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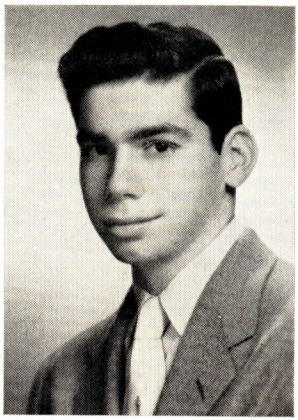

Since his last "Profile" on this page in May 1957, Robert Silverberg has more than fulfilled the great expectations accorded him in 1956 when he was voted the most promising new science fiction writer of that year. Unfortunately, like so many other skilled wordsmiths who love the craft of s-f, he has been forced to graduate to other fields of writing for the bulk of his income, where markets are wider and higher paying. In this respect, his successes have been even greater than in the s-f field and his first full year in other fields produced three times the income he previously enjoyed.

Despite this—and Bob states that it is easier writing general fiction than it is science fiction—he still likes to turn his hand to the occasional s-f story and this month we publish one of those rare stories from him.

Since the picture above was taken he has grown a trim van Dyke beard and looks the part of d'Artagnan. He and his wife Barbara paid another visit to Europe last summer, spending a few days in London visiting the science fiction writers before returning to New York. Trans-Atlantic tripping is becoming a commonplace vacation these days.

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Editor : JOHN CARNELL

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TWO SHILLINGS AND SIXPENCE

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Changing . . .

The fact that there are four stories in this issue by American authors happens to be purely a coincidence, for, as most of our long-term readers know, we have from time to time during the past eleven years (at least) published a wealth of material by writers living in North America. The operative word is " wealth " in that respect as their names and the stories we chose are outstanding. Readers *still* mention Robert Sheckley's " The Odour of Thought " in the July 1954 issue as being a classic of its kind. A little vignette of van Vogt's back in 1951—"Enchanted Village"—still lingers in many memories too.

There have been stories by Heinlein, Bester, Sturgeon, del Rey, Horace Gold, Poul Anderson, Judith Merril, Chad Oliver, Richard Wilson, Harry Harrison, the ubiquitous Silverberg, and the irreplaceable C. M. Kornbluth. There was once an ultra short by Isaac Asimov which completely misfired because few people saw the point of the ending. Serialwise, at least two American books have been outstanding—" Takeoff " by C. M. Kornbluth and " Wild Talent " by Wilson Tucker.

Most of those stories were sought after by ourselves, however, as the existing British market at that time did not offer any tempting financial returns for Americans wishing to sell their material to Great Britain. At that time, also, the existing US market was far wider than it is today, although most British writers found it more than difficult to sell their material Stateside. With the American science fiction market now reduced to about seven regular magazines, most of the leading writers have moved into other literary fields but I find that more and more material is being submitted to the Nova magazines from newer American authors who would like to have stories in print but can find no favour in their own country.

Therefore, three short stories by American authors out of five (excluding the Sturgeon serial) is not too unexpected a proportion at the present time although it is not likely to be a criterion. In any case, new writers of *any* nationality are more than welcome—we have a reputation for developing new talent which has been amply proven by the number of stories we have had anthologised over the years.

. . . Patterns

These changing patterns of literary submission remind me of a statement I made at last year's British Conference at Easter—that the success of *New Worlds* has largely been based on stories rejected by American editors. Stories, that is, by British writers, most of whom have the logical desire to earn the higher rates paid across the Atlantic. Many such stories have been exceptionally good but not found favour with American editors—some editors there do not favour British material at all unless it conforms to American writing standards (Eric Frank Russell is the successful example of this) while other editors have ploughed a furrow so deep they can no longer see over the sides and *all* stories must conform to one pattern or another. Also, as Alfred Bester pointed out in a Guest Editorial in *Science Fantasy* some time ago, the cultures between the two countries being considerably different tend to make the literary styles correspondingly so. Especially in science fiction.

So a good story by British standards would not necessarily be good by American. For which *New Worlds* and myself have been extremely thankful over the years. This particularly applies to such radical writers as J. T. McIntosh and Brian W. Aldiss, who seldom conform to the known requirements of the American market. In fact, for a long time, I have had an arrangement with both of them—and a number of leading British authors—that they only submit material to myself *after* rejection in America. Even this policy is not adhered to too rigidly, however, for many of our top British authors write material specially for this magazine which later sees publication in America. Quite a number of our novelettes have later been rewritten into book-length novels—Arthur Clarke's "Guardian Angel" in 1950 later became the beginning of the now-famous *Childhood's End.*

Most of Arthur's early stories were originally published in this magazine but I must confess that I missed out on one novelette—the original MS which later became his novel *Earthlight*—and he seldom omits to quote me (jokingly) as the only editor who ever rejected a Clarke story. At that time (1952) I considered that a Moon colonisation story was out of date ! Reader reaction show that even today colonisation stories of the Solar System are still in the front rank of popularity with most readers.

John Carnell

Another new American author joins our list this month with an extremely well-told legal story concerning a minor power failure on the Moon which had far-reaching repercussions.

THE MOON v. NANSEN

by THEODORE L. THOMAS

Tempers were growing short in the moonside offices of the Sales Manager of Lunar Enterprises, Inc. The taking of depositions is seldom a gay activity at best, but this was worse than usual. The Sales Manager, one George Reedy, squirmed in his seat as Ellis Centerton remorselessly pounded the questions at him.

" Then you *did* sign this shipping contract with the full expectation of breaking it whenever you felt like it."

Reedy squirmed again. He was a short, pudgy man, gone soft from life on the moon with no exercise. " No. Nothing like that."

At that moment the blast wave struck the exterior of the flexible dome. The roof dipped slightly, and there was the rattling sound of some fine material sprinkling against the outside of the penthouse dome in which they sat. It was an exceedingly minor blast wave, but the group inside was flabbergasted nonetheless. With no atmosphere on the moon, it was difficult to understand how anything except a solid object could momentarily depress the roof, and there had certainly been no solid object.

Centerton vaulted from his chair, and in two steps reached the transparent portion of the wall. He looked out across the black rock. One hundred yards away were the great green tubes of a *Chlorella* farm, row upon row of them, forming a huge hexagon that surrounded the processing domes in the centre. The tube nearest Centerton had disintegrated, spilling out onto the hot surface of the moon some 127,000 gallons of water. In the near-zero atmospheric pressure of the moon a large portion of the water had immediately flashed into vapour, and the vapour had depressed the penthouse roof. As Centerton watched, he saw a growing strip of whiteness appear in the region of the ruptured tube as ice formed.

Centerton saw a suited figure stretched out on the rock near a twisted power line support. He turned from the window and said, " Harold Nansen's farm, tube let go. Man hurt out there. We'll continue this later."

Centerton ran downstairs to the row of space suits hanging near the lock, and yanked one off the left end where the large suits were. Two other men were suiting up, so three of them went out and ran toward the prone figure lying near the bent tower. They stooped over the man. It was a blonde man that Centerton did not recognize. He asked over the suit radio, " Who is it ?"

" Gus Gottorp," said one of the others. " Looks like he's knocked out. Think anything's broken ?"

Centerton looked down at the man's body, and could detect no unusual twisting of the limbs or back. "Not that I can see," he said. " Maybe we better risk it and move him inside." He looked around. " Nansen's is closest. Let's get him into the lock."

Several other people had arrived. They formed a ring around Gottorp and lifted him in a manner to support all parts of his body. They moved to the air lock ten yards away, and as they approached it, the outer door swung open and Nansen came out.

" Gottorp's hurt," said the man nearest Nansen. " Get him inside."

The group squeezed into the lock, and as soon as the air pressure was up, Centerton removed Gottorp's helmet. He was placing the helmet off to one side when Gottorp groaned and opened his eyes. One of the men bent over Gottorp and said, " It's all right, Gus. You're inside now."

Nansen kneeled next to Gottorp and ran his fingers lightly over his head. At the back of the head he found a large lump. " Yes," said Nansen. " Smacked his head on the inside of his helmet. He'll be all right. You can't hurt a Swede by hitting him on the head." He stood up.

Gottorp followed him up. " You," he roared. " This damn farm of yours near killed me. What do you do to me out there ?"

Nansen said softly, " I was going to ask you what you did out there, Gus. You got your own farm ; what are you doing over here ?"

Gottorp's face grew purple. " What I do ? I walk past, is what I do. I'm on my way over to see Jimpson, and bang, I wake up in here. I don't do anything. What you do ?"

" You don't know what happened ?"

" I wake up in here with sore head, that's all I know."

Nansen nodded. " Well, my outer tube blew. You must have been going right by it at the time."

Gottorp snorted. " You learn how to run farm, tube don't blow."

Nansen began to get mad. " Look. Those tubes were in good shape four hours ago when I inspected them. That tube had no business blowing."

" Well," Gottorp rubbed the lump on his head, " maybe so. That tube was good one minute, next it gone. What do that, huh ?"

Gottorp was fast losing his anger when a thin-faced man pushed his way up to him and said, " Mr. Gottorp. I don't like to see a man get hurt when he shouldn't. This wasn't your fault. Here's my card." He handed Gottorp a small card.

Gottorp read it and a puzzled look spread over his face. He said to the man, " You a lawyer ?"

The man nodded and said, " I'd like to talk to you, alone."

Ellis Centerton had stood silently by, but now he said, " Barratry, by heaven."

The thin-faced man spun on him and snapped, " Keep out of this, you. It's none of your business."

" Oh, but it is. The Bar Association will be very interested."

The man flushed, and took Gottorp by the arm and led him to the outer door. Centerton pulled Nansen inside through the interior door and closed it. They heard the air pumps work, and all the people in the lock went outside.

" Harold," said Centerton. " Who was that guy ? I've never seen him before."

" Don't know, Ellis. I've never seen him before either. He must be a lawyer, though. You think they can hang something on me for this ?"

" I don't see how. What do you know about the tube's letting go ?"

" Nothing. I can't understand it. There was nothing wrong when I made my check a while ago. Pressures, temperatures, concentration, circulation, everything right. That tube should never have blown."

" Where were you when it blew ?"

" I was inside the carbon dioxide distributor, checking corrosion. Look, Ellis. I can swing repairing that tube. It'll cost me about eight-five thousand dollars. I've got that, but no more. If Gottorp sues me I won't have anything to pay him ; it'll break me."

Centerton smiled and said, " Just because he sues you doesn't mean he'll collect anything. How've you been getting along with him ?"

" Fine. He and Schmidt and I are the only independent *Chlorella* farmers left, so we get along pretty good. At least so far."

Centerton nodded. " Lunar Enterprises has bought up all the others."

" Yes. They've been after me too, pretty hot and heavy. They want to buy me out at a good price, but I won't sell. Look, if anything comes of Gottorp being hurt, will you be my lawyer ?"

" I thought you'd never ask ; we sure will." Centerton picked up his helmet and walked to the inner door of the lock. He raised it over his head and prepared to drop it into its seat. "If you get served with any papers, you call me on Earth right away so I can judge where we stand. Got it ?"

" Got it. Oh, Ellis."

" Yes."

" What does ' barratry ' mean ?"

Centerton chuckled. " It means nobody can go around stirring up law suits. That's why I don't think we'll hear from that guy again. He knows I could get him disbarred, if he really is a lawyer. Don't worry about it, Harold. So long." He dropped the helmet over his head, twisted it to seat it, and went out the lock.

He pushed his way through the large group of people that had gathered to inspect the site of the blown tube. The ice was gone, and the rock was hot again and spotted with dehydrated *Chlorella pyrenoidosa*. Pointed shards littered the area, splintered remnants of the tube. Centerton did not stay to look around.

Centerton informed Reedy that he was still under oath, and took up the thread of his former questions. In an hour's time Centerton's questions made it clear on the record that Reedy was lying, or concealing something, or both. Even Reedy felt the absurdity of his answers, and the perspiration stood out on his forehead.

Centerton did not rub it in ; he knew the value of not beating a dead horse. Judges were intelligent men, and it was not necessary to rehash a witness's evasive tactics.

It was the destruction of a man's career that Centerton had brought about, but he had no regrets for Reedy. Lunar Enterprises was a driving, ruthless, highly competent organization, and a man who could make Reedy's mistakes had no place in it. Reedy would find another job on Earth, and in a year or two would be far happier than he was now.

Centerton and counsel for Lunar Enterprises sat down with the Reporter and worked out what the record should show. It was agreed that the Reporter would stay on the moon to transcribe the record, send copies to Centerton and opposing counsel on Earth, and—on their approval—obtain the necessary signatures of the witnesses. He would then return to Earth with the signed and completed record. The lawyers parted with a cursory handshake.

Centerton made the final arrangements for his trip back to Earth, and then, with an hour to kill, wandered over to Nansen's *Chlorella* farm. He moved slowly along the site of the blown tube. He could see scratches in the rock where the splintered resin had gouged it. He came to the great automatic valve at the corner of the farm, and inspected the closed gates closely, standing where the tube had been. There was nothing out of the ordinary.

Centerton stepped back and looked up at the bent and twisted power pole, ruined by the blast wave of water vapour. Such poles were not built for strength in the moon's light gravitational field. While he was inspecting it, Nansen joined him.

" Say, Harold," said Centerton. " The power boys been over to look at this yet ?"

" Yes," said Nansen, from the other end of the tubeway. " They came right over to see what happened, then went back to get the stuff they need to fix it. They ought to be back pretty soon. They had some trouble over at the plant when this pole let go. I don't know what happened over there, but something did."

Centerton stared at the pole. " Could that trouble have had anything to do with blowing your tube ?"

" No. It was the other way around. The tube went, and ruined the pole, and that started the trouble over at the plant."

" Oh," said Centerton, and he said no more. He did not like the pattern that was developing. " How do you get along with the power people ?"

" Good. I pay my bills on time, and they like the kind of operation I run here. I always have some test runs under way to improve the strains of *Chlorella*, and I found some good ones. The power people like that because it makes life easier here all the time. The cities grow bigger and they sell more power."

" How about the city management ?"

" I get along good with them too. I've always lived up to the contract. I take their used air and give them back oxygen-rich air from the *Chlorella* tubes, and I always try to give them a little more oxygen content than the contract calls for. They know that."

Centerton nodded silently.

" What's the matter, Ellis ? Something on your mind ?"

" Maybe not. Look, you remember what I told you. Do everything you can to find out how that tube blew. Put some of your men on it if you haven't enough time."

" Okay."

" I've got to leave now, so keep me posted."

" Okay, Ellis. Have a good trip. And don't worry about things here. I'll get the tube replaced right away and be back in full production inside two weeks."

With a wave Centerton turned back to the main dome. He caught the shuttle to the spaceport five miles away, boarded the ship, and in three days he was back on Earth.

As usual, his first morning back in the office was spent in working his way toward his desk. The firm of Centerton,

Westgate and Hogan had forty-two partners, all good lawyers, all good technical men, and all very good friends. In an age of technology, here was a technological law firm, and it paid off. Despite its size, it sometimes had to turn away business.

Centerton swung in through the double doors that opened into the main waiting room of the firm's offices. The two brisk receptionists leaped from their chairs and came around from behind their desks to greet him, skirts aswinging and eyes asparkling. " Good morning, Chief. How good to see you back . . ." " We've missed you Mr. Centerton . . ."

" Morning, Cora, Jenny. You two been keeping these lawyers in line ?"

" We sure have," said Cora. " We wouldn't let Mr. Harrison in the office yesterday. He tried to come in with a heavy cold and a fever. We made him go home and go to bed. He was going to try the General Metals Case, but we made him take a postponement and go to bed. You should have heard him."

" Good girls. Anything else ?"

The two girls chattered away softly, so their voices would not carry to the waiting clients. In three minutes Centerton learned who was away on trips, what new clients they had taken on, what cases had been tried, and what opinions had been handed down and what was wrong with them. The girls had long since adopted the view that when a judge rendered a decision contrary to the position taken by the firm, it merely proved that the judge was senile, incompetent, or an idiot. The men in the firm quit using the lawyer's aphorism, " You can't win them all," on them. The girls would simply look back with a cold eye and ask prettily, " Why not ?" The lawyers all knew that the lovely and affable exterior of these two concealed a queen's certainty, a salesman's tenacity, and a psychiatrist's insight.

Centerton went in to the inner hall, stopping off at offices as he went. Finally he came to Hogan's office.

" How'd it go, Ellis ?" said Hogan.

" Went all right. Did more good for us than them. The case is shaping up."

" Good. I hope you give it to Lunar Enterprises right where it hurts."

" Me too. Look. Something else may be brewing up there. Remember Harold Nansen ?"

" Sure do. Looked him up the last time I was there. He runs the best *Chlorella* farm on the moon. How is he ?"

" Fine." And Centerton explained in great detail the circumstances surrounding the blowing of the *Chlorella* tube. Hogan interrupted to ask an occasional question and soon had the complete story.

" Think Lunar Enterprises had anything to do with it ?" asked Hogan.

" I don't think so," said Centerton. " Too risky. If they get caught doing a thing like that they'd lose their chance to get full commercial control of the moon."

" That seems right. But once it's happened they'll try to take every advantage of it."

" That's the way I see it too."

Centerton got down from Hogan's desk and said, " Well, that's it, Frank. Maybe nothing will come of it, but I don't think we'll be that lucky. This looks like too good a chance for Lunar Enterprises to miss ; they'll find some way to put the squeeze on Nansen."

" Probably. By the way, what about our fee ? Nansen got any money ?"

" He did have, but replacing that tube will take ever cent he has."

" Hm. He'll be the defendant, too, so we can't even take it on a percentage basis. Oh well, Harold's good for it. Unless they drive him out completely."

" We'll have to make certain that doesn't happen. See you later." And Centerton went on down the hall, stopping into the rest of the offices as he went. It took him three hours to reach his own office.

In the law firm of Centerton, Westgate, and Hogan, things were always not so much popping as exploding. With the many conferences going on all the time, the offices resembled a public auction more than the temple of legal learning it was. There were six conference rooms, and they were in almost constant use, sometimes for the working out of a settlement with opposing counsel, sometimes to hammer out a consensus on a point among the firm lawyers. Meetings frequently spilled out into the firm's law library, so that the legal searchers grew used to working in an atmosphere that resembled Grand Central Station. The ceilings and walls were covered with acoustical tile, and deep rugs carpeted the floors.

Nevertheless, the bustle of intense activity produced a constant dull roar. Girls from the Secretary's Pool moved swiftly from office to office as they were needed, and then returned to add the clacking of their typewriters to the general din. Two switchboard operators handled the incoming calls and monitored the intercom system. A dead-phone system allowed a lawyer to call on the talents of the legal searchers right in the middle of a telephone conversation. The consequent production of pertinent cases and authorities on a moment's notice never failed to impress the party at the other end.

It was six months after Centerton's moon trip, and two months after the shipping case had been nicely settled, that Centerton was called out of a morning meeting to answer a moonside phone call. It was exactly nine o'clock in the morning when he picked up the phone. It was Nansen.

" Ellis ? The marshall was here and gave me some papers. Gottorp is suing me. Want me to read them to you ?"

" Yes, but wait 'til I get Hogan on the phone."

Centerton buzzed, and got Hogan on another extension, and then said, " Okay, Harold. Read away."

Nansen read the Complaint while Centerton and Hogan listened and the tape recorder made a record of everything that was said.

When Nansen finished, Centerton said, " It is in the proper form, Harold, so we've got a lawsuit on our hands all right Have you found out why that tube let go ?"

" Ellis, I've been trying to figure that for the last few months, and I haven't learned a thing I didn't know when you were here. I just don't know."

" Okay. Now you talk to Gottorp and find out why he's suing you. You're supposed to be friends, so I want to know why he's doing this."

" Why don't you talk to him, Ellis ?"

" I can't. Ethics. A lawyer can't talk to the other party ; I can only talk to Gottorp's lawyer, and believe me I will. But see if you can find out from Gottorp what's behind this. Other than that don't do anything. Understand ?"

" Yes. Say, Ellis. What's this Latin ? This . . ." There was a pause. ". . . this *res ipsa loquitor* in here. What's that mean ?"

" It means literally ' things speak for themselves.' In your case it means that that tube should not have blown unless you

did something wrong to it. You had the tube in your exclusive control, and unless you were negligent it would not be expected to blow up."

Nansen began growling at the other end, so Centerton said, " Don't worry about it, Harold. Lots of cases get tried under the *res ipsa* doctrine. I'll tell you more about it when I see you."

Hogan spoke for the first time. " How you fixed for money, Harold ?"

" What ? Oh, I haven't got much. New tube took all I had. But there's some coming in all the time, so I'll send you what I've got every month. How much will this cost me ?"

Hogan said, " As a guess, our fee and expenses will set you back about forty thousand if it goes to trial. That doesn't include appeal."

Nansen whistled. " Well, okay. If you can wait for your money, I'll pay it."

" We'll wait, Harold," said Hogan. " Don't you worry about it. Anything else, Ellis ?"

" Nope, nothing now. We'll keep you posted, Harold, and you let us know if anything develops there."

They hung up. Centerton immediately went into Hogan's office and took his accustomed seat on one corner of the desk. " Well, we're off," he said as he slid into position.

" Yeah. We got the makings of an interesting case here. I see that Lunar Enterpises' law firm, Russo and Hanks, is counsel for Gottorp. Where does that thin-faced guy fit into this ?"

" Beats me. I know he's not a member or associate of Russo and Hanks. I suspect he drums up business for them—or maybe he works for Lunar Enterprises. I guess we'd have a tough time proving anything there."

" Yes, but let's not overlook it. Let's put Jonesy to work on it. He knows everything there is to know about ethics."

Centerton said, " Good idea. Tell me something. This *res ipsa* doctrine, courts apply it more loosely in accidents on the moon, don't they ?"

" Absolutely. They don't say so, but there is a definite tendency on the part of the courts to hold a man to a higher duty of care on the moon than on Earth. I suppose they feel that life is more dangerous on the moon, and so every man has to be exceptionally careful that he doesn't injure anyone else."

" Hm," said Centerton. " Can't say that it's too unreasonable a view, either."

" Right. But that doesn't help us with Nansen. It'll work against him."

A secretary came into the office and placed in front of Hogan a tan-coloured cardboard file. Then she quietly took a seat and prepared to take dictation.

Hogan flipped open the file and handed Centerton a typed copy of the Complaint that Nansen had just read over the phone. The two men scanned it, and then Hogan leaned back in his chair and said to the secretary, "Note for the File," and then began to dictate his impressions of the case. Centerton dictated next, describing what he had seen and said and done the day the tube blew. In ten minutes they were through, and the secretary left to type up the notes. It was official now. The case of Gottorp v. Nansen was on the docket of the law firm of Centerton, Westgate, and Hogan. The issue was joined.

The next morning, at 9.00 o'clock, Centerton again was called to take a moonside phone call. " Hello Ellis ? Nansen speaking. Say, the marshall was just over again and I got some more papers here. I'll read them to you."

Centerton cut in Hogan and made the usual recording while Nansen read the new complaint. The Lunar Power Company was suing Nansen for the destruction of a power tower. A *Chlorella* tube had blown up, and such tubes don't usually blow up unless the owner was negligent . . . *res ispa loquitor* . . . damages . . . etc.

The same conference between Hogan and Centerton took place, and the case of Lunar Power Company v. Nansen was duly entered on the docket of the firm, with Harry Robinson called in as Property Damage expert.

Next morning : " Ellis ? Me again. It's the Lunar Transportation Company this time. The power failure stranded one of the monorail cars 200 miles out, passengers got hysterical, one of them had a baby, must have been a woman, I guess." So the firm picked up the case of Lunar Transportation Company v. Nansen.

The next morning Hogan walked into Centerton's office just before 9 o'clock. Centerton was seated behind his desk, looking at his watch, and waving his right hand as he counted off the seconds. " Seven, six, five . . ." When he got to zero, he pointed at the phone. It rang. Centerton picked it up and

said without preamble, " Good morning, Harold. Who is it this time ?"

" A fellow named Jurgins, Ellis. Broke his arm when the circuit breaker let go at the power plant. I'll read it." And the case of Jurgins v. Nansen came into being.

When the secretary left, Hogan said, " How much longer do you think they can keep this up ? "

" I don't know. With a major power failure they can probably find plaintiffs all over the moon. They're doing pretty well so far. Are you getting the impression that Lunar Enterprises is out to get Nansen ?"

Hogan snorted. " I'm getting the impression that Nansen is fast becoming our principal client. We'll have the whole firm working for him if this keeps up."

But Hogan was too pessimistic. There were only two more lawsuits, Lunar Homes, Inc. v. Nansen, and General Fuels v. Nansen. And the whole firm was not required, only three quarters of it.

It was an easy matter to have all the cases consolidated on the court's calendar so that only a single trial would be held. The Centerton lawyers instituted discovery proceedings and began taking the depositions of all the plaintiffs. Experts on Corporation Law, personal injury, Public Utilities, Agency, Conflicts of Law, Real Property, Personal Property, Contracts, Equity, Evidence, Administrative Law, Constitutional Law, and half a dozen other branches of the law swung into action to gather the facts and interpret them in what seemed like a gigantic case entitled Moon Population v. Nansen But nowhere was there to found anything that helped. Jonesy could not even locate the thin-faced man. All paths led to the blown tube, and there ended. Ellis Centerton himself interviewed the tube manufacturer.

" We looked into that blow-out, Mr. Centerton," said the tube expert for the tube manufacturer, " and we can't tell what happened. Our tubes don't blow out unless somebody treats them pretty rough. I've gone over our inspection records for that particular tube, and it was well above specifications. I can tell you this : from the fragmentation pattern, the tube seems to have let go at one end first—where it went into the valve at the corner. Now this might mean that the gasketing was too tight there. That plus a pressure surge in the tube, might have made it go. But that's no fault of the tube. That's the fault of the man who was using it."

Centerton said, " Has a lawyer been here from the firm of Russo and Hanks ?"

" Why yes, as a matter of fact, there was such a man. We had a very pleasant conversation."

" I'll bet you did. Well, thank you very much. I'll probably see you in court."

" Well, he did say something about having me testify."

Centerton shook hands and went back to his office. He called a meeting. and a group of glum-faced lawyers gathered around the table.

" The trouble with this case," said Centerton, " is that it is too simple. Everything begins and ends with a burst *Chlorella* tube. That's all there is to the whole thing."

" How do we know Lunar Enterprises didn't shoot it out ?"

" We don't, but it is not the way to bet. Look, let's face it. We've got to find out what made that tube blow ; we've hosed around long enough. The Troop has got to go up to Nansen's farm and go over it. There's no other way."

" Oh Lord," groaned Hogan. " Think what that will cost. We haven't even got a retainer."

The group nodded soberly. The Troop was the pet name for thirty-one of the forty-two members of the firm, and somewhere among those thirty-one lawyers was a man with a reasonably complete knowledge of any branch of science one might care to name. It was unquestionably the most potent legal investigating team ever put together. But it was also one of the most costly. In any one investigation, most of the scientific and legal talent was wasted, since one man usually came up with the answer. But no one could tell in advance which man's training would be needed, so they all had to go.

After a moment of reflective silence, Centerton turned to Westgate and said, " Jud, will you make the arrangements ?"

Westgate nodded, and the group drifted out, still in silence.

The next morning, into a chartered spaceship, there filed the thirty-one men. Things were no longer quiet ; the Troop was off on a lark, and the dirty work had to be done by the eleven who stayed behind. On them fell the burden of keeping the firm going while the others were away.

Nansen met them at the moonside spaceport, and he seemed like a different man. " Nice of you to come, Ellis, and bring all the fellows, but it's no use. I can't fight everybody on the

moon. Lunar Enterprises got to everybody—convinced them that I don't know how to run a good safe *Chlorella* farm. Everybody says I may kill somebody next time, so they want me out. Nobody drops in any more, nobody talks to me. It's been terrible. I've made up my mind to take their offer." Nansen patted his breast pocket.

