Waldo by Robert Heinlein

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The act was billed as ballet tap - which does not describe it.

His feet created an intricate tympany of crisp, clean taps.

There was a breath-catching silence as he leaped high

into the air, higher than a human being should - and

performed, while floating there, a fantastically improbable

entrechat douze.

He landed on his toes, apparently poised, yet producing

a fortissimo of thunderous taps.

The spotlights cut, the stage lights came up. The audience

stayed silent a long moment, then realized it was time to

applaud, and gave.

He stood facing them, letting the wave of their emotion

sweep through him. He felt as if he could lean against it;

it warmed him through to his bones.

It was wonderful to dance, glorious to be applauded, to be

liked, to be wanted.

When the curtain rang down for the last time he let his

dresser lead him away. He was always a little bit drunk at

the end of a performance; dancing was a joyous intoxication

even in rehearsal, but to have an audience lifting him,

carrying him along, applauding him - He never grew jaded

to it. It was always new and heartbreakingly wonderful.

'This way, chief. Give us a little smile.' The flash bulb flared.

'Thanks.'

'Thank'you. Have a drink.' He motioned towards one end of his dressing room. They were all such nice fellows, such grand guys - the reporters, the photographers - all of them.

'How about one standing up?' He started to comply, but his dresser, busy with one slipper, warned him:

'You operate in half an hour.'

'Operate?' the news photographer said. 'What's it this time?'

'A left cerebrectomy,' he answered.

'Yeah? How about covering it?'

'Glad to have you - if the hospital doesn't mind.'

'We'll fix that.'

Such grand guys.

'-trying to get a little different angle on a feature article.'

It was a feminine voice, near his ear. He looked around hastily, slightly confused. 'For example, what made you decide to take up dancing as a career?'

'I'm sorry,' he apologized. 'I didn't hear you. I'm afraid it's pretty noisy in here.'

'I said, why did you decide to take up dancing?'

'Well, now, I don't quite know how to answer that. I'm afraid we would have to go back quite a way-'

James Stevens scowled at his assistant engineer. 'What have

you got to look happy about?' he demanded.

'It's just the shape of my face,' his assistant apologized.

'Try laughing at this one: there's been another crash.'

'Oh, cripes! Don't tell me, let me guess. Passenger or freight?'

'A Climax duo-freighter on the Chicago-Salt Lake shuttle,

just west of North Platte. And, chief-'

'Yes?'

'The Big Boy wants to see you.'

'That's interesting. That's very, very interesting. Mac-'

'Yeah, chief.'

'How would you like to be Chief Traffic Engineer of North

American Power-Air? I hear there's going to be a vacancy.'

Mac scratched his nose. 'Funny that you should mention

that, chief. I was just going to ask you what kind of a

recommendation you could give me in case I went back into

civil engineering. Ought to be worth something to you to

get rid of me.'

'I'll get rid of you - right now. You bust out to Nebraska,

find that heap before the souvenir hunters tear it apart,

and bring back its deKalbs and its control board.'

'Trouble with cops, maybe?'

'You figure it out. Just be sure you come back.'

"With my slipstick, or on it."

Stevens's office was located immediately adjacent

to the zone power plant; the business offices of

North American were located in a hill, a good three quarters of a mile away. There was the usual inter-connecting tunnel; Stevens entered it and deliberately chose the low-speed slide in order to have more time to think before facing the boss.

By the time he arrived he had made up his mind, but he did not like the answer.

The Big Boy, Stanley F. Gleason, Chairman of the Board greeted him quietly. 'Come in, Jim. Sit down. Have a cigar.'

Stevens slid into a chair, declined the cigar and pulled out a cigarette, which he lit while looking around. Besides the chief and himself, there were present Harkness, head of the legal staff, Dr Rambeau, Stevens's opposite number for research, and Striebel, the chief engineer for city power.

Us five and no more, he thought grimly- All the heavy-weights and none of the middleweights. Heads will roll!- Starting with mine.

'Well,' he said, almost belligerently, 'we're all here. Who's got the cards? Do we cut for deal?'

Harkness looked faintly distressed by the impropriety; Rambeau seemed too sunk in some personal gloom to pay any attention to wisecracks in bad taste. Gleason ignored it.

'We've been trying to figure a way out of our troubles, James.

I left word for you on the chance that you might not have left.'

'I stopped by simply to see if I had any personal mail,'

Stevens said bitterly. 'Otherwise I'd be on the beach at Miami, turning sunshine into vitamin D.'

'I know,' said Gleason, 'and I'm sorry. You deserve that vacation, Jimmie. But the situation has gotten worse instead of better. Any ideas?'

'What does Dr Rambeau say?'

Rambeau looked up momentarily. 'The deKalb receptors can't fail,' he stated.

'But they do.

"They can't. You've operated them improperly.' He sunk back into his personal prison.

Stevens turned back to Gleason and spread his hands. 'So far as I know, Dr Rambeau is right, but if the fault lies in the engineering department, I haven't been able to locate it.

You can have my resignation.'

'I don't want your resignation,' Gleason said gently. 'What I want is results. We have a responsibility to the public.'

'And to the stockholders,' Harkness put in.

'That will take care of itself if we solve the other,' Gleason observed. 'How about it, Jimmie? Any suggestions?'

Stevens bit his lip. 'Just one,' he announced, 'and one I don't like to make. Then I look for a job peddling magazine subscriptions.'

'So? Well, what is it?'

'We've got to consult Waldo.'

Rambeau suddenly snapped out of his apathy. 'What! That

charlatan? This is a matter of science.'

Harkness said, 'Really, Dr Stevens-'

Gleason held up a hand. 'Dr Stevens's suggestion is logicaL

But I'm afraid it's a little late, Jimmie. I talked with him last week.'

Harkness looked surprised; Stevens looked annoyed as well.

'Without letting me know?'

'Sorry, Jimmie. I was just feeling him out. But it's no good.

His terms, to us, amount to confiscation.'

'Still sore over the Hathaway patents?'

'Still nursing his grudge.'

'You should have let me handle the matter,' Harkness put in.

'He can't do this to us - There is public interest involved.

Retain him, if need be, and let the fee be adjudicated in equity.

I'll arrange the details.'

'I'm afraid you would,' Gleason said dryly. 'Do you think a

court order will make a hen lay an egg?'

Harkness looked indignant, but shut up.

Stevens continued, 'I would not have suggested going to

Waldo if I had not had an idea as to how to approach him.

I know a friend of his-'

'A friend of Waldo? I didn't know he had any.'

'This man is sort of an uncle to him, his first physician.

With his help I might get on Waldo's good side.'

Dr Rambeau stood up. 'This is intolerable,' he announced.

'I must ask you to excuse me.' He did not wait for an answer,

but strode out, hardly giving the door time to open in front of him.

Gleason followed his departure with worried eyes. 'Why does he take it so hard, Jimmie? You would think he hated Waldo personally.'

'Probably he does, in a way. But it's more than that; his whole universe is toppling. For the last twenty years, ever since Pryor's reformulation of the General Field Theory did away with Heisenberg's Uncertainty Principle, physics has been considered an exact science. The power failures and transmission failures we have been suffering are a terrific nuisance to you and to me, but to Dr Rambeau they amount to an attack on his faith. Better keep an eye on him.'

'Why?'

'Because he might come unstuck entirely. It's a pretty serious matter for a man's religion to fail him.'

'Hm-m-m. How about yourself? Doesn't it hit you just as hard?'

'Not quite. I'm an engineer- From Rambeau's point of view just a high-priced tinker. Difference in orientation. Not but what I'm pretty upset.'

The audio circuit of the communicator on Gleason's desk came to life. 'Calling Chief Engineer Stevens - calling Chief Engineer Stevens.' Gleason flipped the tab.

'He's here. Go ahead.'

'Company code, translated. Message follows: "Cracked up

four miles north of Cincinnati. Shall I go on to Nebraska, or bring in the you-know-what from my own crate?" Message ends. Signed "Mac".'

'Tell him to walk back!' Stevens said savagely.

'Very well, sir.' The instrument cut off.

'Your assistant?' asked Gleason.

'Yes. That's about the last straw, chief. Shall I wait and try to analyse this failure, or shall I try to see Waldo?'

'Try to see Waldo.'

'OK. If you don't hear from me, just send my severance pay care of Palmdale Inn, Miami. I'll be the fourth beachcomber from the right.'

Gleason permitted himself an unhappy smile. 'If you don't get results, I'll bç the fifth. Good luck.'

'So long.'

When Stevens had gone, Chief Stationary Engineer Striebel spoke up for the first time. 'If the power to the cities fails,' he said softly, 'you know where I'll be, don't you?'

'Where? Beachcomber number six?'

'Not likely. I'll be number one in my spot, first man to be lynched.'

'But the power to the cities can't fail. You've got too many cross-connects and safety devices.'

'Neither can the deKalbs fail, supposedly. Just the same, think about Sublevel 7 in Pittsburgh, with the lights out. Or, rather, don't think about it!'

Doc Grimes let himself into the aboveground access which led into his home, glanced at the announcer, and noted with mild, warm interest that someone close enough to him to possess his house combination was inside. He moved ponderously downstairs, favouring his game leg, and entered the lounging room.

'Hi, Doc!' James Stevens got up when the door snapped open and came forward to greet him.

'H'lo, James. Pour yourself a drink. I see you have. Pour me one.'

'Right.'

While his friend complied, Grimes shucked himself out of the outlandish anachronistic greatcoat he was wearing and threw it more or less in the direction of the robing alcove. It hit the floor heavily, much more heavily than its appearance justified, despite its unwieldy bulk. It clunked.

Stooping, he peeled off thick overtrousers as massive as the coat. He was dressed underneath in conventional business tights in blue and sable. It was not a style that suited him. To an eye unsophisticated in matters of civilized dress, let us say the mythical Man-from-Antares - he might have seemed uncouth, even unsightly. He looked a good bit like an elderly fat beetle.

James Stevens's eye made no note of the tights, but he looked with disapproval on the garments which had just been discarded.

'Still wearing that fool armour,' he commented.

'Certainly.'

'Damn it, Doc - you'll make yourself sick, carrying that junk around.

It's unhealthy.'

'Danged sight sicker if I don't.'

'Rats! 1 don't get sick, and I don't wear armour - outside the lab.'

'You should.' Grimes walked over to where Stevens had reseated

himself. 'Cross your knees.' Stevens complied; Grimes struck him

smartly below the kneecap with the edge of his palm. The reflex

jerk was barely perceptible. 'Lousy,' he remarked, then peeled back

his friend's right eyelid.

'You're in poor shape,' he added after a moment. Stevens drew

away impatiently. 'i'm all right. It's you we're talking about.'

'What about me?'

'Well- Damnation, Doc, you're throwing away your reputation.

They talk about you.'

Grimes nodded. 'I know. "Poor old Gus Grimes - a slight touch of

cerebral termites." Don't worry about my reputation; I've always

been out of step. What's your fatigue index?'

'I don't know. It's all right.'

'It is, eh? I'll wrestle you, two falls out of three.' Stevens rubbed

his eyes. 'Don't needle me, Doc. I'm rundown. I know that, but it

isn't anything but overwork.'

'Humph! James, you are a fair-to-middlin' radiation physicist - 'Engineer.'

'-engineer. But you're no medical man. You can't expect to pour every sort

of radiant energy through the human system year after year and not pay

for it. It wasn't designed to stand it.'

'But I wear armour in the lab. You know that.'

'Surely. And how about outside the lab?'

'But- Look, Doc - I hate to say it, but your whole thesis

is ridiculous. Sure there is radiant energy in the air these days,

but nothing harmful. All the colloidal chemists agree-'

'Colloidal, fiddlesticks!'

'But you've got to admit that biological economy is a matter of

colloidal chemistry.'

'I've got to admit nothing. I'm not contending that colloids are

not the fabric of living tissue- They are. But I've maintained for

forty years that it was dangerous to expose living tissue to assorted

radiation without being sure of the effect. From an evolutionary

standpoint the human animal is habituated to and adapted to only

the natural radiation of the sun, and he can't stand that any too well,

even under a thick blanket of ionization. Without that blanket- Did

you ever see a solar-X type cancer?'

'Of course not.'

'No, you're too young. I have. Assisted at the autopsy of one, when

I was an intern. Chap was on the Second Venus Expedition. Four

hundred and thirty-eight cancers we counted in him, then gave up.'

'Solar-X is whipped.'

'Sure it is. But it ought to be a warning. You bright young squirts

can cook up things in your labs that we medicos can't begin to

cope with. We're behind - bound to be. We usually don't know

what's happened until the damage is done. This time you've torn it.'

He sat down heavily and suddenly looked as tired and whipped as did his younger friend.

Stevens felt the sort of tongue-tied embarrassment a man may feel when a dearly beloved friend falls in love with an utterly worthless person. He wondered what he could say that would not seem rude.

He changed the subject. 'Doc, I came over because I had a couple of things on my mind-'

'Such as?'

'Well, a vacation for one. I know I'm run-down. I've been overworked, and a vacation seems in order. The other is your pal, Waldo.'

'Huh?'

'Yeah. Waldo Farthingwaite-Jones, bless his stiff-necked, bad-tempered heart.'

'Why Waldo? You haven't suddenly acquired an interest in myasthenia gravis, have you?'

'Well, no. I don't care what's wrong with him physically. He can have hives, dandruff, or the galloping never-get-overs, for all I care. I hope he has. What I want is to pick his brains.'

'So?'

'I can't do it alone. Waldo doesn't help people; he uses them. You're his only normal contact with people.'

'That is not entirely true-'

'Who else?'

'You misunderstand me. He has no normal contacts. I am simply the only person who dares to be rude to him.'

'But I thought- Never mind. D'you know, this is an

inconvenient setup? Waldo is the man we've got to have.

Why should it come about that a genius of his calibre

should be so unapproachable, so immune to ordinary social

demands? Oh, I know his disease has a lot to do with it, but

why should this man have this disease? It's an improbable

coincidence.'

'It's not a matter of his infirmity,' Grimes told him. 'Or, rather,

not in the way you put it. His weakness is his genius, in a way-'

'Huh?'

'Well-' Grimes turned his sight inward, let his mind roam back

over his long association, lifelong, for Waldo, with this

particular patient. He remembered his subliminal misgivings

when he delivered the child. The infant had been sound

enough, superficially, except for a slight blueness. But then

lots of babies were somewhat cyanotic in the delivery room.

Nevertheless, he had felt a slight reluctance to give it the tunk

on the bottom, the slap which would shock it into taking its

first lungful of air.

But he had squelched his own feelings, performed the necessary

'laying on of hands', and the freshly born human had declared its

independence with a satisfactory squall. There was nothing else

he could have done; he was a young GP then, who took his

Hippocratic oath seriously. He still took it seriously, he supposed,

even though he sometimes referred to it as the 'hypocritical' oath.

Still, he had been right in his feelings; there had been something

rotten about that child, something that was not entirely myasthenia gravis.He had felt sorry for the child at first, as well as having an irrational feeling of responsibility for its condition. Pathological muscular weakness is an almost totally crippling condition, since the patient has no unaffected limbs to retrain into substitutes.

There the victim must lie, all organs, limbs, and functions present, yet so pitifully, completely weak as to be unable to perform any normal action. He must spend his life in a condition of exhausted collapse, such as you or I might reach at the finish line of a gruelling cross-country run. No help for him, and no relief.

During Waldo's childhood he had hoped constantly that the child would die, since he was so obviously destined for tragic uselessness, while simultaneously, as a physician, doing everything within his own skill and the skills of numberless consulting specialists to keep the child alive and cure it.

Naturally, Waldo could not attend school; Grimes ferreted out sympathetic tutors. He could indulge in no normal play; Grimes invented sickbed games which would not only stimulate Waldo's imagination but encourage him to use his flabby muscles to the full, weak extent of which he was capable.

Grimes had been afraid that the handicapped child, since it was not subjected to the usual maturing stresses of growing up, would remain infantile. He knew now, had known for a long time, that he need not have worried. Young Waldo grasped at what little life was offered him, learned thirstily, tried with a sweating tenseness of will to force his undisciplined muscles to serve him.

He was clever in thinking of dodges whereby to circumvent his muscular weakness. At seven he devised a method of controlling a spoon with two hands, which permitted him, painfully, to feed himself.

His first mechanical invention was made at ten.

It was a gadget which held a book for him, at any angle, controlled lighting for the book, and turned its pages. The gadget responded to fingertip pressure on a simple control panel. Naturally, Waldo could not build it himself, but he could conceive it, and explain it; the Farthingwaite-Joneses could well afford the services of a designing engineer to build the child's conception.

Grimes was inclined to consider this incident, in which the child Waldo acted in a role of intellectual domination over a trained mature adult neither blood relation nor servant, as a landmark in the psychological process whereby Waldo eventually came to regard the entire human race as his servants, his hands, present or potential.

'What's eating you, Doc?'

'Eh? Sorry, I was daydreaming. See here, son - you mustn't be too harsh on Waldo. I don't like him myself. But you must take him as a whole.'

'You take him.'

'Shush. You spoke of needing his genius. He wouldn't have been a genius if he had not been crippled. You didn't know his parents. They were good stock, fine, intelligent people, but nothing spectacular. Waldo's potentialities weren't any greater than theirs, but he had to do more with them to accomplish anything. He had to do everything the hard way. He had to be clever.

'Sure. Sure, but why should he be so utterly poisonous? Most

big men aren't.'

