribbons.

Taphetta rattled the head fronds together in a surprisingly good imitation of speech. "Yes, I've heard the legend."

"It's more than a legend," said Sam Halden, biologist. The reaction was not unexpected – non-humans tended to dismiss the data as convenient speculation and nothing more. "There are at least a hundred kinds of humans, each supposedly originating in strict seclusion on as many widely scattered planets. Obviously there was no contact throughout the ages before space travel – *and yet each planetary race can interbreed with a minimum of ten others!* That's more than a legend – one hell of a lot more!"

"It is impressive," admitted Taphetta. "But I find it mildly distasteful to consider mating with someone who does not belong to my species."

"That's because you're unique," said Halden. "Outside of your own world, there's nothing like your species, except superficially, and that's true of all other creatures, intelligent or not, with the sole exception of mankind. Actually, the four of us here, though it's accidental, very nearly represent the biological spectrum of human development.

"Emmer, a Neanderthal type and our archeologist, is around the beginning of the scale. I'm from Earth, near the middle, though on Emmer's side. Meredith, linguist, is on the other side of the middle. And beyond her, toward the far end, is Kelburn, mathematician. There's a corresponding span of fertility. Emmer just misses being able to breed with my kind, but there's a fair chance that I'd be fertile with Meredith and a similar though lesser chance that her fertility may extend to Kelburn."

Taphetta rustled his speech ribbons quizzically. "But I thought it was proved that some humans did originate on one planet, that there was an unbroken line of evolution that could be traced back a billion years."

"You're thinking of Earth," said Halden. "Humans require a certain kind of planet. It's reasonable to assume that, if men were set down on a hundred such worlds, they'd seem to fit in with native life-forms on a few of them. That's what happened on Earth; when Man arrived, there was actually a manlike creature there. Naturally our early evolutionists stretched their theories to cover the facts they had.

"But there are other worlds in which humans who were there before the Stone Age aren't related to anything else there. We have to conclude that Man didn't originate on any

of the planets on which he is now found. Instead, he evolved elsewhere and later was scattered throughout this section of the Milky Way."

"And so, to account for the unique race that can interbreed across thousands of light-years, you've brought in the big ancestor," commented Taphetta dryly. "It seems an unnecessary simplification."

"Can you think of a better explanation?" asked Kelburn. "Something had to distribute one species so widely and it's not the result of parallel evolution – not when a hundred human races are involved, and *only* the human race."

"I can think of a better explanation." Taphetta rearranged his ribbons. "Frankly, no one else is much interested in Man's theories about himself."

It was easy to understand the attitude. Man was the most numerous though not always the most advanced – Ribboneers had a civilization as high as anything in the known section of the Milky Way, and there were others – and humans were more than a little feared. If they ever got together – but they hadn't except in agreement as to their common origin.

Still, Taphetta the Ribboneer was an experienced pilot and could be very useful. A clear statement of their position was essential in helping him make up his mind. "You've heard of the adjacency mating principle?" asked Sam Halden.

"Vaguely. Most people have if they've been around men."

"We've got new data and are able to interpret it better. The theory is that humans who can mate with each other were once physically close. We've got a list of all our races arranged in sequence. If planetary race F can mate with race E back to A and forward to M, and race G is fertile only back to B, but forward to O, then we assume that whatever their positions are now, at one time G was actually adjacent to F, but was a little further along. When we project back into time those star systems on which humans existed prior to space travel, we get a certain pattern. Kelburn can explain it to you."

The normally pink body of the Ribboner flushed slightly. The color change was almost imperceptible, but it was enough to indicate that he was interested.

Kelburn went to the projector. "It would be easier if we knew all the stars in the Milky Way, but though we've ex-

plored only a small portion of it, we can reconstruct a fairly accurate representation of the past."

He pressed the controls and stars twinkled on the screen. "We're looking down on the plane of the Galaxy. This is one arm of it as it is today and here are the human systems." He pressed another control and, for the purposes of identification, certain stars became more brilliant. There was no pattern, merely a scattering of stars. "The whole Milky Way is rotating. And while stars in a given region tend to remain together, there's also a random motion. Here's what happens when we calculate the positions of stars in the past."

Flecks of light shifted and flowed across the screen. Kelburn stopped the motion.

"Two hundred thousand years ago," he said.

There was a pattern of the identified stars. They were spaced at fairly equal intervals along a regular curve, a horseshoe loop that didn't close, though if the ends were extended, the lines would have crossed.

Taphetta rustled. "The math is accurate?"

"As accurate as it can be with a million-plus body problem."

"And that's the hypothetical route of the unknown ancestor?"

"To the best of our knowledge," said Kelburn. "And whereas there are humans who are relatively near and not fertile, they can always mate with those they were adjacent to *two hundred thousand years ago*!"

"The adjacency mating principle. I've never seen it demonstrated," murmured Taphetta, flexing his ribbons. "Is that the only era that satisfies the calculations?"

"Plus or minus a hundred thousand years, we can still get something that might be the path of a spaceship attempting to cover a representative section of territory," said Kelburn. "However, we have other ways of dating it. On some worlds on which there are no other mammals, we're able to place the first human fossils chronologically. The evidence is sometimes contradictory, but we believe we've got the time right."

Taphetta waved a ribbon at the chart. "And you think that where the two ends of the curve cross is your original home?"