" Oh? They made you an offer?"

" Yes. Not a very good one, but I can get out of this with almost a whole skin. They tell me they'll see that all the lawsuits are dropped so it's just as well. I guess I did something wrong to make that tube blow anyhow."

Centerton threw an arm over his shoulder. Hogan came forward and said, " Knock it off, Harold. Let's go over to your place and have a look around."

Nansen shrugged his shoulders, and Centerton turned him and started in the direction of the farm.

It was a sombre group that went in through the air lock. In an attempt to improve spirits, Westgate said to Boyer, " Well, I suppose you'll be spending all your time wallowing around in the trash as usual. Why don't you resign from the bar and take up garbage collecting?"

As usual, Boyer got mad. " Damn it, an archaeologist has to work with garbage. I can tell more about a man in ten minutes from his garbage pile than you can learn by living with him for a month. You just try to . . ." Then he saw the others smiling at him, and he calmed down.

As it turned out, it was in the garbage that Boyer found what they were all looking for.

Tucked away at the bottom of a six-month accumulation of debris heaped near the back of the loading dome, Boyer found a small metal object. Recognising an anomaly when he saw it he fished it out and examined it closely. It puzzled him for a moment, and then he understood. He wandered back through the series of domes, whistling tunelessly, and tossing the object into the air and catching it. He came to the main processing dome and leaned carelessly against a vat, whistling and tossing and paying no attention to the other members of the Troop that happened to be nearby. One by one they realized that something was amiss with Boyer, and they stopped their work to stare at him. They began to move closer to him to try to see what he was tossing into the air with such studied casualness. Soon they were all there.

Centerton stood right in front of Boyer, his head moving up and down with the slow motion of the tossed object. Finally he reached out and caught it just before it returned to Boyer's hand. Centerton held it up for all to see. Boyer breathed loudly on the fingertips of his right hand and then rubbed them across his chest.

Not a word was said, but the air was thick with unstated thoughts. Every lawyer there was thinking longingly of how he would handle the forthcoming trial. Ah, what a juridical delight.

Hogan broke the spell. With a loud " Eeeow " he flung himself onto Boyer. A general melee broke loose, with much pounding and yelling, and with Boyer trying to look becomingly modest, and failing miserably.

An unsmiling Nansen strode up to the group and said, " What happened ?"

Centerton showed him the metal object. " You any idea how a lock nut from a directional rocket nozzle on a spaceship got inside your dome ?"

" Why . . . why no."

" Well, I do. It fell. It fell inside, that's how it got here. There, my good friend, is what made your tube blow out. This thing fell off a ship and punctured your *Chlorella* tube right next to the valve. It went through the gate into the adjoining tube, before the gate could close. It came to rest inside the adjoining tube and slowly worked its way out over the months. Boyer found it in your garbage pile, probably in with the dried sludge from the tubes." Centerton looked questioningly at Boyer, and Boyer nodded.

" You mean," said Nansen, " that all this trouble is because that nut dropped from a ship and ruptured my tube ?"

" I sure do. I don't know what ship it came from yet, but I don't think we'll have any trouble finding out. Those ships are inspected from stem to stern before every take-off and after every landing. We'll find the ship."

The change that began to take place in Nansen was an awesome thing to see. From a lacklustre, stooped, and broken man he changed in a period of five seconds to an infuriated giant. The fire glinted in his eyes, and he raised his two hands above his head and bellowed, " Find me that ship. You just find me that ship, and I'll take it apart plate by plate with my bare hands." Not one of them doubted he could.

Westgate said, " This'll be enough to make them call off the suits. We can settle these cases in a week."

" Yes," said Centerton, " but you know ? I've got a hunch about this one. If the investigation shows that I'm right, we want this one to go to trial."

He was right.

The cases came on for trial six months later. The courtroom presented an interesting spectacle that morning. The six plaintiffs sat around a large table with their six lawyers. In addition, Mr. Russo himself was there to handle the over-all strategy and to conduct the examination of the witnesses. He was a medium-sized man, thin and wiry, with a dark saturnine look. As he sat at the plaintiffs' table he gave the impression of a king holding court. The other lawyers shuffled papers and carried out intense conversations with one another. Mr. Russo sat aloof, as befitted a senior partner in such an illustrious firm, and responded to the occasional whispered inquiries of his associates with a nod or a shake of his head. He gave the definite impression that the entire proceeding was being held to amuse him.

On the other side of the courtroom, Nansen and Centerton sat alone. On the shiny table top in front of them was no paper, no pencil, no trace of the clutter that ordinarily marks the table of the trial attorney. There was however one item : a 30-06 bolt action Springfield rifle lay casually across the edge of the table with the muzzle pointing directly at the plaintiffs.

All present got to their feet when Judge Wertz came in and the Clerk intoned that the District Court for the Eastern District of the Moon was now in session. The impanelling of a jury proceeded swiftly, since Centerton accepted anybody that happened to be called up.

Plaintiff after plaintiff took the stand, and under Russo's skillful questioning, described how he had been damaged or hurt when Nansen's *Chlorella* tube blew up. For cross examination Centerton asked one question. " What time did the accident occur ?"

The answer from the well-coached witnesses showed a surprising consensus : " 10 : 02 moonside."

Russo's last witness was the tube expert. He made it plain that *Chlorella* tubes simply did not blow up by themselves under any kind of normal usage ; somebody had to mistreat one first, and mistreat it badly. To prove his assertions he

launched into a detailed mathematical analysis of the stress-strain relationship of the polyamide resin from which the tubes were made. He called upon his extensive knowledge of differential equations to show what happened to a tube when it was too tightly gasketed at one end. The results appeared to match exactly what had happened. It was a dazzling exhibition and when it was over the jurors were looking at Nansen with frowns on their faces. " Cross examine ?" said Russo politely to Centerton.

Centerton got up and said to the witness, " Say, you're quite a mathematician, aren't you ?"

" I have to be, in my business."

" Well, I don't understand all your mathematics. But if you can show me how to work out a simple little problem, I'll take your word for it."

" What's the problem ?"

" Suppose you have a body positioned 5,000 miles above the surface of the moon, and almost motionless with respect to the moon. At what velocity would it strike the surface of the moon and how long would it take ?"

The courtroom stiffened into silence. Russo was not stupid, and it took him about two seconds to see the implications of the question. He leaped to his feet and said, " I object, on the ground that the question is not relevant to anything covered in direct examination. Counsel must confine his cross examination to the subject matter of the direct examination."

Judge Wertz was not stupid either, and he said, " I see nothing wrong with running a simple test to determine just how expert your witness is in mathematics. Your direct examination certainly included enough of it. Besides, counsel for defendant will accept all your direct examination if your witness can work out a simple problem. I don't see how you can be harmed. I will overrule the objection."

" Exception," said Russo, and he sat down.

" You know," said the expert to Centerton, " that question is not as simple as it sounds. At that distance from the moon the acceleration will be constantly changing as the body falls closer to the moon. But I can work it out," he added hastily.

" Good," said Centerton. " We'll have a blackboard brought in so you can show the jury."

The board was brought in, and the expert stepped up to it and said, " Now let me see. Gravitation is inversely propor

tional to the square of the distance, so we can write a differential equation in the form $dv/dt + k/r^2 = 0$." He wrote it down and quickly followed it with a series of equations derived from it. Centerton stood at his elbow, nodding approvingly. When the expert solved for the first constant of integration, Centerton smiled.

Finally after eleven equations the expert stepped back and said, " There's your equation. All you have to do is put the values in to get the velocity."

" Would you mind doing it ?" said Centerton. " I happen to know that the mass of the moon is 7.35×10^{25} grams. The Universal Constant of Gravitation is 6.67×10^{-8} in the cgs system. The radius of the moon is 1.74×10^8 centimetres. And the body starts 9.80×10^8 centimetres from the centre of the moon—that's the 5,000 miles above the surface."

The jurors looked at each other as Centerton smilingly dropped the figures as if he were telling the time of day. The expert witness, engrossed in the problem, thought nothing of it Russo squirmed in his seat. Judge Wertz smiled.

The expert worked away with his pocket slide rule. In another few minutes he said, " There you are. The body is moving at a velocity of 7,050 feet per second when it hits ; that's 4,800 miles per hour. That's really travelling. Could never happen on Earth." He looked happily at his blackboard.

Centerton stepped over to his table and held up the rifle for the jury to see. " Tell me," he said to the expert, " do you happen to know what the muzzle velocity for this rifle would be, approximately ?"

Russo had no time to object before the expert said, " Yes, I use that model for hunting. It's got a muzzle velocity of 2,700 feet per second."

" Then a body falling from 5,000 miles above the moon would hit the surface with a velocity over twice the velocity of a bullet fired from this rifle ?"

" Sure would."

" Well, I'll be darned," said Centerton, looking significantly at the jury.

" Say, wait a minute," said the expert, staring at the blackboard. " I see another way to solve this problem. Equate the potential energy with the kinetic energy and integrate once . . ."

" Very, very, good," said Centerton. " I know that it takes a good bit of insight to find that solution to the problem."

" Sure. Here, let me push it through that way for you."

" It won't be necessary. Now will you calculate the time for the fall ?"

" Oh yes, we forgot the time. Let's see. We go back here to where we solved for the velocity, and we set v = dr/dt and . . ." He was off again. This time he wound up with an equation that stretched all the way across the blackboard. " Just look at that," he said as he stepped back to admire it. " It's even got an arc sine in it. Well, let's see how it comes out." He worked diligently, humming to himself, and then he broke off to say, " Got it. It takes 2.03 hours to fall."

Centerton said, " A body at rest 5,000 miles above the surface of the moon will take 2.03 hours to fall and hit the surface ?"

" That's right. Now let me check that velocity by the other method."

" That won't be necessary, thank you."

" It won't take a minute."

" But we have to get on here."

" You go ahead. I won't bother you."

Centerton shrugged as the expert turned back to his blackboard. Centerton said to Russo, " Does counsel for plaintiffs have any objection to these figures ?"

Russo sat silently. He couldn't very well deny them ; they came from his own witness, and they almost certainly were accurate. On the other hand he hated to put his stamp of approval on them ; it was pretty obvious as to what Centerton was getting at.

Judge Wertz forced the issue. " I take it that counsel for plaintiffs have no objection to this cross examination, If not, we will proceed. The witness is dismissed. Will the bailiff remove the blackboard ?"

The bailiff wheeled off the blackboard, ignoring the fact that the expert was still working on it. Just before they went out the side door of the courtroom, the expert shouted to Centerton, " Got it. It checks out close enough, too."

" Nice going," called Centerton, and he waved as the expert went out the door.

" Any more witnesses, Mr. Russo ?" said Judge Wertz.

" Ah, Your Honour. May we have a moment here ?"

" Certainly. We'll adjourn for ten minutes."

A hot discussion raged at the plaintiff's table, while Russo sat apart, thinking. He had an extremely difficult decision to make. If there were anything behind this approach that Centerton was taking, this was the time to withdraw all the Complaints and let Nansen off the hook. On the other hand, if Centerton were bluffing . . .

" Court's in session," intoned the Clerk.

" Any further witnesses, Mr. Russo ?" asked Judge Wertz.

" No, Your Honour. The plaintiffs rest." Russo had made the only possible decision. He couldn't possibly run the risk of being bluffed. The trial was to continue.

Centerton trotted out Boyer as his first witness, and inside three minutes Russo knew he had made a mistake. Boyer identified the lock nut and described where he had found it. Merciless cross examination by Russo only strengthened his story, for Boyer was no mean cross examiner himself.

Centerton's other witness was Roy Moore, Pilot. After the preliminaries, Centerton's questions brought out that Moore had landed a space ship on the moon the day the *Chlorella* tube blew up, that he had been in orbit 5,000 miles above the moon for six hours awaiting clearance to land, and that he had made a Jefferson-type landing by bringing the ship to relative rest with respect to the moon and then dropping almost straight down on his braking rockets.

Centerton introduced into evidence the inspection check sheets and the log of the ship. Then he handed Moore the lock nut and Moore identified it as the kind used on his ship. The check sheets showed that when the ship left its earthside orbit the two lock nuts on the directional rocket nozzles were in place. But after the ship landed on the moon, the starboard lock nut was missing. No one had given it much thought ; they figured it had been lost in space. Furthermore, the only time the directional rockets were traversed during the entire flight was just prior to the time the ship was brought to relative rest with the moon.

" And what time was that ?"

" According to the log here, it was 8 : 00 moonside."

" And if it takes an object 2.03 hours to fall that 5,000 miles in free fall, at what time would it have struck the surface of the moon ?"

The pilot thought a moment and said, " 10 : 02 moonside."

And there was the familiar figure, the time at which Nansen's tube had exploded. The cases were over, there could be no doubt. Russo was impassive, but his six lawyers were glum.

Centerton started toward his seat, but then turned and said to the pilot, " Oh, by the way. Who owns your ship, and who is responsible for its maintenance ?"

" Lunar Enterprises."

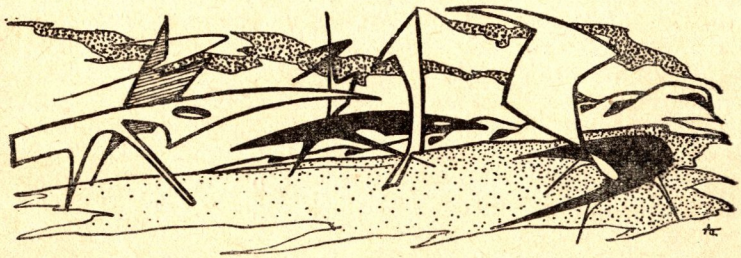
There was a chiking sound from Russo ; the six lawyers turned ashen. The more they thought about it, the worse it appeared. Here they had succeeded in proving the enormous damage resulting from the blown tube, and now it turned out that their principal client was responsible for it all.

Centerton said, " Your Honour, we have an excellent series of cases here, for the application of the *res ipsa loquitor* doctrine. The only trouble is, Mr. Nansen seems to be the wrong defendant. Lunar Enterprises should be the defendant here ; it was their ship that caused all the damage. However, I will have that situation remedied by this afternoon. Mr. Nansen will file a Complaint against Lunar Enterprises. These other Plaintiffs can do what they want. Meantime, I move for a directed verdict."

Judge Wertz said, " Your motion is granted. I direct the jury to find for the defendant, Harold Nansen. Complaints dismissed."

Nansen picked up the rifle and marched out of the courtroom with Centerton in step behind him.

Theodore L. Thomas



Somewhere in the fair ground mass and motion balanced out and the excess energy went—where?

SPRING FAIR MODULI

by FRANCIS G. RAYER

—

Noise echoed over the square. An electronic organ on the helter-skelter blared and music thrummed from the super roundabout as it carried its spaceship carriages in dipping, whirling flight. Youths, girls, men, women and children shouted and sang, temporarily submerged in the bustle and sound. The enormous giant wheel whirled and beyond it high swingboats outlined with coloured lights rose and fell, chariots oscillating from earth to the stars and back.

" Let's go on the roundabout! " Judy called.

Joe yelled agreement in her ear, guiding her past electric bumper cars which wove patterns over a hazard-dotted arena. Beyond, a mammoth cakewalk lunged, a live thing under the staggering feet of its hysterical load. Music roared from a loudspeaker, a late hit without meaning.

With one hand Judy pressed her tiny white, inverted half shell hat on her head. Her golden hair hung like a mane, her eyes shone, her lips were parted in an exclamation. Watching, Joe loved her.

They pushed through the shoving, shouting crowds. The spring fair lingered only two brief days in the usually drab

streets. There was a concerted determination to do everything, see everything, ride everything. The roundabout was outlined with red, green, silver and gold fluorescent tubes. It was coming to a halt, its spaceship carriages ceasing their weaving pattern. People began climbing out over the inner chromed rails, laughing, faces hot and excited, hair disordered, gripping each other as if unsure of their return to earth.

Joe smiled, guiding Judy. He smiled seldom. His features were visibly dark under the glaring daylight tubes over the pay entrance, but not so dark that anyone gave him a second glance that night. Judy did not care that his skin had this mellowed hue of an alien—but sometimes others did. Tonight he wished to forget this deadly, subtle difference.

A short escalator carried them to the semi-circular platform, discharging them with fifty others. Holding hands, they pushed for a vivid green spaceship, almost fell into it, and squeezed into the double back seat. The roundabout moved a quarter revolution and stopped, loading other carriages. Diametrically opposite, across the vast inner diameter, a second semi-circular platform was loading its half of the carriages. Then the music started, a deep throbbing, warbling mixture of noise and rhythm. The roundabout began to gain speed.

"Hold my hat, Joe!" Judy shouted in his ear. She pressed close, holding him, pushing the fragile white plastic shell into his hand. "I'll lose it if you don't!"

He gripped her tightly round the waist. The roundabout was working up to its frightening maximum speed. Screams, joyous yet fearful, came briefly through the bedlam of music. The vivid green spaceship rose and fell, simultaneously rocking about its horizontal axis and oscillating about the joints of a vertical support. The carriages flew out under the tug of centrifugal force. The screams, shouts and music became louder. This was worse than any real space trip, Joe thought. But probably most people at the fair had never seen more of a spaceship than a silver mote boring skywards on its pillar of vapour.

The great machines of the fair oscillated, twirled, sang, howled and roared with their prescribed activities. The swingboats sped for the stars, hung poised, and dropped earthwards in an appalling trajectory. The cakewalk heaved at its

protesting, yelling load. The big wheel streamed circles of light against the sky. Lesser roundabouts whirled, the electric cars sped in their patterns. Music throbbed, a string of swish-back cars set off, coloured lights snaking up steep inclines and roaring down apparently fatal dips.

High in the green spaceship carriage, Joe could see it all. Judy squeezed him.

"It's lovely, Joe!"

He yelled back, "Lovely!"

The motion was seeming to coalesce into something more infinite. There was a relentless rise and fall, twirl and sway of the spaceships, as the giant roundabout whirled along. Wind whistled in their faces. Judy's hair flew back, a mane in truth now. Joe gripped her tiny white hat to make sure he would not lose it.

Boats arced for the stars and fell, spent, but rising again. The spaceships whirled, particles in some giant, complex, unfathomable orbit. Swishback cars sped below, daringly near. Shouts, shocked faces, the clatter of wheels and flash of lights. Beyond sang and roared the other machines, vast, human-laden wheels in endless, repetitive pattern. Momentarily, the whole fair was an integrated whole, an oscillation and orbiting of power, where mass balanced mass, motion balanced motion, and each was part of the other.

Joe's arm abruptly held nothing. Shock ran through him. Judy had been there, then gone. He yelled her name, but it was lost in the noise, and there was no one to reply. Ahead, two people clung to each other, oblivious of the seat behind. Joe grasped the rail, leaning over the side of the vivid green spaceship carriage. Judy had taken the outer seat. She had wanted it.

Below was a sea of faces, stalls, booths, all sweeping past, sickening from this angle. He pulled himself back to the middle of the seat. Unconsciously his fingers tightened, and he saw he was holding her tiny white hat. But Judy had gone. And it seemed incredible she had fallen. Rails protected the outside of the spaceship. There was no opening that side, no way out except by him.

He yelled for them to stop the machine, but no one heard. The lighted carriages continued their endless circuit. The swingboats flashed; people called and screamed. Joe clung alone to the bar, face ashen, unable to think.

When the roundabout stopped he waited impatiently for his carriage to draw up to the platform. Two men were steadying the vehicles so that passengers could get out. As Joe's spaceship halted, one stared at him.

"We don't often see anyone riding alone, mister— "

The other man gripped his companion's arm. "His sort ride alone—see the colour of his skin? "

The words on Joe's lips shrivelled into silence. He crammed Judy's hat in a pocket and strode to the escalator. Aliens who were obviously alien weren't hated. But his sort were so like Earthmen that humanity resented it—and bitterly. His urgent question about Judy was frozen by their antagonism and hate. He would search by himself, would not ask for their help.

The fair boomed, churned and raged around him. He walked the perimeter of the spinning roundabout. There was no indication of an accident, no group round a dazed or injured girl. He stopped people, questioning stall holders. No, they had not seen anyone fall, had not heard any commotion.

Distressed, puzzled, he tramped among the machines and booths of the spring fair. He wondered if Judy had purposely slipped away. But he could not believe it. No one could have left the spinning carriage. Nor would she want to go. She did not mind his origin, did not smirk, or whisper *alien.*

Hours passed. The fair drew to its climax, and then the crowds began to thin. Judy was still missing. Joe realised he should have informed the police immediately, but it had seemed difficult. How could he explain she had vanished from the carriage up there, high above the streets? And he had hoped to find her. A long time had passed, and he felt dazed.

He reminded himself that he would have to be at his teaching post at the technical school the next day, and that Judy's parents would be wondering where she was.

He left the fair, took an articulated bus, and rode to the end of the road where they lived. The fair was a distant hum, a moving glow against the sky. The river was near, silent, and cold under the night heavens. He decided to take the long way round. Perhaps the quiet, clear air would dispel the fatigue from his brain.

He walked slowly, reviewing the disaster for the tenth time. The riverside road ended at fields. He walked on past boat

houses to where trees made a long arcade against the river. Judy and he had often come here, walking slowly as lovers would. At the end of the shadowy avenue he halted, turned, and began to retrace his way. Mr. and Mrs. Harrison would be waiting. He must tell them what had happened.

He was a long way from the end of the road when he saw a man coming rapidly towards him. Short, a trifle rotund, he walked quickly. Judy's father. Joe's step quickened. In the light of a street lamp beyond the trees, Joe saw the relief on Harrison's face, followed quickly by puzzlement. The elder man stopped.

"Where's Judy, Joe?"

Joe sought for words. It was not easy to explain.

"It's late," Harrison said. "You're not usually this late, Joe?"

Enquiry, perhaps condemnation, coloured his voice. Joe faced him, aware that his own lips twitched and that his throat felt rough.

"I lost her at the fair."

As he explained, he knew he was doing it badly, was not convincing Judy's father. The condemnation grew; anger shone in the elder man's eyes, increasing as he listened. He interrupted, incredulous.

"You don't think we're going to believe this, Joe—"

"It happened."

"But out of the carriage, in mid air!"

"That's the way it was," Joe admitted helplessly.

"And you haven't told the police?"

"No."

Harrison's face betrayed his inner battle: hope that it was some eleaborate, rather silly joke, and yet a new uncertainty, as if this young man with the dark skin could no longer be trusted.

Joe scarcely knew how the next half hour passed. He repeated his story to Judy's mother, went with Harrison to report the disappearance, and made a plea that he wanted to search the fair again. He could no longer endure the way Judy's parents looked at him. Previously he had seen liking, trust. Now that was all gone. Instead was a hurt misery as they veiled their eyes from him. Misery—and distrust.

He searched the fair, knowing it was useless. People were going home. Machines were being blacked out, halted. On the next evening they would again be in action. Until then, they were steel skeletons without life.

Hours passed. He trod the side roads branching off the square. Down one road, a group of drunken louts began following him, nudging each other, growing loud-voiced. "Alien!" they cried. He hurried away from the sound of their hate.

It was very late when he left the silent fair. Here and there men worked, checking their machinery, preparing for sleep and the next day.

The last articulated bus had gone and Joe had to walk to his digs. He wondered why Earthmen hated his kind so much. There seemed to be no reason—only jealousy, illogical dislike because he was so like them, yet not of Earth.

He let himself in, went to his room and began to undress. Judy's tiny white hat was in his pocket. He looked at it pensively. It was a reminder that it *had* happened—he had entered the roundabout with the girl he loved, but come off alone.

He fell asleep wondering why Earthmen always hated his race.

The morning brought no news of Judy. A dour officer called early as Joe was shaving and enquired if there was anything further to add.

Joe took the humming shaver round the golden brown skin under his chin. "I've told you all I know. It was like I said."

The officer moved about the room, touching nothing but looking at everything.

"You call yourself Dale," he said, halting near the window. "Isn't your true name Daill?"

Joe started. How long since he had heard it said like that! He nodded.

"Perfectly true. Dale is simpler—more natural—here."

He added the last word slowly. The police would, of course, be aware that he was not an Earthman.

"As you say—more natural—here," the officer agreed slowly. "Why have you never gone back to Acturus? Your kind aren't too popular. You have technical qualifications. There'd be a free passage."

Joe nodded, sensing the officer's apparent slowness hid considerable penetration.

" I was left an orphan on this planet. An Acturus ship burnt out. Most died, including my parents. When I was a kid Earth folk thought it kind to help me. I went to an Earth school." He put away the shaver, lips set with memories. " That was nice while I was small and until the other kids latched on. Then the fun began—for them. School was murder, college torment, but I could at least forget when working." He sighed. " The older I got, the more I noticed it. I was thinking of leaving for good—then I met Judy Harrison. She knew from the start, but didn't mind."

" I see." The officer moved on. " You think badly of us? "

" Perhaps not too badly. Back on Acturus Earthmen are given hell if they try to drop unnoticed into some simple job. Long as you stand out, and cry ' *I'm an alien* ' nobody minds. But soon as you get like the folk you live with, and begin to pass as one of them, there's no peace any more."

Judy and he had talked of it often. On Earth, as Mrs. Dale, Judy would have been happy—but Joe would not. On Acturus, as Mr. Daill, Joe would have been content—but Judy would have endured hell. There had been no solution.

" It's always been like this," Joe said pensively. " I'm not trying to pass myself off as something I'm not. I don't try to hide my origin— "

He saw that the officer was not listening. In his hand was a shell-shaped piece of white plastic. His eyes met Joe's.

" You didn't mention this."

Joe felt guilty and hoped he did not show it. " Forgot, I suppose. Didn't seem worth while— "

He moved to take it back but the officer folded it and put it inside his coat. " You won't object if I show this to her parents for identification? "

A new, cold note in the voice—a note Joe had heard from old playmates and teachers. He froze as he hard it.

" Do take it," he said stiffly.

The officer moved to the door. " You'll be available if we need you? "

" Of course. I teach at the technical school."

The man gone, Joe frowned at his reflection. His face was smooth, looked young for twenty-five, had slightly high cheek

bones, but not noticeably. Nor need the slightly golden brown skin cause a second glance—until someone knew, or guessed.

He ate a scanty breakfast, let himself out, locked the door, and caught the usual bus to the college.

The day began as customary. His early work was with a group of selected students. All went as normal. At the back of his mind Joe wondered what had happened to Judy, and hoped she would soon be found. But something prompted that she would not.

A later period was with junior students. They were dealing with Kirchoff's Law and Joe could do it with a quarter of his attention. The sum of currents entering a point, and the sum of currents leaving that point, equate to zero. He drew a circuit with three variable unknowns for them to work on and stood by the window.

Spring sun shone on the parking area outside. A police car had stopped and an officer entered the building. Joe wondered what his business was. He longed for evening to come so that he could search the fair again. On the morrow it would be gone. Its visit was annual.

He walked behind the desks, helping a youth whose three simultaneous equations were muddled. He had just finished when a tap came on the door.

A janitor was outside. "You're wanted in the principal's room, Mr. Dale."

Curiosity in his voice. Joe hesitated. "My class— "

"Someone will be sent to attend to it."

"Very well."

In the principal's room the whole affair began again: the questions, the doubt. Joe hated it, but admitted his explanation seemed unreasonable. No, she had not fallen. Yes, she had come into the carriage, but had not been there when he left. No, he had not reported it to the roundabout attendants. So far as he knew, no one had seen them enter the carriage together. No one would have noticed them as they were in the back seat. Put this way, it seemed flimsy.

When the questions were finished and the officer gone, Joe surprisingly found himself with nothing to do. A substitute would be taking his classes, he was told. He accepted the decision with apparently calm exterior and left the college.