'Use your head. To get anywhere in his condition he had to develop a

will, a driving one-track mind, with a total disregard for any other

considerations. What would you expect him to be but stinking selfish?'

'I'd- Well, never mind. We need him and that's that.'

'Why?'

Stevens explained.

It may plausibly be urged that the shape of a culture,

its mores, evaluations, family organization, eating habits, living

patterns, pedagogical methods, institutions, forms of government,

and so forth, arise from the economic necessities of its technology.

Even though the thesis be too broad and much oversimplified, it is

nonetheless true that much which characterized the long peace which

followed the constitutional establishrnent of the United Nations grew

out of the technologies which were hot-house-forced by the needs of the

belligerents in the war of the forties. Up to that time broadcast and

beam-cast were used only for commercial radio, with rare exceptions.

Even telephony was done almost entirely by actual metallic connexion

from one instrument to another. If a man in Monterey wished to speak

to his wife or partner in Boston, a physical, copper neuron stretched

bodily across the continent from one to the other.

Radiant power was then a hop dream, found in Sunday supplements

and comic books.

A concatenation, no, a meshwork of new developments was necessary

before the web of copper covering the continent could be dispensed with.

Power could not be broadcast economically; it was necessary to wait for the co-axial beam, a direct result of the imperative military shortages of the Great War. Radio telephony could not replace wired telephony until ultra micro-wave techniques made room in the ether, so to speak, for the traffic load. Even then it was necessary to invent a tuning device which could be used by a nontechnical person, a ten-year-old child, let us say ,as easily as the dial selector which was characteristic of the commercial wired telephone of the era then terminating.

Bell Laboratories cracked that problem; the solution led directly to the radiant power receptor, domestic type, keyed, sealed, and metered.

The way was open for commercial radio power transmission, except in one respect: efficiency. Aviation waited on the development of the Otto-cycle engine; the Industrial Revolution waited on the steam engine; radiant power waited on a really cheap, plentiful power source. Since radiation of power is inherently wasteful, it was necessary to have power cheap and plentiful enough to waste.

The same war brought atomic energy. The physicists working for the United States Army, the United States of North America had its own army then, produced a superexplosive; the notebooks recording their tests contained, when properly correlated, everything necessary to produce almost any other sort of nuclear reaction, even the so-called SolarPhoenix , the hydrogen-helium cycle, which is the source of the sun's power.

The reaction whereby copper is broken down into phosphorus, silicon29, and helium8, plus degenerating chain reactions, was one

of the several cheap and convenient means developed for producing unlimited and practically free power.

Radiant power became economically feasible, and inevitable.

Of course Stevens included none of this in his explanation to Grimes.

Grimes was absent-mindedly aware of the whole dynamic process; he had seen radiant power grow up, just as his grandfather had seen the development of aviation. He had seen the great transmission lines removed from the sky -'mined' for their copper; he had seen the heavy cables being torn from the dug-up streets ofManhattan . He might even recall his first independent-unit radiotelephone with its somewhat disconcerting double dial. He had gotten a lawyer inBuenos Aires on it when attempting to reach his neighbourhood delicatessen.

For two weeks he made all his local calls by having them relayed back fromSouth America before he discovered that it made a difference which dial he used first.

At that time Grimes had not yet succumbed to the new style in architecture. The London Plan did not appeal to him; he liked a house aboveground, where he could see it. When it became necessary to increase the floor space in his offices, he finally gave in and went subsurface, not so much for the cheapness, convenience, and general all-around practicability of living in a tri-conditioned cave, but because he had already become a little worried about the possible consequences of radiation pouring through the human body. The fused-earth walls of his new residence were covered with lead; the roof of the cave had a double thickness. His hole in the ground was as near radiation-

proof as he could make it.

'-the meat of the matter,' Stevens was saying, 'is that the delivery of power to transportation units has become erratic as the devil. Not enough yet to tie up traffic, but enough to be very disconcerting. There have been some nasty accidents; we can't keep hushing them up forever. I've got to do something about it.'

'Why?'

"Why?" Don't be silly. In the first place as traffic engineer forNAPA my bread and butter depends on it. In the second place the problem is upsetting in itself. A properly designed piece of mechanism ought to work - all the time, every time. These don't, and we can't find out why not. Our staff mathematical physicists have about reached the babbling stage.'

Grimes shrugged. Stevens felt annoyed by the gesture.

'I don't think you appreciate the importance of this problem, Doc. Have you any idea of the amount of horsepower involved in transportation? Counting both private and commercial vehicles and common carriers, North American Power-Air supplies more than half the energy used in this continent. We have to be right. You can add to that our city-power affiliate. No trouble there, yet. But we don't dare think what a city-power breakdown would mean.'

'I'll give you a solution.'

'Yeah? Well, give.'

'Junk it. Go back to oil-powered and steam-powered vehicles. Get rid of these damned radiant-powered deathtraps.'

'Utterly impossible. You don't know what you're saying. It took more than fifteen years to make the change-over. Now we're geared to it. Gus, ifNAPA closed up shop, half the population of the northwest seaboard would starve, to say nothing of the lake states and the Philly-Boston axis.'

'Hrrmph- Well, all I've got to say is that that might be better than the slow poisoning that is going on now.'

Stevens brushed it away impatiently. 'Look, Doc, nurse a bee in your bonnet if you like, but don't ask me to figure it into my calculations. Nobody else sees any danger in radiant power.'

Grimes answered mildly. 'Point is, son, they aren't looking in the right place. Do you know what the high-jump record was last year?'

'I never listen to the sports news.'

'Might try it sometime. The record levelled off at seven foot two, 'bout twenty years back. Been dropping ever since. You might try graphing athletic records against radiation in the air - artificial radiation. Might find some results that would surprise you.'

'Shucks, everybody knows there has been a swing away from heavy sports. The sweat-and-muscles fad died out, that's all. We've simply advanced into a more intellectual culture.'

'Intellectual, hogwash! People quit playing tennis and such because they are tired all the time. Look at you. You're a mess.'

'Don't needle me, Doc.'

'Sorry. But there has been a clear deterioration in the performance of the human animal. If we had decent records on such things I could prove it, but any physician who's worth his salt can see it, if he's got eyes in him and isn't wedded to a lot of fancy instruments. I can't prove what causes it, not yet, but I've a damned good hunch that it's caused by the stuff you peddle.'

'Impossible. There isn't a radiation put on the air that hasn't been tested very carefully in the bio labs. We're neither fools nor knaves.

'Maybe you don't test 'em long enough. I'm not talking about a few hours, or a few weeks; I'm talking about the cumulative effects of years of radiant frequencies pouring through the tissues. What does that do?'

'Why, nothing-I believe.'

'You believe, but you don't know. Nobody has ever tried to find out. F'rinstance - what effect does sunlight have on silicate glass? Ordinarily you would say "none", but you've seen desert glass?'

'That bluish-lavender stuff? Of course.'

'Yes. A bottle turns coloured in a few months in the Mojave Desert. But have you ever seen the windowpanes in the old houses on Beacon Hill?'

'I've never been on Beacon Hill.'

'OK, then I'll tell you. Same phenomena, only it takes a century more, in Boston. Now tell me, you savvy physics - could you measure the change taking place in those Beacon Hill windows?'

'Mm-rn-in - probably not.'

'But it's going on just the same. Has anyone ever tried to measure the changes produced in human tissue by thirty years of exposure to ultra short -wave radiation?'

'No, but-'

'No "buts". I see an effect. I've made a wild guess at a cause. Maybe I'm wrong. But I've felt a lot more spry since I've taken to invariably wearing my lead overcoat whenever I go out.'

Stevens surrendered the argument. 'Maybe you're right, Doc. I won't fuss with you. How about Waldo? Will you

take me to him and help me handle him?'

'When do you want to go?'

'The sooner the better.'

'Now?'

'Suits.'

'Call your office.'

'Are you ready to leave right now? It would suit me. As far as the front office is concerned, I'm on vacation; nevertheless, I've got this on my mind. I want to get at it.'

'Quit talking and git.'

They went topside to where their cars were parked. Grimes headed towards his, a big-bodied, old-fashioned Boeing family landau. Stevens checked him.

'You aren't planning to go in that? It 'u'd take us the rest of the day.'

"Why not? She's got an auxiliary space drive, and she's tight. You could fly from here to the Moon and back.'

'Yes, but she's so infernal slow. We'll use my "broomstick".

Grimes let his eyes run over his friend's fusiformed little speedster. Its body was as nearly invisible as the plastic industry could achieve. A surface layer, two molecules thick, gave it a refractive index sensibly identical with that of air. When perfectly clean it was very difficult to see. At the moment it had picked up enough casual dust and water vapour to be faintly seen - a ghost of a soap bubble

of a ship.

Running down the middle, clearly visible through the walls, was the only metal part of the ship - the shaft, or, more properly, the axis core, and the spreading sheaf of deKalb receptors at its terminus. The appearance was enough like a giant witch's broom to justify the nickname. Since the saddles, of transparent plastic, were mounted tandem oven the shaft so that the metal rod passed between the legs of the pilot and passengers, the nickname was doubly apt.

'Son,' Grimes remarked, 'I know I ain't pretty, nor am I graceful. Nevertheless, I retain a certain residuum of self-respect and some shreds of dignity. I am not going to tuck that thing between my shanks and go scooting through the air on it.

'Oh, rats! You're old-fashioned.'

'I may be. Nevertheless, any peculiarities I have managed to retain to my present age I plan to hang on to. No.'

'Look - I'll polarize the hull before we raise. How about it?'

'Opaque?'

'Opaque.'

Grimes slid a regretful glance at his own frumpish boat, but assented by fumbling for the barely visible port of the speedster. Stevens assisted him; they climbed in and straddled the stick.

'Atta boy, Doc,' Stevens commended, 'I'll have you there in three shakes. That tub of yours probably won't do over five hundred, and Wheelchair must be all of twenty-five thousand miles up.'

'I'm never in a hurry,' Grimes commented, 'and don't call Waldo's house "Wheelchair" - not to his face.'

'I'll remember,' Stevens promised. He fumbled, apparently in empty air; the hull suddenly became dead black, concealing them. It changed as suddenly to mirror bright; the car quivered, then shot up out of sight.

Waldo F. Jones seemed to be floating in thin air at the centre of a spherical room. The appearance was caused by the fact that he was indeed floating in air. His house lay in a free orbit, with a period of just over twenty-four hours. No spin had been impressed on his home; the pseudo gravity of centrifugal force was the thing he wanted least. He had left Earth to get away from its gravitational field; he had not been down to the surface once in the seventeen years since his house was built and towed into her orbit; he never intended to do so for any purpose whatsoever.

Here, floating free in space in his own air-conditioned shell, he was almost free of the unbearable lifelong slavery to his impotent muscles. What little strength he had he could spend economically, in movement, rather than in fighting against the

tearing, tiring weight of the Earth's thick field.

Waldo had been acutely interested in space flight since early boyhood, not from any desire to explore the depths, but because his boyish, overtrained mind had seen the enormous advantage, to him, in weightlessness. While still in his teens he had helped the early experimenters in space flight over a hump by supplying them with a control system which a pilot could handle delicately while under the strain of two or three gravities.

Such an invention was no trouble at all to him; he had simply adapted manipulating devices which he himself used in combating the overpowering weight of one gravity. The first successful and safe rocket ship contained relays which had once aided Waldo in moving himself from bed to wheelchair. The deceleration tanks, which are now standard equipment for the lunar mail ships, traced their parentage to a flotation tank in which Waldo habitually had eaten and slept up to the time when he left the home of his parents for his present, somewhat unique home. Most of his basic inventions had originally been conceived for his personal convenience, and only later adapted for commercial exploitation. Even the ubiquitous and grotesquely humanoid gadgets known universally as 'waldocs' - Waldo F. Jones's Synchronous Reduplicating Pantograph, Pat #296,001,437, new series, et al - passed through several generations of development and private use in Waldo's machine shop before he

redesigned them for mass production. The first of them, a primitive gadget compared with the waldoes now to be found in every shop, factory, plant, and warehouse in the country, had been designed to enable Waldo to operate a metal lathe.

Waldo had resented the nickname the public had fastened on them-.I It struck him as overly familiar, but he had coldly recognized the business advantage to himself in having the public identify him verbally with a gadget so useful and important.

When the newscasters tagged his spacehouse 'Wheelchair', one might have expected him to regard it as more useful publicity. That he did not so regard it, that he resented it and tried to put a stop to it, arose from another and peculiarly Waldo-ish fact: Waldo did not think of himself as a cripple.

He saw himself not as a crippled human being, but as something higher than human, the next step up, a being so superior as not to need the coarse, brutal strength of the smooth apes. Hairy apes, smooth apes, then Waldo - so the progression ran in his mind. A chimpanzee, with muscles that hardly bulge at all, can tug as high as fifteen hundred pounds with one hand. This Waldo had proved by obtaining one and patiently enraging it into full effort. A well-developed man can grip one hundred and fifty pounds with

one hand. Waldo's own grip, straining until the sweat sprang out, had never reached fifteen pounds.

Whether the obvious inference were fallacious or true, Waldo believed in it, evaluated by it. Men were overmuscled canaille, smooth chimps. He felt himself at least ten times superior to them.

He had much to go on.

Though floating in air, he was busy, quite busy. Although be never went to the surface of the Earth his business was there. Aside from managing his many properties he was in regular practice as a consulting engineer, specializing in motion analysis. Hanging close to him in the room were the paraphernalia necessary to the practice of his profession.

Facing him was a four-by-five colour-stereo television receptor. Two sets of coordinates, rectilinear and polar, crosshatched it. Another smaller receptor hung above it and to the right. Both receptors were fully recording, by means of parallel circuits conveniently out of the way in another compartment.

The smaller receptor showed the faces of two men watching him. The larger showed a scene inside a large shop, hangar-like in its proportions. In the immediate foreground, almost full size, was a grinder in which was being machined a large casting of some sort. A workman stood beside it, a look of controlled exasperation on his face.

'He's the best you've got,' Waldo stated to the two men in the smaller screen. 'To be sure, he is clumsy and does not have the

touch for fine work, but he is superior to the other morons

you call machinists.'

The workman looked around, as if trying to locate the voice.

It was evident that he could hear Waldo, but that no vision

receptor had been provided for him.

'Did you mean that crack for me?' he said harshly.

'You misunderstand me, my good man,' Waldo said sweetly. 'I was

complimenting you. I actually have hopes of being able to teach

you the rudiments of precision work. Then we shall expect you

to teach those butter-brained oafs around you. The gloves,

please.'

Near the man, mounted on the usual stand, were a pair of primary

waldoes, elbow length and human digited. They were floating on

the line, in parallel with a similar pair physically in front of

Waldo. The secondary waldoes, whose actions could be controlled

by Waldo himself by means of his primaries, were mounted in front

of the power tool in the position of the operator.

Waldo's remark had referred to the primaries near the workman.

The machinist glanced at them, but made no move to insert his

arms in them. 'I don't take no orders from nobody I can't see,'

he said flatly. He looked sideways out of the scene as he spoke.

'Now, Jenkins,' commenced one of the two men in the smaller screen.

Waldo sighed. 'I really haven't the time or the inclination to

solve your problems of shop discipline. Gentlemen, please turn

your pickup, so that our petulant friend may see me.'

The change was accomplished; the workman's face appeared in the background of the smaller of Waldo's screens, as well as in the larger.

'There - is that better?' Waldo said gently. The workman grunted.

'Now.. . your name, please?'

'Alexander Jenkins.'

'Very well, friend Alec - the gloves.'

Jenkins thrust his arms into the waldoes and waited. Waldo put his arms into the primary pair before him; all three pairs, including the secondary pair mounted before the machine, came to life. Jenkins bit his lip, as if he found unpleasant the sensation of having his fingers manipulated by the gauntlets he wore.

Waldo flexed and extended his fingers gently; the two pairs of waldoes in the screen followed in exact, simultaneous paral -lelism.

'Feel it, my dear Alec,' Waldo advised. 'Gently, gently- the sensitive touch. Make your muscles work for you.'

He then started hand movements of definite pattern; the waldoes at the power tool reached up, switched on the power, and began gently, gracefully, to continue the machining of the casting. A mechanical hand reached down, adjusting a vernier, while the other increased the flow of oil cooling the cutting edge. 'Rhythm, Alec, rhythm. No jerkiness, no unnecessary movement. Try to get in time with me.'

The casting took shape with deceptive rapidity, disclosed

what it was - the bonnet piece for an ordinary three-way nurse. The chucks drew back from it; it dropped to the belt beneath, and another rough casting took its place.

Waldo continued with unhurried skill, his finger motions within his waldoes exerting pressure which would need to be measured in fractions of ounces, but the two sets of waldoes, paralleled to him thousands of miles below, followed his motions accurately and with force appropriate to heavy work at hand.

Another casting landed on the belt - several more. Jenkins, although not called upon to do any work in his proper person, tired under the strain of attempting to anticipate and match Waldo's motions. Sweat dripped down his forehead, ran off his nose, accumulated on his chin. Between castings he suddenly withdrew his arms from the paralleled primaries.

'That's enough,' he announced.

'One more, Alec. You are improving.'

'No!' He turned as if to walk off. Waldo made a sudden movement - so sudden as to strain him, even in his weight-free environment. One steel hand of the secondary waldoes lashed out, grasped Jenkins by the wrist.

'Not so fast, Alec.'

'Let go of me!'

'Softly, Alec, softly. You'll do as you are told, won't you?'