"We think so," said Kelburn. "We've narrowed it down to several cubic light-years – then. Now it's far more. And, of course, if it were a fast-moving star, it might be completely

out of the field of our exploration. But we're certain we've got a good chance of finding it this trip."

"It seems I must decide quickly." The Robboneer glanced out the visionport, where another ship hung motionless in space beside them. "Do you mind if I ask other questions?"

"Go ahead," Kelburn invited sardonically. "But if it's not math, you'd better ask Halden. He's the leader of the expedition."

Halden flushed; the sarcasm wasn't necessary. It was true that Kelburn was the most advanced human type present, but while there were differences, biological and in the scale of intelligence, it wasn't as great as once was thought. Anyway, non-humans weren't trained in the fine distinctions that men made among themselves. And, higher or lower, he was as good a biologist as the other was a mathematician. And there was the matter of training; he'd been on several expeditions and this was Kelburn's first trip. Damn it, he thought, that rated some respect.

The Ribboneer shifted his attention. "Aside from the sudden illness of your pilot, why did you ask for me?"

"We didn't. The man became sick and required treatment we can't give him. Luckily, a ship was passing and we hailed it because it's four months to the nearest planet. They consented to take him back and told us that there was a passenger on board who was an experienced pilot. We have men who could do the job in a makeshift fashion, but the region we're heading for, while mapped, is largely unknown. We'd prefer to have an expert – and Ribboneers are famous for their navigational ability."

Taphetta crinkled politely at the reference to his skill. "I had other plans, but I can't evade professional obligations, and an emergency such as this should cancel out any previous agreements. Still, what are the incentives?"

Sam Halden coughed. "The usual, plus a little extra. We've copied the Ribboneer's standard contract, simplifying it a little and adding a per cent here and there for the crew pilot and scientist's share of the profits from any discoveries we may make."

"I'm complimented that you like our contract so well," said Taphetta, "but I really must have our own unsimplified version. If you want me, you'll take my contract. I came prepared." He extended a tightly bound roll that he had kept somewhere on his person.

They glanced at one another as Halden took it.

"You can read it if you want," offered Taphetta. "But it will take you all day – it's micro-printing. However, you needn't be afraid that I'm defrauding you. It's honored everywhere we go and we go nearly everywhere in this sector – places men have never been."

There was no choice if they wanted him, and they did. Besides, the integrity of Ribboneers was not to be questioned. Halden signed.

"Good." Taphetta crinkled. "Send it to the ship; they'll forward it for me. And you can tell the ship to go without me." He rubbed his ribbons together. "Now if you'll get me the charts, I'll examine the region toward which we're heading."

Firmon of hydroponics slouched in, a tall man with scanty hair and an equal lack of grace. He seemed to have difficulty in taking his eyes off Meredith, though, since he was a notch or so above her in the mating scale, he shouldn't have been so interested. But his planet had been inexplicably slow in developing and he wasn't completely aware of his place in the human hierarchy.

Disdainfully, Meredith adjusted a skirt that, a few inches shorter, wouldn't have been a skirt at all, revealing, while doing so, just how long and beautiful a woman's legs could be. Her people had never given much thought to physical modesty and, with legs like that, it was easy to see why.

Muttering something about primitive women, Firmon turned to the biologist. "The pilot doesn't like our air."

"Then change it to suit him. He's in charge of the ship and knows more about these things than I do."

"More than a man?" Firmon leered at Meredith and, when she failed to smile, added plaintively, "I did try to change it, but he still complains."

Halden took a deep breath. "Seems all right to me."

"To everybody else, too, but the tapeworm hasn't got lungs. He breathes through a million tubes scattered over his body."

It would do no good to explain that Taphetta wasn't a worm, that his evolution had taken a different course, but that he was in no sense less complex than Man. It was a paradox that some biologically higher humans hadn't developed as much as lower races and actually weren't pre-

pared for the multitude of life-forms they'd meet in space. Firmon's reaction was quite typical.

"If he asks for cleaner air, it's because his system needs it," said Halden. "Do anything you can to give it to him."

"Can't. This is as good as I can get it. Taphetta thought you could do something about it.'

"Hydroponics is your job. There's nothing *I* can do." Halden paused thoughtfully. "Is there something wrong with the plants?"

"In a way, I guess, and yet not really."

"What is it, some kind of toxic condition?"

"The plants are healthy enough, but something's chewing them down as fast as they grow."

"Insects? There shouldn't be any, but if there are, we've got sprays. Use them."

"It's an animal," said Firmon. "We tried poison and got a few, but now they won't touch the stuff. I had electronics rig up some traps. The animals seem to know what they are and we've never caught one that way."

Halden glowered at the man. "How long has this been going on?"

"About three months. It's not bad; we can keep up with them."

It was probably nothing to become alarmed at, but an animal on the ship was a nuisance, doubly so because of their pilot.

"Tell me what you know about it," said Halden.

"They're little things." Firmon held out his hands to show how small. "I don't know how they got on, but once they did, there were plenty of places to hide." He looked up defensively. "This is an old ship with new equipment and they hide under the machinery. There's nothing we can do except rebuild the ship from the hull inward."

Firmon was right. The new equipment had been installed in any place just to get it in and now there were inaccessible corners and crevices everywhere that couldn't be closed off without rebuilding.