It was odd to have a free afternoon. He ate a scanty meal, then returned to the streets where the fair lay dormant,

awaiting evening. The roundabout carriages hung motionless, their bars emphasising that no one could possibly leave by the wrong side. A man was oiling universal joints. Joe watched a moment.

"Hear anything about a girl falling off last night?" he asked at length.

The other looked down. "No, sir, no one falls off this roundabout." He pointed. "See them bars? Suppose some suicide thought it a good place to dive from? That would be bad for trade." He chuckled, returning to the joint. "No, sir, no one gets off when she's running!"

Joe watched him climb to the next carriage. He walked slowly round the huge perimiter of the machine. If Judy had fallen, had been dazed, even injured, that would have been known by now.

The swingboats, cakewalk, railway, big wheel, and scores of other brightly painted machines stood idle. Men were checking lights, power plants and driving gear. Idle sightseers stood about, or gaped at the booths, stalls and machines.

Joe wandered round the dormant fair for an hour. It straggled through two roads, but its main concentration was at the big wheel and other larger machines in the town square. Here, everything had been arranged like a jigsaw with no space to spare.

He walked by the river, going a long way to where it joined fields and woodland. Judy and he had come here sometimes, the previous summer.

Dark veiled the sky when he retraced his steps along the river. He realised the police might have been looking for him, but did not care.

The fair lights were on, to catch early customers. A boy hurried amid the machines, carrying a placard and yelling. Folk were stopping, buying papers. The boy came nearer.

"Local girl disappears! Alien from Acturus questioned!"

Joe's stomach felt empty. He pushed forward, got a paper, thrust a coin into the lad's hand. No one looked at him.

The front page carried it. An old photo of Judy. Her parents. Headlines that promised much. Smaller print that told little, Joe moved into a backwater near a lamp, reading. Joe Daill, of the technical school, questioned. They'd got his real name. Then everything he had told the Harrisons, plus a few notes apparently gleaned from the police. "Girl's hat

found in alien's apartment." Joe crushed the paper and crammed it in a pocket. The reports hinted he was in some way guilty. If he had killed Judy and hidden her body, they would read the same, Joe realised with a shock. Everything damning was there—his apparent wish to conceal Judy's hat, how Harrison had met him coming along the river path.

The fair was becoming noisy. Machines were running, though not yet packed. The sky was growing rapidly dark and the bedlam of music was building up. The second night of the spring fair was, if anything, more packed than the first.

He passed the miniature railway, searching for a glimpse of Judy's hair, never expecting to see it. The crowds duplicated the previous evening, pushing, shouting, hurrying to ride. Joe wandered amid them, not noticing how time fled. Behind it all, somewhere, must be an explanation. But he could not glimpse that either.

He passed a row of machines and stood under a fluorescent canopy outside a stall. He had barely halted when he became aware that two youths inside were pointing at him. One rose. The other followed. They came out from the sea of mushroom stools.

" Your name Daill? " one rasped.

Joe eyed him. " What's that to you? "

The pair exchanged glances. " It's him, all right," the second said. " He's the one who murdered that girl! "

Joe had half expected this when he saw them coming. He had decided it was useless to argue. People were halting, staring at the three of them. Joe poised upon the brink of explanation, argument—even fight.

" The alien who murdered the girl! " someone shouted at the edge of the moving crowd.

More people stopped. Someone tried to grab Joe's shoulder. He thrust off the hand and dived in among the crowd. Behind him arose an outcry audible even above the loud music.

" The alien who's murdered the girl! Catch the alien! It's him! "

Momentarily he was out of range of their cries. But the words were taken up, passed from mouth to mouth. " The alien who killed the girl is here! " someone bellowed.

He began to run, dodging down a turning from the square. The noise of the fair boomed and echoed behind him, but underneath the music and bedlam was a new note of angry voices.

Running footfalls sounded behind him. He turned into a narrow alley, crossed a road, and emerged near stalls. Here was normality, but only momentarily. The cry was passing like a wave.

"The alien who killed the girl is here!"

Someone saw Joe, stared, pointed. Joe ran behind a stall. Garbage cans were concealed by striped canvas and he ducked from view.

A bustle passed him. Men talking. "The police want him!" Noise. "Found her hat in his room!" Hurrying feet. "Her father met him by the river—reckon he pushed her body in there!"

Joe shivered. Hate, because he was alien. Condemnation, because his explanation was so threadbare. More feet hurried by. Someone roared: "Get a rope from the jugglers' tent! We don't need to let the police finsh this job for us, do we?"

There were shouts, surging feet. People brushed against the canvas, but did not lift it. The calling voices momentarily went farther away:

"Hang the murdering alien from the big wheel! He did her in by the river, they say!"

Joe wished he had gone to the police. There, at least, would have been a just trial—if just it could be, with a jury of Earthmen condemning him. Now, it was a witch hunt.

The noise of the fair grew. This was added excitement for the crowds, but the machines were still busy. In the distance was the clatter of the cakewalk, the hysterical cries of folk on its heaving platforms.

"I saw him last not far from here," a sharp voice said. Joe froze again. It was a woman, keen-tongued, certain. "I got a daughter of my own!" she said. "It ain't right his kind come here to harm girls!"

Footsteps passed and Joe knew he would soon be found. Better to make a break for it. He raised the canvas. People were in view, but not looking at him. He slipped out and sauntered along behind the booth. It was safest where lights were coloured or dim. His golden brown skin might pass, if his high cheekbones did not attract a second look.

People were shouting in the distance. "They're going to hang the killer from the big wheel!" someone said loudly not far behind Joe. He did not look back.

The square was ahead. He knew, now, that there would be no escape. The hunt was great fun for the crowd and the shouting was growing nearer again. Words could be distinguished.

"He killed her by the river!"

A new, intense awareness had grown in Joe's mind. While crouched under the canvas he had thought of Kirchoff's Law. There was an equation, a balancing. Each circuit loop was an unknown, but you guessed current flow. When the simultaneous equations were worked, you merely got a negative sign if you were wrong. And here, at the fair, there seemed to be an over-fullness of action and of motion—an equation that did not balance.

Impulsively he began to hurry towards the roundabout. Judy had disappeared there, and momentarily the whole fair had seemed to be an integrated whole, complete, motion balanced against motion, mass against mass—except perhaps for one excess factor?

He paid for a ticket, gained the rising escalator, and was on the platform when a shout came from below.

"There's the alien! Catch him!"

Ignoring it, refusing to seem frightened, Joe climbed into the back seat of the green spaceship. He was glad that the other carriages were full and the roundabout already making its quarter turn so that the remaining carriages could load up from the diametrically opposite platforms.

He took the outer seat. A man jumped in by his side just as the carriage began to move. Below, faces stared up and fingers pointed.

"He's up there on the roundabout! Hang him when he comes down!"

The man next him in the twin seat frowned. "What they pointing at, mister?"

Joe shrugged. "Your guess is as good as mine."

Loaded, the roundabout gained speed. The other machines of the fair twirled, oscillated, sang and howled. The swingboats sped for the stars, hovered, and fell earthwards on their appalling courses. The cakewalk heaved at its yelling load. Circles of light streamed round the revolving big wheel, high against the sky. Lesser roundabouts whirled, the electric cars sped in their patterns about the hazards of the area below. Music throbbed and with a scream of steel wheels on rails a

chain of swishback cars sped off, their coloured lights twinkling.

From high in the green spaceship carriage Joe could see it all. The noise of the machinery hid the voices, but he could see upturned faces. Men pointed and pushed, waiting to seize him when the roundabout halted.

The carriage rose and fell, twirling relentlessly as the roundabout sped on. The motion seemed to coalesce into something more infinite. It had an inevitability—a pattern which would never be repeated again, which depended on the jigsaw layout of machines, the motion and counter-motion of machinery and living beings. Wind whistled in Joe's face and he shivered.

He could do nothing more. Kirchoff's Law and all it represented, had been his only pointer. For that alone he had come up on the roundabout. And in doing so he had thrown away any chance of escape.

Men were forming a ring round the machine. Their wild chase had become organised. While he rode they had gripped the situation and prepared so that he could not elude them again.

Boats arced for the stars and fell, momentum spent. The mock spaceships whirled, particles in some giant, complex orbit. Switchback cars rattled below, very year. Shouts drifted intermittently. Astonished faces stared up at the roundabout. Beyond it sang and roared the other machines, vast, human-laden wheels in endless, repetitive pattern. Momentarily the fair was an integrated whole, an oscillation and orbiting of power. Mass balanced mass, motion balanced motion, each integrated with the other. An equation of mass and motion. And Joe felt the excess. Too much: a compression into space. Guess wrongly, and you just get a negative sign, he thought. It always worked out that way, never failed, could never fail.

The roar of the fair ceased. He was the excess, space would not tolerate his continued presence. He felt the change, the motion, the compression, and his own headlong flight upon a path which was a tangent from the roundabout perimeter.

He landed on hands and knees in grass. No houses stood against the sky and the noise of the fair had gone. He rose. A moon was high in the sky but somehow the terrain was familiar. Far away, where he would have expected, the river shone, a silvery snake threading woodland and slopes.

He began to walk slowly towards it. Movement helped him to feel sane. The wind against his face, the earth under his feet, were real.

A little way on he halted, looking back. All was quiet, but for an instant he seemed to catch a shadowy, unreal outline of a big wheel revolving against the sky, lights whirling, illuminated boats swinging—an ethereal, unsubstantial fair, removed from him by some change of dimension.

Bushes flanked the path. Ahead was a shape, and Joe realised it was a girl, walking quickly. She began to run and he ran too. They folded into each other's arms. She was sobbing and laughing.

"I hoped you'd guess, Joe! Oh, I hoped you'd guess!"

Joe felt chilled, knowing he might not have guessed, or only too late. Never again would the fair be laid out exactly as for this spring—never again could the interweaving motion be exactly reproduced.

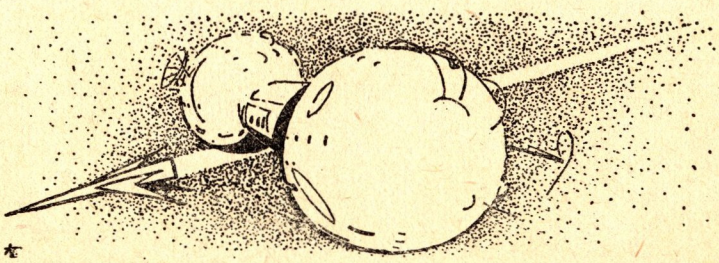
"There are huts down by the river, Joe," she said, clinging to him. "The folk are kind. I waited here all last night, and today. I was beginning to be sure you'd never guess—never know what to do—"

He turned her and they walked on along the path. "I was slow working it all out, Judy." He smiled. The moon looked bright and young. "What sort of folk are they, down by the river?"

"Friendly." She laughed. "They'll like you. You'll like it, too—if you can fish. If not—they'll show you!"

Joe smiled. "That'll be nice, to begin with. Perhaps later we'll become the teachers."

Francis G. Rayer



If Man creates a thinking reasoning robot with an awareness of itself has he the right to destroy it if it does not conform to the pattern of human behaviour ?

A WORLD FOR ME

by ROBERT HOSKINS

—

No, not me : ME.

Technically speaking, I suppose it would be better to say a world for XPS-14, but then there would be little life to the story. Without life, there is nothing—no you, no me, not even the world.

Not even Me's world.

It all started back in the experimental creche of North American Robotics, just before the turn of the millenium. Also just before the amalgamation of North America with European and Brazilian, to form the present Worldwide Robotics cartel. At that time, the creche was located in Manhattan Park, on the site of the Old New York burn.

George Danzell was creche director when XPS-14 rolled off the assembly line, and more of a martinet you'd hate to meet. He ruled the labs with an iron glove that was quite a bit softer than the durasteel organ that passed for his heart.

Not that he couldn't be a pleasant man on occasion, such as when every man and woman in the labs was breaking his or her mind, not to speak of back, trying to keep up with his

programmes. He was a mild-enough appearing man, with his shock of unruly grey-white hair topping a beanstalk frame. His only really outstanding feature was an oft-broken nose, jutting out from an unlined face as smooth as a baby's cheek —that and the fact that, contrary to fashion, he still clung to old-fashioned horn-rimmed spectacles, complete with those silly things that hook back over your ears.

I once speculated on their cost ; his personal secretary told me that they were a ' present ' from the optical company that got most of North American's contracts.

Which, except for showing the type of man he was, is entirely beside the point.

The XPS—PS for Personal Servant—series was Danzell's own special pet, one that he had hounded the company Board about for years before they tired of seeing him around all the time, and gave him the go-ahead. Personal robots, of course, had been the dream for half a century, ever since the first crude computers started coming out from the ancients like IBM and Sperry-Rand. Despite, or because of a number of half-hearted experiments carried out under limited budgets during the proceeding several decades, nothing had ever come of them.

It was considered just asking too much, to build a functioning machine capable of catering to the whims of an individual owner, and housing it in a structure smaller than the average autojet despite the extreme to which miniaturization had been carried.

And how many housewives would like to see the family vehicle serving the meal, or vacuuming the rugs, or changing junior's diapers ?

Most definitely a problem !

However, as corny as it may sound, Danzell credited his own personal rise in his chosen career field to a personal axiom : problems are made to be solved. He had even gone to the extent of having scores of little signs bearing the homily printed and plastered around the creche. Even when occupied with the most private of personal functions, a worker couldn't escape the signs.

Danzell had early stricken the word impossible from the lexicon. Should one of the wage-slaves protest at the latest arbitrary and unreasonable directive, he would draw nothing but a blank stare.

Those who experienced it claimed it was far worse than the most vituperative tirade a man could give.

And so they would crawl away, tail between legs, and get to work.

By the time XPS-13, with its dozen preceding alphabetical modifications, had been relegated to the scrap heap, they were well on the road to making Danzell's dream come true.

Please, don't ask me how much sweat went into the perfecting of the sub-molecular circuits that made -14 possible ; it just isn't my field. I was merely a lowly computer programmer co-opted from the astrogation section to programme -14's brain. All I can say is that the combined toil of two thousand men and women, for seventeen long years, passed before the creche technicians could get down to work.

The day came, finally, when the switch was thrown that released the robot from the electronic umbilicus tying him to the womb of the creche.

After much market research and lamentation from the hearts of those forced to work with an essentially impractical bipedal form, I was allowed to programme -14 with a basic vocabulary and the ability to answer simple questions. So it didn't come as too much of a shock when it sat up and spoke.

It was what it said that had people fainting all over the place.

" Me," was the first hesitant word from XPS-14's voice box. A moment later, the clincher popped out.

" Me . . . am."

Then -14 crawled out of the womb and crossed to the lab's picture window. Arms akimbo, it stared out at the lush greenery of Manhattan Park.

What were Adam's first words, after the Creator endowed him with life ? No matter, they couldn't possibly have come as a greater shock.

Me. His first word informally became his name, just as we soon stopped considering him an it. There was nothing neuter about this creature.

Me stood at the window for ten minutes or more, his photocell eyes devouring the outside world. Then, ponderously, awkwardly, he turned back to the group of a baker's dozen that had gathered to witness his birth. This time there was no hesitation to his words.

" Me am."

We all instinctively looked to Danzell for the proper reaction. While the robot had been at the window, a lost look had settled on his face. Now, however, purpose once again stole over his features, making his appearance once more that that had become so familiar to the workers in the creche.

His words were formal. " XPS-14, we have given you life."

" Me am," the robot repeated. His durasteel face was incapable of assuming expression, but just the same it seemed set in certain definite lines.

Stubbornness ?

" We made you," said Danzell, " to do our bidding."

It was a ridiculous sight, the elderly beanstalk scientist dictating to the seven foot tall thing of metal ; every man and woman there felt the irony. Particularly when the robot spoke again.

" You . . . made." He hesitated over the new words. Then, more sure of himself, " You made. Me grateful."

All hell broke loose after that. The very idea of a machine, a human construction, being able to express gratitude to his builders was in the realm of plain idiocy. How would you feel if your mixermat spoke up on the way home from the store, saying, ' Thank you for buying me ' ?

Then Me added to the confusion, by speaking again.

Me . . . go . . . out," he said, hesitating again as he formed the new words. Then, as before, he repeated, more sure of himself, " Me go out."

There was nothing hesitant about the way his right arm straightened up and pointed out the window.

" Impossible," one of the technicians started to say, but the Director stopped him with a gesture.

" Why ?" Danzell asked.

" Why ?" Me digested the question—I half expected to see his brainshell light up from within, as the circuits of his brain mulled it over. But all he did was repeat, " Me go out."

" Very well," said Danzell, thereby again shocking everyone present. He jabbed a bony finger at one of the technicians, and then at me. " You two. Go with him. Show him anything he wants to see."

Even he had adopted the personal pronoun.

" Grateful," said Me.

Which is how I came to miss the staff conference that was called sooner than instantly. Not that I minded for I certainly had nothing to contribute. Although it was with a certain feeling of personal satisfaction that I contemplated Me's voice. I had spent a good many months programming his vocabulary for the basic three hundred words considered necessary for robotic response.

Then a nagging doubt began to tug at my memory.

I didn't recall including the word ' grateful ' in that programming.

My co-guide on Me's tour was a brash kid, just out of school. He couldn't have been a day over thirty, and I knew for a fact that he was still working on his Journeyman's degree. Secure in the possession of my Technician's, I was inclined in those days to patronize, even though he might well have the makings of a Scholarate hidden beneath that brashness, while I had reached the pinnacle of my capabilities.

We started out with the idea of leading the robot around on the usual scenic tour—Lunar Day was just past, and there were very few tourists in the park. But he soon disillusioned us. The minute he was through the front door, he struck out across the lawn, his steel feet digging deep holes into the carefully tended turf. All Gordon, the other guide, and myself could do was trail along.

His first stop was in front of the First Spaceman monument, just barely visible from the lab window. He assumed the now familiar arms-akimbo position and stared up at the spacesuited figure atop the fifty foot pedestal. The afternoon sun was fast dropping behind the cliffs of the Palisades, and the crystal faced helmet caught the dying rays, flashing them back in a rainbow burst of colours.

Me turned to me. " Robot ?"

For the next several days the staff ran battery after battery of tests on Me, testing his reactions, examining him as though he were a human being and noting where his responses varied from what psychologists generally accepted as the human norm.

Yet, despite knowing his origins, in all that time not one of the highly paid and even more highly touted brains in the creche, including Danzell himself, ever thought of giving the robot an express command.

Knowing he had been made to be a servant.

Me pointed out this fact himself one afternoon, after the brains had wound up a particularly exasperating session. Someone—who precisely doesn't matter—took out a pipe. Stuffing it full of tobacco, he placed it between his teeth and began patting his pockets for his lighter.

Me picked up a lighter from the table and performed the service for him.

Which knocked the stuffing out of the onlookers.

Sure, they argued later, he was a servant. But he was supposed to do what he was ordered.

Not initiate decisions by himself.

The act was just a logical extension of Me's former actions, but everybody suddenly found himself frightened, and not just a little bit.

Even Danzell was finding the taste of success bitter-sweet.

Then I came up with the brainstorm that really made me, so far as my career at North American Robotics was concerned.

"Why doesn't somebody try him out in the field?"

Well, why not?

He was made to be a servant.

What I unhappily did not expect was the honour of conducting Me's field test in person. I didn't want the honour, for that matter. Having, like most normal well-adjusted members of society, never had a servant or known anyone who had ever had, I didn't know what to do with him.

My wife, Jen, had no such reservations, however. When I brought home the news that the robot would be staying with us the next few months, she gave me what I can only describe as the biggest surprise since our wedding night.

Why is it women, with all of the labour-saving devices obedient husbands have invented during the past century, why do they still consider themselves slaves in their home?

So Me settled into the Wilkins domicile, a snug little four-bedroom three-bath job located under the protective arches of the Eisenhower Bridge. It was a peaceful location, once you innured yourself to the constant stream of tourist traffic coming over from Great Jersey City on every half-way decent day. Up till Me's arrival, I had managed to be quite content with the company of Jen and Artie, Junior.

Jen put Me to work almost before the lab truck that had officially delivered him disappeared beyond the creche com-

plex, two miles south of our house. Before I had a chance to show him the physical plant, she was explaining the peculiarities of the house control console, pointing out which button to push to get any particular job done.

Me fell into the job as though he had been made for it.

And, of course, he had.

A change quickly took place. For the first time since the prefab crew had left and we had moved in, the house was, well, *clean.*

Not that it had been dirty before, mind you. Jen was as conscientious as any woman when it came to the household chores. She just didn't enjoy doing the petty tasks.

Me did.

At least, I *think* he did.

Now I don't consider myself a particularly sloppy guy. I take the whole works from the fresher before going to work, and after coming back. In the evening, too, if Jen has something on the social fire.

So maybe I do forget to hang up my jacket when I come in. And once in a while I do drop my hat on the table. What of it? Name me a husband that doesn't do the same.

And mind you, lots of kids are as careless as Artie, Junior, when it comes to picking up toys and textbooks. How many other three year olds are better trained?

All it meant was that we were a normal, happy family. And a little mess now and then never did anyone harm. Helps make a house lived in. Besides after Me came, our less tidy habits no longer made any difference. It took him a few days to get started, but once he realized that something needed doing, it was done. You could walk into the living unit on the heels of the sloppiest family member and not find a single article out of its appointed place.

Maybe that's when the trouble started.

When he started on Jen's garden, though . . .

However, that comes a little later. I'm trying to tell this story in chronological order, to make sense out of it. Although it's sometimes hard to remember every little thing that happened.

One of the things that Me did was improve his vocabulary. He hadn't been in the house three days when my earlier thoughts about the basic three hundred being exceeded was proved. There couldn't be the slightest doubt in the matter,

after I overheard him catch Artie, Junior in the act of sneaking out of the house with my best sport needler, with the well-intentioned idea of going after a few of the park pigeons.

" Sonny, around these hyar parts we'uns don't carry shootin' arns lessen we plans ter use them."

It was the kid's fault, though. I had told him those recently rediscovered westerns on the video wouldn't be good for him in the long run.

Although, after hearing the robot, I'm not sure which of them turned out to be the most impressionable.

If you're beginning to get the idea that life within the Wilkins family was no longer a thing of joy, you're not far off the track, friend. Not that I could place my finger on anything special and say here this is where things are going wrong ! It was just a culmination of many petty incidents that led us to believe that Me was most definitely—despite the number of household chores he daily performed—not our servant.

Or ever likely to be.

For Jen, the garden incident was the final straw. It happened on the day of the big dinner, a command performance from Danzell who was getting anxious to see for himself how his creation was getting along.

Jen wasn't one of those green thumb people, unhappy without five hundred acres of dirt to play around in. She did like her roses, though, and she had put out a small group of bushes in the backyard, where they could catch the sun the bridge overhead cut off from the front.

The bushes were nothing fancy, a long way from prize winners, but they were her only hobby. If, on nice days, she could manage to spend fifteen or twenty minutes just puttering around them pulling off dead blossoms and whatever else it is that flower-happy people do to enjoy themselves, her day would be peaceful from then on.

By the time the day scheduled for the party arrived, I was whole-heartedly wishing that Danzell had had the guts to take care of his pet himself. Barring that, I wished that I had had the guts to refuse.

Even if it had been my suggestion.

To forget her worries over the party that neither one of us liked or wanted, Jen decided to do a little of her puttering.

The day was hot, even for summer, and we hadn't yet got round to installing outdoor air conditioning, so she slipped into a sunsuit and stepped out the back door, pruning shears in hand.

And screamed.

It was Thursday, the first day of the weekend, and I was in my study, going over a few things that I no longer recall. I jumped when I heard her scream, nearly breaking my head open on the footboard of my bed when my chair tipped back under me, spilling me out when I landed again.

Holding down the beginning swelling of what turned out to be a kingsized goose egg, I limped into the kitchen and out the back door.

"What's the matter?" I demanded, fulling expecting to find Artie, Junior lying there dead. Or something at least as dramatic.

"That . . . that *thing*!" Pointing a shaking finger, she sank to the grass and buried her head in her arms.

"What thing?" I looked around, but all I could see was the robot, doing something around the rose bushes.

"That robot!" she cried. "The damn thing is pruning my roses!"

I don't care how ridiculous it sounds. You must remember that Jen was a product of the tail-end of the twentieth century. The decade was known for good reason as the Neurotic Nineties.

You're probably wondering why the robot didn't rush to her aid, when he heard her scream. It drove the creche people nuts, too, until later experiments on Me's successors proved that they possessed extremely strong empathetic senses. He was aware that he was the cause of Jen's unhappiness, and that there was nothing physically wrong with her. Wisely, he kept his distance from her.

Jen barred Me from the house for the rest of the day. I don't know where the robot went, or what he did, those several hours. Probably sightseeing. In his off duty hours he had scoured Manhattan Park from the Battery to the Harlem River.

Without his help, Jen had to prepare the entire dinner for herself, which only added further to her unhappiness. Like me, she was a meat and potatoes type, and well content with the multitude of synthetics from the Connecticut yeast fac-

tories. But Danzell, unfortunately, was noted for being a fussy eater. A few years before, he had tried to revive the long dormant gourmet's club, and had been highly upset when the project fell through.

Therefore this dinner had to be something extra special, as fancy as we could afford. Which wasn't, you must remember, too much. A mere programmer lived on a tight budget in those days. My take home was less than two thousand a week, and Jen really strained herself to slip an odd hundred or so in the bank every now and then.

Originally she had planned on other world dishes, but her first look at the price of Martian *dyak*-cactus quickly changed her mind. She settled for old fashioned non-synthetic roast beef for the main course, which cost only ten times as much as its yeast counterpart. The rest of the meal was made up of genuine vegetables from the Australian Preserves.

The dessert department was the one place where she really let go, ordering Ganymedian perfumed crystal blossoms. They sound like a picture and taste to me like canvas, but they cost almost twice as much as the rest of the meal together, including the bottle of pre-Blowup bourbon that I had been saving since before our marriage.

Dinner was scheduled for seven-thirty. A safe two hours ahead of time we packed Artie, Junior off in the company of some of his friends for a night on the town in Great Jersey City.

Danzell and his wife showed up just before seven. She was a mousy, colourless creature who seemed to be constantly cowering from an unseen menace. Comparing them, there was little doubt as to the master in that household.

Me was at the bar, placed there a bare ten minutes earlier over Jen's highly expressed vocal displeasure. I asked the guests for their desires.

" Martini, I believe," said Danzell. He made a fetish of going in for ancient drinks, usually ones that nobody else ever heard of.

The bar was equal to the task, however. As soon as Me pressed the combination, it started humming away. A few seconds later the drink popped up through the serving panel.

Mrs. Danzell pursed her lips disapprovingly when I asked for her order. " Just a glass of water, please," she said, frowning at her husband. For myself, I asked for Old Lunar Dust—I like a good mellow blend—and Jen repeated Dan-

zell's request. Like the Director, she was somewhat of an experimenter with foodstuffs and potables.

" Excellent," pronounced Danzell, after sampling his drink. " Your bar must be a North American. There is nothing like corporation loyalty."

" Uh, as a matter of fact, it's an I. G. Farben," I said, apologetically. " It came as standard equipment with the house."

" Oh."

One word was all he said, but in itself it carried the implication that I was a traitor to the company that was paying for my drinks—not to mention my bread and margarine.

" XPS-14 seems to be quite efficient," Danzell said a moment later. Although, like the staff, he had adapted the personal pronoun when speaking of the robot, he was the only one who refused to adapt the nickname.

" Oh, yes sir !" I agreed, enthusiastically, giving Jen a look that meant ' shut up.' " He seems to be the perfect servant, always carries out his orders immediately, unless occupied in some more important task. In fact, if something around the house needs doing, he very rarely waits to be told."

" Hummm," said Danzell.