The steel hand clamped down hard, twisted. Waldo had exerted

all of two ounces of pressure.

Jenkins grunted. The one remaining spectator - one had left soon after the lesson started - said, 'Oh, I say, Mr Jones!'

'Let him obey, or fire him. You know the terms of my contract.'

There was a sudden cessation of stereo and sound, cut from the Earth end. It came back on a few seconds later.

Jenkins was surly, but no longer recalcitrant. Waldo continued as if nothing had happened. 'Once more, my dear Alec.'

When the repetition had been completed, Waldo directed, 'Twenty times, wearing the wrist and elbow lights with the chronanalyser in the picture. I shall expect the superposed strips to match, Alec.' He cut off the larger screen without further words and turned to the watcher in the smaller screen. 'Same time tomorrow, McNye. Progress is satisfactory. In time we'll turn this madhouse of yours into a modern plant.' He cleared that screen without saying goodbye.

Waldo terminated the business interview somewhat hastily, because he had been following with one eye certain announcements on his own local information board. A craft was approaching his house. Nothing strange about that; tourists were forever approaching and being pushed away by his auto-guardian circuit. But this craft had the approach signal, was now clamping to his threshold flat. It was a broomstick, but he could not place the licence number.

Florida licence. Whom did he know with a Florida licence?

He immediately realized that he knew no one who possessed

his approach signal - that list was very short - and who could also reasonably be expected to sport a Florida licence. The suspicious defensiveness with which he regarded the entire world asserted itself; he cut in the circuit whereby he could control by means of his primary waldoes the strictly illegal but highly lethal inner defences of his home. The craft was opaqued; he did not like that.

A youngish man wormed his way out. Waldo looked him over. A stranger - face vaguely familiar perhaps. An ounce of pressure in the primaries and the face would cease to be a face, but Waldo's actions were under cold cortical control; he held his fire. The man turned, as if to assist another passenger. Yes, there was another.

Uncle Gus! - but the doddering old fool had brought a stranger with him. He knew better than that. He knew how Waldo felt about strangers!

Nevertheless, he released the outer lock of the reception room and let them in.

Gus Grimes snaked his way through the lock, pulling himself from one handrail to the next, and panting a little as he always did when forced to move weight free. Matter of diaphragm control, he told himself as he always did; can't be the exertion. Stevens streaked in after him, displaying a groundhog's

harmless pride in handling himself well in space conditions. Grimes arrested himself just inside the reception room, grunted, and spoke to a mansized dummy waiting there.

'Hello, Waldo.'

The dummy turned its eyes and head slightly.

'Greetings, Uncle Gus. I do wish you would remember to phone before dropping in. I would have had your special dinner ready.'

'Never mind. We may not be here that long. Waldo, this is my friend, Jimmie Stevens.'

The dummy faced Stevens. 'How do you do, Mr Stevens,' the voice said formally. 'Welcome to Freehold.'

'How do you do, Mr Jones,' Stevens replied, and eyed the dummy curiously. It was really surprisingly lifelike; he had been taken in by it at first.

A 'reasonable facsimile'. Come to think of it, he had heard of this dummy. Except in vision screen few had seen Waldo in his own person. Those who had business at Wheelchair - 'Freehold', he must remember that - those who had business at Freehold heard a voice and saw this simulacrum.

'But you must stay for dinner, Uncle Gus,' Waldo continued. 'You can't run out on me like that; you don't come often enough for that. I can stir something up.'

'Maybe we will,' Grimes admitted. 'Don't worry about the menu. You know me. I can eat a turtle with the shell.'

It had really been a bright idea, Stevens congratulated himself, to get Doc Grimes to bring him. Not here five minutes and Waldo was insisting on them staying for dinner. Good omen!

He had not noticed that Waldo had addressed the invitation to Grimes alone, and that it had been Grimes who had assumed the invitation to be for both of them.

'Where are you, Waldo?' Grimes continued. 'In the lab?' He made a tentative movement, as if to leave the reception room.

'Oh, don't bother,' Waldo said hastily. 'I'm sure you will be more comfortable where you are. Just a moment and I will put some spin on the room so that you may sit down.'

'What's eating you, Waldo?' Grimes said testily. 'You know I don't insist on weight. And I don't care for the company of your talking doll. I want to see you.'

Stevens was a little surprised by the older man's insistence; he had thought it considerate of Waldo to offer to supply acceleration. Weightlessness put

him a little on edge.

Waldo was silent for an uncomfortable period. At last he said frigidly, 'Really, Uncle Gus, what you ask is out of the question. You must be aware of that.'

Grimes did not answer him. Instead, he took Stevens's arm. 'Come on, Jimmie. We're leaving.'

'Why, Doc! What's the matter?'

'Waldo wants to play games. I don't play games.'

'But-'

'Ne' mind! Come along. Waldo, open the lock.'

'Uncle Gus!'

'Yes, Waldo?'

'Your guest - you vouch for him?'

'Naturally, you dumb fool, else I wouldn't have brought him.'

'You will find me in my workshop. The way is open.'

Grimes turned to Stevens. 'Come along, son.'

Stevens trailed after Grimes as one fish might follow another, while taking in with his eyes as much of Waldo's fabulous house as he could see. The place was certainly unique, he conceded to himself - unlike anything he had ever seen. It completely lacked up-and-down orientation. Space craft, even space stations, although always in free fall with respect to any but internally impressed

accelerations, invariably are designed with up-and-down; the up-and-down axis of a ship is determined by the direction of its accelerating drive; the up-and down of a space station is determined by its centrifugal spin. Some few police and military craft use more than one axis of acceleration; their up-and-down shifts, therefore, and their personnel, must be harnessed when the ship manoeuvres. Some space stations apply spin only to living quarters. Nevertheless, the rule is general; human beings are used to weight; all their artifacts have that assumption implicit in their construction - except Waldo's house.

It is hard for a groundhog to dismiss the notion of weight. We seem to be born with an instinct which demands it. If one thinks of a vessel in a free orbit around the Earth, one is inclined to think of the direction towards the Earth as 'down', to think of oneself as standing or sitting on that wall of the ship, using it as a floor. Such a concept is completely mistaken. To a person inside a freely falling body there is no sensation of weight whatsoever and no direction of up-and-down, except that which derives from the gravitatioiial field of the vessel itself. As for the latter, neither

Waldo's house nor any space craft as yet built is massive enough to produce a field dense enough for the human body to notice it. Believe it or not, that is true. It takes a mass as gross as a good-sized planetoid to give the human body a feeling of weight.

It may be objected that a body in a free orbit around the Earth is not a freely falling body. The concept involved is human, Earth surface in type, and completely erroneous. Free flight, free fall, and free orbit are equivalent terms. The Moon falls constantly towards the Earth; the Earth falls constantly towards the Sun, but the sideways vector of their several motions prevents them from approaching their primaries. It is free fall nonetheless. Consult any ballistician or any astrophysicist.

Where there is free fall there is no sensation of weight. A gravitational field must be opposed to be detected by the human body.

Some of these considerations passed through Stevens's mind as he handwalked his way to Waldo's workshop. Waldo's home had been constructed without any consideration being given to up-and-down. Furniture and apparatus were affixed to any wall; there was no 'floor'. Decks and platforms were arranged at any convenient angle and of any size or

shape, since they had nothing to do with standing or walking. Properly speaking, they were bulkheads and working surfaces rather than decks. Furthermore, equipment was not necessarily placed close to such surfaces; frequently it was more convenient to locate it with space all around it, held in place by light guys or slender stanchions.

The furniture and equipment was all odd in design and frequently odd in purpose. Most furniture on Earth is extremely rugged, and at least 90 per cent of it has a single purpose - to oppose, in one way or another, the acceleration of gravity. Most of the furniture in an Earth-surface - or subsurface - house is stator machines intended to oppose gravity. All tables, chairs, beds, couches, clothing racks, shelves, drawers, et cetera, have that as their one purpose. All other furniture and equipment have it as a secondary purpose which strongly conditions design and strength.

The lack of need for the rugged strength necessary to all terrestrial equipment resulted in a fairylike grace in much of the equipment in Waldo's house. Stored supplies, massive in themselves, could be retained in convenient order by compartmentation of eggshell-thin transparent

plastic. Ponderous machinery, which on Earth would necessarily be heavily cased and supported, was here either open to the air or covered by gossamer-like envelopes and held stationary by light elastic lines.

Everywhere were pairs of waldoes, large, small, and life-size, with vision pickups to match. It was evident that Waldo could make use of the compartments through which they were passing without stirring out of his easy chair -~ if he used an easy chair. The ubiquitous waldoes, the insubstantial quality of the furniture, and the casual use of all walls as work or storage surfaces, gave the place a madly fantastic air. Stevens felt as if he were caught in a Disney.

So far the rooms were not living quarters. Stevens wondered what Waldo's private apartments could be like and tried to visualize what equipment would be appropriate. No chairs, no rugs, no bed. Pictures, perhaps. Something pretty clever in the way of indirect lighting, since the eyes might be turned in any direction.

Communication instruments might be much the same. But what could a washstand be like? Or a water tumbler? A trap bottle for the last - or would any container be necessary at all? He could not decide and realized that even a competent engineer may he confused in

the face of mechanical conditions strange to him.

What constitutes a good ashtray when there is no

gravity to hold the debris in place? Did Waldo smoke?

Suppose he played solitaire; how did he handle the

cards? Magnetized cards, perhaps, and a magnetized

playing surface.

'In through here, Jim.' Grimes steadied himself with

one hand, gesturing with the other. Stevens slid

through the manhole indicated. Before he had had time

to look around he was startled by a menacing bass growl.

He looked up; charging through the air straight at him

was an enormous mastiff, lips drawn back, jaws slavering.

Its front legs were spread out stiffly as if to balance

in flight; its hind legs were drawn up under its lean

belly. By voice and manner it announced clearly its

intention of tearing the intruder into pieces, then

swallowing the pieces.

'Baldur!' A voice cut through the air from some point

beyond. The dog's ferocity wilted, but it could not check

its lunge. A waldo snaked out a good thirty feet and grasped

it by the collar. 'I am sorry, sir,' the voice added.

'My friend was not expecting you.'

Grimes said, 'Howdy, Baldur. How's your conduct?'

The dog looked at him, whined, and wagged his tail.

Stevens looked for the source of the commanding voice,

found it.

The room was huge and spherical; floating in its centre

was a fat man - Waldo.

He was dressed conventionally enough in shorts and singlet,

except that his feet were bare. His hands and forearms were

covered by metallic gauntlets - primary waldoes. He was softly

fat, with double chin, dimples, smooth skin; he looked like a

great, pink cherub, floating attendance on a saint. But the

eyes were not cherubic, and the forehead and skull were those

of a man. He looked at Stevens. 'Permit me to introduce you to

my pet,' he said in a high, tired voice. 'Give the paw, Baldur.'

The dog offered a foreleg, Stevens shook it gravely. 'Let him

smell you, please.'

The dog did so, as the waldo at his collar permitted him to

come closer. Satisfied, the animal bestowed a wet kiss on

Stevens's wrist. Stevens noted that the dog's eyes were

surrounded by large circular patches of brown in contrast to

his prevailing white, and mentally tagged it the Dog with Eyes

as Large as Saucers, thinking of the tale of the soldier and

the flint box. He made noises to it of 'Good boy!' and 'That's

a nice old fellow!' while Waldo looked on with faint distaste.

'Heel, sir!' Waldo commanded when the ceremony was complete.

The dog turned in mid air, braced a foot against Stevens's thigh,

and shoved, projecting himself in the direction of his master.

Stevens was forced to steady himself by clutching at a handgrip.

Grimes shoved himself away from the manhole and arrested his

flight on a stanchion near their host. Stevens followed him.

Waldo looked him over slowly. His manner was not overtly rude, but was somehow, to Stevens, faintly annoying. He felt a slow flush spreading out from his neck; to inhibit it he gave his attention to the room around him. The space was commodious, yet gave the impression of being cluttered because of the assemblage of, well, junk which surrounded Waldo.

There were half a dozen vision receptors of various sizes around him at different angles, all normal to his line of sight. Three of them had pickups to match. There were control panels of several sorts, some of which seemed obvious enough in their purpose - one for lighting, which was quite complicated, with little ruby tell-tales for each circuit, one which was the keyboard of a voder, a multiplex television control panel, a board which seemed to be power relays, although its design was unusual. But there were at least half a dozen which stumped Stevens completely.

There were several pairs of waldoes growing out of a steel ring which surrounded the working space. Two pairs, mere monkey fists in size, were equipped with extensors. It had been one of these which had shot out to grab Baldur by his collar.

There were waldoes rigged near the spherical wall, too, including one pair so huge that Stevens could not conceive of a use for it.

Extended, each hand spread quite six feet from little finger

tip to thumb tip.

There were books in plenty on the wall, but no bookshelves. They seemed to grow from the wall like so many cabbages. It puzzled Stevens momentarily, but he inferred - correctly it turned out later - that a small magnet fastened to the binding did the trick.

The arrangement of lighting was novel, complex, automatic, and convenient for Waldo. But it was not so convenient for anyone else in the room. The lighting was, of course, indirect; but, furthermore, it was subtly controlled, so that none of the lighting came from the direction in which Waldo's head was turned. There was no glare - for Waldo. Since the lights behind his head burned brightly in order to provide more illumination for whatever he happened to be looking at, there was glare aplenty for anyone else. An electric eye circuit, obviously. Stevens found himself wondering just how simple such a circuit could be made.

Grimes complained about it. 'Damn it, Waldo; get those lights under control. You'll give us headaches.'

'Sorry, Uncle Gus.' He withdrew his right hand from its gauntlet and placed his fingers over one of the control panels. The glare stopped. Light now came from whatever direction none of them happened to be looking, and much more brightly, since the area source of illumination was much reduced. Lights rippled across the walls in pleasant patterns. Stevens tried to follow the ripples, a difficult

matter, since the setup was made not to be seen. He found that he could do so by rolling his eyes without moving his head. It was movement of the head which controlled the lights; movement of an eyeball was a little too much for it.

'Well, Mr Stevens, do you find my house interesting?'

Waldo was smiling at him with faint superciliousness.

'Oh - quite! Quite! I believe that it is the most remarkable place I have ever been in.'

'And what do you find remarkable about it?'

'Well - the lack of definite orientation, I believe. That and the remarkable mechanical novelties. I suppose I am a bit of a groundlubber, but I keep expecting a floor underfoot and a ceiling overhead.'

'Mere matters of functional designs, Mr Stevens; the conditions under which I live are unique; therefore, my house is unique. The novelty you speak of consists mainly in the elimination of unnecessary parts and the addition of new conveniences.

'To tell the truth, the most interesting thing I have seen yet is not a part of the house at all.'

'Really? What is it, pray?'

'Your dog, Baldur.' The dog looked around at the mention of his name. 'I've never before met a dog who could handle himself in free flight.'

Waldo smiled; for the first time his smile seemed gentle and

warm.

'Yes, Baldur is quite an acrobat. He's been at it since he was a puppy.' He reached out and roughed the dog's cars, showing momentarily his extreme weakness, for the gesture had none of the strength appropriate to the size of the brute. The finger motions were flaccid, barely sufficient to disturb the coarse fur and to displace the great ears. But he seemed unaware, or unconcerned, by the disclosure. Turning back to Stevens, he added, 'But if Baldur amuses you, you must see Ariel.'

'Ariel?'

Instead of replying, Waldo touched the keyboard of the voder, producing a musical whistling pattern of three notes. There was a rustling near the wall of the room 'above' them; a tiny yellow shape shot towards them - a canary. It sailed through the air with wings folded, bullet fashion. A foot or so away from Waldo it spread its wings, cupping the air, beat them a few times with tail down and spread, and came to a dead stop, hovering in the air with folded wings. Not quite a dead stop, perhaps, for it drifted slowly, came within an inch of Waldo's shoulder, let down its landing gear, and dug its claws into his singlet.

Waldo reached up and stroked it with a fingertip. It preened.

'No earth-hatched bird can learn to fly in that fashion,' he stated. 'I know. I lost half a dozen before I was sure that they were incapable of making the readjustment. Too much thalamus.'

'What happens to them?'

'In a man you would call it acute anxiety psychosis. They try to fly; their own prime skill leads them to disaster. Naturally, everything they do is wrong and they don't understand it. Presently they quit trying; a little later they die. Of a broken heart, one might say, poetically.' He smiled thinly. 'But Ariel is a genius among birds. He came here as an egg; he invented, unassisted, a whole new school of flying.'

He reached up a finger, offering the bird a new perch, which it accepted.

'That's enough, Ariel. Fly away home.'

The bird started the 'Bell Song' from Lakmé.

He shook it gently. 'No, Ariel. Go to bed.'

The canary lifted its feet clear of the finger, floated for an instant, then beat its wings savagely for a second or two to set course and pick up speed, and bulleted away whence he bad come, wings folded, feet streamlined under.

'Jimmie's got something he wants to talk with you about,' Grimes commenced.

'Delighted,' Waldo answered lazily, 'but shan't we dine first? Have you an appetite, sir?'

Waldo full, Stevens decided, might be easier to cope with than Waldo empty. Besides, his own midsection informed him that wrestling with a calorie or two might be pleasant. 'Yes, I have.'

'Excellent.' They were served.

Stevens was never able to decide whether Waldo had prepared the meal by means of his many namesakes, or whether servants somewhere out of sight had done the actual work. Modern food-preparation methods being what they were, Waldo could have done it alone; he, Stevens, batched it with no difficulty, and so did Gus.