They couldn't set up a continuous watch and shoot the animals down because there weren't that many men to spare. Besides, the use of weapons in hydroponics would cause more damage to the thing they were trying to protect than to the pest. He'd have to devise other ways.

Sam Halden got up. "I'll take a look and see what I can do."

"I'll come along and help," said Meredith, untwining her legs and leaning against him. "Your mistress ought to have some sort of privileges."

Halden started. So she *knew* that the crew was calling her that! Perhaps it was intended to discourage Firmon, but he wished she hadn't said it. It didn't help the situation at all.

Taphetta sat in a chair designed for humans. With a less flexible body, he wouldn't have fitted. Maybe it wasn't sitting, but his flat legs were folded neatly around the arms and his head rested comfortably on the seat. The head ribbons, which were his hands and voice, were never quite still.

He looked from Halden to Emmer and back again. "The hydroponics tech tells me you're contemplating an experiment. I don't like it."

Halden shrugged. "We've got to have better air. It might work."

"Pests on the ship? It's filthy! My people would never tolerate it!"

"Neither do we."

The Ribboneer's distaste subsided. "What kind of creatures are they?"

"I have a description, though I've never seen one. It's a small four-legged animal with two antennae at the lower base of its skull. A typical pest."

Taphetta rustled. "Have you found out how it got on?"

"It was probably brought in with the supplies," said the biologist. "Considering how far we've come, it may have been any one of a half a dozen planets. Anyway, it hid, and since most of the places it had access to were near the outer hull, it got an extra dose of hard radiation, or it may have nested near the atomic engines; both are possibilities. Either way, it mutated, became a different animal. It's developed a tolerance for the poisons we spray on plants. Other things it detects and avoids, even electronic traps."

"Then you believe it changed mentally as well as physically, that it's smarter?"

"I'd say that, yes. It must be a fairly intelligent creature to be so hard to get rid of. But it can be lured into traps, if the bait's strong enough."

"That's what I don't like," said Taphetta, curling. "Let me think it over while I ask questions." He turned to Emmer. "I'm curious about humans. Is there anything else you can tell me about the hypothetical ancestor?"

Emmer didn't look like the genius he was – a Neanderthal genius, but nonetheless a real one. In his field, he rated very high. He raised a stubble-flecked cheek from a large thick-fingered paw and ran shaggy hands through shaggier hair.

"I can speak with some authority," he rumbled. "I was born on a world with the most extensive relics. As a child, I played in the ruins of their camp."

"I don't question your authority," crinkled Taphetta. "To me, all humans – late or early and male or female – look remarkably alike. If you are an archeologist, that's enough for me." He paused and flicked his speech ribbons. "Camp, did you say?"

Emmer smiled, unsheathing great teeth. "You've never seen any pictures? Impressive, but just a camp, monolithic one-story structures, and we'd give something to know what they're made of. Presumably my world was one of the first they stopped at. They weren't used to roughing it, so they built more elaborately than they did later on. One-story structures and that's how we can guess at their size. The doorways were forty feet high."

"Very large," agreed Taphetta. It was difficult to tell whether he was impressed. "What did you find in the ruins?"

"Nothing," said Emmer. "There were buildings there and that was all, not a scrap of writing or a tool or a single picture. They covered a route estimated at thirty thousand light-years in less than five thousand years – and not one of them died that we have a record of."

"A faster-than-light drive and an extremely long life," mused Taphetta. "But they didn't leave any information for their descendants. Why?"

"Who knows? Their mental processes were certainly far different from ours. They may have thought we'd be better off without it. We do know they were looking for a special kind of planet, like Earth, because they visited so many of that type, yet different from it because they never stayed. They were pretty special people themselves, big and long-lived, and maybe they couldn't survive on any planet they found. Perhaps they had ways of determining there wasn't the kind of planet they needed in the entire Milky Way. Their science was tremendously advanced and when they learned that, they have altered their germ plasm and left us, hoping that some of us would survive. Most of us did."

"This special planet sounds strange," murmured Taphetta.

"Not really," said Emmer. "Fifty human races reached space travel independently and those who did were scattered equally among early and late species. It's well known that individuals among my people are often as bright as any of Halden's or Meredith's, but as a whole we don't have the total capacity that later Man does, and yet we're as advanced in civilization. The difference? It must lie somewhere in the planets we live on and it's hard to say just what it is."

"What happened to those who didn't develop space travel?" asked Taphetta.

"We helped them," said Emmer.

And they had, no matter who or what they were, biologically late or early, in the depths of the bronze age or the threshold of atomic – because they were humans. That was sometimes a frightening thing for non-humans, that the race stuck together. They weren't actually aggressive, but their total number was great and they held themselves aloof. The unknown ancestor again. Who else had such an origin and, it was tacitly assumed, such a destiny?

Taphetta changed his questioning. "What do you expect to gain from this discovery of the unknown ancestor?"

It was Halden who answered him. "There's the satisfaction of knowing where we came from."

"Of course," rustled the Ribboneer. "But a lot of money and equipment was required for this expedition. I can't believe that the educational institutions that are backing you did so purely out of intellectual curiosity."

"Cultural discoveries," rumbled Emmer. "How did our ancestors live? When a creature is greatly reduced in size, as we are, more than physiology is changed – the pattern of life itself is altered. Things that were easy for them are impossible for us. Look at their life span."

"No doubt," said Taphetta. "An archeologist would be interested in cultural discoveries."