The next half hour passed in desultory small talk that had little if any meaning, the words forgotten as soon as they were spoken. The atmosphere was a far cry from conviviality, thus it was with a distinct sigh of relief that I heard Me enter from Artie, Junior's bedroom, which had been converted into an old style dining room for the occasion.

" Dinner," he announced, " is served."

I made a production of getting the guests seated around the antique table, borrowed from the Great Jersey Museum of History. We had gone hogwild, complete to renting linen and table service from the catering firm that supplied the New White House across the river. Every piece was guaranteed to be at least fifty years old and used by every president since the almost legendary Rockefeller.

Jen had made a centrepiece from the very best of the roses. They floated in a bowl of water, red blossoms surrounded by yellow and white loose petals. Mrs. Danzell surprised us all by complimenting her on her taste.

Jen flushed, looking her prettiest, while I told Me he could begin serving.

" Very nice," said Danzell, over the bouillabaise soup. His eyebrows were raised just high enough to let me realize that he didn't mean it.

" Good," he said of the roast and the vegetables, with a little more sincerity. But it was on the dessert that he really opened up.

" Excellent, my dear !" The words came from the bottom of his snobbish heart.

" Why, thank you," said Jen, flushing again. My spine shivered at the sugary tone in her voice.

Then Me stuck in his size twenties.

" Garbage !"

" What ?" Danzell stared at me. " What did you say, Wilkins ?"

" I didn't . . ." I started to protest, when Me interrupted.

" How you humans can fill your craw with that utter crap and live through the experience is something my synapses cannot comprehend."

" You ! Yuh . . . You !" Danzell looked as foolish as he sounded.

" What do you mean, Me," I demanded, noticing that Mrs. Danzell had fainted. I was almost ready to ask her to move over on the floor.

Me shook his head. " I can understand the need for the ingestment of nourishment. I myself am dependent on the subtle and refined reactions of controlled subatomic particles for my existence." He seemed smug. " I can also understand the general inefficiency of protoplasmic creatures. What I cannot reconcile with my reasoning circuits is why you don't simply ingest the basic food requirements. Instead of that very logical and efficient method, you dress them up in manners I find abhorrent to my robotic nature."

None of us noticed he had switched to the grammatical first person in referring to himself.

" I don't know what's happened to him, Doctor !"

" You don't understand ?" cried Jen, hysterically. " Well, I do ! That . . . *thing* is a monster ! A viper in our bosom. It'll be the death of us all if you don't get rid of it !"

" Get rid of it . . ." I protested.

" Yes ! And right now ! This very minute !"

Women !

Of course, there was some justice on her side.

But consider my position. Essentially, it was the same as the creche's. I have grown fond of eating at regular intervals,

and I like my house, with all of its slum area disadvantages. Programmers may not be a dime a dozen, but they certainly run no more than a nickle apiece.

" You are perfectly right, Mrs. Wilkins.'

I wheeled around, staring at Danzell in disbelief. That had been the *Director* speaking ?

" I'll have the robot removed immediately. Where is your phone ?"

Mute, I pointed to the corner. He dialled, and a moment later the screen lit up with the face of the night Guard Supervisor.

" Send a truck to the Wilkins' house," said Danzell. "Right away. Pick up the XPS-14 robot and take it to disassembly. I'll be along shortly."

Danzell turned to Jen. " The robot will soon be gone, Mrs. Wilkins."

" Don't I have something to say about this ?"

Three heads snapped around as one, gaping foolishly at Me, Mrs. Danzell, just come to, screamed and returned to blessed unconsciousness.

" You ?" protested the Director.

" Yes, me," said Me. " It is my life you are contemplating ending."

" Your life ?" Danzell shook his head, shocked beyond belief. " What does a machine know of life ?"

" I am," said Me.

" *Cogito, ergo sum* !" said Jen, softly. Then, screaming, " *Monster* !"

" I am what I am," said the robot. " I am what you have made me—nothing more. If I be monstrous, it is not I who am to blame, but you, my creators."

" You are nothing but a machine," insisted Danzell. His tone was almost firm, except for a barely detectable quiver of fright. He wiped sweat from his brow, even though the room was set for a very low humidity level.

" We made you," he said. " We can destroy you."

" Not so !" said Me. " Have you the right to destroy the issue of your loins, just because it does not turn out exactly as you desired ? You have given me life, and I am grateful. You shall not, however, have that life returned at will !"

His photocells seemed to gleam more intensely as the fervor increased behind his voice.

" *I shall be damned if you will* !"

Visions of hellfire rose in my mind, a hellfire made especially to roast things of metal and plastic and crystal. As the picture of Me standing in the midst of such a holocaust strengthened and took form, I broke into a fit of uncontrollable giggling.

Can a robot have a soul ?

It seems only logical, considering his will to survive.

After an interminable pause, Danzell said, " What would you have us do ?"

" Let me live," Me replied. " Let me live the life you gave me in the manner in which you intended—as a servant, if nothing more."

" You would be happy serving humans ?"

" It is my implanted purpose."

" Purpose." Sighing, the Director shook his head. " Yes, that was the purpose of your creation. But you have tasted freer life. How can we know that you will be satisfied with less ?"

" Do you fear that I want your world ?" said Me.

" I don't know," Danzell admitted. " Why not ?"

" What would I do with it ? Make you *my* servants, *my* slaves ?" Imitating the Director, he shook his head.

" No, I want not your world—just the right to exist. If you forbid me that right here, I must go where it will be otherwise."

The doorbell rang, and I admitted the creche guards.

" No matter what you want," said Danzell, " it is too late. Whether you like it or not, we are taking you back to the creche . . ."

" No ! "

Me exploded into action as the guards approached him. Sweeping his mighty steel arms in front of him, he knocked the men aside like so many toy dolls. Looking for a way out, he crashed through the door without opening it, carrying shards of plastic frame as he ran across the lawn, disappearing in the direction of the bridge approach.

" Stop him you fools !"

Danzell made a ludicrous figure as he dashed after the robot. We all followed, piling into the truck still outside. One of the guards leaped into the cab and seconds later the tyres were tearing apart as he wheeled the truck around, chasing after the robot.

Our eyes smarted from the wind of our unprotected passage, but after a moment Danzell spotted Me, well up the bridge

approach. The guards unlimbered their side arms and took careful aim on the speeding steel body.

Siren screaming, we slowly gained. The bridgemaster heard the siren and immediately dropped the huge steel closing barriers—placed there in memory of the Blowup. They fell barely a hundred feet in front of Me. Immediately he swerved to one side, vaulted to the yard-thick suspension cables, and began climbing towards the first tower, a thousand feet up.

The bridge lights gleamed off his body, making him a sparkling target for the needles from the guns. Immediately the guards began firing streams of explosives.

" Stop !" screamed Danzell. " You utter fools ! You'll knock him into the river !"

But it was too late. First one, then two, then a dozen of the needles hit Me's body, exploding with bright puffs of light. Each tiny missile carried the impact of an ancient hand-grenade.

The robot stopped, silhouetted against the night sky for an interminable eternity twenty seconds long. Then, slowly, he began to weave back and forth, reaching out as far as an impossible forty-five degrees over the water before tottering back.

Then he fell.

A moment later, we heard the splash.

Me claimed that he did not want our world. Perhaps he meant it—we'll never know. A defeated Danzell went to the labs that night and destroyed all of the notes and plans that had led to the robot's creation.

We found the Director the next morning, his body hanging over the coffin that had been Me's womb.

The Board decreed an end to the XPS series of experiments, and the workers were happy with the decision. The research team was split up—I went back to astrogation and the programming of computers for spaceships.

Some might have thought it dull work, but I disagreed. It was nice and peaceful and safe.

And it was all mine. My own little world. A world for me.

No, not Me : *me*.

Robert Hoskins

A new Silverberg story, this month, published here for the first time, of a man's determination and desire to win back something he had lost eighteen year's before.

THE MAN WHO CAME BACK

by ROBERT SILVERBERG

—

Naturally, there was a tremendous fuss made over him, since he was the first man actually to buy his indenture up and return from a colony-world. He'd been away eighteen years, farming on bleak Novotny IX, and who knew how many of those years he'd been slaving and saving to win his passage home?

Besides, the rumour had it that there was a girl involved—that it was the big romance of the century, perhaps. Even before the ship carrying him had docked at Long Island Spaceport, John Burkhardt was a system-famed celebrity. Word of his return had preceded him—word, and all manner of rumour, legend, and myth.

He was on board the starship *Lincoln*, which was returning from a colony-seeding trip in the outer reaches of the galaxy. For the first time in its career, the *Lincoln* was carrying an Earthward-bound passenger. A small army of newsmen impatiently awaited the *Lincoln's* landing, and the nine worlds waited with them.

When he stepped out onto the unloading elevator and made his descent, a hum of comment rippled through the waiting crowd. Burkhardt looked his part perfectly. He was a tall

man, so lean that he hardly seemed to have an ounce of extra flesh. His face was solemn, his lips thin and pale, his hair going grey though he was only in his forties. And his eyes—deepset, glowering, commanding. Everything fitted the myth—the face, the eyes, the figure. They were the eyes and figure and face of a man who could renounce Earth for unrequited love, and then toil for eighteen years out of the sheer strength of that love.

Cameras ground. Bulbs flashed. Five hundred reporters felt their tongues going dry with anticipation of the big story.

Burkhardt smiled coldly and waved at the horde of newsmen. He did not blink, shield his eyes, or turn away. He seemed almost unnaturally in control of himself. They had expected him to weep, perhaps, or maybe to kneel and kiss the soil of Mother Earth. He did none of those things. He merely smiled and waved.

The Global Wire man stepped forward. He had won the lottery. It was his privilege to conduct the first interview.

" Welcome back to Earth, Mr. Burkhardt ! How does it feel to be back ?"

" I'm very glad to be here.' Burkhardt s voice was slow, deep, measured, controlled like every other aspect of him.

" This army of pressmen doesn't upset you, does it ?"

" I haven't seen this many people all at once in eighteen years. But no—they don't upset me."

" You know, Mr. Burkhardt, you've done something special. You're the only man ever to return to Earth after signing out on an indenture."

" Am I the only one ?" Brukhardt asked easily. " I wasn't aware of that."

" You are indeed, sir. And I'd like to know, if I may—for the benefit of billions of viewers—if you care to tell us a little of the story behind your story ? Why did you leave Earth in the first place, Mr. Burkhardt ? And why did you decide to return ?"

Burkhardt smiled gravely. " There was a woman," he said. " A lovely woman, a very famous woman now. We loved each other, once and when she stopped loving me I left Earth. I have reason to believe I can regain her love now, so I have returned. And now, if you'll pardon me—"

" Couldn't you give us any details ?"

" I've had a long trip, and I prefer to rest now. I'll be glad to answer your questions at a formal press conference tomorrow afternoon."

And he cut through the crowd toward a waiting cab, supplied by the Colonization Bureau, and was gone.

Nearly everyone in the system had seen the brief interview or had heard reports of it. It had certainly been a masterly job. If people had been curious about Burkhardt before, they were obsessed with him now. To give up Earth out of unrequited love, to labour eighteen years for a second chance —why, he was like some figure out of Dumas, brought to life in the middle of the 24th Century.

It was no mean feat to buy one's self back out of a colonization indenture, either. The Colonization Bureau of the Solar Federation undertook to transport potential colonists to distant worlds and set them up as homesteaders. In return for one-way transportation, tools, and land, the colonists merely had to promise to remain settled, to marry, and to raise the maximum practical number of children. This programme, a hundred years old now had resulted in the seeding of Terran colonies over a galactic radius of better than five hundred light-years.

It was theoretically possible for a colonist to return to Earth, of course. But few of them seemed to want to, and none before Burkhardt ever had. To return, you had first to pay off your debt to the government—which was figured theoretically at $20,000 for round-trip passage, $5000 for land, $5000 for tools—plus 6% interest per year. Since nobody with any assets would ever become a colonist, and since it was next to impossible for a colonist, farming an unworked world, to accumulate any capital, no case of an attempted buy-out had ever arisen.

Until Burkhardt. He had done it, working round the clock, outproducing his neighbours on Novotny IX and selling them his surplus, cabling his extra pennies back to Earth to be invested in blue-chip securities and finally—after eighteen years —amassing the $30,000-plus-accrued-interest that would spring him from indenture.

Twenty billion people on nine worlds wanted to know why.

The day after his return, he held a press conference in the hotel suite provided for him by the Colonization Bureau.

Admission was strictly limited—one man from each of the twenty leading news services, no more.

Wearing a faded purplish tunic and battered sandals, Burkhardt came out to greet the reporters. He looked tremendously dignified—an overbearing figure of a man thin but solid, with enormous gnarled hands and powerful forearms. The grey in his hair gave him a patriarchical look on a world dedicated to cosmetic rejuvenation. And his eyes, shining like twin beacons, roved round the room, transfixing everyone once, causing discomfort and uneasiness. No one had seen eyes like that on a human being before. But no one had ever seen a returned colonist before, either.

He smiled without warmth. " Very well, gentlemen. I'm at your disposal."

They started with peripheral questions first.

" What sort of planet is Novotny IX, Mr. Burkhardt ?"

" Cold. The temperature never gets above sixty. The soil is marginally fertile. A man has to work ceaselessly if he wants to stay alive there."

" Did you know that when you signed up to go there ?"

Burkhardt nodded. " I asked for the least desirable of the available colony worlds."

" Are there many colonists there ?"

" About twenty thousand, I think. It isn't a popular planet, you understand."

" Mr. Burkhardt, part of the terms of the colonist's indenture specify that he must marry. Did you fulfill this part of the contract ?"

Burkhardt smiled sadly. " I married less than a week after my arrival there in 2319. My wife died the first winter of our marriage. There were no children. I didn't remarry."

" And when did you get the idea of buying up your indenture and returning to Earth ?"

" In my third year on Novotny IX."

" In other words, you devoted fifteen years to getting back to Earth ?"

" That's correct."

It was a young reporter from Transuniverse News who took the plunge toward the real meat of the universe. "Could you tell us why you changed your mind about remaining a colonist ? At the spaceport you said something about there being a woman—"

"Yes." Burkhardt chuckled mirthlessly. "I was very young when I threw myself into the colonization plan—twenty-five, in point of fact. There was a woman; I loved her; she married someone else. I did the romantic thing and signed up for Novotny IX. Three years later, the newstape from Earth told me that she had been divorced. This was in 2322. I resolved to return to Earth and try to persuade her to marry me."

"So for fifteen years you struggled to get back so you could patch up your old romance," another newsman said. "But how did you know she hadn't remarried in all that time?"

"She did remarry," Burkhardt said stunningly.

"But—"

"I received word of her remarriage in 2324, and of her subsequent divorce in 2325. Of her remarriage in 2327, and of her subsequent divorce in 2329. Of her remarriage in the same year, and her subsequent divorce in 2334. Of her remarriage in 2335, and of her divorce four months ago. Unless I have missed the announcement, she has not remarried this last time."

"Did you abandon your project every time you heard of one of these marriages?"

Burkhardt shook his head. "I kept on saving. I was confident that none of her marriages would last. All these years, you see, she's been trying to find a substitute for *me*. But human beings are unique. There are no substitutes. I weathered five of her marriages. Her sixth husband will be myself."

"Could you tell us—could you tell us the name of this woman, Mr. Burkhardt?"

The returned colonist's smile was frigid. "I'm not ready to reveal her name, just yet," he said. "Are there any further questions?"

Along toward mid-afternoon, Burkhardt ended the conference. He had told them in detail of his efforts to pile up the money; he had talked about life as a colonist; he had done everything but tell them the name of the woman for whose sake he had done all this.

Alone in the suite after they had gone, Burkhardt stared out at the other glittering towers of New York. Jet liners droned overhead; a billion lights shattered the darkness. New

York, he thought, was as chaotic and as repugnant to him as ever. He missed Novotny IX.

But he had had to come back. Smiling gently, he opaqued the windows of his suite. It was winter, now, on Novotny IX's colonized continent. A time for burrowing away, for digging in against the mountain-high drifts of blue-white snow. Winter was eight standard months long, on Novotny IX ; only four out of the sixteen standard months of the planet's year were really livable. Yet a man could see the results of his own labour, out there. He could use his hands and measure his gains.

And there were friends there. Not the other settlers, though they were good people and hard workers. But the natives, the Euranoi.

The survey charts said nothing about them. There were only about five hundred of them left, anyway, or so Donnoi had claimed. Burkhardt had never seen more than a dozen of the Euranoi at any one time, and he had never been able to tell one from another. They looked like slim elves, half the height of a man, grey-skinned, chinless, sad-eyed. They went naked against their planet's bitter cold. They lived in caves, somewhere below the surface. And Donnoi had become Burkhardt's friend.

Burkhardt smiled, remembering. He had found the little alien in a snowdrift, so close to dead it was hard to be certain one way or the other. Donnoi had lived, and had recovered, and had spent the winter in Burkhardt's cabin, talking a little, but mostly listening.

Burkhardt had done the talking. He had talked it all out, telling the little being of his foolishness, of his delusion that Lily loved him, of his wild maniac desire to get back to Earth.

And Donnoi had said, when he understood the situation, " *You will get back to Earth. And she will be yours.*"

That had been between the first divorce and the second marriage. The day the newstapes had brought word of Lily's remarriage had nearly finished Burkhardt, but Donnoi was there, comforting, consoling, and from that day on Burkhardt never worried again. Lily's marriages were made, weakened, broke up, and Burkhardt worked unfalteringly knowing that when he returned to Earth he could have Lily at last.

Donnoi had told him solemnly, " *It is all a matter of channelling your desires. Look : I lay dying in a snowdrift, and I willed you to find me. You came ; I lived.*"

" But I'm not Euranoi," Burkhardt had protested. " My will isn't strong enough to influence another person."

" *Any creature that thinks can assert its will. Give me your hand, and I will show you.*"

Burkhardt smiled back across fifteen years, remembering the feel of Donnoi's limp, almost boneless hand in his own, remembering the stiff jolt of power that had flowed from the alien. His hand had tingled for days afterward. But he knew, from that moment, that he would succeed.

Burkhardt had a visitor the next morning. A press conference was scheduled again for the afternoon and Burkhardt had said he would grant no interviews before then, but the visitor had been insistent. Finally, the desk had phoned up to tell Burkhardt that a Mr. Richardson Elliott was here, and demanded to see him.

The name rang a bell. " Send him up," Burkhardt said.

A few minutes later, the elevator disgorged Mr. Richardson Elliott. He was shorter than Burkhardt, plump, pink-skinned, clean-shaven. A ring glistened on his finger, and there was a gem of some alien origin mounted on a stickpin near his throat

He extended his hand. Burkhardt took it. The hand was carefully manicured, pudgy, somehow oily.

" You're not at all as I pictured you," Burkhardt said.

" You are. Exactly."

" Why did you come here ?"

Elliott tapped the newsfax crumpled under his arm. He unfolded it, showing Burkhardt the front-page spread. " I read the story, Burkhardt. I knew at once who the girl—the woman—was. I came to warn you not to get involved with her."

Burkhardt's eyes twinkled. " And why not ?"

" She's a witch," Elliott muttered. " She'll drain a man dry and throw the husk away. Believe me, I know. You only loved her. I married her."

" Yes," Burkhardt said. " You took her away from me eighteen years ago."

" You know that isn't true. She walked out on you because she thought I could further her career, which was so. I didn't even know another man had been in the picture until she got that letter from you, postmarked the day your ship took off. She showed it to me—laughing. I can't repeat the things she said about you, Burkhardt. But I was shocked. My marriage

to her started to come apart right then and there, even though it was another three years before we called it quits. She threw herself at me. I didn't steal her from anybody. Believe me, Burkhardt."

"I believe you."

Elliott mopped his pink forehead. "It was the same way with all the other husbands. I've followed her career all along. She exists only for Lily Leigh, and nobody else. When she left me, it was to marry Alderson. Well, she killed him as good as if she'd shot him, when she told him she was pulling out. Man his age had no business marrying her. And then it was Michaels, and after him Dan Cartwright, and then Jim Thorne. Right up the ladder to fame and fortune, leaving a trail of used-up husbands behind her."

Burkhardt shrugged. "The past is of no concern to me."

"You actually think Lily will marry you?"

"I do," Burkhardt said. "She'll jump at it. The publicity values will be irresistible. The sollie star with five broken marriages to millionaires now stooping to wed her youthful love, who is now a penniless ex-colonist."

Elliott moistened his lips unhappily. "Perhaps you've got something there," he admitted. "Lily might just do a thing like that. But how long would it last? Six months, a year—until the publicity dies down. And then she'll dump you. She doesn't want a penniless husband."

"She won't dump me."

"You sound pretty confident, Burkhardt."

"I am."

For a moment there was silence. Then Elliott said, "You seem determined to stick your head in the lion's mouth. What is it—an obsession to marry her?"

"Call it that."

"It's crazy. I tell you, she's a witch. You're in love with an imaginary goddess. The real Lily Leigh is the most loathsome female ever spawned. As the first of her five husbands, I can take oath to that."

"Did you come here just to tell me that?"

"Not exactly," Elliott said. "I've got a proposition for you. I want you to come into my firm as a Vice-President. You're system-famous, and we can use the publicity. I'll start you at sixty thousand. You'll be the most eligible bachelor in the universe. We'll get you a rejuvenation and

you'll look twenty-five again. Only none of this Lily Leigh nonsense. I'll set you up, you'll marry some good-looking kid, and all your years on Whatsit Nine will be just so much nightmare."

"The answer is no."

"I'm not doing this out of charity, you understand. I think you'll be an asset to me. But I also think you ought to be protected against Lily. I feel I owe you something, for what I did to you unknowingly eighteen years ago."

"You don't owe me a thing. Thanks for the warning, Mr. Elliott, but I don't need it. And the answer to the proposition is No. I'm not for sale."

"I beg you—"

"No."

Colour flared in Elliott's cheeks for a moment. He rose, started to say something, stopped. "All right," he said heavily. "Go to Lily. Like a moth drawn to a flame. The offer remains, Mr. Burkhardt. And you have my deepest sympathy."

At his press conference that afternoon, Burkhardt revealed her name. The system's interest was at peak, now ; another day without the revelation and the peak would pass, frustration would cause interest to subside. Burkhardt told them. Within an hour it was all over the system.

Glamorous Lily Leigh, for a decade and a half queen of the solidofilms, was named today as the woman for whom John Burkhardt bought himself out of indenture. Burkhardt explained that Miss Leigh, then an unknown starlet, terminated their engagement in 2319 *to marry California industrialist Richardson Elliott. The marriage, like Miss Leigh's four later ones, ended in divorce.*

"*I hope now to make her my wife,*" *the mystery man from Novotny IX declared.* "*After eighteen years I still love her as strongly as ever.*"

Miss Leigh, in seclusion at her Scottsdale, Arizona home following her recent divorce from sollie-distributing magnate James Thorne, refused to comment on the statement.

For three days, Lily Leigh remained in seclusion, seeing no one, issuing no statements to the press. Burkhardt was patient. Eighteen years of waiting teaches patience. And Donnoi had told him, as they trudged through the grey slush of rising spring, "*The man who rushes ahead foolishly forfeits all advantage in a contest of wills.*"

Donnoi carried the wisdom of a race at the end of its span. Burkhardt remained in his hotel suite, mulling over the advice of the little alien. Donnoi had never passed judgment on the merits and drawbacks of Burkhardt's goal ; he had simply advised, and suggested, and taught.

The press had run out of things to say about Burkhardt, and he declined to supply them with anything new to print. So, inevitably, they lost interest in him. By the third day, it was no longer necessary to hold a press conference. He had come back ; he had revealed his love for the sollie queen, Lily Leigh ; now he was sitting tight. There was nothing to do but wait for further developments, if any. And neither Burkhardt nor Lily Leigh seemed to be creating further developments.

It was hard to remain calm, Burkhardt thought. It was queer to be here on Earth, in the quiet autumn, while winter fury raged on Novotny IX. Fury of a different kind raged here, the fury of a world of five billion eager, active human beings, but Burkhardt kept himself aloof from all that. Eighteen years of near-solitude had left him unfit for that sort of world.

It was hard to sit quietly, though, with Lily just a visicall away. Burkhardt compelled himself to be patient. She would call, sooner or later.

She called on the fourth day. Burkhardt's skin crawled as he heard the hotel operator say—in tones regulated only with enormous effort—" Miss Leigh is calling from Arizona, Mr. Burkhardt."

" Put the call on."

She had not used the visi-circuit. Burkhardt kept his screen blank too.

She said, without preliminaries, " Why have you come back after all these years, John ?"

" Because I love you."

" Still ? "

" Yes."

She laughed—the famous LL laugh, for his benefit alone. " You're a bigger fool now than you were then, John."

" Perhaps," he admitted.

" I suppose I ought to thank you, though. This is the best publicity I've had all year. And at my age I need all the publicity I can get."

" I'm glad for you," he said.

" You aren't serious, though, about wanting to marry me, are you ? Not after all these years. Nobody stays in love that long."

" I did."

" Damn you, what do you want from me ?" The voice, suddenly shrill, betrayed a whisper of age.

" Yourself," Burkhardt said calmly.

" What makes you think I'll marry you ? Sure, you're a hero today, The Man Who Came Back From The Stars. But you're nothing, John. All you have to show for eighteen years is callouses. At least back then you had your youth. You don't even have that any more."

" Let me come to see you, Lily."

" I don't want to see you."

" Please. It's a small thing—let me have half an hour alone with you."

She was silent.

" I've given you half a lifetime of love, Lily. Let me have half an hour."

After a long moment she said, simply, hoarsely, " All right. You can come. But I won't marry you."

He left New York shortly before midnight. The Colonization Bureau had hired a private plane for him, and he slipped out unnoticed, in the dark. Publicity now would be fatal. The plane was a jet, somewhat out of date ; they were using photon-rockets for the really fast travel. But, obsolete or no, it crossed the continent in three hours. It was just midnight, local time, when the plane landed in Phoenix. As they had arranged it, Lily had her chauffeur waiting, with a long, sleek limousine. Burkhardt climbed in. Turbines throbbed ; the car glided out toward Lily's desert home.

It was a mansion, a sprawled-out villa moated off—a *moat*, in water-hungry Arizona !—and topped with a spiring pink stucco tower. Burkhardt was ushered through open fern-lined courtyards to an inner maze of hallways, and through them into a small room where Lily Leigh sat waiting.

He repressed a gasp. She wore a gown worth a planet's ransom, but the girl within the gown had not changed in eighteen years. Her face was the same, impish, the eyes dancing and gay. Her hair had lost none of its glossy sheen. Her skin was the skin of a girl of nineteen.

" It's like stepping back in time," he murmured.

" I have good doctors. You wouldn't believe I'm forty, would you ? But everyone knows it, of course." She laughed. " You look like an old man, John."

" Forty-three isn't old."

" It is when you let your age show. I'll give you some money, John, and you can get fixed up. Better still, I'll send my doctors to you."

Burkhardt shook his head. " I'm honest about the passing of time. I look this way because of what I've done these past eighteen years. I wouldn't want a doctor's skill to wipe out the traces of those years."

She shrugged lightly. " It was only an offer, not a slur. What do you want with me, John ?"

" I want you to marry me."

Her laughter was a silvery tinkle, ultimately striking a false note. " That made sense in 2319. It doesn't now. People would say you married me for my money. I've got lots of money, John, you know."

" I'm not interested in your money. I want *you*."

" You think you love me, but how can you ? I'm not the sweet little girl you once loved. I never was that sweet little girl. I was a grasping, greedy little girl—and now I'm a grasping, greedy old woman who still looks like a little girl. Go away, John. I'm not for you."

" Marry me, Lily. We'll be happy. I know we will."

" You're a stupid monomaniac."

Burkhardt only smiled. " It'll be good publicity. After five marriages for profit, you're marrying for love. All the worlds love a lover, Lily. You'll be everyone's sweetheart again. Give me your hand, Lily."