But he made a mental note to ask Doc Grimes at the first opportunity what resident staff, if any, Waldo employed.

He never remembered to do so.

The dinner arrived in a small food chest, propelled to their midst at the end of a long, telescoping, pneumatic tube.

It stopped with a soft sigh and held its position. Stevens paid little attention to the food itself - it was adequate and tasty, he knew - for his attention was held by the dishes and serving methods. Waldo let his own steak float in front of him, cut bites from it with curved surgical shears, and conveyed them to his mouth by means of dainty tongs. He made hard work of chewing.

'You can't get good steaks any more,' he remarked. 'This one is tough. God knows I pay enough - and complain enough.'

Stevens did not answer. He thought his own steak had been tenderized too much; it almost fell apart. He was managing it with knife and fork, but the knife was superfluous. It appeared that Waldo did not expect his guests to make use of his own admittedly superior methods and utensils. Stevens ate from a platter clamped to his thighs, making a lap for it after Grimes's example by squatting in mid air. The platter itself had

been thoughtfully provided with sharp little prongs on its service side.

Liquids were served in small flexible skins, equipped with nipples. Think of a baby's plastic nursing bottle.

The food chest took the utensils away with a dolorous insufflation.

'Will you smoke, sir?'

'Thank you.' He saw what a weight-free ashtray necessarily should be: a long tube with a bell-shaped receptacle on its end. A slight suction in the tube, and ashes knocked into the bell were swept away, out of sight and mind.

'About that matter-' Grimes commenced again. 'Jimmie here is Chief Engineer for North American Power-Air.'

'What?' Waldo straightened himself, became rigid; his chest rose and fell. He ignored Stevens entirely. 'Uncle Gus, do you mean to say that you have introduced an officer of that company into my - home?'

'Don't get your dander up. Relax. Damn it, I've warned you not to do anything to raise your blood pressure.' Grimes propelled himself closer to his host and took him by the wrist in the age-old fashion of a physician counting pulse. 'Breathe slower. Whatcha trying to do? Go on an oxygen jag?'

Waldo tried to shake himself loose. It was a rather pitiful gesture; the old man had ten times his strength. 'Uncle Gus, you-

'Shut up!'

The three maintained a silence for several minutes, uncomfortable for at least two of them. Grimes did not seem to mind it.

'There,' he said at last. 'That's better. Now keep your shirt on and listen to me. Jimmie is a nice kid, and he has never done anything to you. And he has behaved himself while he's been here. You've got no right to be rude to him, no matter who he works for. Matter of fact, you owe him an apology.'

'Oh, really now, Doc,' Stevens protested. 'I'm afraid I have been here somewhat under false colours. I'm sorry, Mr Jones. I didn't intend it to be that way. I tried to explain when we arrived.'

Waldo's face was hard to read. He was evidently trying hard to control himself. 'Not at all, Mr Stevens. I am sorry that I showed temper. It is perfectly true that I should not transfer to you any animus I feel for your employers though God knows I bear no love for them.'

'I know it. Nevertheless, I am sorry to hear you say it.'

'I was cheated, do you understand? Cheated - by as rotten a piece of quasi-legal chicanery as has ever-'

'Easy, Waldo!'

'Sorry, Uncle Gus.' He continued, his voice less shrill.

'You know of the so-called Hathaway patents?'

'Yes, of course.'

'"So-called" is putting it mildly. The man was a mere machinist. Those patents are mine.

Waldo's version, as he proceeded to give it, was reasonably factual, Stevens felt, but quite biased and unreasonable. Perhaps Hathaway had been working, as Waldo alleged, simply as a servant - a hired artisan, but there was nothing to prove it, no contract,

no papers of any sort. The man had filed certain patents, the only ones he had ever filed and admittedly Waldo-ish in their cleverness. Hathaway had then promptly died, and his heirs, through their attorneys, had sold the patents to a firm which had been dickering with Hathaway.

Waldo alleged that this firm had put Hathaway up to stealing from him, had caused him to hire himself out to Waldo for that purpose. But the firm was defunct; its assets had been sold to North American Power-Air. NAPA had offered a settlement; Waldo had chosen to sue. The suit went against him.

Even if Waldo were right, Stevens could not see any means by which the directors of NAPA could, legally, grant him any relief. The officers of a corporation are trustees for other people's money; if the directors of NAPA should attempt to give away property which had been adjudicated as belonging to the corporation, any stockholder could enjoin them before the act or recover from them personally after the act.

At least so Stevens thought. But he was no lawyer, he admitted to himself. The important point was that he needed Waldo's services, whereas Waldo held a bitter grudge against the firm he worked for. He was forced to admit that it did not look as if Doc Grimes's presence was enough to turn the trick.

'All that happened before my time,' he began, 'and naturally I know very little about it. I'm awfully sorry it happened. It's pretty uncomfortable for me, for right now I find myself in a

position where I need your services very badly indeed.'

Waldo did not seem displeased with the idea. 'So? How does this come about?'

Stevens explained to him in some detail the trouble they had been having with the deKalb receptors. Waldo listened attentively.

When Stevens had concluded he said, 'Yes, that is much the same story your Mr Gleason had to tell. Of course, as a technical man you have given a much more coherent picture than that money manipulator was capable of giving. But why do you come to me? I do not specialize in radiation engineering, nor do I have any degrees from fancy institutions.~

'I come to you,' Stevens said seriously, 'for the same reason everybody else comes to you when they are really stuck with an engineering problem. So far as I know, you have an unbroken record of solving any problem you cared to tackle. Your record reminds me of another man-'

'Who?' Waldo's tone was suddenly sharp.

'Edison. He did not bother with degrees either, but he solved all the hard problems of his day.'

'Oh, Edison- I thought you were speaking of a contemporary. No doubt he was all right in his day,' he added with overt generosity.

'I was not comparing him to you, I was simply recalling that Edison was reputed to prefer hard problems to easy ones. I've heard the same about you; I had hopes that this problem might be hard enough to interest you.~

'It is mildly interesting,' Waldo conceded. 'A little out of my line, but interesting. I must say, however, that I am surprised to hear you, an executive of North American Power-Air, express such a high opinion of my talents. One would think that, if the opinion were sincere, it would not have been difficult to convince your firm of my indisputable handiwork in the matter of the so-called Hathway patents.'

Really, thought Stevens, the man is impossible. A mind like a weasel. Aloud, he said, 'I suppose the matter was handled by the business management and the law staff. They would hardly be equipped to distinguish between routine engineering and inspired design.'

The answer seemed to mollify Waldo. He asked, 'What does your own research staff say about the problem?'

Stevens looked wry. 'Nothing helpful. Dr Rambeau does not really seem to believe the data I bring him. He says it's impossible, but it makes him unhappy. I really believe that he has been living on aspirin and nembutal for a good many weeks.'

'Rambeau,' Waldo said slowly. 'I recall the man. A mediocre mind. All memory and no intuition. I don't think I would feel discouraged simply because Rambeau is puzzled.'

'You really feel that there is some hope?'

'It should not be too difficult. I had already given the matter some thought, after Mr Gleason's phone call. You

have given me additional data, and I think I see at least two new lines of approach which may prove fruitful. In any case, there is always some approach - the correct one.'

'Does that mean you will accept?' Stevens demanded, nervous with relief.

'Accept?' Waldo's eyebrows climbed up. 'My dear sir, what in the world are you talking about? We were simply indulging in social conversation. I would not help your company under any circumstances whatsoever. I hope to see your firm destroyed utterly, bankrupt, and ruined. This may well be the occasion.

Stevens fought to keep control of himself. Tricked! The fat slob had simply been playing with him, leading him on. There was no decency in him. In careful tones he continued,

'I do not ask that you have any mercy on North American, Mr Jones, but I appeal to your sense of duty. There is public interest involved. Millions of people are vitally dependent on the service we provide. Don't you see that the service must continue, regardless of you or me?'

Waldo pursed his lips. 'No,' he said, 'I am afraid that does not affect me. The welfare of those nameless swarms of Earth crawlers is, I fear, not my concern. I have done more for them already than there was any need to do.

They hardly deserve help. Left to their own devices, most of them would sink back to caves and stone axes. Did you ever see a performing ape, Mr Stevens, dressed in a man's clothcs

and cutting capers on roller skates? Let me leave you with

this thought: I am not a roller-skate mechanic for apes.'

If I stick around here much longer, Stevens advised himself,

there will be hell to pay. Aloud, he said, 'I take it that

is your last word?'

'You may so take it. Good day, sir. I enjoyed your visit.

Thank you.'

'Goodbye. Thanks for the dinner.'

'Not at all.'

As Stevens turned away and prepared to shove himself towards

the exit, Grimes called after him, 'Jimmie, wait for me in

the reception room.

As soon as Stevens was out of earshot, Grimes turned to Waldo

and looked him up and down. 'Waldo,' he said slowly, 'I always

did know that you were one of the meanest, orneriest men

alive, but-'

'Your compliments don't faze me, Uncle Gus.'

'Shut up and listen to me. As I was saying, I knew you were too

rotten selfish to live with, but this is the first time I ever

knew you to be a fourflusher to boot.'

'What do you mean by that? Explain yourself.'

'Shucks! You haven't any more idea of how to crack the problem

that boy is up against than I have. You traded on your

reputation as a miracle man just to make him unhappy.

Why, you cheap tinhorn bluffer, if you-'

'Stop it!'

'Go ahead,' Grimes said quietly. 'Run up your blood pressure.

I won't interfere with you. The sooner you blow a gasket the better.'

Waldo calmed down. 'Uncle Gus - what makes you think I was blufiing?'

'Because I know you. If you had felt able to deliver the goods,

you would have looked the situation over and worked out a plan to get

NAPA by the short hair, through having something they had to have.

That way you would have proved your revenge.'

Waldo shook his head. 'You underestimate the intensity of my feeling

in the matter.'

'I do like hell! I hadn't finished. About that sweet little talk you

gave him concerning your responsibility to the race. You've got a

head on you. You know damned well, and so do I, that of all people

you can least afford to have anything serious happen to the setup

down on Earth. That means you don't see any way to prevent it.

'Why, what do you mean? I have no interest in such troubles; I'm

independent of such things. You know me better than that.'

'Independent, eh? Who mined the steel in these walls? Who raised

that steer you dined on tonight? You're as independent as a queen

bee, and about as helpless.'

Waldo looked startled. He recovered himself and answered, 'Oh no,

Uncle Gus. I really am independent. Why, I have supplies here for years.'

'How many years?'

'Why. . . uh, five, about.'

'And then what? You may live another fifty - if you have regular supply

service. How do you prefer to die - starvation or thirst?'

'Water is no problem,' Waldo said thoughtfully; 'as for supplies, I suppose I could use hydroponics a little more and stock up with some meat animals-'

Grimes cut him short with a nasty laugh. 'Proved my point. You don't know how to avert it, so you are figuring some way to save your own skin. I know you. You wouldn't talk about starting a truck garden if you knew the answers.'

Waldo looked at him thoughtfully. 'That's not entirely true. I don't know the solution, but I do have some ideas about it. I'll bet you a half interest in hell that I can crack it. Now that you have called my attention to it, I must admit I am rather tied in with the economic system down below, and' - he smiled faintly - 'I was never one to neglect my own interests. Just a moment - I'll call your friend.'

'Not so fast. I came along for another reason, besides introducing Jimmie to you. It can't be just any solution; it's got to be a particular solution.'

'What do you mean?'

'It's got to be a solution that will do away with the need for filling up the air with radiant energy.'

'Oh, that. See here, Uncle Gus, I know how interested you are in your theory, and I've never disputed the possibility that you may be right, but you can't expect me to mix that into another and very difficult problem.'

'Take another look. You're in this for self-interest. Suppose everybody was in the shape you are in.'

'You mean my physical condition?'

'I mean just that. I know you don't like to talk about it, but

we blamed well need to. If everybody was as weak as you are - presto!

No coffee and cakes for Waldo. And that's just what I see coming.

You're the only man I know of who can appreclate what it means.'

'It seems fantastic.'

'It is. But the signs are there for anybody to read who wants to.

Epidemic myasthenia, not necessarily acute, but enough to raise hell

with our mechanical civilization. Enough to play hob with your

supply lines. I've been collating my data since I saw you last and

drawing some curves. You should see 'em'

'Did you bring them?'

'No, but I'll send 'em up. In the meantime, you can take my word

for it.' He waited. 'Well, how about it?'

'I'll accept it as a tentative working hypothesis,' Waldo said slowly,

'until I see your figures. I shall probably want you to conduct some

further research for me, on the ground - if your data is what you say

it is.'

'Fair enough. G'bye.' Grimes kicked the air a couple of times as he

absent-mindedly tried to walk.

Stevens's frame of mind as he waited for Grimes is better left

undescribed. The mildest thought that passed through his mind was a

plaintive one about the things a man had to put up with to hold down

what seemed like a simple job of engineering. Well, he wouldn't have

the job very long. But he decided not to resign - he'd wait until they

fired him; he wouldn't run out.

But he would damn well get that vacation before he looked for another job.

He spent several minutes wishing that Waldo were strong enough for him to be able to take a poke at him. Or kick him in the belly - that would be more fun!

He was startled when the dummy suddenly came to life and callcd him by name. 'Oh, Mr Stevens.'

'Huh? Yes?'

'I have decided to accept the commission. My attorneys will arrange the details with your business office.'

He was too surprised to answer for a couple of seconds; when he did so the dummy had already gone dead. He waited impatiently for Grimes to show up.

'Doc!' he said, when the old man swam into view. 'What got into him? How did you do it?'

'He thought it over and reconsidered,' Grimes said succinctly. 'Let's get going.'

Stevens dropped Dr Augustus Grimes at the doctor's home, then proceeded to his office. He had no more than parked his car and entered the tunnel leading towards the zone plant when he ran into his assistant. McLcod seemed a little out of breath. 'Gee, chief,' he said, 'I hoped that was you. I've had 'em watching for you. I need to see you.'

'What's busted now?' Stevens demanded apprehensively.. 'One of the cities?'

'No. What made you think so?'

'Go ahead with your story.'

'So far as I know ground power is humming sweet as can be. No trouble with the cities. What I had on my mind is this: I fixed my heap.'

'Huh? You mean you fixed the ship you crashed in?'

'It wasn't exactly a crash. I had plenty of power in the reserve banks; when reception cut off, I switched to emergency and landed her.'

'But you fixed it? Was it the deKalbs? Or something else?'

'It was the deKalbs all right. And they're fixed. But I didn't exactly do it myself. I got it done. You see-'

'What was the matter with them?'

'I don't know exactly. You see I decided that there was no point in hiring another skycar and maybe having another forced landing on the way home. Besides, it was my own crate I was flying, and I didn't want to dismantle her just to get the deKalbs out and have her spread out all over the countryside. So I hired a crawler, with the idea of taking her back all in one piece. I struck a deal with a guy who had a twelve-ton semitractor combination, and we-'

'For criminy's sake, make it march! What happened?'

'I'm trying to tell you. We pushed on into Pennsylvania and we were making pretty fair time when the crawler broke down. The right lead wheel, ahead of the treads. Honest to goodness, Jim, those roads are something fierce.'

'Never mind that. Why waste taxes on roads when ninety per cent of the traffic is in the air? You messed up a wheel. So then what?'

'Just the same, those roads are a disgrace,' McLeod maintained stubbornly. 'I was brought up in that part of the country. When I was a kid the road we were on was six lanes wide and smooth as a baby's fanny. They ought to be kept up; we might need 'em someday.' Seeing the look in his senior's eye,

he went on hastily: 'The driver mugged in with his home office, and they promised to send a repair car out from the next town. All told, it would take three, four hours - maybe more. Well, we were laid up in the country I grew up in. I says to myself, "McLeod, this is a wonderful chance to return to the scenes of your childhood and the room where the sun came peeping in the morn." Figuratively speaking, of course. Matter of fact, our house didn't have any windows.'

'I don't care if you were raised in a barrel!'

'Temper ... temper-' McLeod said imperturbably. 'I'm telling you this so you will understand what happened. But you aren't going to like it.'

'I don't like it now.

'You'll like it less. I climbed down Out of the cab and took a look around. We were about five miles from my home town - too far for me to want to walk it. But I thought I recognized a clump of trees on the brow of a little rise maybe a quarter of a mile off the road, so I walked over to see. I was right; just over the rise was the cabin where Gramps Schneider used to live.'

'Gramps Snyder?'

'Not Snyder - Schneider. Old boy we kids used to be friendly with. Ninety years older than anybody. I figured he was dead, but it wouldn't hurt any to walk down and see. He wasn't. "Hello, Gramps," I said. "Come in, Hugh Donald," he said. "Wipe the feet on the mat."

'I came in and sat down. He was fussing with something simmering in a stewpan on his base-burner. I asked him what it was. "For morning aches," he said. Gramps isn't exactly a hex doctor.'

'Huh?'

'I mean he doesn't make a living by it. He raises a few chickens and garden truck, and some of the Plain People -House Amish, mostly - give him pies and things. But he knows a lot about herbs and such.

'Presently he stopped and cut me a slice of shoo-fly pie. I told him danke. He said, "You've been up-growing, Hugh Donald,' and asked me how I was doing in school. I told him I was doing pretty well.

He looked at me again and said, "But you have trouble fretting you."