"Two hundred thousand years ago, they had an extremely advanced civilization," added Halden. "A faster-than-light drive, and we've achieved that only within the last thousand years."

"But I think we have a better one than they did," said the Ribboneer. "There may be things we can learn from them in mechanics or physics, but wouldn't you say they were better biologists than anything else?"

Halden nodded. "Agreed. They couldn't find a suitable

planet. So, working directly with their germ plasm, they modified themselves and produced us. They *were* master biologists."

"I thought so," said Taphetta. "I never paid much attention to your fantastic theories before I signed to pilot this ship, but you've built up a convincing case." He raised his head, speech ribbons curling fractionally and ceaselessly. "I don't like to, but we'll have to risk using bait for your pest."

He'd have done it anyway, but it was better to have the pilot's consent. And there was one question Halden wanted to ask; it had been bothering him vaguely. "What's the difference between the Ribboneer contract and the one we offered you? Our terms are more liberal."

"To the individual, they are, but it won't matter if you discover as much as you think you will. The difference is this: *My* terms don't permit you to withhold any discovery for the benefit of one race."

Taphetta was wrong; there had been no intention of withholding anything. Halden examined his own attitudes. *He* hadn't intended, but could he say that was true of the institutions backing the expedition? He couldn't and it was too late now – whatever knowledge they acquired would have to be shared.

That was what Taphetta had been afraid of – there was one kind of technical advancement that multiplied unceasingly. The race that could improve itself through scientific control of its germ plasm had a start that could never be headed. The Ribboneer needn't worry now.

"Why do we have to watch it on the screen?" asked Meredith, glancing up. "I'd rather be in hydroponics."

Halden shrugged. "They may or may not be smarter than planetbound animals, but they're warier. They don't come out when anyone's near."

Lights dimmed in the distant hydroponic section and the screen with it, until he adjusted the infra-red frequencies. He motioned to the two crew members, each with his own peculiar screen, below which was a miniature keyboard.

"Ready?"

When they nodded, Halden said: "Do as you've rehearsed. Keep noise at a minimum, but when you do use it, be vague. Don't try to imitate them exactly."

At first, nothing happened on the big screen, and then a gray shape crept out. It slid through leaves, listened intently

before coming forward. It jumped off one hydroponic section and fled across the open floor to the next. It paused, eyes glittering and antennae twitching.

Looking around once, it leaped up, seizing the ledge and clawing up the side of the tank. Standing on top and rising to its haunches, it began nibbling what it could reach.

Suddenly it whirled. Behind it and hitherto unnoticed was another shape, like it but larger. The newcomer inched forward. The small one retreated, skittering nervously. Without warning, the big one leaped and the small one tried to flee. In a few jumps, the big one caught up and mauled the other unmercifully.

It continued to bite even after the little one lay still. At last it backed off and waited, watching for signs of motion. There was none. Then it turned to the plant. When it had chewed off everything within reach, it climbed into the branches.

The little one twitched, moved a leg, and cautiously began dragging itself away. It rolled off the raised section, and surprisingly made no noise as it fell. It seemed to revive, shaking itself and scurrying away, still within range of the screen.

Against the wall was a small platform. The little one climbed on top and there found something that seemed to interest it. It sniffed around and reached and felt the discovery. Wounds were forgotten as it snatched up the object and frisked back to the scene of its recent defeat.

This time it had no trouble with the raised section. It leaped and landed on top and made considerable noise in doing so. The big animal heard and twisted around. It saw and clambered down hastily, jumping the last few feet. Squealing, it hit the floor and charged.

The small one stood still till the last instant – and then a paw flickered out and an inch-long knife blade plunged into the throat of the charging creature. Red spurted out as the bigger beast screamed. The knife flashed in and out until the big animal collapsed and stopped moving.

The small creature removed the knife and wiped it on the pelt of its foe. Then it scampered back to the platform on which the knife had been found – *and laid it down.*

At Halden's signal, the lights flared up and the screen became too bright for anything to be visible.

"Go in and get them," said Halden. "We don't want the pest to find out the bodies aren't flesh."

"It was realistic enough," said Meredith as the crewmen shut off their machines and went out. "Do you think it will work?"

"It might. We had an audience."

"Did we? I didn't notice." Meredith leaned back. "Were the puppets exactly like the pests? And if not, will the pests be fooled?"

"The electronic puppets were a good imitation, but the animals don't have to identify them as their species. If they're smart enough, they'll know the value of a knife, no matter who uses it."

"What if they're smarter? Suppose they know a knife can't be used by a creature without real hands?"

"That's part of our precautions. They'll never know until they try – and they'll never get away from the trap to try."

"Very. good. I never thought of that," said Meredith, coming closer. "I like the way your primitive mind works. At times I actually think of marrying you."

"Primitive," he said, alternately frozen and thawed, though he knew that, in relation to her, he was *not* advanced.

"It's almost a curse, isn't it?" She laughed and took the curse away by leaning provocatively against him. "But barbaric lovers are often nice."

Here we go again, he thought drearily, sliding his arm around her. To her, I'm merely a passionate savage.

They went to his cabin.

She sat down, smiling. Was she pretty? Maybe. For her own race, she wasn't tall, only by Terran standards. Her legs were disproportionately long and well shaped and her face was somewhat bland and featureless, except for a thin, straight, short nose. It was her eyes that made the difference, he decided. A notch or two up the scale of visual development, her eyes were larger and she could see an extra color on the violet end of the spectrum.