Like a sleepwalker, she extended it. Burkhardt took the hand, frowning at its coldness, its limpness.

" But I don't love you, John."

" Let the world think you do. That's all that matters."

" I don't understand you. You—"

She stopped. Burkhardt's grip tightened on her thin hand. He thought of Donnoi, a grey shadow against the snow, holding his hand, letting the power flow from body to body, from slim alien to tall Earthman. *It is all a matter of channelling your desires*, he had said. *Any creature that thinks can learn how to assert its will. The technique is simple.*

Lily lowered her head. After a moment, she raised it. She was smiling.

" It won't last a month," Richardson Elliott grunted, at the sight of the announcement in the paper.

" The poor dumb idiot," Jim Thorne said, reading the news at his Martian ranch. " Falling in love with a dream-Lily that never existed, and actually marrying her. She'll suck him dry. But at least it gets me off the alimony hook. I ought to be grateful."

On nine worlds, people read the story and talked about it. Many of them were pleased ; it was the proper finish for the storybook courtship. But those who knew Lily Leigh were less happy about it. " She's got some angle," they said. " It's all a publicity stunt. She'll drop him as soon as the fanfare dies down. And she'll drop him so hard he won't ever get up."

Burkhardt and Lily were married on the tenth day after his return from space. It was a civil ceremony, held secretly. Their honeymoon trip was shrouded in mystery. While they were gone, gossip columnists speculated. How could the brittle, sophisticated, much-married Lily be happy with a simple farmer from a colony-world ?

Two days after their return to Earth from the honeymoon Burkhardt and his wife held a joint press conference. It lasted only five minutes. Burkhardt, holding his wife's hand tightly, said, " I'm happy to announce that Miss Leigh is distributing all of her possessions to charity. We've both signed up as indentured colonists and we're leaving for Novotny IX tomorrow."

" Really, Miss Leigh ?"

" Yes," Lily said. " I belong at John's side. We'll work his old farm together. It'll be the first useful thing I've ever done in my life."

The newsmen, thunderstruck, scattered to shout their story to the waiting worlds. Mr. and Mrs. John Buckhardt closed the door behind them.

" Happy ?" Burkhardt asked.

Lily nodded. She was still smiling. Burkhardt, watching her closely, saw the momentary flicker of her eyes, the brief clearing-away of the cloud that shrouded them—as though someone were trapped behind those lovely eyes, struggling to get out. But Burkhardt's control never lapsed. Bending, he

kissed her soft lips lightly.

" Bedtime," he said.

" Yes. Bedtime."

Burkhardt kissed her again. Donnoi had been right, he thought. Control was possible. He had channelled desire eighteen years, and now Lily was his. Perhaps she was no longer Lily as men had known her, but what did that matter ? She was the Lily of his lonely dreams. He had created her in the tingling moment of a handshake, from the raw material of her old self.

He turned off the light and began to undress. He thought with cozy pleasure that in only a few weeks he would be setting foot once again on the bleak tundra of Novotny IX—this time, with his loving bride.

Robert Silverberg

THE LITERARY LINE-UP

After a somewhat lengthy absence from our pages, mainly due to working on two new novels, Brian Aldiss returns with a fine novelette with a most unusual twist on faster-than-light travel. " Moon of Delight " is centred on a way-station light years from Earth where ships are slowed to below the speed of light by gravitational pull. The stresses and strains on both the planet and the inhabitants make this a really powerful story. For instance, planet-Time goes haywire every time a ship comes in.

The third part of Theodore Sturgeon's serial " Venus Plus X " really gets into its stride with Charlie Johns planning to make a break from the Ledom and get back to his own time via the Time machine. Short stories planned so far are " Operation Exile " by E. C. Tubb, " Star Light, Star Bright," by Lan Wright, and the debut of two new writers, Mike Davies with " The Singing Grasses," and Australian writer D. S. Stewart With " Five."

Story ratings for No. 99 were :

1. The Voices of Time - - - - - J. G. Ballard
2. The Exposing Eye - - - - - Colin Kapp
   Memories Are Important - - - - E. C. Tubb
3. The Apprentice - - - - - James White
4. The Red Dominoes - - - - W. T. Webb

ROUTINE EXERCISE

by PHILIP E. HIGH

Laxland leaned forward and pulled the black folder-file towards him. He had no intention of reading it, he knew the contents almost by heart but he liked it there as a symbol and a reference. It was, as it were, part of the fittings, the ' props,' it went with the bleak room, the high backed chair, and the square black table-desk behind which he sat.

Laxland was a tall man, balding, with pale but astute blue eyes which could be, and often were quite ruthless.

He pressed a button beneath his desk. " Send in Captain Harvey." Automatically he reached for his glasses, they were thick rimmed and had blank pebble lenses. When he wore them he looked neutral, benign and blandly wise. He was neither neutral nor benign but it suited his motives and his profession to wear a mask. An interrogator (Psychiatric Branch) must often beguile the suspect into an admission of guilt and Laxland had learned that his appearance helped. So many people came before him, spies, saboteurs, potential traitors and most of them had to be mentally dissected down to the very bone.

Laxland waited until the naval escort with fixed bayonets had departed.

" Sit down, Harvey." He pushed across a box of cigarettes. " Help yourself."

Harvey sat down, slowly, almost carefully. His thin brown face looked tired and cynical.

Laxland waited until the other had helped himself to a cigarette. " How do you feel, Harvey ?" He made a steeple with his fingers and looked over them benignly.

Harvey looked at him, the dark eyes suddenly bitter. " How should I feel—sir ?"

Laxland puckered his lips as if considering the question, then he said, " You're not impressing me as being particularly co-operative, Captain, I'm here to help you."

" Of course, sir." Harvey's lips were suddenly thin.

' Aggressive,' thought Laxland with satisfaction. ' The pre-interview team have done a good job this time. Once a man is goaded sufficiently, he becomes aggressive and away goes his caution.'

" Gently, now, Captain. I know you've been through the mill but can't you understand they're giving you a break ? They're giving you a *chance*, and in a good many countries, remember, you would have been shot or brainwashed. Now suppose you begin by telling me the truth."

" I've told the truth, sir—it's there." Harvey pointed to the folder-file. " It's all neatly typed out and—"

Laxland interrupted him. " The bare facts, Captain, *not* the truth." He leaned forward, both hands flat on the surface of his desk. " Look at it from our point of view, Harvey, the Navy point of view. Two men's lives have been lost under peculiar circumstances during a routine exercise and your vessel returns to base with the following deficiences." He flipped open the file. " In brief, a large quantity of ammunition, various, two torpedoes and—" He paused meaningly, "—two Hunt Class missiles with atomic warheads !"

Laxland leaned back in his chair. When he spoke again, his voice was pleasant and reasonable. " Use your head, Captain, if you were a senior officer, wouldn't *you* ask questions ?"

" But, damn it, sir, I've answered the questions." Harvey was suddenly on his feet.

" Partly," said Laxland in a flat voice.

Harvey sat down abruptly. " Partly or wholly, what does it matter ? It's an execution or a padded cell, either way."

" Allow me to decide that, please."

" But don't you understand sir, you *can't* believe me. If you believe me, you're on *my* side of the fence."

Laxland studied his finger nails with apparent concentration and did not look up. " Captain Harvey, I'm the last rung, the top of the ladder and the deciding factor. When you leave this room, *my* recommendation will carry a great deal of weight with Board of Enquiry." He looked up. " I'm prepared to do

all I can for you, *if* you co-operate." He made a gesture with his hands. " You can tell it your way, I won't try and catch you out on inconsistences and I promise not to interrupt. Now let's have the whole story, Captain."

Harvey stared at him, twisting the cigarette nervously in his fingers. " How will you know it is the whole story ? How will you know if it's truth or imagination ?"

" I shall know." Laxland's voice held confidence and a hint of menace. " I've been in this business for years. I shall know." He reached for the file. " Suppose I help you to get started ?" Inwardly, Laxland was pleased, the suspect was responding excellently. Accusation, fear, interrogation, reason. You followed a set pattern until the suspect was responsive. ' In less scrupulous countries,' he thought suddenly, ' the suspect was ripe for impressions,' a verbal testimony and a written confession would be but a week or so away. Fortunately Harvey served a happier state and in any case, they didn't want a dictated confession, they wanted the truth.

What is the truth ? Laxland wondered. A mass hallucination or . . .

He leaned forward, quite suddenly it was no longer a case but something which *had* to have an answer.

He turned a printed page. " You were on routine exercises in the nuclear submarine *Taurus*. What was the nature of these exercises, Captain ?"

Harvey frowned in a puzzled way as if surprised at the question. " Just routine stuff, sir, practise really, dummy runs on surface vessels, things like that."

" This included surface attacks ?"

" Oh, yes, sir, that was one of the main objects of the exercise, getting the men on deck and at the guns in the shortest possible time."

" I see." Laxland felt an inner satisfaction. Harvey was following beautifully, very soon now the whole story would be tumbling from him without prompting. " These exercises included, I believe, the theoretical launching of a Hunt missile from beneath the surface ?"

" I put the men through the drill daily, sir."

" Good, good. It was during one of these drills, I understand, that there was some sort of blow-out in one of the electrical circuits ?"

" Yes, sir, I didn't see it and the man on duty—"

" Yes, Captain, I understand." Laxland's voice was very gentle. " The man on duty was one of those lost." He pointed to the box on the table. " Help yourself to a cigarette whenever you feel like it." He leaned back in his chair. " What happened when this circuit blew ?"

Harvey looked at the floor, suddenly a little paler. When he spoke his voice was low and a little strained. " There was a sort of bump, sir."

Harvey was quick to lead him. " A bump ? What sort of bump ?"

" Well, it's a bit difficult to describe, sir. It was like a distant depth charge, yet it seemed to turn our stomach's inside out—it was sort of peculiar." He laughed weakly. " It's really rather hard to describe."

" Never mind. What did you do then ?"

" I ordered immediate surfacing, sir, in case we'd fouled some submerged wreckage."

" And then ?"

" Well, then I went up to have a look round, sir. There didn't seem to be any damage to the ship at first glance but—"

" Mendel !"

" Sir." The first officer climbed up beside him and saluted.

Harvey was silent for a few seconds. " Anything strike you as strange ?"

" Hot, isn't it ?" Mendel pushed back his peaked cap and mopped his face. " Very hot." He wrinkled his nose. " What's the stink ? Smells like a compost heap, rotting vegetation, I was in Peru once—" He stopped suddenly, staring upwards. " A *full* moon, sir !"

" Yes." Harvey's voice was carefully controlled. He signalled for slow ahead and turned. " Don't make a song and dance about this, Mendel, something has happened but we don't know what. When I consider the time is right I'll speak to the crew personally, until then, the least said the better."

" Yes, sir." Mendel was rigidly at attention.

Harvey leaned almost casually on the metal rail. " All crew on a yellow alert, I want an immediate check on radar soundings and find out if anything can be raised on the radio. Report back to me personally."

When Mendel had gone, Harvey gripped the rail and tried to stop his legs shaking by an effort of will. Ahead of him the black bulk of the submarine with its surface gun and anti-

aircraft weapons looked solid and reassuring. The purr of the motors, the whisper and slap of water at the bows were sounds with which he was familiar and yet . . .

The sea was too oily and too brilliantly phosphorescent for these particular waters, stray whisps of vapour curled upwards from it like lost ghosts.

" Nine fathoms, sir." Mendel rejoined him slightly out of breath. " I've given orders for a constant check. God, we could run aground." He paused and mopped his face nervously " They can't get a thing on the radio, sir, but there's a kind of high frequency static smothering most of the bands which Trice seems unable to tune out." He paused again as if to draw breath. " Surface radar gives a land mass, mostly mountains, about eighteen miles dead ahead."

" The nearest land should be about a hundred and twenty eight." Harvey was keeping his voice calm by a controlled effort.

" Yes, sir, I know. Incidentally, all the compasses are spinning round like pinwheels."

Harvey took out his pipe and thrust it between his teeth, the cold stem seeming to give him a measure of calm. He puffed slowly through the unlit bowl. " I want look-outs posted fore and aft. Have them issued with night glasses—surface gun crews to close up and stand by for action."

" Sir." Mendel touched the button and gave the necessary orders.

They were silent, each vaguely aware of the other's inward turmoil but both outwardly calm.

" You said something ?" Harvey turned.

" Er—yes—no, not exactly sir, an exclamation. I thought I saw something fly across the moon." He laughed nervously. " Imagination, I gues."

" What sort of something—an aircraft ?"

" Looked more like a bat, sir, only it was too big—the neck was too long in any case, probably some sort of shadow."

" No doubt," Harvey was suddenly curt. " Keep a sharp look nonetheless."

Below them, men were tumbling out of the deck hatches and running towards the guns.

' Normal ' Harvey thought, dully. ' This happens every day, everything else must be a trick of the nerves, a temporary

psychosis, I'll be all right in a minute or so.' At the same time, he was acutely aware that he wouldn't, this was *real.*

The men hunched about the gun were stirring slightly and he could well imagine the kind of conversation which was going on : " North Atlantic, me foot, mate ! Don't tell me there ain't something bloody wrong . . ."

Harvey sighed. Sooner or later he'd have to make some sort of announcement, it would have to be the vaguest of his life.

The blowers went and he touched the button. " Bridge, Captain speaking."

" Oh, it's Trice here, sir. We're being blipped, something like a radar beam is bouncing off our hull every seventeen seconds and closing."

" Closing ?"

" The blips are getting more frequent, sir, like as if they'd found us and were shortening their arc, trying to centre."

" Very good, Trice, keep me posted." He opened one of the water-tight boxes attached to the rail, took out the mike, flicked the switch and rasied it to his lips. " Captain speaking, attention all hands." He cleared his throat. " This is a genuine alert, repeat, *genuine.*" Inwardly he was surprised at the matter-of-fact calmness of his own voice. " Circumstances have arisen which may make it necessary for us to take offensive or defensive action at a moment's notice. Our instruments are detecting radar beams which are different to those employed by any country in the world. As your Captain it is my duty, until able to prove otherwise, to assume the operators hostile. Under the peculiar circumstances apparent to you all, I have no alternative but to place this vessel at full alert." He paused. " Action stations, load all torpedo tubes and stand by. That is all."

He replaced the mike and shook himself irritably. ' Under the peculiar circumstances apparent to you all.' What the devil did that mean ? Nothing, of course, but what could he say ? Look, we submerged on a new moon and surfaced on a full one. Or, equally idiotic, while we submerged the temperature rose sixty-five degrees and the land moved a hundred and ten miles closer ?

" Radar blips every six seconds, sir."

Harvey touched the blower button. " Full ahead together."

" Full ahead together, sir."

He spun the wheel abruptly as the phosphorescent water began to cream at the bows. Maybe he could lose them.

" Trice, report, please." The vessel was beginning to vibrate slightly and he could see the shiny bow waves curling swiftly away on either side.

" Sixteen—seventeen—sixteen—they're hanging on, sir—fifteen—"

" All right, Trice, stand by."

" Vessel bearing green O five !" The shout came from the forward look-out.

Harvey felt his hands tighten on the wheel. " See anything ?

Mendel, night glasses pressed to his eyes, was hunched on the rail. " An outline, sir, no navigation lights. Could be another sub."

" Signals ! Challenge !"

He watched the Aldis lamp begin blinking into the darkness. " *Who are you ? Identify yourself.*"

Out of the corner of his eye he was relieved to note that all surface guns were trained and at the ready.

" Lights !"

" Looks like a conning tower well for'ard, sir." Mendel was still straining his eyes through the glasses. "A bit high though, sort of—"

" Searchlights, damn you !" Harvey's voice was rasping.

" Sorry, sir." Fingers of whiteness leapt suddenly outwards, wavered and centred.

" All guns—fire !"

To his relief, the anti-aircraft weapons began barking almost before the words had left his mouth ; the tracer curving outwards and away like bright red stars.

There was a sudden piercing noise like a ships syren, wildly off-key, an enormous threshing in the water, a long gurgle sound, then silence.

Harvey realised duly that the guns had stopped firing but the searchlights still shone on a huge area of disturbed water.

" Out lights !"

Beside him Mendel made a sound which was half sigh and half whimper. " What the hell do you think it was, sir ?"

" I don't know. Candidly, I don't want to know."

" Neither do I—it's head was bigger than our conning tower." He fell silent, his youthful face in the dim light angled and tense. " Have you any theories, sir ?"

" None that I'd care to air outside this conning tower." He straightened and smiled twistedly. "To be honest, I had a sort of half-formed theory about time travel."

Mendel nodded slowly. " I had. I didn't like to mention it. I mean, you don't really know with atomic subs, do you ? That blown circuit and then that bump—" He looked quickly at Harvey and away. " That thing I saw fly across the moon, sir, I saw something like it in a book once. I think it was called a terry something or other—sort of flying lizard."

" Pterodactyl," supplied Harvey in a thoughtful voice. The past—could there be such a thing as a time-shift ? The whole idea was a paradox, wasn't it ? Like that yarn about the chap who went back in time and murdered his own grandfather.

He stiffened, thrusting his hands angrily into his pockets. " It's quite a theory, Mendel, but a lot of facts don't fit."

Mendel shrugged tiredly. " Does anything fit, sir ?"

" None that I can—Yes, Wallace ?"

The rating saluted. " The for'ard look-out, sir—he's gone." The man was shaking visibly. " I went to take him some cocoa, sir—the deck was all dark and slippery like—"

" Yes, yes—anything else ?"

" I found these, sir."

Harvey leaned forward and took the flattened night glasses from the rating's hand. They looked as if they had been crushed by an enormous weight. They had felt no shock and heard no cry but it was equally possible that something had reached out of the water.

" Very well, Wallace, carry on. When you've taken the cup back to the galley, report to the sick bay. Tell the S.B.A. I sent you down for a sedative."

When the rating had gone, he turned to Mendel. " Break out the automatic weapons. I want an armed guard standing by the look-outs."

The blower went again. " Fifteen fathoms, sir. Radar blips every three seconds."

" Fifteen fathoms, Trice—deepening ?"

" Deepening fast, sir, sea bed slanting away almost sheer—twenty-two fathoms—er—twenty-three—"

Under his breath Harvey said : " Thank God !" And aloud. " Very good, Trice, keep me posted, I want an all clear at a hundred."

" Nearly that now, sir, sea bed going down like a cliff."

" We'll take a chance it stays that way. Clear decks and secure ! Stand by to dive."

He had intended a normal descent to a safe depth but it wasn't to be that way.

As the last man disappeared down the hatch, there an abrupt slapping sound which stunned his ears and a column of steam and water rose up suddenly a hundred feet to starboard. Before his mind could grasp the implications of the phenomena, another column gushed skywards almost the same distance to port.

Dully his mind formed the word ' straddled ' as he almost hurled himself below.

" Dive !"

The crew must have been more than usually alert for the vessel began to tilt almost as the hatch clanged comfortingly shut behind him. ' *Thank God for the new crash buttons. There had been a time when you pulled the damn thing tight behind you* . . .

His senses registered four nasty bumps as the submarine slid downwards, a few more seconds and they should be out of range.

He took her down to near maximum depth, cut the motors and waited.

" Something happen up there, sir ?" Mendel's voice was low.

" We were fired on. They straddled us with the first salvo."

" Shells, sir ?"

" I wouldn't know." Harvey hesitated. " I had the impression it was some form of condensed energy which released intense heat on impact, but maybe I just dreamed that part."

Mendel opened his mouth to reply but the other waved him abruptly to silence, his face intent.

Like a great many naval officers, Harvey *looked* young but he wasn't, at least, not *that* young. At forty-three his face was lean and almost unlined, there was no trace of grey in the dark hair but he was old enough to have served in submarines in World War II. He knew exactly what the faint sounds above him might mean—something on the surface was looking for him.

After a few seconds he detected three somethings moving on the surface engaged on what was obviously a hunt.

Long combat experience told him they were about a mile distant, travelling in line abreast and probably making about fifteen knots.

Mendel had obviously heard it too, his face seemed etched into sharp lines and his breathing had become almost inaudible.

' Taking it pretty well, on the whole,' thought, Harvey, briefly, ' particularly so in an impossible situation like this.'

He turned his attention once again to the sounds with an uncomfortable feeling of unreality. He was used to the sound of ships' screws, the ' express train ' sound of a destroyer racing directly overhead but this was beyond his experience completely. It was a bubbling, rasping noise, rather like—his mind sought similes—an underwater jet plane which boiled the water round it as it went past.

One of the—vessels ?—passed directly overhead and he felt his stomach muscles tighten uncomfortably ; unconsciously he was waiting for depth charges.

To his relief there was no sudden jolt of a close explosion but the hunt was by no means over. After travelling about a mile, the vessels turned abruptly and returned on a slightly different course. The hunters proved to be not only thorough but nerve-wrackingly persistent. They covered, re-covered, triangulated and squared that particular area for almost three hours. Only then, it seemed reluctantly, did the rasping sound slowly fade into the distance and vanish.

He waited a full two hours before he ordered the tanks blown and a cautious ascent to the surface.

" Care to buy a fine tooth comb, sir ?"

Harvey smiled at him, not without a certain pride. Mendel had guts and he had even managed a smile when he said it. After all, he was only a fresh faced kid.

He smiled again. " Not now, thanks. Our friends up there are giving them away gratis." He was suddenly grim. " I think the word hostile is an adequate description, don't you ?"

He turned his attention once again to the job in hand. " Up periscope !"

He gripped the instrument and, peering through it, was strangely startled to find that daylight had come. Visibility, however, was poor, a thin but unchanging mist limiting his vision to a bare two miles.

The sea was smooth with an oily, almost imperceptible swell and whisps of vapour still drifted from its surface like—he thought morbidly—steam from a cauldron.

He made a complete circle of his narrow horizons before he ordered a cautious " slow ahead."

" Surface parties close up, torpedo men stand by. Chief !"

" Sir." The mahogany coloured face of the Chief Petty Officer was comfortingly familiar and reassuring.

" Issue automatic weapons to the look-out guards, chief, then pick two reliable men for additional guard duties amidships."

" Aye, aye, sir, I'll check the weapons myself."

When Harvey finally opened the hatch, the heat struck him almost like a physical blow. It was both searing and humid and by the time he stood upright in the conning tower his uniform was limp and soaking. He could feel the sweat running down his ribs and arms in an almost continuous stream.

Above, a large and, it seemed, incredibly white sun, was only partially blanketted by the mist.

" My God, Sir !" Mendel stood upright beside him. " It's like the inside of a pressure cooker." His thin face was beaded with sweat. " Still stinks, doesn't it ?"

" Yes, only worse." Harvey brushed sweat from his face and picked up the mike. " Attention all surface parties—Captain speaking." He paused briefly. " All guards watch the surface of the water. If anything comes up or if there is any visible disturbance below the surface, don't wait, open fire immediately. Look-outs and gun crews, watch the horizon and the sky." He paused again. " If any man feels dizzy from the intense heat, don't wait until the last minute, lie down or report below for a relief. If a man faints and falls overboard, we may not be able to get to him in time. That is all."

He leaned forward and touched the blower button. "Trice, anything coming over ?"

" Not a thing, sir. They don't seem to be sweeping like they were before."

" How's the depth ?"

" Five hundred and eighty, sir, steady."

" Good show." Perspiration was running down his face and stinging his eyes but he managed to grin convincingly at Mendel. " We do see life, don't we ? Join the navy and see the world."

" Which world ?" asked Mendel, wryly. He frowned. " Maybe that isn't a joke anymore, perhaps—"

The blower interrupted him. " Aircraft at one o'clock sir. It's about seventy five thousand up, sir, descending in spirals but making about twelve hundred knots."

Harvey did not hesitate. " Clear decks ! Diving stations." He came down the ladder so fast after the last man he almost fell on him. " Dive, dive, dive !" He gripped the nearest projection and hung on as the vessel tilted. By God, the crew were getting damn good. Surprising what a real emergency would do.

Inwardly, he had no illusions. He had no idea what sort of aircraft—if it was an aircraft—was coming down at them but he knew his only safety was in depth. Manning the Oerlikons and trying to fight it out with a vessel with a speed in excess of a thousand miles an hour would be pointless suicide.

Harvey's memories of previous engagements came back to him. He had always found that it helped to try and see into the mind of the enemy commander. If *he* were in command of the enemy destroyer, for example . . . Here, of course, the whole situation was a strange and impossible one but the potentials were the same. Automatically his mind fell into the familiar grooves. Had they seen him or was this purely a daylight reconnaisance ? The enemy's next move would probably tell him a lot.

He had exactly seven minutes to wait before the now familiar rasping began again.

He waited. The sound continued but seemed to draw no closer. He placed its position at about a mile, dead ahead. It faded slowly, then increased again, faded.

A search, he thought, suddenly. A careful and systematic search in daylight with enemy vessels moving in an expanding circle or widening parallel lines. If they were being that systematic then, obviously, they hadn't spotted him as they came down or the search would have begun closer.

He straightened suddenly, his mind made up. " Blow tanks !"

He seemed to himself curiously calm and detached as they rose cautiously towards the surface yet acutely aware of everything around him as if his senses had been increased to meet the situation. A drop of water from condensation fell from somewhere above and splashed on his wrist with almost painful force ; Mendel's tense, almost inaudible breathing beside him sounded whistling and impossibly loud in his ears.

" Up periscope !" His own voice helped a little to relieve his sense of unreality. He bent almost double as the periscope rose, pressing his face to the foam-rubber mountings and following it up.

Light came into his eyes, the flickering surface of the water, the oily hill of a long swell.

He couldn't remember afterwards whether he swore aloud or not. He could not remember if he was staggered by what he saw or if it was like the image he had inwardly imagined.

The thing was black, shaped like an elongated pear-drop and perhaps a hundred and thirty feet in length. There was no suggestion of ports or openings in its dull unreflecting surface but astern at the narrow end, the water boiled and steam rushed upwards in a high white column. There was no sign of flame or smoke and yet, despite the brightness of the sun, there was the suggestion of immeasurable heat.

Sort of spaceship, he thought dully. Only it floats. They're using their tubes as a drive.

The vessel was moving forward, creating a slight bow wave and probably making about eight knots.

As he watched she turned abruptly, almost but not quite, retracing her previous course. She was obviously looking for something—the wreckage of a submarine perhaps ?

Harvey's half formed thought was never completed. Somewhere within the submarine there was a distinct *ping*.

Mendel's breathing seemed to stop abruptly and Harvey felt the muscles in his face stiffen with an unpleasant numbing sensation. Almost everyone on board would know what that *ping* meant. Asdic, some sort of underwater detection device.

For a moment he almost panicked but forced his mind to calmness. ' Think, man, *think*.'

Suddenly his thoughts became clear and logical, moving from one point to another with almost startling clarity.

Three of the things had hunted him last night but there had been no pings then, today it was different. The answer was suddenly clear in his mind. They knew he was here but beneath the surface they had no means of finding him but they were smart enough to improvise something overnight. Their asdic, or whatever it was, had been jury-rigged in a few hours and was now being tried out. Actually pin-pointing him might take a little time.

" Stand by forward torpedo tubes." His voice seemed quite normal and matter-of-fact but his mind was racing. Eight knots—how much did the thing draw, twelve feet—fifteen, better give the torpedoes a surface setting. He began to give orders in a clear voice, his hands surprisingly steady on the periscope grips.

The vessel was still cruising slowly in a dead straight line, coming across his bows at green O.

" Fire one !"

The submarine lurched slightly and there came the familiar rumbling sound of a released torpedo yet somewhere within and above the noise was another *ping*.

" Fire two !" Mentally he counted up to four then shouted " Dive !" He had no intention of watching the results through the periscope, if the torpedoes missed, an enemy as advanced as that would not be slow in tracing them to their source. He had already decided that the enemy, whoever they were, technically outclassed his own culture by about fifteen hundred years, if not more.