It wasn't a question; it was a statement. While I finished the pie I found myself trying to tell him what kind of troubles I had.

'It wasn't easy. I don't suppose Gramps has ever been off the ground in his life. And modern radiation theory isn't something you can explain in words of one syllable. I was getting more and more tangled up when he stood up, put on his hat and said, "We will see this car you speak about."

'We walked over to the highway. The repair gang had arrived, but the crawler wasn't ready yet. I helped Gramps up on to the platform and we got into my bus. I showed him the deKalbs and tried to explain what they did - or rather what they were supposed to do. Mind you, I was just killing time.

'He pointed to the sheaf of antennae and asked, "These fingers - they reach out for the power?" It was as good an explanation as any, so I let it ride. He said, "I understand," and pulled a piece of chalk out of his trousers, and began drawing lines on each antenna, from front to back. I walked up front to see how the repair crew were doing.

After a bit Gramps joined me. "Hugh Donald," he says, "the fingers -

now they will make."

'I didn't want to hurt his feelings, so I thanked him plenty. The crawler was ready to go; we said goodbye, and he walked back towards his shack. I went back to my car, and took a look in, just in case. I didn't think he could hurt anything, but I wanted to be sure. Just for the ducks of it I tried out the receptors. They worked!'

'What!' put in Stevens. 'You don't mean to stand there and tell me an old witch doctor fixed your deKalbs.'

'Not witch doctor - hex doctor. But you get the idea.'

Stevens shook his head. 'It's simply a coincidence. Sometimes they come back into order as spontaneously as they go out.'

'That's what you think. Not this one. I've just been preparing you for the shock you're going to get. Come take a look.'

'What do you mean? Where?'

'In the inner hangar.' While they walked to where McLeod had left his broomstick, he continued, 'I wrote out a credit for the crawler pilot and flew back. I haven't spoken to anyone else about it. I've been biting my nails down to my elbows waiting for you to show up.'

The skycar seemed quite ordinary. Stevens examined the deKalbs and saw some faint chalk marks on their metal sides - nothing else unusual.

'Watch while I cut in reception,' McLeod told him.

Stevens waited, heard the faint hum as the circuits became activized, and looked.

The antennae of the deKalbs, each a rigid pencil of metal,were bending,

flexing, writhing like a cluster of worms. They were reaching out, like fingers.

Stevens remained squatting down by the deKalbs, watching their outrageous motion. McLeod left the control saddle, came back, and joined him.

'Well, chief,' he demanded, 'tell me about it. Whaduh yuh make of it?'

'Got a cigarette?'

'What are those things sticking Out of your pocket?'

'Oh! Yeah - sure.' Stevens took one out, lighted it, and burned it halfway down, unevenly, with two long drags.

'Go on,' McLeod urged. 'Give us a tell. What makes it do that?'

'Well,' Stevens said slowly, 'I can think of three things to do next-'

'Yeah?'

"The first is to fire Dr Rambeau and give his job to Gramps Schneider.'

'That's a good idea in any case.'

'The second is to just wait here quietly until the boys with the strait-jackets show up to take us home.'

'And what's the third?'

'The third,' Stevens said savagely, 'is to take this damned heap out and sink it in the deepest part of the Atlantic Ocean and pretend like it never happened!'

A mechanic stuck his head in the door of the car. 'Oh, Dr Stevens--'

'Get out of here!'

The head hastily withdrew; thc voice picked up in aggrieved tones.

'Message from the head office.'

Stevens got up, went to the operator's saddle, cleared the board,

then assured himself that the antennae had ceased their disturbing movements. They had; in fact, they appeared so beautifully straight and rigid that he was again tempted to doubt the correctness of his own senses. He climbed out to the floor of the hangar, McLeod behind him.

'Sorry to have blasted at you, Whitey,' he said to the workman in placating tones. 'What is the message?'

'Mr Gleason would like for you to come into his office as soon as you can.'

'I will at once. And, Whitey, I've a job for you.'

'Yeah?'

'This heap here - seal up its doors and don't let anybody monkey with it. Then have it dragged, dragged, mind you; don't try to start it - have it dragged over into the main lab.'

'OK.'

Stevens started away; McLeod stopped him. 'What do I go home in?'

'Oh yes, it's your personal property, isn't it? Tell you what, Mac - the company needs it. Make out a purchase order and I'll sign it.'

'Weeell, now - I don't rightly know as I want to sell it. It might be the only job in the country working properly before long.'

'Don't be silly. If the others play out, it won't do you any good to have the only one in working order. Power will be shut down.'

'I suppose there's that,' McLeod conceded. 'Still,' he said, brightening visibly, 'a crate like that, with its special talents, ought to be worth a good deal more than list. You couldn't just go

out and buy one.'

'Mac,' said Stevens, 'you've got avarice in your heart and thievery in your fingertips. How much do you want for it?'

'Suppose we say twice the list price, new. That's letting you off easy.'

'I happen to know you bought that job at a discount. But go ahead. Either the company can stand it, or it won't make much difference in the bankruptcy.'

Gleason looked up as Stevens came in. 'Oh, there you are, Jim. You seemed to have pulled a miracle with our friend Waldo the Great. Nice work.'

'How much did he stick us for?'

'Just his usual contract. Of course his usual contract is a bit like robbery with violence. But it will be worth it if he is successful. And it's on a straight contingent basis. He must feel pretty sure of himself. They say he's never lost a contingent fee in his life. Tell me - what is he like? Did you really get into his house?'

'I did. And I'll tell you about it - sometime. Right now another matter has come up which has me talking to myself. You ought to hear about it at once.

'So? Go ahead.'

Stevens opened his mouth, closed it again, and realized that it had to be seen to be believed. 'Say, could you come with me to the main lab? I've got something to show you.'

'Certainly.'

Gleason was not as perturbed by the squirming metal rods as

Stevens had been. He was surprised, but not upset. The truth of the matter is that he lacked the necessary technical background to receive the full emotional impact of the inescapable implications of the phenomenon.

'That's pretty unusual, isn't it?' he said quietly.

'Unusual! Look, chief, if the sun rose in the west, what would you think?'

'I think I would call the observatory and ask them why.'

'Well, all I can say is that I would a whole lot rather that the sun rose in the west than to have this happen.'

'I admit it is pretty disconcerting,' Gleason agreed.

'I can't say that I've ever seen anything like it. What is Dr Rambeau's opinion?'

'He hasn't seen it.

'Then perhaps we had better send for him. He may not have gone home for the night as yet.'

'Why not show it to Waldo instead?'

'We will. But Dr Rambeau is entitled to see it first. After all, it's his bailiwick, and I'm afraid the poor fellow's nose is pretty well out of joint as it is. I don't want to go over his head.'

Stevens felt a sudden flood of intuition. 'Just a second, chief. You're right, but if it's all the same to you I would rather that you showed it to him than for me to do it.'

'Why so, Jimmie? You can explain it to him.'

'I can't explain a damn thing to him I haven't already told you.

And for the next few hours I'm going to be very, very busy indeed.'

Gleason looked him over, shrugged his shoulders, and said mildly,

'Very well, Jim, if you prefer it that way.'

Waldo was quite busy, and therefore happy. He would never have admitted - he did not admit even to himself, that there were certain drawbacks to his self-imposed withdrawal from the world and that chief among these was boredom. He had never had much opportunity to enjoy the time-consuming delights of social intercourse; he honestly believed that the smooth apes had nothing to offer him in the way of companionship. Nevertheless, the pleasure of the solitary intellectual life can pall.

He repeatedly urged Uncle Gus to make his permanent home in Freehold, but he told himself that it was a desire to take care of the old man which motivated him. True - he enjoyed arguing with Grimes, but he was not aware how much those arguments meant to him. The truth of the matter was that Grimes was the only one of the human race who treated him entirely as another human and an equal - and Waldo wallowed in it, completely unconscious that the pleasure he felt in the old man's company was the commonest and most precious of all human pleasures. But at present he was happy in the only way he knew how to be happy - working.

There were two problems: that of Stevens and that of Grimes. Required: a single solution which would satisfy each of them. There were three stages to each problem; first, to satisfy himself that the problems really did exist, that the situations were in fact as they had been

reported to him verbally; second, to undertake such research as the preliminary data suggested; and third, when he felt that his data was complete, to invent a solution.

'Invent', not 'find'. Dr Rambeau might have said 'find', or 'search for'. To Rambeau the universe was an inexorably ordered cosmos, ruled by unvarying law. To Waldo the universe was the enemy, which he strove to force to submmiit to his will. They might have been speaking of the same thing, but their approaches were different.

There was much to be done. Stevens had supplied him with a mass of data, both on the theoretical nature of the radiated power system and the deKalb receptors which were the keystone of the system, and also on the various cases of erratic performance of which they had lately been guilty. Waldo had not given serious attention to power radiation up to this time, simply because he had not needed to. He found it interesting but comparatively simple. Several improvements suggested themselves to his mind. That standing wave, for example, which was the main factor in the co-axial beam - the efficiency of reception could be increased considerably by sending a message back over it which would automatically correct the aiming of the beam. Power delivery to moving vehicles could be made nearly as efficient as the power reception to stationary receivers.

Not that such an idea was important at present. Later, when he had solved the problem at hand, he intended to make NAPA pay through the nose for the idea; or perhaps it would be more amusing to compete with them. He wondered when their basic patents ran out - must look it up.

Despite inefficiencies the deKalb receptors should work every time, all the time, without failure. He went happily about finding out why they did not.

He had suspected some obvious - obvious to him - defect in manufacture. But the inoperative deKalbs which Stevens had delivered to him refused to give up their secret. He X-rayed them, measured them with micrometer and interferometer, subjected them to all the usual tests and some that were quite unusual and peculiarly Waldo-ish. They would not perform.

He built a deKalb in his shop, using one of the inoperative ones as a model and using the reworked metal of another of the same design, also inoperative, as the raw material, he used his finest scanners to see with and his smallest waldoes -tiny pixy hands, an inch across - for manipulation in the final stages. He created a deKalb which was as nearly identical with its model as technology and incredible skill could produce.

It worked beautifully.

Its elder twin still refused to work. He was not discouraged by this. On the contrary, he was elated. He had proved, proved with certainty, that the failure of the deKalbs was not a failure of workmanship, but a basic failure in theory. The problem was real.

Stevens had reported to him the scandalous performance of the deKalbs in McLeod's skycar, but he had not yet given his attention to the matter. Presently, in proper order, when he got around to it, he would look into the matter. In the meantime he tabled the matter. The smooth apes were an hysterical lot; there was probably nothing to the story.

Writhing like Medusa's locks, indeed!

He gave fully half his time to Grimes's problem.

He was forced to admit that the biological sciences - if you could call them science! - were more fascinating than he had thought. He had shunned them, more or less; the failure of expensive 'experts' to do anything for his condition when he was a child had made him contemptuous of such studies. Old wives nostrums dressed up in fancy terminology! Grimes he liked and even respected, but Grimes was a special case.

Grimes's data had convinced Waldo that the old man had a case. Why, this was serious! The figures were incomplete, but nevertheless convincing. The curve of the third decrement, extrapolated not too unreasonably, indicated that in twenty years there would not be a man left with strength enough to work in the heavy industries. Button pushing would be all they would be good for.

It did not occur to him that all he was good for was button pushing; he regarded weakness in the smooth apes as an old-style farmer might regard weakness in a draft animal. The farmer did not expect to pull the plough - that was the horse's job.

Grimes's medical colleagues must be utter fools.

Nevertheless, he sent for the best physiologists, neurologists, brain surgeons, and anatomists he could locate, ordering them as one might order goods from a catalogue. He must understand this matter.

He was considerably annoyed when he found that he could not make arrangements, by any means, to perform vivisection on human beings.

He was convinced by this time that the damage done by ultra short-wave radiation was damage to the neurological system, and that the whole

matter should be treated from the standpoint of electromagnetic theory. He wanted to perform certain delicate manipulations in which human beings would be hooked up directly to apparatus of his own design to find out in what manner nerve impulses differed from electrical current. He felt that if he could disconnect portions of a man's nervous circuit, replace it in part with electrical hookups, and examine the whole matter in situ, he might make illuminating discoveries. True, the man might not be much use to himself afterwards.

But the authorities were stuffy about it; he was forced to content himself with cadavers and with animals.

Nevertheless, he made progress. Extreme short-wave radiation had a definite effect on the nervous system - a double effect: it produced 'ghost' pulsations in the neurons, Insufficient to accomplish muscular motor response, but, he suspected, strong enough to keep the body in a continual state of inhibited nervous excitation; and, secondly, a living specimen which had been subjected to this process for any length of time showed a definite, small but measurable, lowering in the efficiency of its neural impulses. If it had been an electrical circuit, he would have described the second effect as a decrease in insulating efficiency.

The sum of these two effects on the subject individual was a condition of mild tiredness, somewhat similar to the malaise of the early stages of pulmonary tuberculosis. The victim did not feel sick; he simply lacked pep. Strenuous bodily activity was not impossible; it was simply distasteful; it required too much effort, too much willpower.

But an orthodox pathologist would have been forced to report that the victim was in perfect health - a little run-down, perhaps, but nothing wrong

with him. Too sedentary a life, probably. What he needed was fresh air, sunshine, and healthy exercise.

Doc Grimes alone had guessed that the present, general, marked preference for a sedentary life was the effect and not the cause of the prevailing lack of vigour. The change had been slow, at least as slow as the increase in radiation in the air. The individuals concerned had noticed it, if at all, simply as an indication that they were growing a little bit older,'slowing down, not so young as I used to be'. And they were content to slow down; it was more comfortable than exertion.

Grimes had first begun to be concerned about it when he began to notice that all of his younger patients were 'the bookish type'. It was all very well for a kid to like to read books, he felt, but a normal boy ought to be out doing a little hell raising too. What had become of the sand-lot football games, the games of scrub, the clothes-tearing activity that had characterized his own boyhood?

Damn it, a kid ought not to spend all his time poring over a stamp collection.

Waldo was beginning to find the answer.

The nerve network of the body was not dissimilar to antennae. Like antennae, it could and did pick up electromagnetic waves. But the pickup was evidenced not as induced electrical current, but as nerve pulsation - impulses which were maddeningly similar to, but distinctly different from, electrical current. Electromotive force could be used in place of nerve impulses to activate muscle tissue, but emf was not nerve impulse. For one thing they travelled at vastly different rates of speed. Electrical current travcls at a speed approaching that of light; neural impulse is measured in feet per second.

Waldo felt that somewhere in this matter of speed lay the key to the problem.

He was not permitted to ignore the matter of McLeod's fantastic skycar as long as he had intended to. Dr Rambeau called him up. Waldo accepted the call, since it was routed from the laboratories of NAPA. 'Who are you and what do you want?' he demanded of the image.

Rambeau looked around cautiously. 'Sssh! Not so loud,' he whispered. 'They might be listening.'

'Who might be? And who are you?'

'"They" are the ones who are doing it. Lock your doors at night. I'm Dr Rambeau.'

'Dr Rambeau? Oh yes. Well, Doctor, what is the meaning of this intrusion?'

The doctor leaned forward until he appeared about to fall out of the stereo picture. 'I've learned how to do it,' he said tensely.

'How to do what?'

'Make the deKalbs work. The dear, dear deKalbs.' He suddenly thrust his hands at Waldo, while clutching frantically with his fingers. 'They go like this: Wiggle, wiggle, wiggle!'

Waldo felt a normal impulse to cut the man off, but it was overruled by a fascination as to what he would say next. Rambeau continued, 'Do you know why? Do you? Riddle me that.'

'Why?'

Rambeau placed a finger beside his nose and smiled roguishly. 'Wouldn't you like to know? Wouldn't you give a pretty to know? But I'll tell you!'

'Tell me, then.'

Rambeau suddenly looked terrified. 'Perhaps I shouldn't. Perhaps they are listening. But I will, I will! Listen carefully:

Nothing is certain.

'Is that all?' inquired Waldo, now definitely amused by the man's antics.

'"Is that all?" Isn't that enough? Hens will crow and cocks will lay. You are here and I am there. Or maybe not. Nothing is certain. Nothing, nothing, NOTHING is certain! Around and around the little ball goes, and where it stops nobody knows. Only I've learned how to do it.'

'How to do what?'

'How to make the little ball stop where I want it to. Look.' He whipped out a penknife. 'When you cut yourself, you bleed, don't you? Or do you?' He sliced at the forefinger of his left hand. 'See?' He held the finger close to the pickup; the cut though deep, was barely discernible and it was bleeding not at all.

Capital! thought Waldo. Hysteric vascular control - a perfect clinical case.

'Anybody can do that,' he said aloud. 'Show me a hard one.'

'Anybody? Certainly anybody can - if they know how. Try this one.' He jabbed the point of the penknife straight into the palm of his left hand, so that it stuck out the back of his hand. He wiggled the blade in the wound, withdrew it, and displayed the palm. No blood, and the incision was closing rapidly. 'Do you know why? The knife is only probably there, and I've found the improbability!'

Amusing as it had been, Waldo was beginning to be bored by it. 'Is that all?'

'There is no end to it,' pronounced Rambeau, 'for nothing is certain any more. Watch this.' He held the knife flat on his palm, then turned his hand over.

The knife did not fall, but remained in contact with the underside of his

hand.

Waldo was suddenly attentive. It might be a trick; it probably was a trick - but it impressed him more, much more, than Rambeau's failure to bleed when cut. One was common to certain types of psychosis; the other should not have happened. He cut in another vicwphonc circuit. 'Get me Chief Engineer Stevens at North American Power-Air,' he said sharply. 'At once!'