She settled back and looked at him. "It might be fun living with you on primeval Earth."

He said nothing; she knew as well as he that Earth was as advanced as her own world. She had something else in mind.

"I don't think I will, though. We might have children."

"Would it be wrong?" he asked. "I'm as intelligent as you. We wouldn't have subhuman monsters."

"It would be a step up – for you." Under her calm, there was tension. It had been there as long as he'd known her, but it was closer to the surface now. "Do I have the right to condemn the unborn? Should I make them start lower than I am?"

The conflict was not new nor confined to them. In one form or another, it governed personal relations between races that were united against non-humans, but held sharp distinctions themselves.

"I haven't asked you to marry me," he said bluntly.

"Because you're afraid I'd refuse."

It was true; no one asked a member of a higher race to enter a permanent union.

"Why did you ever have anything to do with me?" demanded Halden.

"Love," she said gloomily. "Physical attraction. But I can't let it lead me astray."

"Why not make a play for Kelburn? If you're going to be scientific about it, he'd give you children of the higher type."

"Kelburn." It didn't sound like a name, the way she said it. "I don't like him and he wouldn't marry me."

"He wouldn't, but he'd give you children if you were humble enough. There's a fifty per cent chance you might conceive."

She provocatively arched her back. Not even the women of Kelburn's race had a body like hers and she knew it.

"Racially, there should be a chance," she said. Actually, Kelburn and I would be infertile."

"Can you be sure?" he asked, knowing it was a poor attempt to act unconcerned.

"How can anyone be sure on a theoretical basis?" she asked, an oblique smile narrowing her eyes. "I know we can't."

His face felt anesthetized. "Did you have to tell me that?"

She got up and came to him. She nuzzled against him and his reaction was purely reflexive. His hand swung out and he could feel the flesh give when his knuckles struck it.

She fell back and dazedly covered her face with her hand. When she took it away, blood spurted. She groped toward the mirror and stood in front of it. She wiped the blood off, examining her features carefully.

"You've broken my nose," she said factually. "I'll have to stop the blood and pain."

She pushed her nose back into place and waggled it to make sure. She closed her eyes and stood silent and motionless. Then she stepped back and looked at herself critically.

"It's set and partially knitted. I'll concentrate tonight and have it healed by morning."

She felt in the cabinet and attached an invisible strip across the bridge. Then she came over to him.

"I wondered what you'd do. You didn't disappoint me."

He scowled miserably at her. Her face was almost plain and the bandage, invisible or not, didn't improve her appearance any. How could he still feel that attraction to her?

"Try Emmer," he suggested tiredly. "He'll find you irresistible, and he's even more savage than I am."

"Is he?" She smiled enigmatically. "Maybe, in a biological sense. Too much, though. You're just right."

He sat down on the bed. Again there was only one way of knowing what Emmer would do – and she knew. She had no concept of love outside of the physical, to make use of her body to gain an advantage – what advantage? – for the children she intended to have. Outside of that, nothing mattered, and for the sake of alloying the lower with the higher, she was as cruel to herself as she was to him. And yet he wanted her.

"I do think I love you," she said. "And if love's enough, I may marry you in spite of everything. But you'll have to watch out whose children I have." She wriggled into his arms.

The racial disparity was great and she had provoked him, but it was not completely her fault. Besides . . .

Besides what? She had a beautiful body that could bear superior children – and they might be his.

He twisted away. With those thoughts, he was as bad as she was. Were they all that way, every one of them, crawling upward out of the slime toward the highest goal they could conceive of? Climbing over – no, *through* – everybody they could coerce, seduce or marry – onward and upward. He raised his hand, but it was against himself that his anger was turned.

"Careful of the nose," she said, pressing against him. "You've already broken it once."

He kissed her with sudden passion that even he knew was primitive.

There were no immediate results from the puppet performance and so it was repeated at intervals. After the third time, Firmon reported, coming in as Halden pored over the meager biological data he'd gathered on the unknown ancestor. Wild guesses mostly, not one real fact in all the statistics. After two hundred thousand years, there wasn't much left to work with.

Firmon slouched down. "It worked," he said. "Got three a few hours ago."

Halden looked at him; he had hoped it wouldn't work. There was satisfaction in being right, but he would rather face something less intelligent. Wariness was one thing, the shyness and slyness of an unseen animal, but intelligence was more difficult to predict.

"Where are they?" he asked.

"Did you want them?" Firmon seemed surprised at the idea.

Halden sighed; it was his own fault. Firmon had a potentially good mind, but he hadn't been trained to use it and that counted for more than people thought. "Any animal smart enough to appreciate the value of a knife is worth study on that account. That goes double when it's a pest."

"I'll change the cremation setting," said Firmon. "Next time, we'll just stun them."

The trap setting was changed and several animals were taken. Physically, they were very much as Halden had described them to Taphetta, small four-legged creatures with fleshy antennae. Dissection revealed a fairly large brain capacity, while behavior tests indicated an intelligence somewhat below what he had assumed. Still, it was more than he wanted a pest to have, especially since it also had hands.

The biological mechanism of the hands was simple. It walked on the back of the front paws, on the fingers of which were fleshy pads. When it sat upright, as it often did, the flexibility of the wrists permitted the forepaws to be used as hands. Clumsy, but because it had a thumb, it could handle such tools as a knife.