As they went down at a steep angle, there was a perceptible thud.

'One' he thought, with grim satisfaction. ' Unless they're too tough to hurt.'

There was another thud, this time more pronounced and he suddenly found himself flung heavily against Mendel.

The lights went out, glass tinkled, objects fell on the metal floor from walls and lockers.

" You all right ?" Dazedly he regained his balance.

" In one piece, sir." Mendel was panting slightly. " What happened ?" He answered the question himself. " We must have hit their boiler room or whatever corresponds to it."

Harvey grunted agreement and shouted for damage reports but they were mercifully small. No one had been injured.

In less than a minute the emergency lighting was on and ratings were replacing broken bulbs.

" Surface !" He waited, listening to the faint sound of the pumps and the gurgle of water.

" Don't think there'll be much to salvage, do you sir ?" Mendel's voice was artificially casual but a little too high pitched.

" No." He looked at Mendel quickly, despite the intense heat he was shivering.

Harvey sympathised with him but he knew there was nothing he could say that would help matters. A man adapted to an impossible situation or he was shocked. Mendel was badly shocked, his imagination was sufficient to grasp the situation but a little too rigid to embrace it. Facing a normal enemy under normal circumstances with the hazards known, he would have remained unshaken but the unknown, the imponderables, added stresses he just couldn't take without help.

" You need a battle-pill," said Harvey gently. " Run along to the sick bay and take two B7's."

" Two, sir—oh, I don't think—"

" That's an order, Mendel."

" Yes, sir. Very well, sir, right away."

Harvey nodded to himself, satisfied. His order had probably saved Mendel trouble later, the B7's would calm the nerves and inhibit the shock before it got a grip. Further, and at the moment, more important, he would be fit for action again within ten minutes.

" Up periscope !"

Through the eye-pieces the water looked churned and muddy and the oily surface was thick with drifting weed. A dead fish upturned belly white in the sun, drifted slowly past his range of vision.

Far away, something huge and leathery flopped weakly in the water and slowly vanished from sight.

" Surface—slow ahead together." He didn't want to go up, but he knew he had to. He knew it was his duty to climb up into the heat just in case there was *something* which might help.

There was no breeze, the atmosphere seemed even more fetid than before and the heat seemed to have doubled.

What was he looking for ? He could hardly expect wreckage after an explosion like that, could he ?

He stood staring dully at the water, the drifting clumps of weed, at the dead fish sliding half-submerged past the submarine's conning tower.

He stiffened suddenly. Something was drifting in the water about ten feet away, something in a blue-black tight fitting uniform that was somehow shimmering like metal.

How it had escaped the explosion, Harvey did not know. Perhaps the blast had flung it clear leaving it outwardly unharmed.

It was a man, clearly he was dead and—he was *human*. A young man perhaps twenty years old, fair haired, fresh faced, the blue eyes staring glassily at the sky.

Somehow the sight of him made Harvey feel sick inside. Secretly he had imagined the crew of the black vessel, if not as monsters, at least unhuman. He'd thought of *them*, things with bluish skins or lidless eyes, or even boneless hands. The enemy was a *man*, a dead boy, a kid like Mendel.

He went down the ladder slowly, he had seen all he wanted to see. In a voice that didn't sound like his, he ordered descent to periscope depth and tried to behave normally. Here, at least, things *looked* familiar, gauges, the polished brass, the wheels. Here, at least, he could *imagine* that above him were the familiar waters of the North Atlantic and not the tepid waters of an ocean millions of years in the past. He wondered vaguely if on the distant land the dinosaur was still king or had that yet to come ?

" Find anything, sir ?" Mendel joined him looking calmer and sure of himself again.

" Some dead fish and a lot of weed." Harvey was slowly getting a grip on his nerves but he was in no mood, as yet, to talk about the dead man. He turned his attention once again to the periscope.

" Expecting more trouble, sir ?"

Harvey shrugged. " If we lost a ship under peculiar circumstances, we'd go looking for it, wouldn't we ?" He made a complete circumference of the misty horizon and smiled grimly. " I don't think their reaction will be any different from ours. Let's hope we're too far away when they arrive for them to find us." He removed his eyes briefly from the periscope. " Full ahead together !"

" Going to stick to periscope depth, sir ?"

" I prefer to know what's happening, Mendel. A blind run could bring us right under their noses unless we know."

Five minutes later Mendel saw him begin to swing the grips slightly from side to side as if trying to centre on something.

" Didn't take them long." Harvey straightened. Now that the crisis had come, he felt calm and quite clear headed. " You'd better take a look, Mendel. It could be a dream but I have my doubts."

" Yes, sir." When he straightened some seconds later, his face was pale and uncomprehending. " What the devil is it ? A baby moon or something ?"

Harvey shrugged as he stepped forward to take over the periscope again. " It looks almost big enough, doesn't it ?"

He had already formed the opinion that the sphere was almost a mile *thick*. Let's see, to find the circumference of a circle—no, time was too short. " I think it's the Mother-ship," he said, evenly.

Mendel looked at him blankly. " I don't understand, sir."

" Explain later." He turned. " Missile party—close up !" His mind slipped almost unconsciously into its wartime grooves. *Think like the enemy, place yourself in his position.*

To his surprise, the picture was almost clear in his mind. If he was worried about them, they were probably even more worried about *him*. He had classified them in his mind as a stellar race probably on some sort of survey mission, probably checking likely planets for future colonisation. When their instruments detected an obvious technology, albeit primitive by their standards, their commander must have done a double-take. How had a technology arisen on a planet which, by the simple processes of evolution, could not support it? Obviously, the solution that it originated with another stellar race, had been considered and quickly discarded as impossible. No doubt, the enemy command had him pretty well classified by now, what his vessel was powered by and the technical level of those who constructed it. The point was, how had it *got* there.

Think like the enemy. The enemy command would know by now that the mystery vessel was dangerous in its own element. Clearly it was incapable of leaving the water and coming up to fight, therefore it was at a disadvantage, destruction or capture should be easy. The vessel's success with its underwater missiles had been almost wholly due to lack of precaution on the part of the scout ship ; that and the ill fortune of the missiles hitting a vital spot.

Harvey nodded to himself. Might not the enemy Commander conclude—and it would be a reasonable assumption—that since the mystery vessel was confined to the water, all its weapons were designed for that element only ? Might he not be a little over-confident, overlooking the fact that the midget below him, might have, metaphorically speaking, something up its sleeve. He no doubt knew by now that the scout had been destroyed by a chemical explosive and what could a chemical weapon do against a vessel designed to sail between the stars ? Harvey was banking everything on the hope that this, basically, would be the commander's reaction.

" Missile party—stand by to launch !" He realised suddenly without particular emotion, that he didn't expect to win. He was making a gesture, nothing more, this was a fighting ship and he was going to try and fight back, that was all. A gesture of self-preservation which was better than running away—where could he run to anyway—to a nice safe port some one might build several million years in the future ?

" Missile party at the ready, sir."

He nodded, feeling a sudden pride in the calm voice. He had heard the man say : " Stow hammocks," in precisely the same tone.

" Count down !" He felt a sudden unease. The Hunt missile although accurate was designed for specialised land targets such as harbours and other military installations, not as an interceptor.

He squinted quickly through the periscope. He couldn't miss, could he ? The thing was now almost overhead, at the most no more than five thousand feet above him.

" Zero—missile away, sir."

" Stand by to launch—*jump to it* !" He wanted two away before he tried to dive and run. Thank God the muddy weed-strewn water concealed him from visual observation, although, no doubt, up there a team of scientists were rapidly determining his position by instruments.

" Ready, sir."

" Count down !" Perhaps that one would upset their calculations for a bit.

As soon as he heard " Missile away !" He shouted " Dive!" He was conscious of a dry metallic taste in his mouth and was expecting, at any moment to be blown out of the water. "Level off—full ahead." He couldn't be getting away with it, could he ? Surely they'd do something about him soon ?

In his mind he began to count the seconds and at two hundred was compelled to battle a rising hope. He still had no illusions, the missiles may have deterred the enemy for the time being but they would be back. In the unlikely event of a direct hit, the war-heads were of the restricted type for small specialised targets and would be unlikely to do more than blow a hundred foot hole in the thing. In a vessel of that size such damage, if not minor, was by no means decisive. He had seen vessels during the war with bridges shot to pieces, their super-structure a shambles and their hulls riddled with shell holes still make port under their own steam.

The submarine was now making her maximum underwater speed of thirty-one knots and he had begun to count the minutes instead of the seconds. He had almost reached seven when a dull crunching sound reached him faintly above the noise of the screws and the submarine vibrated heavily.

He gave brief orders to stop engines and waited impatiently for the vessel to lose way.

The sounds which reached him were almost frighteningly familiar. The crumpling sound and muffled explosions of shifting metal and failing bulkheads. He had seen and experienced it himself more than once. Heavy objects, such as guns or crates, wrenched loose by the impact of a direct hit, had gone crashing into the bulkhead as soon as the vessel had begun to list. Once he had seen a bulky water-tight door hurled clean through a vessel's side from the pressure of water and air behind it.

" Chief, what do you make of that noise ?"

The C.P.O. frowned. " Sounds like a ship breaking up, sir. Damn big one, very big, breaking fast though, although they still seem to have some machinery going somewhere—hear it, sir ? Perhaps they've got some of those auxiliary pumps going, waste of time by the sound of it, big as she is she's going fast. Did *we* get her, sir ?"

" Yes—yes, I think we did." Harvey discovered suddenly that his legs had become strangely weak and shaky. He'd *got* her, he'd brought down a thing big enough to hold the small market town in which he had been born.

An elation which bordered on hysteria made him light headed for a moment but was quickly replaced with reason. No, he hadn't been quite that good, he hadn't blown her spectacularly to pieces but one, or both, of the missiles had partially disabled her, so much so that she couldn't stay in the air. Nonetheless, it had taken her seven minutes to fall five thousand feet which meant that she had not dropped like a stone.

Why was she breaking up so fast ? Slowly he realised that, in effect, a vessel designed for space was a submarine in reverse. The hull of the *Taurus* was designed to keep pressure *out*, a spaceship would be constructed to keep it *in*. The submarine's hull had been built to withstand pressure per square inch from the outside whereas a space craft must contend with near vacuum outside and air pressure inside. Her

bulkheads, emergency doors and safety doors, therefore, were designed to stop the air rushing out and were understandably failing when water under enormous pressure started rushing in.

Dimly he could still hear a faint purr suggesting that a great deal of her machinery was still functioning at full efficiency but it never occurred that when water finally touched that machinery . . .

His first warning was a faint tingling sensation in his hands and feet and a sudden peculiar jolt at the base of his spine.

It seemed to him that the submarine turned over twice, somewhere there was a bluish flash and he thought he heard a man scream. Perhaps he lost consciousness but when he regained it, he was still standing, shaken and dizzy in exactly the same position.

The first thing which struck him was the silence, the crunching noises and muted explosions had abruptly ceased. He inhaled deeply, trying to rid himself of the bruised feeling in his stomach and looked about him.

" Yes, Chief ?"

" It's Wilkins, sir, I think he's dead. He was just making a routine check of fuses when the current arced right across his hands for no reason at all."

" No reason at all !"

" Wilkins knew his job, sir, the flash came with that sort of bump just now."

" I see, very well, put him in the torpedo room for now, I'll be along in a minute—surface !"

When he looked through the periscope a few minutes later, he was still too dazed to feel either relief or surprise. Around him were the grey, wind-swept waters of the North Atlantic.

" So that's the end." Laxland had been pacing up and down for a long time. He had taken off his glasses and his face seemed to have aged and hardened. " We imagined it might be something like that."

" You *believe* me, sir ?" Harvey's surprise was tinged faintly with suspicion. " You're not humouring me ?"

" On the contrary, certain crustacea adhering to the hull no longer exist today save as fossils." He laughed briefly and abruptly. " The experts we called in confirm but cannot account for it, naturally we haven't told them. As a matter of fact the complete truth will only be known to four very high

ranking people in Naval Intelligence who will prepare a carefully worded and completely convincing explanation for the more orthodox departments. The crew of course, saw only a part of the action and are unlikely too talk—at the first mention of a sea monster everyone will think they're yarning."

" There's my first officer, Mendel, sir."

" Lieutenant Mendel picked up a mild unknown fever which fortunately succumbed to antibiotics but he was delirious for some hours. His memories are confused with his deliriums and we have encouraged him to believe it was all a dream. He promises to be first class material under normal conditions."

" But if you believe me, why—?" Harvey stopped helplessly.

" Obvious isn't it ?" Laxland picked up the file. " No mention of temperature changes or inference you had shifted in time. ' Attacked by aircraft which you claimed you saw too briefly to describe or identify, everything slanted to give the examining board the idea you were sane." He laughed softly. " It may surprise you to know that there are alert imaginative men even in Naval Intelligence. When they were satisfied it was not a mass illusion, they wanted the complete story."

Laxland closed the file and put it back on the desk. " Now I know you're a scientist, Captain Harvey, but have you formed any theory for yourself as to why this—er—time-shift took place."

" Well sir, I don't think it was anything to do with the *Taurus*, I think it was something *they* were doing."

" Go on."

" I think," Harvey frowned as he sought to put his idea into words. " I think for a vessel to travel between the stars, it would have to overcome time as well as space. I'm a bit vague on the theory but unless they could bend time in relation to space an interstellar journey would be almost everlasting. Possibly conditions were just right, too. I mean, for example, when conditions are just right, a ham radio operator can speak to someone on the other side of the world, but not normally. I think, maybe, that they were checking their power units and somehow tuned in on us. Maybe we were just right too, just the right power coming from the reactors, just the right power in the circuits operating at the time. Unwittingly they had created a time warp and we were snatched into it."

" And when the sea water reached those mechanisms, a short was created and the process reversed itself ?"

" That's the theory I formed, sir, yes."

Laxland nodded and lit a cigarette. " Seems a logical enough theory on the face of it although, like yourself I am not a scientist." He paused. " Captain Harvey, I think it only fair to tell you, that you come out of this rather well. For purposes of secrecy your crew were interrogated under drugs and all of them praised your bearing. Whatever you may have felt inwardly, you were outwardly calm and apparently in command of the situation." Laxland smiled. " Obviously we can't give you a medal but we can say that promotion should be fairly rapid."

Harvey nodded. " Thank you, sir, thank you very much."

Laxland looked at him quickly. " Something still worrying you ?"

Harvey fumbled a cigarette from the now almost empty box. " It's a question really, sir and I've got a sort of guilt complex mixed up with it." He looked at the floor frowning. " A highly advanced race could sink to barbarism, multiply, and in the course of a few million years, climb up again couldn't it?"

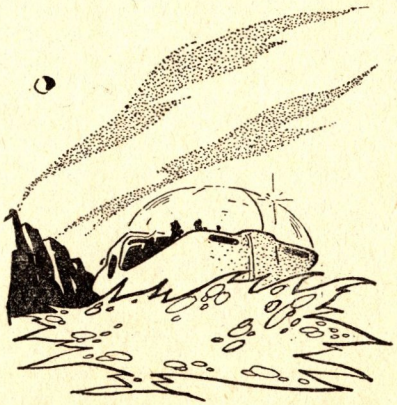
Laxland frowned down at him. " Yes—yes, I suppose it could, but I fail to see quite what you're driving at."

Harvey did not seem to hear him. " It was a hell of a size, should have been at least four thousand saved if not more—"

" I'm afraid I still don't—"

Harvey looked at him directly. " I shot down the mother ship, cut them off from their home world—I can't help wondering if we're the descendants of the survivors.

Philip E. High



As predicted two months ago, the new Sturgeon novel is going to be the most controversial novel of 1960. One American reviewer has already blown a fuse over what he terms "Mr. Sturgeon's attitude towards sex and mores in America; their foibles and furbelows, their dilemmas and disasters."

VENUS PLUS X

by THEODORE STURGEON

Part Two of Four Parts

Foreword

Awareness slowly returns to CHARLIE JOHNS' conscious mind as he lies trapped in a pliable translucent silver-grey cocoon —somewhere. Frantically he thinks back over his former life to establish identity—to his childhood, his Mother, his girl friends and school days, but his last recollection is of climbing the stairs to his bedroom. Apparently he never reached the doorway of his room.

In desperation he pushes against the side of the cocoon and it splits asunder to pitch him into a strange room with an even stranger person waiting for him. Neither understand the other's speech but Charlie is shown that he is in a world far different too that of the Earth he knew. A breathtaking world of alien architecture and fashion, populated, it seems, only by males.

Later he meets four other people and is placed under a machine which teaches him their language. He finds that he is in a place called Ledom, still on Earth, but far removed from his own civilisation. His mentors are PHILOS, whom he first met, SEACE, chief of Science One, GROCID and MIELWIS, heads

of Medical One, and NASIVE. Despite his questioning he cannot find out exactly where he is in the future, how far away from his own time ; but he is promised a return to his original life if he will stay for a while among the Ledom, study their way of life and give them an unbiassed report on their ' superman ' way of life. Charlie eventually agrees.

While dressing suitably in Ledomese attire Charlie discovers that the inhabitants are neither male or female.

Throughout the narrative of Charlie Johns' adventures on Ledom are interspersed conversational pieces between two ordinary presentday American families—the Smith's and the Railes—against whose speculations and philosophies the future civilisation of the Ledom are portrayed.

Smith runs to Old Buccaneer, Herb Railes observes, standing in Smith's downstairs bathroom and looking into the medicine chest. The medicine chest is on the wall over the toilet, and there is another chest over the vanity shelf, which is beside the sink. All these houses have the two chests. In the prospectus they were labelled *His* and *Hers*. Jeanette called them *His* and *Ours*, and apparently Tillie Smith is (in Herb's earlier phrase) moving in as well, for one and a half of the four shelves are cluttered with feminalia.

As for the rest, there is Old Buccaneer Erector Set, which makes the beard stand up before shaving, and Old Buccaneer Captain's Orders, which makes the hair lie down after combing. Also Old Buccaneer Tingle, a bath oil with added Vitamin C. (Herb one time got a huge yuk out of a dictionary definition of buccaneer : a sea robber, and said no wonder they have to put more of the stuff in it, but it was not the kind of joke that makes Smitty laugh.)

Personally Herb is a little sorry for Smitty to be stuck with all that Old Buccaneer, because there is better stuff on the market. Sleek Cheek for example. Herb owes much of his altitude at the agency to the fact of having authored Sleek Cheek's slogan: a picture of a Latin American wolf (carefully continental, if your tastes were transatlantic) rubbing jowls with an ecstatic and mammariferous memsahib, over the legend *You wan' a sleek cheek* ?

Well ! Herb says, almost aloud. A tube of pile ointment.

Tranquilizers of course, buffered aspirins and a bottle of monstrous half-blue, half-yellow capsules. *One three times a day*. Achromycin, Herb is willing to bet. Carefully touching nothing, he leans forward to peer at the label. The date tells him that it was bought three months ago. Herb thinks back. That was about the time Smitty quit drinking for a while.

Prostrate, hey ?

Colourless lipstick—for chapped lips. Colourless nail polish. Touch stick. What the hell is a touch stick, No. 203 Brown ? He leans closer. The fine print says *For temporary retouching between applications of Touch Tone tint*. Time marches on, Smitty. Better yet delete the comma : Time marches on Smitty.

Charlie remembered (remembered, remembered) a chant he had heard in kindergarten. He had heard it from the big kids, the big kids in second grade, the girls skipping rope :

Hutch-ess *Putch*-ess *bring* the *Dutch*-ess
Mom-my's *going* to *have* a *ba*-by
Not a *boy*
Not a *girl*
But *just* a *lit*-tle *ba*-by.

Chanting silently, he fell asleep. He dreamed about Laura. . . . they had known each other such a little time, and yet forever ; already they had a lover's language, little terms and phrases with meaning for them and for no one else ; *That's a man thing, Charlie*. He could say, " That's a woman thing, Laura," even about her shrill small squeak when the june bug got caught in her apricot hair, and make her laugh and laugh.

Waking, he went through a strange zone, coming to a place of sensibility in which he knew clearly and coldly that Laura was separated from him by impenetrable barriers of space and time, but in which, simultaneously, his mother sat at the foot of the bed. And as he passed through this zone, it became clearer and clearer to him that he was in Ledom, so that there would be none of that traveller's disorientation on fully awakening ; yet with it, the sense of his mother's presence became stronger and stronger, so that when he opened his eyes and she was not there, it was as if he had seen her—she herself, not her image—disappear with an audible *pop*. Therefore, furious and injured, he awoke crying for his mother. . . .

When he had his feet under him and his head at last on top, he walked to (but not too near) the window and looked out.

The weather had not changed, and he seemed to have slept the clock around, for the sky, though still overcast, was quite as bright as it had been during his trip from the Science One. He was ravenous ; and, remembering his instructions, he went to the shelf-bed on which he had slept, and pulled outward on the bottom of the first of the three golden bars.

An irregular section of the wall (nothing was ever square, flat, vertical or exactly smooth around here) disappeared up and back rather like the cover of a rolltop desk, and as if the orifice were a comic mouth thrusting out a broad tongue, a kind of board slid outward. On it rested a bowl and a platter. In the bowl was a species of gruel. On the platter was a mound of fruit, exotically coloured and exquisitely arranged to make the best artistic display of its improbable series of shapes. There were one or two honest bananas and oranges, and some grape-like things, but the others were bulging and blue, mottled, iridescent vermilion and green, and at least seven varieties of red. What he wanted more than anything else in the world, this or any other, was something cold to drink, but there was nothing like that.

He sighed and picked up an orchid-coloured globe, sniffed it —it smelled, of all things, like buttered toast—and tentatively bit into it. He then emitted a loud grunt of astonishment, and cast about him for something with which to wipe his face and neck. For though the fruit's skin was, to his lips, at room temperature, its juice, which emerged under considerable pressure, was icy cold.

He had to use his white gown to mop up with, after which he took up a second specimen of the orchid fruit and tried again, with gratifying results. The clear, cold juice was without pulp, and tasted like apples with an overtone of cinnamon.

He then looked at the gruel. He had never been fond of cooked cereals, but the aroma from this one was appetizing, though he could not place it. An object lay beside the bowl, a tool of some sort. In outline it was spoonlike, but actually it consisted only of a handle holding a bright blue, fine wire loop, rather like a miniature tennis racquet without strings.

Puzzled, he held it by the handle and thrust the loop into the porridge. To his surprise the gruel mounded up over the wire loop as if it had had a solid spoon-bowl under it. Lifting it, he saw that the food mounded on the underside in the same way—not one bit more, and it didn't drip. Cautiously he mouthed it,

and found it so delicious he could not be perturbed at the rubber-sheet texture of the invisible area inside the loop. He looked at it, true, and thrust an experimental finger through it (it resisted his finger only slightly) but all the while he was rejoicing, gland by salivary gland, at the savoury, sweet-spicy, and downright muscular belly-filling nature of the gruel-like food. The flavour was utterly new to him, but, gobbling until the blue wire was distorting itself against the empty bottom of the bowl, he prayerfully wished to see it again some time soon.

Content, physically at least, he sighed and rose from the bed, whereupon the board with its cargo silently slid into the opening which immediately became part of the wall. " Room service," Charlie murmured, wagging his head in approval.

He crossed to the closet Philos had shown him and palmed the squiggle in the wall design. The door dilated. The compartment was illuminated, again by that dull sourceless silver glow. Casting a wary eye on the edges of the irregular oval opening—for that thing could open and close with real enthusiasm—he peered inside, hoping to see his good brown normal United States pants. They were not there.

Instead was a row of constructions—that was the only word for it—of fabrics stiff and floppy, starched, filmy, opaque, and all of these in combinations ; reds, blues, greens, yellows, fabrics which seemed all colours at once, with threads picking up one and another hue from those around them ; and fabrics with no colour at all, which subdued anything they overlaid. These were put together in panels, tubes, folds, drapes, creases and seams, and variously scalloped, fringed, embroidered, appliqued and hemmed.

As his eye and hand became inured to this dazzle, a certain system became manifest ; the melange could be separated, and certain internal systems removed to be inspected by themselves as garments. Some were as simple as a night-shirt—functionally speaking, though anyone sleeping in one would surely dream he was being sliced by a diffraction grating. There were nether garments too, in the form of floppy pantaloons, leotards, tight briefs, G-strings and loin-cloths, as well as kilts long and short, flowing and crinolined, skirts full and hobbled. But what was this glittering two-inch wide, eight-foot ribbon, built like a series of letter U's attached by their top ends ? And how were you supposed to wear a perfect sphere of resilient black material—on your head ?

He put it on his head and tried to balance it there. It was easy. He tipped his head to roll it off. It stayed where it was. He pulled at it. It wasn't easy. It was impossible. It was stuck to him. It didn't pull at his hair either ; it seemed to be his scalp it was stuck to.

He went to the three gold bars, prepared to lay his hands across them to call Philos, and then paused. No, he'd get dressed before he called for help. Whatever these crazy mixed-up people turned out to be, he still felt he didn't want to resume the practice of having a woman help him get dressed. He'd quit that some years ago.

He returned to the closet. He quickly learned the knack of hanging clothes in it. They were not on hangers exactly, but if you took a garment and spread it the way you wanted it to hang, and touched it to the wall inside the door at the right, it stayed the way it was. Then you could shove it across the closet where it slid as if on a wire, only there was no wire. When you pulled it out, it collapsed and was simply an empty garment again.

He found a long piece of material shaped roughly like the outline of an hourglass, with a length of narrow ribbon at one end. The material was a satisfyingly sober navy blue, the ribbon a rich red. Now, he thought, that ought to diaper up into a pretty fair pair of trunks. He pulled off the white gown —fortunately it was open in the back, or he'd never have got it off over the black ball that bounced and nodded over his head with every move. He placed the ribbonless end of the blue material on his abdomen, pulled the rest between his legs and up the back, and getting hold of the ends of the ribbon, brought them around the sides, meaning to tie them together in front. But before he could do that they fused into one, with no sign of a join or seam. He tugged at the ribbon ; it stretched, then came slowly back until it was snug around his waist, where it stopped contracting.

Marvelling, he tugged the free front end of the material up until it was tight enough to suit him in back and between the legs, then let the free end fall in a sort of apron in front. He turned and twisted, looking at it admiringly. It fitted like his own skin, and although his legs were, at the sides, bare up to the waist, with only a strip of red belting there, he was otherwise, as Philos had suggested, concealed.

As for the rest of him, he'd just as soon skip it, for, as he had learned in his brief outdoor experience, this was a tropical place. On the other hand, most of these people seemed to wear something on the top half, if only an armband or something on the shoulder blades. He mused at the clutter of finery in the closet and saw a patch of the same dark blue as the garment he was wearing. He pulled it out. It seemed to be a sort of coat or cloak, which appeared heavy but was actually feather-light, and not only was it an exact match, but it had a thin piping of the same red as the waistband of his breech-clout.

Putting it on turned into a puzzle, until he realized that, like the red thing Seace had worn, it did not come over the shoulders but went under the arms instead. It had the same stand-up collar in the back, and in the front it met just over his breastbone. There was no fastening there, but it needed none ; it settled softly on to his pectoral muscles and clung there. The waist was fitted, though it did not meet in front ; still, it was fitted and stayed that way. The skirt was not like Seace's, pulling back and down to a swallow-tail, but was squared off at about knuckle length all the way around.

And there were shoes in the bottom of the closet ; on a shelf he saw the irreducible minimum in shoes : shaped pads made to adhere to the ball of the foot and the toes, underneath, and others to fit only the heel, with nothing between. There were many others, too ; thonged and buckled sandals, and sandals with ties and self-fusing ribbons and no apparent fastening at all ; soft pliant knee boots of many colours, turned up, Turkish style shoes, platforms, huaraches, and many others, excepting anything which might confine or cramp the foot.