Rambeau paid no attention, but continued to speak of the penknife. 'It does not know which way is down,' he crooned, 'for nothing is certain any more. Maybe it will fall - maybe not. I think it will. There - it has. Would you like to see me walk on the ceiling?'

'You called me, Mr Jones?' It was Stevens.

Waldo cut his audio circuit to Rambeau. 'Yes. That jumping jack, Rambeau. Catch him and bring him to me at once. I want to see him.'

'But Mr Jo-'

'Move!' He cut Stevens off, and renewed the audio to Rambeau.

'-uncertainty. Chaos is King, and Magic is loose in the world!'

Rambeau looked vaguely at Waldo, brightened, and added, 'Good day, Mr Jones. Thank you for calling.'

The screen went dead.

Waldo waited impatiently. The whole thing had been a hoax, he told himself. Rambeau had played a gigantic practical joke. Waldo disliked practical jokes. He put in another call for Stevens and left it in.

When Stevens did call back his hair was mussed and his face was red.

'We had a bad time of it,' he said.

'Did you get him?'

'Rambeau? Yes, finally.'

'Then bring him up.'

'To Freehold? But that's impossible. You don't understand. He's blown his top; he's crazy. They've taken him away to a hospital.'

'You assume too much,' Waldo said icily. 'I know he's crazy, but I meant what I said. Arrange it. Provide nurses. Sign affidavits. Use bribery. Bring him to me at once. It is necessary.~

'You really mean that?'

'I'm not in the habit of jesting.'

'Something to do with your investigations? He's in no shape to be useful to you, I can tell you that.'

'That,' pronounced Waldo, 'is for me to decide.'

'Well,' said Stevens doubtfully, 'I'll try.'

'See that you succeed.'

Stevens called back thirty minutes later. 'I can't bring Rambeau.'

'You clumsy incompetent.'

Stevens turned red, but held his temper. 'Never mind the personalities. He's gone.

He never got to the hospital.'

'What?'

'That's the crazy part about it. They took him away in a confining stretcher, laced up like a corset. I saw them fasten him in myself. But when they got there he was gone. And the attendants claim the straps weren't even unbuckled.'

Waldo started to say, 'Preposterous,' thought better of it. Stevens

went on.

'But that's not the half of it. I'd sure like to talk to him myself.

I've been looking around his lab. You know that set of deKalbs that

went nuts -. the ones that were hexed?'

'I know to what you refer.'

'Rambeau's got a second set to do the same thing!' Waldo remained

silent for several seconds, then said quietly, 'Dr Stevens-'

'Yes.'

'I want to thank you for your efforts. And will you please have

both sets of receptors, the two sets that are misbehaving, sent

to Freehold at once?'

There was no doubt about it. Once he had seen them with his own

eyes, watched the inexplicable squirming of the antennae, applied

such tests as suggested themselves to his mind, Waldo was forced

to conclude that he was faced with new phenomena, phenomena for

which he did not know the rules.

If there were rules.

For he was honest with himself. If he saw what he thought he saw,

then rules were being broken by the new phenomena, rules which he

had considered valid, rules to which he had never previously

encountered exceptions. He admitted to himself that the original

failures of the deKalbs should have been considered just as

overwhelmingly upsetting to physical law as the unique behaviour

of these two; the difference lay in that one alien phenomenon

was spectacular, the other was not.

Quite evidently Dr Rambeau had found it so; he had been informed

that the doctor had been increasingly neurotic from the first instance of erratic performance of the deKalb receptors.

He regretted the loss of Dr Rambeau. Waldo was more impressed by Rambeau crazy than he had ever been by Rambeau sane. Apparently the man had had some modicum of ability after all; he had found out something - more, Waldo admitted, than he himself had been able to find out so far, even though it had driven Rambeau insane.

Waldo had no fear that Rambeau's experience, whatever it had been, could unhinge his own reason. His own self-confidence was, perhaps, fully justified. His own mild paranoid tendency was just sufficient to give him defences against an unfriendly world. For him it was healthy, a necessary adjustment to an otherwise intolerable situation, no more pathological than a callous, or an acquired immunity.

Otherwise he was probably more able to face disturbing facts with equanimity than ninety-nine per cent of his contemporaries. He had been born to disaster; he had met it and had overcome it, time and again. The very house which surrounded him was testimony to the calm and fearless fashion in which he had defeated a world to which he was not adapted.

He exhausted, temporarily, the obvious lines of direct research concerning the strangely twisting metal rods. Rambeau was not available for questioning. Very well, there remained one other man who knew more about it than Waldo did. He would seek him out.

He called Stevens again.

'Has there been any word of Dr Rambeau?'

'No word, and no sign. I'm beginning to think the poor old fellow is dead.'

'Perhaps. That witch doctor friend of your assistant - was Schneider his name?'

'Gramps Schneider.'

'Yes indeed. Will you please arrange for him to speak with me?'

'By phone, or do you want to see him in person?'

'I would prefer for him to come here, but I understand that he is old and feeble; it may not be feasible for him to leave the ground. If he is knotted up with spacesickness, he will be no use to me.'

'I'll see what can be done.'

'Very good. Please expedite the matter. And, Dr Stevens-'

'Well?'

'If it should prove necessary to use the phone, arrange to have a portable full stereo taken to his home. I want the circumstances to be as favourable as possible.'

'OK.'

'Imagine that,' Stevens added to McLeod when the circuit had been broken. 'The Great-I-Am's showing consideration for somebody else's convenience.

'The fat boy must be sick,' McLeod decided.

'Seems likely. This chore is more yours than mine, Mac. Come along with me; we'll take a run over into Pennsylvania.'

'How about the plant?'

'Tell Carruthers he's "It". If anything blows, we couldn't help it

anyway.'

Stevens mugged back later in the day. 'Mr Jones-'

'Yes, Doctor?'

'What you suggest can't be arranged.'

'You mean that Schneider can't come to Freehold?'

'I mean that and I mean that you can't talk with him on the viewphone.'

'I presume that you mean he is dead.'

'No, I do not. I mean that he will not talk over the view-phone under any circumstances whatsoever, to you or to anyone. He says that he is sorry not to accommodate you, but that he is opposed to everything of that nature - cameras, einécams, television, and so forth. He considers them dangerous. I am afraid he is set in his superstition.'

'As an ambassador, Dr Stevens, you leave much to be desired.'

Stevens counted up to ten, then said, 'I assure you that I have done everything in my power to comply with your wishes. If you are dissatisfied with the quality of my cooperation, I suggest that you speak to Mr Gleason.' He cleared the circuit.

'How would you like to kick him in the teeth?' McLeod said dreamily.

'Mac, you're a mind reader.'

Waldo tried again through his own agents, received the same answer. The situation was, to him, almost intolerable; it had been years since he had encountered a man whom he could not buy, bully, nor - in extremity - persuade. Buying had failed; he had realized instinctively that Schneider would be unlikely to be motivated by greed. And how

can one bully, or wheedle, a man who cannot be seen to be talked with?

It was a dead end - no way out. Forget it.

Except, of course, for a means best classed as a Fate-Worse-Than-Death.

No. No, not that. Don't think about it. Better to drop the whole matter, admit that it had him licked, and tell Gleason so. It had been seventeen years since he had been at Earth surface; nothing could induce him to subject his body to the intolerable demands of that terrible field. Nothing!

It might even kill him. He might choke to death, suffocate. No.

He sailed gracefully across his shop, an overpadded Cupid. Give up this freedom, even for a time, for that tortuous bondage? Ridiculous! It was not worth it.

Better to ask an acrophobe to climb Half Dome, or demand that a claustrophobe interview a man in the world's deepest mine.

'Uncle Gus?'

'Oh, hello. Waldo. Glad you called.'

'Would it be safe for me to come down to Earth?'

'Eh? How's that? Speak up, man. I didn't understand you.'

'I said would it hurt me to make a trip down to Earth.'

'This hookup,' said Grimes, 'is terrible. It sounded just like you were saying you wanted to come down to Earth.'

'That's what I did say.'

'What's the matter, Waldo? Do you feel all right?'

'I feel fine, but I have to see a man at Earth surface. There isn't any other way for me to talk to him, and I've got to talk to him. Would the trip do me any harm?'

'Ought not to, if you're careful. After all, you were born there. Be careful

of yourself, though. You've laid a lot of fat around your heart.'

'Oh dear. Do you think it's dangerous?'

'No. You're sound enough.. Just don't overstrain yourself. And be careful

to keep your temper.'

'I will. I most certainly will. Uncle Gus?'

'Yes?'

'Will you come along with me and help me see it through?'

'Oh, I don't think that's necessary.'

'Please, Uncle Gus. I don't trust anybody else.'

'Time you grew up, Waldo. However, I will, this once.'

'Now remember,' Waldo told the pilot, 'the absolute acceleration

must never exceed one and one tenth gs, even in landing. I'll be

watching the accelograph the whole time.'

'I've been driving ambulances,' said the pilot, 'for twelve years,

and I've never given a patient a rough ride yet.'

'That's no answer. Understand me? One and one tenth; and it should

not even approach that figure until we are under the stratosphere.

Quiet, Baldur! Quit snuffling.'

'I get you.'

'Be sure that you do. Your bonuses depend on it.'

'Maybe you'd like to herd it yourself.'

'I don't like your attitude, my man. If I should die in the tank,

you would never get another job.'

The pilot muttered something.

'What was that?' Waldo demanded sharply. 'Well, I said it might be worth it.'

Waldo started to turn red, opened his mouth'.

Grimes Cut in: 'Easy, Waldo! Remember your heart.'

'Yes, Uncle Gus.'

Grimes snaked his way forward, indicated to the pilot that he wanted him to join him there.

'Don't pay any attention to anything he says,' he advised the man quietly, 'except what he said about acceleration. He really can't stand much acceleration. He might die in the tank.'

'I still don't think it would be any loss. But I'll be careful.'

'Good.'

'I'm ready to enter the tank,' Waldo called out. 'Will you help me with the straps, Uncle Gus?'

'Be there in a second.'

The tank was not a standard deceleration type, but a modification built for this one trip. The tank was roughly the shape of an oversized coffin and was swung in gimbals to keep it always normal to the axis of absolute acceleration. Waldo floated in water - the specific gravity of his fat hulk was low -from which he was separated by the usual flexible, gasketed tarpaulin. Supporting his head and shoulders was a pad shaped to his contour. A mechanical artificial resuscitator was built into the tank, the back pads being under water, the breast pads out of the water but retracted out of the way.

Grimes stood by with neoadrenalin; a saddle had been provided for

him on the left side of the tank. Baldur was strapped to a shelf on the right side of the tank; he acted as a counterweight to Grimes.

Grimes assured himself that all was in readiness, then called Out to the pilot, 'Start when you're ready.'

'OK.' He sealed the access port; the entry tube folded itself back against the threshold flat of Freehold, freeing the ship. Gently they got under way.

Waldo closed his eyes; a look of seraphic suffering came over his face.

'Uncle Gus, suppose the deKalbs fail?'

'No matter. Ambulances store six times the normal reserve.'

'You're sure?'

When Baldur began to feel weight, he started to whimper. Grimes spoke to him; he quieted down. But presently - days later, it seemed to Waldo - as the ship sank farther down into the Earth's gravitational field, the absolute acceleration necessarily increased, although the speed of the ship had not changed materially. The dog felt the weary heaviness creeping over his body. He did not understand it and he liked it even less; it terrified him. He began to howl.

Waldo opened his eyes. 'Merciful heavens!' he moaned. 'Can't you do something about that? He must be dying.'

'I'll see.' Grimes undid his safety belt and swung himself across the tank. The shift in weight changed the balance of the load in the gimbals; Waldo was rocked against the side of the tank.

'Oh!' he panted. 'Be careful.'

'Take it easy.' Grimes caressed the dog's head and spoke to him. When he

had calmed down, Grimes grabbed a handful of hide between the dog's shoulders, measured his spot, and jabbed in a hypo. He rubbed the area. 'There, old fellow! That will make you feel better.'

Getting back caused Waldo to be rocked again, but he bore it in martyred silence. The ambulance made just one jerky manoeuvre after it entered the atmosphere. Both Waldo and the dog yelped. 'Private ship~' the pilot yelled back. 'Didn't heed my right-of-way lights.' He muttered something about women drivers.

'It wasn't his fault,' Grimes told Waldo. 'I saw it.'

The pilot set them down with exquisite gentleness in a clearing which had been prepared between the highway and Schneider's house. A party of men was waiting for them there; under Grimes's supervision they unslung the tank and carried Waldo out into the open air. The evolution was performed slowly and carefully, but necessarily involved some degree of bumping and uneven movement. Waldo stood it with silent fortitude, but tears leaked out from under his lowered lids.

Once outside he opened his eyes and asked, 'Where is Baldur?'

'I unstrapped him,' Grimes informed him, 'but he did not follow us out.'

Waldo called out huskily, 'Here, Baldur! Come to me, boy.'

Inside the car the dog heard his boss's voice, raised his head, and gave a low bark. He still felt that terrifying sickness, but he inched forward on his belly, attempting to comply. Grimes reached the door in time to see what happened. The dog reached the edge of his shelf and made a grotesque attempt to launch himself in the direction from which he had heard Waldo's voice. He tried the only method of propulsion he knew; no doubt he expected to sail through the door and arrest his flight against the tank on the ground. Instead he fell several feet to the inner floor plates, giving one agonized yelp as he did so, and

breaking his fall most clumsily with stiffened forelegs.

He lay sprawled where he had landed, making no noise, but not attempting to move. He was trembling violently.

Grimes came up to him and examined him superficially, enough to assure him that the beast was not really hurt, then returned to the outside.

'Baldur's had a little accident,' he told Waldo; 'he's not hurt, but the poor devil doesn't know how to walk. You had best leave him in the ship.'

Waldo shook his head slightly. 'I want him with me. Arrange a litter.'

Grimes got a couple of the men to help him, obtained a stretcher from the pilot of the ambulance, and undertook to move the dog. One of the men said, 'I don't know as I care for this job. That dog looks vicious. Look't those eyes.'

'He's not,' Grimes assured him. 'He's just scared out of his wits. Here, I'll take his head.'

'What's the matter with him? Same thing as the fat guy?'

'No, he's perfectly well and strong; he's just never learned to walk. This is his first trip to Earth.'

'Well, I'll be a cross-eyed owl!'

'I knew a case like it,' volunteered the other. 'Dog raised in Lunopolis - first week he was on Earth he wouldn't move -just squatted down, and howled, and made messes on the floor.'

'So has this one,' the first said darkly.

They placed Baldur alongside Waldo's tub. With great effort Waldo raised himself on one elbow, reached out a hand, and placed it on the creature's head. The dog licked it; his trembling almost ceased. 'There! There!'

Waldo. whispered. 'It's pretty bad, isn't it? Easy, old friend, take it easy.'

Baldur thumped his tail.

It took four men to carry Waldo and two more to handle Baldur. Gramps Schneider was waiting for them at the door of his house. He said nothing as they approached, but indicated that they were to carry Waldo inside.

The men with the dog hesitated. 'Him, too,' he said.

When the others had withdrawn - even Grimes returned to the neighbourhood of the ship - Schneider spoke again. 'Welcome, Mr Waldo Jones.'

'I thank you for your welcome, Grandfather Schneider.'

The old man nodded graciously without speaking. He went to the side of Baldur's litter. Waldo felt impelled to warn him that the beast was dangerous with strangers, but some odd restraint - perhaps the effect of that enervating gravitational field - kept him from speaking in time.

Then he saw that he need not bother.

Baldur had ceased his low whimpering, had raised his head, and was licking Gramps Schneider's chin. His tail thumped cheerfully. Waldo felt a sudden tug of jealousy; the dog had never been known to accept a stranger without Waldo's specific injunction. This was disloyalty - treason! But he suppressed the twinge and coolly assessed the incident as a tactical advantage to him.

Schneider pushed the dog's face out of the way and went over him thoroughly, prodding, thumping, extending his limbs. He grasped Baldur's muzzle, pushed back his lips, and eyed his gums. He peeled back the dog's eyelids. He then dropped the matter and came to Waldo's side. 'The dog is not sick,' he said; 'his mind confuses. What made it?'

Waldo told him about Baldur's unusual background. Schneider nodded acceptance

of the matter - Waldo could not tell whether he had understood or not - and turned his attention to Waldo. 'It is not good for a sprottly lad to lie abed. The weakness - how long has it had you?'

'All my life, Grandfather.'

'That is not good.' Schneider went over him as he had gone over Baldur.

Waldo, whose feeling for personal privacy was much more intense than that of the ordinarily sensitive man, endured it for pragmatic reasons. It was going to be necessary, he felt, to wheedle and cajole this strange old creature. It would not do to antagonize him.

To divert his own attention from the indignity he chose to submit to, and to gain further knowledge of the old quack, Waldo let his eyes rove the room. The room where they were seemed to be a combination kitchen-living room. It was quite crowded, rather narrow, but fairly long. A fireplace dominated the kitchen end, but it had been bricked up, and a hole for the flue pipe of the base-burner had been let into the chimney. The fireplace was lopsided, as an oven had been included in its left side. The corresponding space at the right was occupied by a short counter which supported a tiny sink. The sink was supplied with water by a small hand pump which grew out of the counter. Schneider, Waldo decided, was either older than he looked, which seemed incredible, or he had acquired his house from someone now long dead.