He had made an error there. He had guessed the intelligence, but he hadn't known it could use the weapon he had put within reach. A tiny thing with an inch-long knife was

not much more dangerous than the animal alone, but he didn't like the idea of it loose on the ship.

The metal knife would have to be replaced with something else. Technicians could compound a plastic that would take a keen edge for a while and deteriorate to a soft mass in a matter of weeks. Meanwhile, he had actually given the animal a dangerous weapon – the concept of a tool. There was only one way to take that away from them, by extermination. But that would have to wait.

Fortunately, the creature had a short life and a shorter breeding period. The actual replacement rate was almost negligible. In attaining intelligence, it had been shortchanged in fertility and, as a consequence, only in the specialized environment of this particular ship was it any menace at all.

They were lucky; a slightly higher fertility and the thing could threaten their existence. As it was, the ship would have to be deverminized before it could land on an inhabited planet.

Halden took the data to the Ribboneer pilot and, after some discussion, it was agreed that the plastic knife should supplant the metal one. It was also decided to allow a few to escape with the weapon; there had to be some incentive if the creature was to visit the trap more than a few times. Besides, with weapons there was always the chance of warfare between different groups. They might even exterminate each other.

Gradually, over a period of weeks, the damage to hydroponics subsided; the pests were under control. There was nothing to worry about unless they mutated again, which was unlikely.

Kelburn scowled at the pilot. "Where are we now?" he challenged, his face creased with suspicion.

"You have access to all the instruments, so you should know," said Taphetta. He was crouching and seemed about to spring, but he was merely breathing relaxedly through a million air tubes.

"I do know. My calculations show one star as the most probable. We should have reached it two days ago – and we're nowhere near it."

"True," admitted Taphetta. "We're heading toward what you would consider the fifth or sixth most likely star."

Kelburn caught the implication. They all did. "Then you know where it is?" he asked, suspicion vanishing.

"Not in the sense you're asking – no, I'm not sure it's what you're looking for. But there was once a great civilization there."

"You knew this and didn't tell us?"

"Why should I" Taphetta looked at him in mild astonishment. "Before you hired me, I wouldn't tell you until we actually arrived. Is that wrong?"

It wasn't wrong; it merely illustrated the difference in the way an alien mind worked. Sooner or later, they would have found the place, but he had saved them months.

"What's it like?" Emmer asked.

Taphetta jiggled his ribbons. "I don't know. I was passing near here and saw the planet off to one side."

"And you didn't stop?" Emmer was incredulous.

"Why should I? We're great navigators because we do so much of it. We would never get very far if we stopped to examine everything that looks interesting. Besides, it's not a good policy in a strange region, especially with an unarmed ship."

They wouldn't have that problem. The ship was armed well enough to keep off uncivilized marauders who had very recently reached the spaceship age, and only such people were apt to be inhospitable.

"When will we land?" asked Halden.

"In a few hours, but you can see the planet on our screens." Taphetta extended a head ribbon toward a knob and a planet came into view.

There weren't two civilizations in the Milky Way that built on such a large scale, even from the distance that they could see it. Great, distinctive cities were everywhere. There was no question as to what they had found.

"Now you'll learn why they ran away," said Taphetta.

"A new theory," Kelburn said, though it wasn't, for they *had* left. "What makes you think they were afraid?"

"No air. If your calculations are right, there must have been an extensive atmosphere a few hundred thousand years ago and now there isn't any. A planet this size doesn't lose air that fast. Therefore, it's an artificial condition. Who takes the trouble to leave a planet uninhabitable except someone who's afraid others will use it – and who else runs away?"

"They may have done it to preserve what they left," suggested Halden.

"Perhaps," said Taphetta, but it was obvious he didn't think so.

The lack of air had one thing to recommend it – they needn't worry about their pests escaping. The disadvantage was that they had to wear spacesuits. They landed on top of a great building that was intact after thousands of years and still strong enough to support the added weight. And then –

Then there was nothing.

Buildings, an enormous number and variety of them, huge, not one of them less than five stories high, all with ramps instead of stairs. This was to be expected, considering the great size of the people who had lived there, and it followed the familiar pattern.

But there was nothing in those buildings! On this, airless world, there was no decay, no rust or corrosion – *and nothing to decay or corrode*. No pictures, tools, nothing that resembled sculpture, and while there were places where machines had stood, none were there now. Here and there in inaccessible locations were featureless blobs of metal. The implication was clear: Where they hadn't been able to remove a machine, they had melted it down on the spot.

The thoroughness was bewildering. It wasn't done by some enemy; he would have stood off and razed the cities. But there was no rubble and the buildings were empty. The inhabitants themselves had removed all that was worth taking along.

A whole people had packed and moved away, leaving behind only massive, echoing structures.

There was plenty to learn, but nothing to learn it from. Buildings can indicate only so much and then there must be something else – at least some of the complex artifacts of a civilization – and there was none. Outside the cities, on the plains, there were the remains of plants and animals that indicated by their condition that airlessness had come suddenly. Sam Halden, the biologist, had examined them, but he discovered no clues. The unknown ancestor was still a mystery.