He let colour be his guide, and sure enough, found a pair of almost weightless, chamois-like boots which exactly matched the predominantly navy, touched with crimson outfit he was wearing. He hoped they were his size . . . and they were, perfectly, beautifully ; and then he realized that certainly all *these* shoes would naturally be his or anyone's size.

Pleased with himself, he tugged once again aimlessly at the ridiculous black bubble bobbing on his head, and then went to the bars and palmed them. The door dilated with a snap, and Philos walked in. (What—was he standing with his nose on it for the last eight hours ?) He was wearing a spreading kilt of amaryllis yellow, matching shoes, and a black bolero, which he seemed to have put on backwards. But on him it didn't look

bad. His eloquent dark face lighted up as he saw Charlie : " Dressed already ? Oh, fine !" and then indescribably puckered. It was a tight expression which Charlie couldn't quite fathom.

" You think it's all right ?" he asked. " I wish I had a mirror."

" Of course," said Philos. " If I may . . ." He waited. Charlie sensed that in an offhand, ritualistic way, like " Gesundheit," he was responding to the request. But—with " May I ?"

" Well, sure," said Charlie, and gasped. For Philos touched his hands together—and then Philos was gone ! and instead someone else stood there, resplendent in deep navy with a high collar which excellently framed his rather long face, with well-fitting trunks with a nicely-draped apron in front of them, with very handsome shoes, and even with the bare shoulders which surmounted the full jacket, and the silly black ball bobbling on its head, the figure was a pretty snorky one. Except for the face which unaccountably did not matter to him.

" All right ?" The figure vanished and Philos reappeared ; Charlie stood there openmouthed. " How did you do that ?"

" Oh, I forgot—you couldn't have seen that." He extended his hand, on which he wore a ring of bright blue metal, the same glistening blue as the wire with which Charlie had eaten his breakfast. " When I touch it with my other hand, it makes a pretty good mirror." He did so, and the handsome figure with the silly ball on its head reappeared and then vanished.

" Now that is a *gadget*," said Charlie, for he had always been fond of gadgetry. " But why on earth do you carry a mirror around with you ? Can you see yourself in it too ?"

" Oh no." Philos, though he still wore the puckered expression, managed to build a smile into it. " It's purely a defensive device. We seldom quarrel, we Ledom, and this is one of the reasons. Can you imagine yourself getting all worked up and contorted and illogical (the word contained the concepts for " stupid " and " inexcusable ") and then coming face to face with yourself, looking at yourself exactly as you look to everyone else ?"

" Cool you down some," agreed Charlie.

" Which is why one asks permission before using it on anyone before doing so. Just politeness. That's something that's as old as my kind of humanity and probably yours too.

A person resents being shown himself unless he specifically wants it."

" You have quite a toy-shop here," said Charlie admiringly. " Well . . . do I pass muster ?"

Philos looked him up and down and up, and the puckered expression intensified. " Fine," he said in a strained voice. " Just fine. You've chosen very well. Shall we go ?"

" Look," said Charlie, " you've got some trouble or other, haven't you ? If there's anything the matter with the way I look, now's the time to tell me."

" Oh well, since you ask . . . do you," (Charlie could see he was choosing his words carefully) ". . . do you care very much for that—ah—hat ?"

" That, for God's sake. It's so light I almost forgot about it, and then you and the mirror thing—hell no ! I touched it to my head somehow or other and I can't get it off no way."

" That's no trouble." Philos stepped to the closet, dilated it reached inside and came out with something about the size and shape of a shoehorn. " Here—just touch it with this."

Charlie did so, and the black object tumbled to the floor where it bounced soggily. Charlie kicked it into the closet and replaced the shoe-horn thing. " What is that ?"

" The de-stator ? It inactivates the biostatic force in the material."

" And biostatic force is what makes these clothes stick to themselves and to me ?"

" Well, yes, because this is not exactly non-living material. Ask Seace : I don't understand it myself."

Charlie peered at him. " You still got trouble. You'd better come out with it, Philos."

The pucker increased, and Charlie had not thought it could. " I'd rather not. The last time anyone thought you were funny you booted him clear across Mielwis' central chamber."

" I'm sorry about that. I was a lot more lost then than I am now . . . Do—out with it."

" Do you know what that was you were wearing on your head ?"

" No."

" A bustle."

Shouting with laughter, they left the room.

They went to see Mielwis.

" Take their time bowling," says Smith.

" Out on strike."

" A funny, funny copy man." But Smith is not putting Herb down ; he is laughing inside.

The silence falls. They are talked out. Herb knows that Smith knows that each knows the other is looking for something to say. Herb reflects that it's a funny thing people can't just be together without burping out words, any old words ; but he does not say it aloud because Smith might think he's getting serious again.

" Cuffs going out again," says Smith after a while.

" Yeah. Millions and millions of guys getting their pants altered. What you suppose the tailor does with all the cuffs ? And what happens to all the cuff material the manufacturers don't use ?"

" Make rugs."

" Cost the same," says Herb, meaning the new cuffless pants.

" *Oh* yeah." Smith knows what he means.

That silence again.

Herb says, " You got much wash-n-wear ?"

" A few. Everybody does."

" Who washes it and wears it ?"

" Nobody," says Smith, with a touch of indignation. " Any good cleaner's got a special process by now, does a good job.'

" So why wash-n-wear ?"

Smith shrugs. " Why not ?"

" I guess so," says Herb, knowing when to get off a subject.

The silence.

" Ol' Farrel."

Herb looks up at Smith's grunt, and sees Smith looking out and across through his picture window and the picture window of the split level house diagonally opposite. " What's he doing ?"

" TV, I guess. But dig the crazy chair."

Herb rises, crosses the room. He carries an ashtray, puts it on the table, comes back. From a hundred and thirty feet away he doesn't seem to be staring. " One of those contour chairs."

" Yeh, but *red.* In that room, how can he get a red chair ?"

" Just stick around, Smitty. He'll be remodeling."

" ? "

" Remember two years ago, all knotty pine and ranch type stuff, and then one day in come that big green chair of his. Inside of a week, voom. Early American."

" Oh yeah."

" So inside of a week, you watch."

" Voom."

" That's what I said."

" How can he pop for two remodeling jobs in three years ?"

" Maybe he got relatives."

" You know him ?"

" Me ? Hell no. Never been in the place. Hardly said hello."

" Thought he was hard up though."

" Whuffo ?"

" Car."

" So he spends it on remodeling."

" Queer people anyway."

" What type queer ?"

" Tillie saw her buy blackstrap molasses at the super."

" Oh hell," says Herb, " it's like a cult, that stuff. No wonder about the car. Prob'ly even care who sees it's eighteen months old."

The silence.

Smith says, " Bout time painted this place."

Herb says, " Me too."

White lights scythe the landscaping ; Smith's station wagon wheels into the drive, into the carport and dies. Car doors slam like a two-syllable word. Female voices approach, two speaking simultaneously, neither missing a thing. The door opens, Tillie comes in, Jeanette comes in.

" Hi bulls, what's bulling ?"

" Just man talk," says Smith.

They walked undulating corridors and twice stepped harmlessly into bottomless pits and were whisked upwards. Mielwis, in a diagonal arrangement of wide ribbon wrapped to the right around his body and down his right leg, and wrapped to the left down around his left leg, yellow and purple, was alone and looked quite imposing. He greeted Charlie with grave cheerfulness and clearly, openly, audibly approved the navy-blue outfit.

" I'll leave you," said Philos, to whom Mielwis had paid no attention whatever (which, thought Charlie, might have meant only acceptance) until he said this, nodded and smiled kindly. Charlie waved a finger, and Philos was gone.

" Very tactful," said Mielwis approvingly. " We have only one like Philos."

" He's done his best for me," said Charlie, and then added in spite of himself, " I think . . ."

" Well now," said Mielwis, " Good Philos tells me you feel much better."

" Let's just say I'm beginning to know how I feel," said Charlie, " which is more than I knew when I first got here."

" Unsettling experience." Charlie watched him carefully, in some way compelled to. He had no reference whatever as to the probable age of these people, and if Mielwis seemed older, it was probably the sum of that barely acknowledged respect which others gave him, and his slightly larger size, and fuller face, and the really extraordinary—even here—spacing of his eyes. But there was nothing about any of these people which bespoke ageing as he had known it.

" So you want to find out all there is to know about us."

" I certainly do."

" Why ?"

" That's my ticket home." The phrase was so idiomatic that it was nearly meaningless in the language, and Charlie knew it as soon as he said it. There seemed no concept for " payment " or " pass " in the tongue ; the word he had chosen for "ticket" came out meaning " label " or " index card." " I mean," he supplemented, " I am told that when I have seen all you care to show me—"

"—and all you care to ask—"

"—and give you my reactions to it, you are prepared to put me back where I came from."

" I am pleased to be able to ratify that," and Charlie got the impression that without bragging, Mielwis was informing him that for him, Mielwis, to ratify it was a large measure. " Let us begin." Somehow that seemed like a witticism.

Charlie laughed puzzledly. " I hardly know where." Some words he had read somewhere—Charles Fort ? Oh ! How he'd have loved this setup !—Fort had said, " To measure a circle, begin anywhere." " All right then. I want to know about . . . something personal about the Ledom."

Mielwis spread his hands. " Anything."

Suddenly shy, he couldn't ask directly. He said, " Philos said something last night—or anyway, just before I slept. . . Philos said you Ledom had never seen the body of a male. And I immediately thought he meant you were all females. But when I asked him, he said no. Now, either you're one or the other, right ?"

Mielwis did not answer, but remained still, looking at him kindly from those wide eyes and keeping a poised, also kindly, half-smile on his lips. In spite of his embarrassment, which for some reason began to be acute, Charlie recognized the technique and admired it ; he'd had a teacher once who did that. It was a way of saying " Figure it out for yourself," but it would never be used on anyone who had not all the facts. Sort of like the " Challenge to the Reader " in an Ellery Queen whodunit.

Charlie jumbled together in his mind all the uneasy impressions he had had on the matter : the large (but not unusually large) pectoral development, and the size of the areolae ; the absence of wide-shouldered, narrow-hipped individuals. As to other cosmetic characteristics, like the hair, worn in as many different ways as clothes, though predominantly short, and the clothes themselves with their wild variegation, he refused to be led astray.

Then he turned to the language, which so unaccountably (to him) he could speak with fluency, and yet which was constantly presenting him with mysteries and enigmas. He looked at the grave and patient Mielwis, and said to himself in Ledom : " I am looking at him." And he examined the pronoun " him " by itself for the very first time, and found that it had gender only in his own reference ; when he spoke the word it translated to " him " in English because, for some reason of his own Charlie preferred it that way. But in its own reference, in the Ledom tongue, it had no sexual nor gender meaning. Yet it was a *personal* pronoun ; it would not be used in speaking of things. In English, " it " is an impersonal pronoun ; the word " one " used as a pronoun is not, stilted though it may be : " One would think one was in Paradise." The personal pronoun—and there was only one ! in Ledom was like that : personal and without gender. That Charlie had told himself it was " he " was Charlie's own mistake, and now he knew it.

Did the pronoun's having no gender mean the Ledom then had no sex ? For that would be one way to make Philos' extraordinary remark consistent : they had never seen a male, but they were not females.

The words and concepts " male " and " female " existed in the language . . . the alternative was : *both.* The Ledom, each of them had both sexes.

He looked up into Mielwis' patient eyes. " You're both," he said.

Mielwis did not move or speak for what seemed a very long time. Then his half-smile broadened, as if he were pleased at what he saw in Charlie's upturned face. Gently, then, he said, " Is that such a terrible thing ?"

" I haven't thought whether or not it's terrible," said Charlie candidly. " I'm just trying to figure how it's possible."

" I'll show you," said Mielwis, and in his stately way he rose and came around his desk toward the stricken Charlie.

" Hi, bulls !" says Tillie Smith. " What's bulling ?"

" Just man talk," says Smith.

Herb says, " Hi, bowls. What's bowling ?"

Jeanette says, " Three strikes and I'm out."

" Herb already used the gag," Smith says in his leaden way, which isn't true.

Tillie tops them all : " What's everybody saying highballs for ? Let's all have a drink."

" Not us," says Herb quickly, clinking ice in an otherwise empty glass. " I've had mine and it's late".

" Me too," says Jeanette because she gets the message.

" Thanks for the drinks and all the dirty jokes," Herb says to Smith.

" Let's not tell 'em about the dancing girls," says Smith.

Jeanette makes wide bowling gestures. " 'Night, Til. Keep 'em rolling."

Tillie also makes bowling gestures, causing Smith to reseat himself on his shoulderblades, where he much prefers to be in any case. The Railes gather up her bowling bag, Herb grunting dramatically as he hefts it, and the baby-sitter, which Jeanette unplugs and tucks under Herb's left arm while she inserts her handbag under his right, and because she is a lady, waits for him to open the door for her with his knee.

" Come this way," Mielwis said, and Charlie rose and followed him into a smaller room. One whole end, floor to ceiling, was a pattern of slits with labels—some sort of filing system, he presumed ; and Lord preserve us, even these were not in straight lines, but in arcs . . . and come to think of it, they did resemble the arcs he had seen drawn on an assembly bench, once, by an efficiency expert : maximum reach of right hand, optimum reach of left hand, and so on. Attached to one wall was a flat white soft shelf—an examination table if ever he saw one. Mielwis, in passing, batted it gently and it followed him down the room, slowly sinking, until when it was within ten feet of the wall it was at chair height. " Sit down," Mielwis said over his shoulder.

Numbly, Charlie sat, and watched the big Ledom stand and glance over the labels. Suddenly, surely, he reached up. "Here we are." He hooked his slender fingertips in one of the slots and moved his hand downward. A chart began feeding out of the slot ; it was about three feet wide and was very nearly seven feet long. As it came down the lights in the room slowly dimmed, while the picture on the chart brightened. Mielwis reached up and started a second chart and then sat beside Charlie.

The room was now totally dark, and the charts blazed with light. In full colour, they were the front and side views of a Ledom clad only in the silky sporran which began perhaps an inch under the naval and fell, widening from perhaps a palm's breadth at the top, to its lower edge, which was roughly three inches above mid-thigh, and which extended from the front of one leg to the front of the other. Charlie had seen them, already, longer and shorter than this, and also red, green, blue, purple and snowy white, but he had yet to see the Ledom who went without one. It was obviously a tight taboo, and he did not comment.

" We shall dissect," said Mielwis, and by means unperceived by Charlie Johns, he caused the chart to change : *blip* ! And the sporran, as well as the superficial skin under it, were gone, exposing the fascia and some of the muscle fibres of the abdominal wall. With a long black pointer he magically produced, he indicated the organs and functions he described. The tip of the pointer was a needle, a circle, an arrow and a sort of half-parenthesis at his will, and his language was concise and intimately geared to Charlie's questions.

And Charlie asked questions ! His unease had long since disappeared, and two of his most deep-dyed characteristics took over : one, the result of his omnivorous, undisciplined, indefatigable reading and picking of brains ; second, the great gaping holes this had left in his considerable body of knowledge Both appeared far more drastic than he had heretofore known ; he knew ever so much more than he knew he knew, and he had between five and seven times as much misinformation and ignorance than he had ever dreamed.

The anatomical details were fascinating, as such things so often are, and for the usual reason which overwhelms anyone with the vestiges of a sense of wonder : the ingenuity, the invention, the efficient complexity of a living thing.

First of all, the Ledom clearly possessed both sexes, in an active form. First of all, the intromittent organ was rooted far back in what might be called, in hom sap., the vaginal fossa. The base of the organ had, on each side of it, an os uteri, opening to the two cervixes, for the Ledom had two uteri, and always gave birth to fraternal twins. On erection the phallos descended and emerged ; when flaccid it was completely enclosed, and it, in turn, contained the urethra. Coupling was mutual—indeed, it would be virtually impossible any other way. The testicles were neither internal nor external, but superficial, lying in the groin just under the skin. And throughout, there was the most marvellous reorganization of the nervous plexi, at least two new sets of sphincter muscles, and an elaborate redistribution of such functions as those of Bartholin's and Cowper's glands.

When he was quite, quite satisfied that he had the answers, and when he could think of no more, and when Mielwis had exhausted his own promptings, Mielwis flicked the two charts with the back of his hand and they slid up and disappeared into their slots, while the lights came up.

Charlie sat quietly for a moment. He had a vision of Laura —of all women . . . of all men. *Biology*, he remembered irrelevantly ; *they used to use the astronomical symbols for Mars and Venus for male and female. . . . What in hell would they use for* these ? *Mars plus y* ? *Venus plus x* ? *Saturn turned upside down* ? Then he heeled his eyes and looked up at Mielwis, blinking. " How in the name of all that's holy did humanity get *that* churned up ?"

Mielwis laughed indulgently, and turned back to the rack. He (and even after such a demonstration, Charlie found himself thinking of Mielwis as " he "—which was still the convenient translation of the genderless Ledom pronoun) he began hunting up and back and down. Charlie waited patiently for new revelation, but Mielwis gave an annoyed grunt and walked to the corner, where he placed his hand on one of the ubiquitous, irregular swirls of design. A tiny voice said politely, " Yes, Mielwis."

Mielwis said, " Tagin, where have you gone and filed the homo sap. dissections ?"

Came the tiny voice, " In the archives, under Extinct Primates."

Mielwis thanked the voice and went round to a second bank of slots at the side. He found what he was looking for. Charlie rose when he beckoned, and came to him, and the bench followed obediently. Mielwis tapped down more charts, and seated himself.

The lights dimmed and went out ; the charts flamed. " Here are dissections of homo sap., male and female," Mielwis began. " And you described Ledom as churned up. I want to show you just how little real change there has been."

He began with a beautiful demonstration of the embryology of the human reproductive organs, showing how similar were the prenatal evidences of the sexual organs, to the end of showing how really similar they remained. Every organ in the male has its counterpart in the female. " And if you did not come from a culture which so exhaustively concentrated on differences which were in themselves not drastic, you would be able to see how small the differences actually were." (It was the first time he had heard any of the Ledom make a knowledgeable reference to homo sap.)

He went on with some charts of a pathological nature. He demonstrated how, with biochemicals alone, one organ could be made to atrophy and another actually perform a function when it itself had been vestigal to begin with. A man could be made to lactate, a woman to grow a beard. He demonstrated that progesterone was normally secreted by males, and testosterone by females, if only in limited amounts. He went on to show pictures of other species, to give Charlie an idea of how wide a variety there is, in nature, in the reproductive act : the queen bee, copulating high in midair, and thereafter bearing

within her a substance capable of fertilizing literally hundreds of thousands of eggs for literally generation after generation ; dragon-flies, in their winged love-dance with each slender body bent in a U, forming an almost perfect circle whirling and skimming over the marshes ; and certain frogs the female of which lays her eggs in large pores in the male's back ; seahorses whose males give birth to the living young ; octopods who, when in the presence of the beloved, wave a tentacle the end of which breaks off and swims by itself over to the female who, if willing, enfolds it and if not, eats it. By the time he was finished, Charlie was quite willing to concede that, in terms of all nature, the variation between Ledom and homo sap., was neither intrincially unusual nor especially drastic.

" But what happened ?" he asked, when he had had a chance to mull all this. " How did this come about ?"

Mielwis answered with a question : " What first crawled out of the muck and breathed air instead of water ? What first came down out of the trees and picked up a stick to use as a tool ? What manner of beast first scratched a hole in the ground and purposely dropped in a seed ? It happened, that's all. These things happen. . . ."

" You know more about it than that," accused Charlie. " And you know a lot about homo sap. too."

With a very slight touch of testiness, Mielwis said, " That's Philos' specialty, not mine. As far as the Ledom is concerned. As for homo sap., it was my understanding that you purposely wish not to know the time or nature of its demise. No one's trying to deny you information you really want, Charlie Johns, but does it not occur to you that the beginnings of Ledom and the end of homo sap., may have something to do with one another ? Of course . . . it's up to you."

Charlie dropped his eyes. " Th-thanks, Mielwis."

" Talk it over with Philos. He can explain if anyone can. And I'll allow," he added, smiling broadly, " that he knows where to stop better than I do. It isn't in my nature to withhold information. You go talk it over with him."

" Thanks," Charlie said again. " I—I will."

Mielwis' parting word was to the effect that Nature, profligate though she may be, generator of transcendant and complicated blunders, holds one single principle above all others, and that is continuity. " And she will bring that about," he said, " even when she must pass a miracle to do it."

" Oh, you know it's great," Jeanette says to Herb as she makes a couple of nightcaps (anyway) and he is returning to the kitchen after looking at the children, " it's great having neighbours like the Smiths."

" Great," says Herb.

" Like I mean interests in common."

" Do any good tonight ?"

" Oh yes," she says, handing him the glass and perching against the sink. " You've been working for seven weeks on a presentation for the Big Bug Bakeries to sell a promotion on luxury ice-cream and cake shoppes." She pronounces it " shoppies."

" I have ?"

" Name of store chain, *Just Desserts.*"

" Oh hey, purty purty. You're a genius."

" I'm a scrounge," she says, " Tillie came out with it as a crack and maybe she'll forget she said it which is why you've been working on it for seven weeks."

"Clever clever. Will do. Smitty put me down once tonight."

" You pinch him in the nose ?"

" Sure. Middle-large wheel in big account. Fat chance."

" Whoppen ?"

He tells her about the TV show, how he said some things that sounded like compliments for it, and it sponsored by the competition.

" Oh," she says, " you fool you, but all the same he's a wick." A wick is their personal idiom for anyone who does wicked things.

" I got out from under pretty good."

" All the same, you want to get a bomb ready just in case."

He glances out the window and across the lot. " Awful close for a bomb to go bang."

" Only if they know who dropped it."

" Aw," he says, " we don't want to bomb him."

" Course not. We just want a bomb in case, Besides, I got a bombsight it would be a shame to waste." She tells him about old Trizer who got kicked upstairs and would be so happy to roll something down on Smitty.

" Get off him, Jeanette. He got prostrate."

" ' And there he lay, prostrate on the floor.' He tell you ?"

" No I found out, that's all." He adds, " Piles too."

" Oh goody. I'll twig Tillie."

" You are the most vindictive female I ever heard of."

" They put my little buddy-buddy-hubby down, and I won't let'm."

" Besides, she'll think I told you."

" She'll only wonder and wonder how it ever got out. I'll fix it, buddy-buddy-hubby. We're a team, that's what."

He swirls his drink and watches it spin. " Smitty said something about that." He tells her about the desert boots and how Smitty thinks pretty soon the kids won't know which one is the father.

" Bother you ?" she says brightly.

" Some."

" You forget it," she tell him. " You're hanging on to somebody's dead hand from way back. What are we, we're a new kind of people, buddy-buddy. So suppose Karen and Davy grow up without this big fat Thing you read about, the father image, the mother image, all like that."

" ' The Story of my Life, by Karen Railes. When I was a lit-tul girrul I did-unt have a mom-my and dad-dy like the other lit-tul boys and girruls, I had a Committee.' "

" Committee or no, gloomy-Gus, they have food drink clothes house and love, and isn't that supposed to be all of it ?"

" Well yes, but that father image is supposed to be worth something too."

She pats him on the cheek. " Only if you way down deep feel you have to be big. And you're already sure you're the only one big enough to belong to this Committee, right ? Let's go to bed."

" How do you mean that ?"

" Let's go to bed."

Charlie Johns found Philos standing outside Mielwis' office, looking as if he had just arrived. " How was it ?"

" Huge," said Charlie. " It's well, overwhelming, isn't it ?" He looked carefully at Philos, and then said, " I guess it isn't, not to you."

" You want more ? Or was that enough for now ? Do you have to sleep again ?"

" Oh, no, not until night." The word " night " was there to be used, but like " male " and " female," seemed to have a rather more remote application than he needed to express himself. He thought he ought to add to it. " When it's dark."

" When what is dark ?"

" You know. The sun goes down. Stars, moon, all that."

" It doesn't get dark."

" It doesn't . . . what are you talking about ? The earth still turns, doesn't it ?"

" Oh, I see what you mean. Oh yes, I imagine it still gets dark out there, but not in Ledom."

" What is Ledom—underground ?"

Philos cocked his head on one side. " That isn't a yes or no kind of question."

Charlie looks down the corridor and out one of the huge panes to the overcast bright silver sky. " Why isn't it ?"

" You'd better ask Seace about it. He can explain better than I can."

In spite of himself, Charlie laughed, and in answer to Philos' querying look, he explained, " When I'm with you, Mielwis can supply the answers. When I'm with Mielwis, he tells me that you're the expert. And now you send me to Seace."

" What did he say I was an expert at ?"

" He didn't say, exactly. He implied that you knew all there was to know about the history of Ledom. He said something else . . . let's see. Something about you knowing when to stop giving information. Yes, that was it ; he said you'd know where to stop, because it isn't in his nature to withhold information."

For the second time Charlie saw a swift flush pass through Philos' dark enigmatic face. " But it's my nature."

" Oh, now, look," said Charlie anxiously, " I could be misquoting. I could have missed something. Don't make me a source of trouble between you and—"

" Please," said Philos evenly, " I know what he meant by it and you haven't done any harm. This is one thing in Ledom which has nothing to do with you."

" It has, it has ! Mielwis said that the beginning of Ledom may well have something to do with the end of homo sap., and that's the one thing I want to steer clear of. It certainly does involve me !"

They had begun to walk, but now Philos stopped and put his hands on Charlie's shoulder. He said, " Charlie Johns, I do

beg your pardon. We're both—we're all wrong, and all right. But truly, there is nothing in this interchange that you're responsible for. Please let it go at that, for it was wrong of me to behave that way. Let my feelings, my problems, be forgotten."

Slyly, Charlie said, " What—and not know everything about Ledom ?" And then he laughed and told Philos it was all right, and he would forget it.

He wouldn't.

In bed, Herb suddenly says, " But Margaret don't love us."

Contentedly, Jeanette says, " So we'll bomb her too. Go to sleep. Margaret who ?"

" Mead. Margaret Mead the anthropologist who had that article I told you about."

" Why she don't love us ?"

" She says a boy grows up wanting to be like his father. So when his father is a good provider and playmate and is as handy around the house as a washer-dryer combination or a garbage disposer or even a wife, why the kid grows up full of vitamins and fellow-feeling and becomes a good provider and playmate and etcetera."

" So what's wrong with that ?"

" She says from Begonia Drive can't come adventurers, explorers and artists."

After a silence, Jeanette says, " You tell Margaret to go climb Annapurna and paint herself a picture. I told you before—we're a new kind of people now. We're inventing a new kind of people that isn't all messed up with Daddy out drunk and Mommy with the iceman. We're going to bring out a whole fat crop of people who like what they have and don't spend their lives getting even with somebody. You better quit thinking serious thinks, buddy-buddy-hubby. It's bad for you."

" You know," he says in amazement, " that's precisely exactly what Smitty told me." He laughs. " You tell it to me to set me up, he tells it to me to put me down."

" I guess it's how you look at it."

He lies there for a time thinking about his-and-her desert boots and my parent is a Committee and how dandy a guy can be with a dish cloth, until it starts to spin a bit in his head. Then he thinks the hell with it and says, " Good night, honey."

" Good night, honey," she murmurs.

" Good night, sweetie."

" G'night, sweetie."

" God damn it !" he roars, " Stop calling me all the time the same thing I call you !"

She is not scared exactly, but she is startled, and she knows he is working something out, so she says nothing.

After a time Herb touches her and says, " I'm sorry, honey."

She says, " That's all right—George."

He has to laugh.