The living room end was littered and crowded in the fashion which is simply unavoidable in constricted quarters. Books filled several cases, were piled on the floor, hung precariously on chairs. An ancient wooden desk, crowded with papers and supporting a long-obsolete mechanical typewriter, filled one corner. Over it, suspended from the wall, was an ornate clock, carved

somewhat like a house. Above its face were two little doors; while Waldo looked at it, a tiny wooden bird painted bright red popped out of the left-hand door, whistled 'Th-wu th-woo!' four times, and popped frantically back into its hole. Immediately thereafter a little grey bird came out of the right-hand door, said 'Cuckoo' three times in a leisurely manner, and returned to its hole.

Waldo decided that he would like to own such a clock; of course its pendulum-and-weight movement would not function in Freehold, but he could easily devise a one-g centrifuge frame to enclose it, wherein it would have a pseudo Earth-surface environment.

It did not occur to him to fake a pendulum movement by means of a concealed power source; he liked things to work properly.

To the left of the clock was an old-fashioned static calendar of paper. The date was obscured, but the letters above the calendar proper were large and legible: New York World's Fair - Souvenir of the World of Tomorrow. Waldo's eyes widened a little and went back to something he had noticed before, sticking into a pincushion on the edge of the desk.

It was a round plastic button mounted on a pin whereby it could be affixed to the clothing. It was not far from Waldo's eyes; he could read the lettering on it:

FREE SILVER

SIXTEEN TO ONE

Schneider must be - old!

There was a narrow archway, which led into another room. Waldo could not see into it very well; the arch was draped with a fringe curtain of long strings of large ornamental beads.

The room was rich with odours, many of them old and musty, but not dirty.

Schneider straightened up and looked down at Waldo.

'There is nought wrong with your body. Up get yourself and walk.'

Waldo shook his head feebly. 'I am sorry, Grandfather. I cannot.'

'You must reach for the power and make it serve you. Try.'

'I am sorry. I do not know how.'

'That is the only trouble. All matters are doubtful, unless one knows. You send your force into the Other World. You must reach into the Other World and claim it.'

'Where is this "Other World", Grandfather?'

Schneider seemed a little in doubt as to how to answer this. 'The Other World,' he said presently, 'is the world you do not see. It is here and it is there and it is everywhere. But it is especially here.' He touched his forehead. 'The mind sits in it and sends its messages through it to the body. Wait.' Hc shuffled away to a little cupboard, from which he removed a small jar. It contained a salve, or unguent, which he rubbed on his hands.

He returned to Waldo and knelt down beside him. Grasping one of Waldo's hands in both of his, he began to knead it very gently. 'Let the mind be quiet)' he directed. 'Feel for the power. The Other World is close and full of power. Feel it.' The massage was very pleasant to Waldo's tired muscles.

The salve, or the touch of the old man's hand, produced a warm, relaxing tingle.

If he were younger, thought Waldo, I would hire him as a masseur. He has a magnetic touch.

Schneider straightened up again and said, 'There - that betters you? Now you rest while I some coffee make.'

Waldo settled back contentedly. He was very tired. Not only was the trip itself a nervous strain, but he was still in the grip of this damnable, thick gravitational field, like a fly trapped in honey. Gramps Schneider's ministrations had left him relaxed and sleepy. He must have dozed, for the last thing he remembered was seeing Schneider drop an eggshell into the coffeepot. Then the old man was standing before him, holding the pot in one hand and a steaming cup in the other. He set them down, got three pillows, which he placed at Waldo's back, then offered him the coffee.

Waldo laboriously reached out both hands to take it. Schneider held it back. 'No,' he reproved, 'one hand makes plenty. Do as I showed. Reach into the Other World for the strength.' He took Waldo's right hand and placed it on the handle of the cup, steadying Waldo's hand with his own. With his other hand he stroked Waldo's right arm gently, from shoulder to fingertips. Again the warm tingle.

Waldo was surprised to find himself holding the cup alone. It was a pleasant triumph; at the time he left Earth, seventeen years before, it had been his invariable habit never to attempt to grasp anything with only one hand. In Freehold, of course, he frequently handled small objects one-handed, without the use of waldoes. The years of practice must have improved his control. Excellent!

So, feeling rather cocky, he drank the cupful with one hand, using extreme care not to slop it on himself. It was good coffee, too, he was bound to

admit - quite as good as the sort he himself made from the most expensive syrup extract - better, perhaps.

When Schneider offered him coffeecake, brown with sugar and cinnamon and freshly rewarmed, he swaggeringly accepted it with his left hand, without asking to be relieved of the cup. He continued to eat and drink, between bites and sips resting and steadying his forearms on the edges of the tank.

The conclusion of the Kaffeeklatsch seemed a good time to broach the matter of the deKalbs. Schneider admitted knowing McLeod and recalled, somewhat vaguely it seemed, the incident in which he had restored to service McLeod's broomstick.

'Hugh Donald is a good boy,' he said. 'Machines I do not like, but it pleasures me to fix things for boys.'

'Grandfather,' asked Waldo, 'will you tell me how you fixed Hugh Donald McLeod's ship?'

'Have you such a ship you wish me to fix?'

'I have many such ships which I have agreed to fix, but I must tell you that I have been unable to do so. I have come to you to find out the right way.'

Schneider considered this. 'That is difficult. I could show you, but it is not so much what you do as how you think about it. That makes only with practice.'

Waldo must have looked puzzled, for the old man looked at him and added, 'It is said that there are two ways of looking at everything. That is true and less than true, for there are many ways. Some of them are good ways and some are bad. One of the ancients said that everything either is, or is not. That is less than true, for a thing can both be and not he.

With practice one can see it both ways. Sometimes a thing which is for this world is a thing which is not for the Other World. Which is important, since we live in the Other World.'

'We live in the Other World?'

'How else could we live? The mind - not the brain, but the mind - is in the Other World, and reaches this world through the body. That is one true way of looking at it, though there are others.'

'Is there more than one way of looking at deKalb receptors?'

'Certainly.'

'If I had a set which is not working right brought in here, would you show me how to look at it?'

'It is not needful,' said Schneider, 'and I do not like for machines to be in my house. I will draw you a picture.'

Waldo felt impelled to insist, but he squelched his feeling. 'You have come here in humility,' he told himself, 'asking for instruction. Do not tell the teacher how to teach.'

Schneider produced a pencil and a piece of paper, on which he made a careful and very neat sketch of the antennae sheaf and main axis of a skycar. The sketch was reasonably accurate as well, although it lacked several essential minor details.

'These fingers,' Schneider said, 'reach deep into the Other World to draw their strength. In turn it passes down this pillar' - he indicated the axis - to where it is used to move the car.'

A fair allegorical explanation, thought Waldo. By considering the 'Other World' simply a term for the hypothetical ether, it could be considered correct if not complete. But it told him nothing. 'Hugh Donald,'

Schneider went on, 'was tired and fretting. He found one of the bad truths.'

'Do you mean,' Waldo said slowly, 'that McLeod's ship failed because he was worried about it?'

'How else?'

Waldo was not prepared to answer that one. It had become evident that the old man had some quaint superstitions; nevertheless he might still be able to show Waldo what to do, even though Schneider did not know why.

'And what did you do to change it?'

'I made no change; I looked for the other truth.'

'But how? We found some chalk marks-'

'Those? They were but to aid me in concentrating my attention in the proper direction. I drew them down so,' - he illustrated with pencil on the sketch - 'and thought how the fingers reached out for power. And so they did.'

'That is all? Nothing more?'

'That is enough.'

Either, Waldo considered, the old man did not know how he had accomplished the repair, or he had had nothing to do with it - sheer and amazing coincidence.

He had been resting the empty cup on the rim of his tank, the weight supported by the metal while his fingers merely steadied it. His preoccupation caused him to pay too little heed to it; it slipped from his tired fingers, clattered and crashed to the floor.

He was much chagrined. 'Oh, I'm sorry, Grandfather. I'll send you

another.'

'No matter. I will mend.' Schneider carefully gathered up the pieces and placed them on the desk. 'You have tired,' he added. 'That is not good. It makes you lose what you have gained. Go back now to your house, and when you have rested, you can practise reaching for the strength by yourself.'

It seemed a good idea to Waldo; he was growing very tired, and it was evident that he was to learn nothing specific from the pleasant old fraud. He promised, emphatically and quite insincerely, to practise 'reaching for strength', and asked Schneider to do him the favour of summoning his bearers.

The trip back was uneventful. Waldo did not even have the spirit to bicker with the pilot.

Stalemate. Machines that did not work but should, and machines that did work but in an impossible manner. And no one to turn to but one foggy-headed old man.

Waldo worked lackadaisically for several days, repeating, for the most part, investigations he had already made rather than admit to himself that he was stuck, that he did not know what to do, that he was, in fact, whipped and might as well call Gleason and admit it.

The two 'bewitched' sets of deKalbs continued to work whenever activated, with the same strange and incredible flexing of each antenna. Other deKalbs which had failed in operation and had been sent to him for investigation still refused to function. Still others, which had not yet failed, performed beautifully without the preposterous fidgeting.

For the umpteenth time he took out the little sketch Schneider had made

and examined it. There was, he thought, just one more possibility:

to return again to Earth and insist that Schneider actually do in his

presence, whatever it was he had done which caused the deKalbs to work.

He knew now that he should have insisted on it in the first place, but he

had been so utterly played out by having to fight that devilish thick field

that he had not had the will to persist.

Perhaps he could have Stevens do it and have the process stereophotoed for a

later examination. No, the old man had a superstitious prejudice against

artificial images.

He floated gently over to the vicinity of one of the inoperative deKalbs.

What Schneider had claimed to have done was preposterously simple. He had

drawn chalk marks down each antenna so, for the purpose of fixing his

attention. Then he had gazed down them and thought about them 'reaching

out for power', reaching into the Other World, stretching- Baldur began to

bark frantically.

'Shut up, you fool!' Waldo snapped, without taking his eyes off the antennae.

Each separate pencil of metal was wiggling, stretching. There was the low, smooth hum of perfect operation.

Waldo was still thinking about it when the televisor demanded his attention.

He had never been in any danger of cracking up mentally as Rambeau had done;

nevertheless, he had thought about the matter in a fashion which made his

head ache. He was still considerably bemused when he cut in his end of the

sound-vision circuit.

'Yes?'

It was Stevens. 'Hello, Mr Jones. Uh, we wondered . . . that is-

'Speak up, man!'

'Well, how close are you to a solution?' Stevens blurted out. 'Matters are getting pretty urgent.'

'In what way?'

'There was a partial breakdown in Great New York last night. Fortunately it was not at peak load and the ground crew were able to install spares before the reserves were exhausted, but you can imagine what it would have been like during the rush hour. In my own department the crashes have doubled in the past few weeks, and our underwriters have given notice. We need results pretty quick.'

'You'll get your results,' Waldo said loftily. 'I'm in the final stages of the research.' He was actually not that confident, but Stevens irritated him even more than most of the smooth apes.

Doubt and reassurance mingled in Stevens's face.

'I don't suppose you could care to give us a hint of the general nature of the solution?'

No, Waldo could not. Still - it would be fun to pull Stevens's leg. 'Come close to the pickup, Dr Stevens. I'll tell you.' He leaned forward himself, until they were almost nose to nose - in effect. 'Magic is loose in the world!'

He cut the circuit at once.

Down in the underground labyrinth of North America's home plant, Stevens stared at the blank screen.

'What's the trouble, chief?' McLeod inquired.

'I don't know. I don't rightly know. But I think that Fatty has slipped his cams, just the way Rambeau did.'

McLeod grinned delightedly. 'How sweet! I always did think he was a hoot owl.'

Stevens looked very sober. 'You had better pray that he hasn't gone nuts. We're depending on him. Now let me see those operation reports.'

Magic loose in the world. It was as good an explanation as any, Waldo mused. Causation gone haywire; sacrosanct physical laws no longer operative. Magic. As Gramps Schneider had put it, it seemed to depend on the way one looked at it.

Apparently Schneider had known what he was talking about, although he naturally had no real grasp of the physical theory involved in the deKalbs.

Wait a minute now! Wait a minute. He had been going at this problem wrongly perhaps. He had approached it with a certain point of view himself, a point of view which had made him critical of the old man's statements - an assumption that he, Waldo, knew more about the whole matter than Schneider did. To be sure he had gone to see Schneider, but he had thought of him as a back-country hex doctor, a man who might possess one piece of information useful to Waldo, but who was basically ignorant and superstitious.

Suppose he were to review the situation from a different viewpoint. Let it be assumed that everything Schneider had to say was coldly factual and enlightened, rather than allegorical and superstitious- He settled himself to do a few hours of hard thinking.

In the first place Schneider had used the phrase 'the Other World' time and again. What did it mean, literally? A 'world' was a space-time-energy continuum; an 'Other World' was, therefore, such a continuum, but a different one from the one in which he found himself. Physical theory found nothing repugnant in such a notion; the possibility of infinite numbers of continua was a familiar, orthodox speculation. It was even convenient in certain operations to make such an

assumption.

Had Gramps Schneider meant that? A literal, physical 'Other World'? On rcflection, Waldo was convinced that he must have meant just that, even though he had not used conventional scientific phraseology. 'Other World' sounds poetical, but to say an 'additional continuum' implies physical meaning. The terms had led him astray.

Schneider had said that the Other World was all round, here, there, and everywhere. Well, was not that a fair description of a space superposed and in one-to-one correspondence? Such a space might be so close to this one that the interval between them was an infinitesimal, yet unnoticed and unreachable, just as two planes may be considered as coextensive and separated by an unimaginably short interval, yet be perfectly discreet, one from the other.

The Other Space was not entirely unreachable; Schneider had spoken of reaching into it. The idea was fantastic, yet he must accept it for the purposes of this investigation.

Schneider had implied - no - stated that it was a matter of mental outlook.

Was that really so fantastic? If a continuum were an unmeasurably short distance away, yet completely beyond one's physical grasp, would it be strange to find that it was most easily reached through some subtle and probably subconscious operation of the brain? The whole matter was subtle - and Heaven knew that no one had any real idea of how the brain works. No idea at all.

It was laughably insufficient to try to explain the writing of a symphony in terms of the mechanics of colloids. No, nobody knew how the brain worked; one more inexplicable ability in the brain was not too much to swallow.

Come to think of it, the whole notion of consciousness and thought was

fantastically improbable. All right, so McLeod disabled his skycar himself by thinking bad thoughts; Schneider fixed it by thinking the correct thoughts. Then what?

He reached a preliminary conclusion almost at once: by extension, the other deKalh failures were probably failures on the part of the operators. The operators were probably rundown, tired out, worried about something, and in some fashion still not clear they infected, or affected, the deKalbs with their own troubles. For convenience let us say that the deKalbs were short-circuited into the Other World. Poor terminology, but it helped him to form a picture.

Grimes's hypothesis! 'Run-down, tired out, worried about something!' Not proved yet, but he felt sure of it. The epidemic of crashcs through material was simply an aspect of the general anyasthenia caused by short-wave radiation. If that were true- He cut in a sight-sound circuit to Earth and demanded to talk with Stevens.

'Dr Stevens,' he began at once, 'There is a preliminary precautionary measure which should be undertaken right away.'

'Yes?'

'First, let me ask you this: Have you had many failures of deKalbs in private ships? What is the ratio?'

'I can't give you exact figures at the moment,' Stevens answered, somewhat mystified, 'but there have been practically none. It's the commercial lines which have suffered.'

'Just as I suspected. A private pilot won't fly unless he feels up to it, but a man with a job goes ahead no matter how he feels. Make arrangements for special physical and psycho examinations for all commercial pilots flying

deKalb-type ships. Ground any who are not feeling in tiptop shape. Call Dr Grimes. He'll tell you what to look for.'

'That's a pretty tall order, Mr Jones. After all, most of those pilots, practically all of them, aren't our employees. We don't have much control over them.'

'That's your problem,' Waldo shrugged. 'I'm trying to tell you how to reduce crashes in the interim before I submit my complete solution.'

'But-'

Waldo heard no more of the remark; he had cut off when he himself was through. He was already calling over a permanently energized, leased circuit which kept in touch with his terrestrial business office - with his 'trained seals'.

He gave Them some very odd instructions - orders for books, old books, rare books. Books dealing with magic.

Stevens consulted with Gleason before attempting to do anything about Waldo's difficult request. Gleason was dubious. 'He offered no reason for the advice?'

'None. He told me to look up Dr Grimes and get his advice as to what specifically to look for.'

'Dr Grimes?'

'The MD who introduced me to Waldo - mutual friend.'

'I recall. him... it will be difficult to go about grounding men who don't work for us. Still, I suppose several of our larger customers would cooperate if we asked them to and gave them some sort of a reason. What are you looking so odd about?'

Stevens told him of Waldo's last, inexplicable statement. 'Do you suppose it could be affecting him the way it did Dr Rarnbeau?'

'Mm-m-m. Could be, I suppose. In which case it would not be well to follow his advice. Have you anything else to suggest?'

'No - frankly.'

'Then I see no alternative but to follow his advice. He's our last hope. A forlorn one, perhaps, but our only one.'

Stevens brightened a little. 'I could talk to Doc Grimes about it. He knows more about Waldo than anyone else.'

'You have to consult him anyway, don't you? Very well -do so.'