And the others – Emmer, the archeologist, and Meredith, the linguist, had nothing to work on, though they searched. It was Kelburn who found the first hint. Having no specific

task, now that the planet was located, he wandered around in a scout ship. On the other side of the planet, he signaled that there was a machine and that it was intact!

The crew was hurriedly recalled, the equipment brought back into the ship, and they took off for the plain where Kelburn waited.

And there was the machine, immense, like everything on the planet. It stood alone, tapering toward the sky. At the base was a door, which, when open, was big enough to permit a spaceship to enter easily – only it was closed.

Kelburn stood beside the towering entrance, a tiny figure in a spacesuit. He gazed up at it as the three came near. "All we have to do is open it," he said.

"How?" asked Meredith. She seemed to have forgotten that she disliked him. He had made a chance discovery because he had nothing to do while the others were busy, but she regarded it as further proof of his superiority.

It was hard to watch the happiness that her face directed toward Kelburn. Halden turned away.

"Just press the button," he said.

Emmer noticed his expression. "It's such a big button," he objected. "It's going to be hard to know when we find it."

"There's an inscription of some sort," said Kelburn loftily. "This thing was left for a purpose. Somewhere there must be operating instructions."

"From here, it looks like a complex wave-form," a voice crinkled in their radio – Taphetta from the spaceship. "All we have to do is find the right base in the electromagnetic spectrum and duplicate it on a beam broadcast and the door should open. You're too close to see it as clearly as I can."

Perhaps they were too close to the big ancestor, decided Halden moodily as they went back. It had overshadowed much of their thinking, and who really knew what the ancestor was like and what had motivated him?

But the Ribboneer was right about the signal, though it took several days to locate it. And then the huge door swung open and air whistled out.

Inside was another disappointment, a bare hall with a ramp leading upward, closed off at the ceiling. They could have forced through, but they had no desire to risk using a torch to penetrate the barrier – in view of the number of

precautions they'd already encountered, it was logical to assume that there were more waiting for them.

It was Emmer who found the solution. "In appearance, it resembles a spaceship. Let's assume it is, minus engines. It was never intended to fly. Listen.

"There's no air, so you can't hear," said Emmer impatiently. "But you could if there were air. Put your hands against the wall."

A distinct vibration ran through the whole structure. It hadn't been there before the door opened. Some mechanism had been triggered. The rumbling went on, came to a stop, and began again. Was it some kind of communication?

Hastily rigged machines were hauled inside the chamber to generate the air supply so that sounds would be produced for the recorders. Translating equipment was set up and focused and, after some experimentation with signals, the door was slowly closed. No one remained inside; there was no guarantee that it would be as easy to get out as it had been to get in.

They waited a day and a half while the sounds were being recorded. The delay seemed endless. The happiest of the crew was Kelburn. Biologically the highest human on the expedition, he was stimulated. He wandered aimlessly and smiled affably, patting Meredith, when he came to her, in the friendliest fashion. Startled, she smiled back and looked around wanly. Halden was behind her.

If I had not been there, thought Halden – and thereafter made it a point to be there.

Meredith was excited, but not precisely happy. The work was out of her hands until the translating equipment was retrieved. As the second highest biological type, she, too, was affected, until she pointedly went to her room and locked it from the inside.

Halden kept himself awake with anti-fatigue pills, in part because Meredith could change her mind about Kelburn, and because of that locked door.

Emmer tried to be phlegmatic and seemed to succeed. Taphetta alone was unconcerned; to him, it was an interesting and perhaps profitable discovery, but important only because of that. He would not be changed at all by whatever he learned.

Hours crawled by and at last the door opened; the air came rushing out again. The translating equipment was

brought back to the ship and Meredith was left alone with it.

It was half a day before she admitted the others to the laboratory.

"The machine is still working," she said. "There seems to have been some attempt to make the message hard to decode. But the methods they used were exactly the clues that the machine needed to decipher it. My function as a linguist was to help out with the interpretation of key words and phrases. I haven't got even a little part of the message. You'll know what it is as soon as I do. After the first part, the translator didn't seem to have much trouble."

They sat down facing it – Taphetta, Kelburn, Meredith, Halden and Emmer. Meredith was midway between Kelburn and himself. Was there any significance in that, wondered Halden, or was he reading more in her behavior than was actually there?

"The translation is complete," announced the machine.

"Go ahead," Meredith ordered.

"The words will be speeded up to human tempo," said the translator. "Insofar as possible, speech mannerisms of the original will be imitated. Please remember that it is only an imitation, however."

The translator coughed, stuttered and began. "We have purposely made access to our records difficult. If you can translate this message, you'll find, at the end, instructions for reaching the rest of our culture relics. As an advanced race, you're welcome to them. We've provided a surprise for anyone else.

"For ourselves, there's nothing left but an orderly retreat to a place where we can expect to live in peace. That means leaving this Galaxy, but because of our life span, we're capable of it and we won't be followed."

Taphetta crinkled his ribbons in amusement. Kelburn frowned at the interruption, but no one else paid any attention.

The translator went on. "Our metabolic rate is the lowest of any creature we know. We live several thousand revolutions of any recorded planet and our rate of increase is extremely low; under the most favourable circumstances, we can do no more than double our numbers in two hundred generations."

"This doesn't sound as if they were masters of biological science," rustled Taphetta.

Halden stirred uneasily. It wasn't turning out at all the way he had expected.