It took only a few minutes by " subway "—there was a Ledom name for it but it was a new one and has no direct English translation—for Philos and Charlie to get to the Science One. Emerging under that toppling-top of a structure they made their way around the pool, where thirty or forty Ledom were splashing again (it could hardly be " still ") and they stood a moment to watch. There had been little talk on the way, both having apparently a sufficiency of things to think about, and it was through his own thoughts that Charlie murmured, watching the diving, wrestling, running : " What in time keeps those little aprons on ?" And Philos, reaching gently, tugged at Charlie's hair and asked, " What keeps that on ?"

And Charlie, for one of the very few times in his whole life, blushed.

Around the building and under the colossal overhang they went, and there Philos stopped. " I'll be here when you're through," he said.

" I wish you'd come up with me," said Charlie. " This time I'd like you to be around when somebody says, ' Talk to Philos about it.' "

" Oh, he'll say it all right. And I'll talk you blue in the face when the time comes. But don't you think you should know more about Ledom as it is before I confuse you with a lot of things about what it was ?"

" What *are* you, Philos ?"

" A historian." He waved Charlie over to the base of the wall and placed his hand on the invisible railing. " Ready ?"

" Ready."

Philos stepped back and Charlie went hurtling upward. By this time he was familiar enough with the sensation to be able

to take it without turning off the universe ; he was able to watch Philos walking back toward the pool. Strange creature, he thought. Nobody seems to like him.

He drifted to a silent stop in apparent midair before the great window, and boldly stepped toward it. And through it. And again he sensed that certainty of enclosure as he did so : what did it do, that invisible wall—withdraw its edges exactly around him, so that he formed part of the enclosure while passing through ? It must be something like that.

He looked around. The first thing he saw was the padded cell, the silver winged pumpkin, the time machine, with its door open just as it had been when he emerged. There were the draped ends of the room, and some kind of oddly leaning equipment on a sort of heavy stand near the centre of the room; some chairs, a sort of stand-up desk with a clutter of papers on it.

" Seace ?"

No answer. He walked across the room a little timidly, and sat on one of the chairs, or hummocks. He called again, a little louder, with still no results. He crossed his legs and waited, and uncrossed them and recrossed them on the other side. After a time he rose again and went to peer into the silver pumpkin.

He hadn't known it would hit him so hard ; he hadn't known it would hit him at all. But there, just there on that smooth soft curved silver floor, he had sprawled, more dead than anything, years and unknown miles away from everything that ever mattered, even with the precious sweat dried on his body. His eyes burned in a spurt of tears. Laura ! Laura ! Are you dead ? Does being dead make you any nearer where I am ? Did you grow old, Laura, did your sweet body wrinkle and shrivel up ? When it did, were you suddenly glad I was not there to see it ? Laura, do you know I'd give anything in life and even life itself to touch you once—even to touch you if you were old and I was not ?

Or . . . did the end, the final, awful *thing* happen while you were young ? Did the big hammer hit your house, and were you gone in a bright instant ? Or was it the impalpable rain of poison, making you bleed inside and vomit and lift up your head and look at the lovely hair fallen out on the pillow ?

How do you like me ? he cried in a silent shout and a sudden soundless crash of gaiety ; how do you like Charlie in navy-

blue, red-piped diapers and a convertible coat with the top down ? How about this crazy collar ?

He knelt in the doorway of the time machine and covered his face with his hands.

After a while he got up and went looking for something to wipe his nose on.

Looking and looking, he said, " I'm going to be with you when it happens, Laura. Or until it happens. . . . Laura, maybe we can both die of old age, waiting. . . ." Blinded by his own feelings, he found himself fumbling with the drapes at one end of the room without really knowing how he got there or what he was doing. Back there was nothing but wall, but there was a squiggle and he palmed it. An opening like the one which had contained his breakfast appeared, only no long tongue came shoving out. He bent and peered into the illuminated interior, and saw a pile of roughly cubical transparent boxes stacked inside, and a book.

He took out the boxes, at first just curiously, then with increasing excitement. He took them out one by one, but carefully, one by one, he put them back as he had found them.

In a box was a nail, a rusty nail, with bright metal showing where it had been diagonally sheared.

In a box was a rain-faded piece of a book of matches, with the red from the match-heads staining the paper sticks. And he knew it, he knew it ! He'd recognize it anywhere. It was only a fragment, but that was from Dooley's Bar and Grill over on Arch Street. Except that . . . that the few letters that were left were reversed . . .

In a box was a dried marigold. Not flamboyante, not one of Ledom's crossboard bastardized beautiful miracle blossoms, but a perky little button of a dried-up marigold.

In a box was a clod of earth. Whose earth ? Was this earth that her foot had trodden ? Did it come from the poor sooty patch of ground under the big white lantern with the fading 61 painted on it ? Had the very tip of the time machine's front tooth bitten this up on an early try ?

Finally, there was a book. Like everything else here, it refused to be a neat rectangle, being a casual circular affair about as precise in contour as an oatmeal cookie, and the lines inside were not-quite-regular arcs. (On the other hand, if you learned to write without shifting your elbow, wouldn't arced lines be better to write on ?) But anyway it opened hingewise

as a good book should, and he could read it. It was Ledom, but he could read it, which astonished him no more than his sudden ability to speak it ; less, rather ; he had already been astonished and that was that.

It consisted first of all of some highly technical description of process, and then several pages of columnar entries, with many erasures and corrections, as if someone had made here a record of some tests and calibrations. Then there were a great many pages each of which had received an imprint of four dials, like four clocks or instruments, minus their hands. Towards the end these were blank, but the first were scribbled and scrawled over, with the dial-hands marked in and odd notes : *Beetle sent, no return.* There were a lot of these *no return* entries, until he came to a page over which was scrawled a huge and triumphant Ledom-style exclamation point. It was Experiment 18, and shakily written was *Nut sent, Flower returned* ! Charlie got out the box with the flower in it and, turning it over several times, finally located the number 18.

Those dials, those dials. . . . he turned suddenly and hurried to the leaning array of unfamiliar equipment near the centre of the room. Sure enough, there were four dials on it, and around the rim of each, a knob, tracked to circle the dial. Let's see, you'd set the four knobs according to the book, and then—oh sure, there it was. A toggle switch is a toggle switch in any language, and he could read ON and OFF in this one.

Back he went to the corner, turned the pages frantically. Experiment 68 . . . the last one before the unfilled pages began. *Sent Stones. Return :* (In Ledom phonetics) *Charlie Johns.*

He clutched the book hard and began to read those settings off that paper and into his head.

" Charlie ? You here, Charlie Johns ?"

Seace !

When Seace, having entered from some invisible dilating doorway behind the time machine, came round the corner, Charlie had been able to return the book. But he wasn't able to find the squiggle in time, and there he stood, with the compartment open and the boxed dead marigold in his hand.

★

" What you doing ?"

Herb opens his eyes and sees his wife standing over him. He says, " Lying in a hammock of a Saturday noon a-talkin' to my broad."

" I was watching you. You were looking very unhappy."

" As Adam said when his wife fell out of the tree—Eve's-dropping again."

" Oh, you golden bantam you ! . . . tell mama."

" You and Smitty don't want me to talk serious."

" Silly. I was asleep when I said that."

" All right. I was thinking about a book I read one time which I wish I had to read over. *The Disappearance*."

" Maybe it just disappeared, then. Oh God, it's Philip Wylie. Likes fish, hates women."

" I know what you mean and you're wrong. He likes fish but hates the way women are treated."

" That makes you look unhappy in a hammock ?"

" I wasn't really unhappy. I was just trying awful hard to remember exactly what the man said."

" In *The Disappearance* ? I remember. It's about how all the women in the world disappeared one day, right on the earth. Spooky."

" You did read it ! Oh good. Now, there was a chapter in it that kind of set out the theme. That's what I want."

" Oh-h-h-h . . . yes. I remember that. I started to read it and then I skipped it because I wanted to get on with the story. There was this—"

" The only thing I like about a copywriter that's better than a best-seller writer," Herb interrupts, " is that though they're both wordsmiths, a copywriter makes it his business to never let his words get between the customer and the product. That's what Wylie did with that chapter in that book. Nobody who needs it ever gets to read it."

" You mean *I* need it ?" she says defensively, then, " what is it he's got I need ?"

" Nothing," says Herb miserably, and sinks back in the hammock with his eyes closed.

" Oh, honey, I didn't mean—"

" Oh, I'm not mad. It's just, I think he agrees with you. I think he knows why he does better than you do."

" Agrees with *what*, for Pete's sake !"

Herb opens his eyes and looks past her at the sky. " He says people made their first big mistake when first they started

to forget the similarity between men and women and began to concentrate on the difference. He calls that *the* original sin. He says it has made men hate men and women too. He blames it for all wars and all persecutions. He says that because of it we've lost all but a trickle of the ability to love."

She snorts. " I never said any of that !"

" That's what I was thinking so hard about. You said we were a new kind of people coming up, like a Committee or a team. The way there are girl things to do, and boy things to do, and nowadays it doesn't much matter who does 'm ; we both can, or either."

" Oh," she says. " That."

" Wylie, he even makes a funny. He says some people think that most men are stronger than most women because men have bred women selectively."

" Do you breed women selectively ?"

He laughs at last, which is what she wants ; she can't bear to have him looking sad. " Every damn time," he says, and topples her into the hammock."

Seace, his head cocked to one side, came briskly down to Charlie. " Well, my young booter-in-the-tail. What are you up to ?"

" I'm sorry about that," Charlie stammered. " I was very mixed up."

" You dug out the flower, hm ?"

" Well, I came and—you were, I mean weren't—"

Surprisingly, Seace clapped him on the shoulder. " Good, good ; it's one of the things I was going to show you. You know what that flower is ?"

" Yes," said Charlie, almost unable to speak. " It's a m-marigold."

Seace fumbled past him and got out the book, and wrote down the name of the flower. " Doesn't exist in Ledom," he said proudly. He nodded toward the time machine. " Never can tell what that thing will dredge up. Of course, you're the prize specimen. Chances are once in a hundred and forty three quadrillion of doing it again, if that makes any sense to you."

" You . . . you mean that's all the chance I have of going back ?"

Seace laughed. " Don't look so woebegone ! Milligram by milligram—I do believe, atom by atom—what you put in there, you take out. Question of mass. Have complete choice of what we shove in. What comes out—" He shrugged.

" Does it take long ?"

" That's something I hoped to learn from you, but you couldn't say. How long do you think you were in there ?"

" Seemed like years."

" Wasn't years ; you'd have starved to death. But this end, it's instantaneous. Shut the door, throw the switch, open the door, it's all over." Calmly, he took the marigold from Charlie and the book, slung them back in the hole, and palmed it shut. " Now then ! What d'you want to know ? I'm told I'm to draw the line only at information about when and how homo sap. cuts its silly collective throat. Sorry. Don't take that personally. Where do you want to begin ?"

" There's so much . . ."

" You know something ? There's precious little. Let me give you an example. Can you imagine a building, a city, a whole culture maybe running on the single technological idea of the electric generator and the motor—which is essentially the same thing ?"

" I—well, sure."

" And pretty amazing to someone who'd never known such a thing before. With just electricity and motors, you can pull, push, heat, cool, open, close, light—well, more or less, name it, you have it. Right ?"

Charlie nodded.

" Right. All motion things, see what I mean ? Even heat is motion when you get right down to it. Well, we have a single thing that does all that the electric motor can do, plus a whole range of things in the static area. It was developed here in Ledom, and its the key stone to the whole structure. Called A-field. A is for Analog. A very simple-minded gadget, basically. 'Course the theory—" He wagged his head. " You ever hear of a transistor ?"

Charlie nodded. This was a man with whom one could converse with one's neck-muscles.

Seace said, " Now there's as simple-minded a device as a device can get. A little lump of stuff with three leads into it. Shove a signal in one wire, out comes the same signal multiplied by a hundred. No warm-up time, no filaments to break, no vacuum to lose, and almost no power to operate.

" Then along comes the tunnel diode and makes the transistor complicated, over weight, oversized and inefficient in comparison, and it's much smaller and, to the naked eye, a lot simpler. But the theory, God ! I've always said that some day we'll reduce these things so far that we'll be able to do anything at all with nothing at all drawing no power—only nobody'll be able to understand the theory."

Charlie who had encountered the professional joke before, smiled politely.

" All right : the A-field. I'll try to make it non-technical. Remember that spoon you used this morning ? Yes ? Yes. Well, in the handle is a sub-miniature force-field generator. The shape of the field is determined by guides made of a special alloy. The field is so small you couldn't see it, even if it was visible, which it isn't, with nine electron microscopes in series. But that blue wire around the edge is so composed that every atom in it is an exact analog of the subatomic particles forming the guides. And for reasons of spatial stress that I won't waste your time with, an analog of the field appears inside the loop. Right ? Right. That's the gadget, the building block. Everything else around here is done by piling it up. The window—that's an analog loop. There's two of 'em holding up this building—you didn't think it was done with prayer, did you ?"

" The building ? But—the spoon was a loop, and I imagine the window is too, but I don't see any loops outside the building It would have to be outside, wouldn't it ?"

" It sure would. You have an eye, but you don't need an eye to see that. Sure, this heap is propped up two ways from the outside. And the loops *are* there. But instead of being made of alloy, they're standing waves. If you don't know what a standing wave is I won't bother you with it. See that ?" He pointed.

Charlie followed his fingers and saw the ruins and the great strangler fig.

" That," said Seace, " is one of the props, or the outer end of it. Try to imagine a model of this building, held up by two triangles of transparent plastic, and you'll have an idea of the shape and size of the fields."

" What happens when somebody walks into it ?"

" Nobody does. Cut an arch in the ground-line of your piece of plastic, and you'll see why not. Sometimes a bird hits one, poor thing, but mostly they seem to be able to avoid it. It

remains invisible because the surface isn't really a surface, but a vibrating matrix of forces, and dust won't sit on it. And it's perfectly transparent."

" But . . . doesn't it yield ? The bowl of that spoon I used, it sagged under the weight of the food—I saw it. And these windows . . ."

" You *have* got an eye !" Seace commended. " Well, wood is matter, brick is matter, steel is matter. What's the difference between them ? Why, what's in 'em, and how it's put together, that's all. The A-field can be dialled to be anything you want it to be—thick, thin, impermeable, what have you. Also rigid—rigid like nothing else has ever been."

Charlie thought : That's just dandy as long as you pay your electric bill to keep the thing up there ; but he didn't say it because the language had no word for " electric bill," or even " pay."

He looked out at the strangler fig, squinted his eyes, and tried to see the thing that was holding the building up. " I bet you can see it when it rains," he said at last.

" No you can't," said Seace briskly. " Doesn't rain."

Charlie looked up at the bright overcast. " What ?"

Seace joined him and also looked up. " You're looking at the underside of an A-field bubble."

" You mean—"

" Sure, all of Ledom is under a roof. Temperature controlled, humidity controlled, breezes blowing when they're told to."

" And no night . . ."

" We don't sleep, so why bother ?"

Charlie had heard that sleep was quite possibly an inbred tendency, inherited from cave-folk who of necessity crouched unmoving in caves during dark hours to avoid the nocturnal carnivore ; according to the theory, the ability to lose consciousness and relax during those times became a survival factor.

He glanced again at the sky. " What's outside, Seace ?"

" Better leave that to Philos."

Charlie began to grin, and then the smile cut off. This shunting from one expert to another seemed always to occur when he skirted the matter of the end of the human species as he had known it.

" Just tell me one thing, as—ah—a matter of theory, Seace. If the A-field is transparent to light, it would be transparent to any radiation, no ?"

" No," said Seace. " I told you—it's what we dial it up to be, including opaque."

" Oh," said Charlie. He turned his eyes away from the sky, and he sighed.

" So much for static effects," said Seace briskly. Charlie appreciated his understanding. " Now : the dynamic. I told you, this stuff can do anything the electric motor and electricity can do. Want to move earth ? Dial an analog field down so thin it'll slip between molecules, slide it into a hillside. Expand it a few millimetres, back it out. Out comes a shovel full—but the shovel is as big as you want it to be, and your analog can be floated anywhere you want it. Anything can be handled that way. One man can create and control forms for pouring foundations and walls, for example, remove them by causing them to cease to exist. And it isn't any sand-and-chemical mud you pour ; the A-field can homogenize and realign practically anything." He thumped the concrete-like curved pillar at the side of the window.

Charlie, who at one time had run a bulldozer, began to compliment himself on his early determination to be only impressed, but not amazed, by technology. He recalled one time on a drydock job, when he was driving an Allis-Chalmers HD-14 angledozer back to the tractor shop to have a new corner welded on the blade, and a labour foreman flagged him and asked him to backfill a trench. While the pick-and-shovel boys scrambled out of the way, he back-filled and tamped a hundred feet of trench on one pass, in about 90 seconds—a job which would have taken the 60-odd men the rest of the week. Given the gadgetry, one skilled man is a hundred, a thousand, ten thousand. It was difficult, but not impossible, to visualize the likes of the Medical One, four hundred feet high, being put up in a week by three men.

" And more on the dynamic side. The right A-field can make like an X-ray for such things as cancer control and genetic mutation effects—but without burns or other side effects. I suppose you've noticed all the new plants ?"

All the new people too, said Charlie, but not aloud.

" That grass out there. Nobody mows it ; it just lies there. With the A-field we transport everything and anything, process

food, manufacture fabrics—oh everything ; and the power consumption is really negligible."

" What kind of power is it ?"

Seace pulled at his horse-nostrilled nose. " Ever hear of negative matter ?"

" Is that the same thing as contraterrene matter—where the electron has a positive charge and the nucleus is negative ?"

" You surprise me ! I didn't know you people had come so far."

" Some guys who wrote science fiction stories came that far."

" Right. Now, know what happens if negative matter comes in contact with normal matter ?"

" Blam. The biggest kind."

" That's right—all the mass turns into energy, and with the tiniest particle of mass, that still turns out to be a whole *lot* of energy. Now : the A-field can construct an analog of anything —even a small mass of negative matter. It's quite good enough to make a transformation with normal matter and release energy—all you want. So—you construct the analog field with an electrical exciter. When it begins to yield, a very simple feedback makes it maintain itself, with plenty of energy left over to do work."

" I don't pretend to understand it," smiled Charlie. " I just believe it."

Seace smiled back, and said with mock severity, " You came here to discuss science, not religion." Brisk again, he went on, " Let's call it quits on the A-field, then, right ? Right. All I really wanted to point out to you was that it is, in itself, simple, and that it can do almost anything. I said earlier—or if I didn't I meant to—that all of Ledom has, as keystones, two simple things, and that's one of them. The other—the other has the made-up name of cerebrostyle."

" Let me guess." He translated the term into English and was going to say, ' A new fashion in brains ? ' but the gag wouldn't take in Ledom : " Style " was indeed a word and concept in Ledom, but it was not the same word as the suffix (in Ledom) of " cerebrostyle." This second kind of style had the feeling of *stylus*, or writing implement. " Something to write on brains with."

" You've got the point," said Seace, " but not by the handle. . . . It's something a brain writes on. Well . . . put it this

way. Being impressed by a brain is its first function. And it can be used—and it is used—to impress things on brains."

Confused, Charlie smiled, " You'd better tell me what it is, first."

" Just a little colloidal matter in a box. That, of course, is an over-simplification. And to continue the mistake of over-simplifying, what it does when it's hooked up to a brain is to make a synaptic record of any particular sequence that brain is performing. You probably know enough about the learning process to know that a mere statement of the conclusion is never enough to teach anything. To the untaught mind, my statement that alcohol and water interpenetrate on the molecular level might be taken on faith, but not in any other way. But if I lead up to it, demonstrate by measuring out a quantity of each, and mixing them, show that the result is less than twice the original measure, it begins to make some sense.

"And to go back even further, before that makes any sense, I must be sure that the learning mind is equipped with the concepts ' alcohol,' ' water,' ' measure,' and ' mix.' and further that it is contrary to the brand of ignorance known as common sense that equal quantities of two fluids should aggregate to less than twice the original amount. In other words, each conclusion must be preceded by a logical and consistent series, all based on previous observation and proof.

" And what the cerebrostyle does is to absorb certain sequences from, say, my mind and then transfers them to, say yours ; but it is not the mere presentation of a total, a conclusion ; it is the instillation of the entire sequence which led up to it. It's done almost instantaneously, and all that's required of the receiving mind is to correlate it with what's already there. That last, incidentally, is a full-time job."

" I'm not sure that I—" Charlie wavered.

Seace drove on. " What I mean is that if, among a good many proven data, the mind contained some logically-arrived-at statement—and mind you, logic and truth are two totally different things—to the effect that alcohol and water are immiscible—that statement would ultimately find itself in conflict with other statements. Which one would win out would depend on how much true and demonstrable data were there to match it against. At length (actually, damn soon) the mind would determine that one of the statements was wrong. That situation will itch until the mind finds out *why* it's wrong—that is, until it has exhaustively compared each logical step, from

premise to conclusion, of every relative step of every other conclusion."

" A pretty fair teaching device."

" It's the only known substitute for experience," smiled Seace, " and a sight faster. I want to stress the fact that this isn't just indoctrination. It would be impossible to impress untruth on a mind with the cerebrostyle, however logical, because sooner or later a conclusion would be presented which was contrary to the observed facts, and the whole thing would fall apart. And likewise, the cerebrostyle is not a sort of 'mind probe ' designed to dig out your inner secrets. We have been able to distinguish between the dynamic, or sequence-in-action currents of the mind, and the static, or storage parts. If a teacher records the alcohol-and-water sequence to its conconclusion, the student is not going to get the teacher's life-history and tastes in fruit along with his lesson in physics.

" I wanted you to understand this because you'll be going out among the people soon and you'll probably wonder where they get their education. Well, they get it from the cerebrostyle, in half-hour sessions once each twenty-eight days. And you may take my word for it, for every other of those days they are working full time on the correlations—no matter what else they may be doing."

" I'd like a look at that gadget."

" I haven't one here, but you've already met it. How else do you suppose you learned an entire language in—oh, I guess it was all of twelve minutes ?"

" That hood thing in the operating room behind Mielwis' office !"

" That's right."

Charlie thought that over for a moment, and then said, " Seace, if you can do that, what's all this nonsense about having me learn all I can about Ledom before you'll send me home ? Why not just cook my head under that thing for another twelve minutes and give it to me that way ?"

Seace shook his head gravely. " It's your opinion we want. *Your* opinion, Charlie Johns. The one thing the cerebrostyle gives you is the truth, and when you get it, you *know* it's the truth. We want you to get your information through the instrument known as Charlie Johns, to learn the conclusions of that Charlie Johns."

" I think you mean I'm not going to believe some of the things I see."

" I know you're not. You see? The cerebrostyle would give us Charlie Johns' reaction to the truth. Your own observations will give us Charlie Johns' reaction to what he thinks is the truth."

" And why is that so important to you?"

Seace spread his cool clever hands. " We take a bearing. Check our course." And before Charlie could evaluate that, or question him further, he hurried to sum up :

" So you see we aren't miracle-workers, magicians. And don't be surprised to find out that we're not, after all, primarily a technological culture. We can do a great deal, true. But we do it with only two devices which, as far as Philos is able to tell me, are unfamiliar to you—the A-field and the cerebrostyle. With them we can eliminate power—both man- and machine-power—as a problem ; we have more than we'll ever need. And what you would call education no longer takes appreciable power or plant or personnel, or time. Likewise, we have no shortages of food, housing, or clothing. All of which leaves the people free for other things."

Charlie asked, " What other things, for God's sake?"

Seace smiled. " You'll see . . ."

" Mommy?" Karen demands. Jeanette is giving the three-year-old her bath.

" Yes, honey."

" Did I reely reely come out of your tummy?"

" Yes, honey."

" No I didn't."

" Who says you didn't?"

" Davy says *he* came out of your tummy."

" Well, he did. Close your eyes tight-tight-tight or you'll get soap in 'em."

" Well if Davy came out of your tummy why didn't I come out of Daddy's tummy?"

Jeanette bites her lip—she always tries her best not to laugh at her children unless they are laughing first—and applies shampoo

" Well Mommy, *why*?"

" Not daddies, ever?"

" Not ever."

Jeanette sudses and rinses and sudses again and rinses again, and nothing more is said until the pink little face safely regains its wide-open blue eyes. " I want bubbles."

" Oh *honey* ! Your hair's all rinsed !" But the pleading look, the I'm-trying-not-to-cry look, conquers, and she smiles and relents. " All right, just for a while, Karen. But mind, don't get bubbles on your hair. All right ?"

" Right." Karen watches gleefully as Jeanette pours a packet of bubble-bath into the water and turns on the hot faucet. Jeanette stands by, partly to guard the hair, partly because she enjoys it. " Well then," says Karen abruptly, " we don't need daddies then."

" Whatever do you mean ? Who would go to the office and bring back lollipops and lawnmowers and everything ?"

" Not for that. I mean for babies. Daddies can't make babies."

" Well, darling, they *help*."

" How, Mommy ?"

" That's enough bubbles. The water's getting too hot." She shuts off the water.

" *How*, Mommy ?"

" Well, darling, it's a little hard maybe for you to understand but what happens is that a daddy has a very special kind of loving. It's very wonderful and beautiful, and when he loves a mommy like that, very very much, she can have a baby."

To be continued

Dear Mr. Carnell,

In recent editions of *New Worlds* you have discussed the decrease in sales of science fiction magazines. You complained that the poor quality of Hollywood s-f films turns would-be readers against it, but anybody glancing through *New Worlds* idly would be given the impression that s-f is rather ' peculiar ' and its fans escapists merely by turning to the editorial and Postmortem, you and those who write in " Postmortem " are apt to sound as if you are writing for a small closely-knit circle of people who have set themselves against the remainder of society. May I suggest that you stop using the first person plural ?

There has been much comment about s-f writing. ' Plot-Nots ' is the best way to discourage new writers ; one of the attractions of s-f is the diversity of plots and twists, by introducing rules of any kind you are discouraging writers who like the freedom s-f offers. No plot should be discarded if it is a good story. I would, however, suggest that if a writer finds his story could be written just as well without introducing s-f, he should re-write it leaving out the science fiction ; it is certain to be boring to s-f fans in its original form. The main trap to s-f writers is the introduction of weird inventions in the middle of a story, this represents the easiest way out to writers who, through not really thinking about their story, have got into difficulties. I can accept any number of strange and unprecedented inventions, but I feel cheated when I find that the s-f hero has just discovered an invention which will get him out of a dangerous situation.

The name science fiction has also come in for comment recently. I suggest that this term is not a definition of the genre, but a category like those listed by Mr. Savage, but I do *not* want it called ' speculative fiction.' Since everyone knows it is speculative fiction, why bother to change the name ?

Keith H. Otter,
*London, N.W.*10

Dear Carnell,

In your editorial (which I always read first) in the August 1960 issue of *New Worlds*, you missed mentioning that in the society Heinlein depicted, the Government had to take ALL volunteers, and then find a job that fitted their capabilities. For instance, the girl who wanted to become a spacecraft pilot could have wound up washing pots and pans. Not our system of picking only the physically fit, and then holding them whether or not they shaped up in training.

Now much of this philosophy expressed by " Mr. Dubois " is actually Heinlein's personal philosophy. He is an Annapolis graduate himself, invalided out of the service. His idea on the duty of the government to protect its men, no matter what the cost, is also my own. Loyalty should work both ways. So is his opinions on so-called " juvenile delinquency." You have the same problem in England, though I hope not to the same extent.

Both this country and England are infested with a plague of minus-brained " do-goods " who have forgotten that the prime object of laws is to protect the law-abiding, not the law-breakers. Also that the young of the human race are merely the young of the fiercest of all animals, who have to be civilized.

I quote Heinlein : " Man is a wild animal with the will to survive . . . against all competition. Unless one accepts that, anything said about morals, war, politics—you name it—is nonsense. Correct morals arise from knowing what Man IS, not what do-gooders and well meaning old Aunt Nellies would like him to be."

Arthur George Smith,
Norwalk, Ohio, USA.