"At the time we left," the message continued, "we found no other intelligent race, though there were some capable of further evolution. Perhaps our scout ships long ago met your ancestors on some remote planet. We were never very numerous, and because we move and multiply so slowly, we are in danger of being swept out of existence in the foreseeable future. We prefer to leave while we can. The reason we must go developed on our own planet, deep beneath the cities, in the underworks, which we had ceased to inspect because there was no need to. This part was built to last a million generations, which is long even for us."

Emmer sat upright, annoyed at himself. "Of course! There are always sewers and I didn't think of looking there!"

"In the last several generations, we sent out four expeditions, leisurely trips because we then thought we had time to explore thoroughly. With this planet as base of operations, the successive expeditions fanned out in four directions, to cover the most representative territory."

Kelburn stiffened, mingled pride and chagrin on his face. His math had been correct, as far as he had figured it. But had there been any reason to assume that they would confine their exploration to one direction? No, they would want to cover the whole Milky Way.

Taphetta paled. Four times as many humans to contend with! He hadn't met the other three-fourths yet – and for him, it wasn't at all a pleasant thought.

"After long preparation, we sent several ships to settle one of the nearest planets that we'd selected on the first expedition. To our dismay we found that the plague was there – though it hadn't been on our first visit!"

Halden frowned. They were proving themselves less and less expert biologists. And this plague – there had to be a reason to leave, and sickness was as good as any – but unless he was mistaken, plague wasn't used in the strict semantic sense. It might be the fault of the translation.

"The colonists refused to settle; they came back at once and reported. We sent out our fastest ships, heavily armed. We didn't have the time to retrace our path completely, for we'd stopped at innumerable places. What we did was to

check a few planets, the outward and return parts of all four voyages. In every place, the plague was there, too, and we knew that we were responsible.

"We did what we could. Exhausting our nuclear armament, we obliterated the nearest planets on each of the four spans of our journeys."

"I *wondered* why the route came to an end," crinkled Taphetta, but there was no comment, no answer.

"We reconstructed what had happened. For a long time the plague had lived in our sewers, subsisting on wastes. At night, because they are tiny and move exceedingly fast, they were able to make their way into our ships and were aboard on every journey. We knew they were there, but because they were so small, it was difficult to dislodge them from their nesting places. And so we tolerated their existence."

"They weren't so smart," said Taphetta. "We figured out that angle long ago. True, our ship is an exception, but we haven't landed anywhere, and won't until we deverminize it."

"We didn't guess that next to the hull in outer space and consequently exposed to hard radiation," the message went on, "those tiny creatures would mutate dangerously and escape to populate the planets we landed on. They had always been loathsome little beasts that walked instead of rolling or creeping, but now they became even more vicious, spawning explosively and fighting with the same incessant violence. They had always harbored diseases which spread to us, but now they've become hothouses for still smaller parasites that also are able to infect us. Finally, we are now allergic to them, and when they are within miles of us, it is agony to roll or creep."

Taphetta looked around. "Who would have thought it? You were completely mistaken as to your origin." Kelburn was staring vacantly ahead, but didn't see a thing. Meredith was leaning against Halden; her eyes were closed. "The woman has finally chosen, now that she knows she was once vermin," clicked the Ribboneer. "But there are tears in her eyes."

"The intelligence of the beast has advanced slightly, though there isn't much difference between the highest and the lowest – and we've checked both ends of all four

journeys. But before, it was relatively calm and orderly. Now it is malignantly insane."

Taphetta rattled his ribbons. "Turn it off. You don't have to listen to this. We all are or some origin or other and it wasn't necessarily pretty. This being was a slug of some kind – and are you now what it describes? Perhaps mentally a little, out of pride, but the pride was false."

"We can't demolish all the planets we unthinkingly let it loose on; there are too many and it lives too fast. The stars drift and we would lose some, and before we could eliminate the last one, it would develop space travel – it has little intelligence, but it could get that far – and it would escape ahead of us. We know an impossible task when we see it. And so we're leaving, first making sure that this animal will never make use of the products of our civilization. It may reach this planet, but it will not be able to untangle our code – it's too stupid. You who will have to face it, please forgive us. It's the only thing that we're ashamed of."

"Don't listen." said the Ribboneer and, bending his broad, thin body, he sprang to the translator, shook it and banged with his ribbons until the machine was silent. "You don't have to tell anyone," crackled Taphetta. "Don't worry about me – I won't repeat it." He looked around at the faces. "But I can see that you will report to everyone exactly what you found. That pride you've developed – you'll need it."

Taphetta sat on top of the machine, looking like nothing so much as a huge fancy bow on a gift-wrapped package.

They noted the resemblance vaguely. But each of them knew that, as a member of the most numerous race in the Milky Way, no longer feared for their mysterious qualities – despised, instead – wherever they went, there would never be any gifts for them – for any man.

THIS BOOK IS A POCKET-SIZED TIME MACHINE

Strap yourself in — and visit five amazing futures. Here are your guides:

Isaac Asimov
Kingsley Amis
J. T. McIntosh
James H. Schmitz
F. L. Wallace

And they're the best in the business . . .

CORONET BOOKS/HODDER FAWCETT LTD

Fiction:Science Fiction

ISBN 0 340 17849 3

UNITED KINGDOM	35p
AUSTRALIA (recommended)	$1.20
NEW ZEALAND	$1.20
CANADA	$1.25