Grimes listened to the story without comment. When Stevens had concluded he said, 'Waldo must be referring to the symptoms I have observed with respect to short-wave exposure. That's easy; you can have the proofs of the monograph I've been preparing. It'll tell you all about it.'

The information did not reassure Stevens; it helped to confirm his suspicion that Waldo had lost his grip. But he said nothing.

Grimes continued, 'As for the other, Jim, I can't visualize Waldo losing his mind that way.'

'He never did seem very stable to me.'

'I know what you mean. But his paranoid streak is no more like what Rambeau succumbed to than chickenpox is like mumps. Matter of fact, one psychosis protects against the other. But I'll go see.'

'You will? Good!'

'Can't go today. Got a broken leg and some children's colds that'll bear watching. Been some polio around. Ought to be able to make it the end of the week though.'

'Doc, why don't you give up GP work? It must be deadly.'

'Used to think so when I was younger. But about forty years ago I quit treating diseases and started treating people. Since then I've enjoyed it.'

Waldo indulged in an orgy of reading, gulping the treatises on magic and related subjects as fast as he could. He had never been interested in such subjects before; now, in reading about them with the point of view that there might be - and even probably was - something to be learned, he found them intensely interesting.

There were frequent references to another world; sometimes it was called the Other World, sometimes the Little World. Read with the conviction that the term referred to an actual, material, different continuum, he could see that many of the practitioners of the forbidden arts had held the same literal viewpoint. They gave directions for using this other world; sometimes the directions were fanciful, sometimes they were baldly practical.

It was fairly evident that at least 90 per cent of all magic, probably more, was balderdash and sheer mystification. The mystification extended even to the practitioners, he felt; they lacked the scientific method; they employed a single-valued logic as faulty as the two-valued logic of the obsolete Spencer determinism; there was no suggestion of modern extensional, many-valued logic.

Nevertheless, the laws of contiguity, of sympathy, and of homeopathy had a sort of twisted rightness to them when considered in relation to the concept of another, different, but accessible, world.

A man who had some access to a different space might well believe in a logic in which a thing could be, not be, or be anything with equal ease.

Despite the nonsense and confusion which characterized the treatments

of magic which dated back to the period when the art was in common practice, the record of accomplishment of the art was impressive. There was curare and digitalis, and quinine, hypnotism, and telepathy. There was the hydraulic engineering of the Egyptian priests. Chemistry itself was derived from alchemy; for that matter, most modern science owed its' origins to the magicians. Science had stripped off the surplusage, run it through the wringer of two-valued logic, and placed the knowledge in a form in which anyone could use it.

Unfortunately, that part of magic which refused to conform to the neat categories of the nineteenth-century methodologists was lopped off and left out of the body of science. It fell into disrepute, was forgotten save as fable and superstition.

Waldo began to think of the arcane arts as aborted sciences, abandoned before they had been clarified.

And yet the manifestations of the sort of uncertainty which had characterized some aspects of magic and which he now attributed to hypothetical additional continua had occurred frequently, even in modern times. The evidence was overwhelming to anyone who approached it with an open mind:

Poltergeisten, stones falling from the sky, apportation. 'bewitched' persons - or, as he Thought of them, persons who for some undetermined reason were loci of uncertainty - 'haunted' houses, strange fires of the sort that would have once been attributed to salamanders. There were hundreds of such cases, carefully recorded and well vouched for, but ignored by orthodox science as being impossible. They were impossible, by known law, but considered from the standpoint of a coextensive

additional continuum, they became entirely credible.

He cautioned himself not to consider his tentative hypothesis of the Other World as proved; nevertheless, it was an adequate hypothesis even if it should develop that it did not apply to some of the cases of strange events.

The Other Space might have different physical laws - no reason why it should not.

Nevertheless, he decided to proceed on the assumption that it was much like the space he knew.

The Other World might even be inhabited. That was an intriguing thought! In which case anything could happen through 'magic'.

Anything!

Time to stop speculating and get down to a little solid research.

He had previously regretfully given up trying to apply the formulas of the medieval magicians. It appeared that they never wrote down all of a procedure; some essential - so the reports ran and so his experience confirmed - was handed down verbally from master to student.

His experience with Schneider confirmed this; there were things, attitudes, which must needs be taught directly.

He regretfully set out to learn what he must unassisted.

'Gosh, Uncle Gus, i'm glad to see you!'

'Decided I'd better look in on you. You haven't phoned me in weeks.'

'That's true, but I've been working awfully hard, Uncle Gus.'

'Too hard, maybe. Mustn't overdo it. Lemme see your tongue.~

'I'm OK.' But Waldo stuck out his tongue just the same; Grimes looked at it and felt his pulse.

'You seem to be ticking all right. Learning anything?'

'Quite a lot. I've about got the matter of the deKalbs whipped.'

'That's good. The message you sent Stevens seemed to indicate that you had found some hookup that could be used on my pet problem too.~

'In a way, yes; but around from the other end. It begins to seem as if it was your problem which created Stevens's problem.'

'Huh?'

'I mean it. The symptoms caused by ultra short-wave radiation may have had a lot to do with the erratic behaviour of the deKalbs.'

'How?'

'I don't know myself. But I've rigged up a working hypothesis and I'm checking it.'

'Hm-m-m. Want to talk about it?'

'Certainly - to you.' Waldo launched into an account of his interview with Schneider, concerning which he had not previously spoken to Grimes, even though Grimes had made the trip with him. He never, as Grimes knew, discussed anything until he was ready to.

The story of the third set of deKalbs to be infected with the incredible writhings caused Grimes to raise his eyebrows. 'Mean to say you caught on how to do that?'

'Yes indeed. Not "how", maybe, but I can do it. I've done it more than once. I'll show you.' He drifted away towards one side of the great room where several sets of deKalbs, large and small, were mounted, with their controls, on temporary guys.

'This fellow over on the end, it just came in today. Broke down. I'll give it Gramps Schneider's hocus-pocus and fix it. Wait a minute. I forgot to turn on the power.'

He returned to the central ring which constituted his usual locus and switched on the beamcaster. Since the ship itself effectively shielded anything in the room from outer radiation, he had installed a small power plant and caster similar in type to NAPA's giant ones; without it he would have had no way to test the reception of the deKalbs.

He rejoined Grimes and passed down the line of deKalbs, switching on the activizing circuits. All save two began to display the uncouth motions he had begun to think of as the Schneider flex.

'That one on the far end,' he remarked, 'is in operation but doesn't flex. It has never broken down, so it's never been treated. It's my control; but this one' - he touched the one in front of him - 'needs fixing. Watch me.'

'What are you going to do?'

'To tell the truth, I don't quite know. But I'll do it.' He did not know. All he knew was that it was necessary to gaze down the antennae, think about them reaching into the Other World, think of them reaching for power, reaching - The antennae began to squirm.

'That's all there is to it - strictly between ourselves. I learned it from Schneider.' They had returned to the centre of the sphere, at Grimes's suggestion, on the pretext of wanting to get a cigarette. The squirming deKalbs made him nervous, but he did not want to say so.

'How do you explain it?'

'I regard it as an imperfectly understood phenomenon of the Other Space. I know less about it than Franklin knew about lightning. But I will know- I will! I could give Stevens a solution right now for his worries if I knew some way to get around your problem too.'

'I don't see the connexion.'

'There ought to be some way to do the whole thing through the Other Space. Start out by radiating power into the Other Space and pick it up from there. Then the radiation could not harm human beings. It would never get at them; it would duck around them. I've been working on my caster, but with no luck so far. I'll crack it in time.'

'I hope you do. Speaking of that, isn't the radiation from your own caster loose in this room?'

'Yes.'

'Then I'll put on my shield coat. It's not good for you either.'

'Never mind. I'll turn it off.' As he turned to do so there was the sound of a sweet, chirruping whistle. Baldur barked. Grimes turned to see what caused it.

'What,' he demanded, 'have you got there?'

'Huh? Oh, That's my cuckoo clock. Fun, isn't it?' Grimes agreed that it was, although he could not see much use for it. Waldo had mounted it on the edge of a light metal hoop which spun with a speed just sufficient to produce a centrifugal force of one g.

'I rigged it up,' Waldo continued, 'while I was bogged down in this problem of the Other Space. Gave me something to do.'

'This "Other Space" business - I still don't get it.'

'Think of another continuum much like our own and superposed on it the way you might lay one sheet of paper on another. The two spaces aren't identical,

but they are separated from each other by the smallest interval you can imagine - coextensive but not touching - usually. There is an absolute one-to-one, point-for-point correspondence, as I conceive it, between the two spaces, but they are not necessarily the same size or shape.'

'Hey? Come again - they would have to be.'

'Not at all. Which has the larger number of points in it? A line an inch long, or a line a mile long?'

'A mile long, of course.'

'No. They have exactly the same number of points. Want me to prove it?'

'I'll take your word for it. But I never studied that sort of maths.'

'All right. Take my word for it then. Neither size nor shape is any impediment to setting up a full, point-for-point correspondence between two spaces. Neither of the words is really appropriate. "Size" has to do with a space's own inner structure, its dimensions in terms of its own unique constants. "Shape" is a matter which happens inside itself - or at least not inside our space - and has to do with how it is curved, open or closed, expanding or contracting.'

Grimes shrugged. 'It all sounds like gibberish to me.' He returned to watching the cuckoo clock swing round and round its wheel.

'Sure it does,' Waldo assented cheerfully. 'We are limited by our experience. Do you know how I think of the Other World?' The question was purely rhetorical. 'I think of it as about the size and shape of an ostrich egg, but nevertheless a whole universe, existing side by side with our own, from here to the farthest star. I know that it's a false picture, but it helps me to think about it that way.'

'I wouldn't know,' said Grimes, and turned himself around in the air. The compound motion of the clock's pendulum was making him a little dizzy.

'Say! I thought you turned off the caster?'

'I did,' Waldo agreed, and looked where Grimes was looking. The deKalbs were still squirming. 'I thought I did,' he said doubtfully, and turned to the caster's control board. His eyes then opened wider. 'But I did. It is turned off.'

'Then what the devil-'

'Shut up!' He had to think - think hard. Was the caster actually out of operation? He floated himself over to it, inspected it. Yes, it was dead, dead as the dinosaurs. Just to make sure he went back, assumed his primary waldoes, cut in the necessary circuits, and partially disassembled it.

But the deKalbs still squirmed.

The one deKalb set which had not been subjected to the Schneider treatment was dead; it gave out no power hum. But the others were working frantically, gathering power from -where?'

He wondered whether or not McLeod had said anything to Granmps Schneider about the casters from which the deKalbs were intended to pick up their power. Certainly he himself had not. It simply had not come into the conversation. But Schneider had said something.

'The Other World is close by and full of power!'

In spite of his own intention of taking the old man literally he had ignored that statement. The Other World is full of power. I am sorry I snapped at you, Uncle Gus,' he said.

'S all right.'

'But what do you make of that?'

'Looks like you've invented perpetual motion, son.'

'In a way, perhaps. Or maybe we've repealed the law of conservation of energy. Those de Kalbs are drawing energy that was never before in this world!'

'Hm-m-m!'

To check his belief he returned to the control ring, donned his waldoes, cut in a mobile scanner, and proceeded to search the space around the deKalbs with the most sensitive pickup for the radio power band he had available.

The needles never jumped; the room was dead in the wave lengths to which the deKalbs were sensitive. The power came from Other Space.

The power came from Other Space. Not from his own beamcaster, not from NAPA's shiny stations, but from Other Space. In that case he was not even close to solving the prob1cm of the defective deKalbs; he might never solve it. Wait, now - just what had he contracted to do? He tried to recall the exact words of the contract.

There just might be a way around it. Maybe. Yes, and this newest cockeyed trick of Gramps Schneider's little pets could have some very tricky aspects.

He began to see some possibilities, but he needed to think about it.

'Uncle Gus-'

'Yes, Waldo?'

'You can go back and tell Stevens that I'll be ready with the answers. We'll get his problem licked, and yours too. In the meantime I've got to do some really heavy thinking, so I want to be by myself, please.'

'Greetings, Mr Gleason. Quiet, Baldur! Come in. Be comfortable. How do

you do, Dr Stevens.'

'How do you do, Mr Jones.'

'This,' said Gleason, indicating a figure trailing him, 'is Mr. Harkness, head of our legal staff.'

'Ah, yes indeed. There will be matters of contract to be discussed. Welcome to Freehold, Mr Harkness.'

'Thank you,' Harkness said coldly. 'Will your attorneys be present?'

'They are present.' Waldo indicated a stereo screen. Two figures showed in it; they bowed and murmured polite forms.

'This is most irregular,' Harkness complained. 'Witnesses should be present in person. Things seen and heard by television are not evidence.'

Waldo drew his lips back. 'Do you wish to make an issue of it?'

'Not at all,' Gleason said hastily. 'Never mind, Charles.' Harkness subsided.

'I won't waste your time, gentlemen,' Waldo began. 'We are here in order that I may fulfil my contract with you. The terms are known, we will pass over them.'

He inserted his arms into his primary waldoes. 'Lined up along the far wall you will see a number of radiant power receptors, commonly called deKalbs. Dr Stevens may, if he wishes, check their serial numbers-'

'No need to.'

'Very well. I shall start my local beamcaster, in order that we may check the efficiency of their operation.' His waldoes were busy as he spoke. 'Then I shall activate the receptors, one at a time.' His hands pawed the air; a little pair of secondaries switched on the proper switches on the control board of the last set in line. 'This is an ordinary type, supplied to me by Dr Stevens, which has never failed in operation. You may assure

yourself that it is now operating in the normal manner, if you wish, Doctor.'

'I can see that it is.'

'We will call such a receptor a "deKalb" and its operation "normal".' The small waldoes were busy again. 'Here we have a receptor which I choose to term a "Schneider-deKalb" because of certain treatment it has received' the antennae began to move - 'and its operation "Schneider-type" operation. Will you check it, Doctor?'

'OK.'

'You fetched with you a receptor set which has failed?'

'As you can see.'

'Have you been able to make it function?'

'No, I have not.'

'Are you sure? Have you examined it carefully?'

'Quite carefully,' Stevens acknowledged sourly. He was beginning to be tired of Waldo's pompous flubdubbery.

'Very well. I will now proceed to make it operative.' Waldo left his control ring, shoved himself over to the vicinity of the defective deKalb, and placed himself so that his body covered his exact actions from the sight of the others. He returncd to the ring and, using waldoes, switched on the activating circuit of the dcKalb.

It immediately exhibited Schneider-type activity.

'That is my case, gentlemen,' he announced. 'I have found out how to repair deKalbs which become spontaneously inoperative. I will undertake to apply the Schneider treatment to any receptors which you may bring to me. That is included in my fee. I will undertake to train others in how to apply the

Schneider treatment. That is included in my fee, but I cannot guarantee that any particular man will profit by my instruction. Without going into technical details I may say that the treatment is very difficult, much harder than it looks. I think that Dr Stevens will confirm that.'

He smiled thinly.

'I believe that completes my agreement with you.'

'Just a moment, Mr Jones,' put in Gleason. 'Is a deKalb foolproof, once it has received the Schneider treatment?'

'Quite. I guarantee it.'

They went into a huddle while Waldo waited. At last Gleason spoke for them.

'These are not quite the results we had expected, Mr Jones, but we agree that you have fulfilled your commission - with the understanding that you will Schneider-treat any receptors brought to you and instruct others, according to their ability to learn.'

'That is correct.'

'Your fee will be deposited to your account at once.'

'Good. That is fully understood and agreed? I have completely and successfully performed your commission?'

'Correct.'

'Very well then. I have one more thing to show you. If you will be patient-'

A section of the wall folded back; gigantic waldoes reached into the room beyond and drew forth a large apparatus, which resembled somewhat in general form an ordinary set of deKalbs, but which was considerably more complicated. Most of the complications were sheer decoration, but it would have taken a skilled engineer a

long time to prove the fact.

The machine did contain one novel feature: a built-in meter of a novel type, whereby it could be set to operate for a predetermined time and then destroy itself, and a radio control whereby the time limit could be varied. Furthermore, the meter would destroy itself and the receptors if tampered with by any person not familiar with its design. It was Waldo's tentative answer to the problem of selling free and unlimited power.

But of these matters he said nothing. Small waldoes had been busy attaching guys to the apparatus; when they were through he said, 'This, gentlemen, is an instrument which I choose to call a Jones-Schneider-deKalb. And it is the reason why you will not be in the business of selling power much longer.~

'So?' said Gleason. 'May I ask why?'

'Because,' he was told, 'I can sell it more cheaply and conveniently and under circumstances you cannot hope to match.'

'That is a strong statement.'

'I will demonstrate. Dr Stevens, you have noted that the other receptors are operating. I will turn them off.' The waldoes did so.

'I will now stop the beamcast and I will ask you to assure yourself, by means of your own instruments, that there is no radiant power, other than ordinary visible light, in this room.'

Somewhat sullenly Stevens did so. 'The place is dead,' he announced some minutes later.

'Good. Keep your instruments in place, that you may be sure it remains dead. I will now activate my receptor.' Little mechanical hands closed the switches.

'Observe it, Doctor. Go over it thoroughly.'

Stevens did so. He did not trust the readings shown by its instrument hoard; he attached his own meters in parallel.

'How about it, James?' Gleason whispered.

Stevens looked disgusted. 'The damn thing draws power from nowhere!'

They all looked at Waldo. 'Take plenty of time, gentlemen,' he said grandly. 'Talk it over.'

They withdrew as far away as the room permitted and whispered. Waldo could see that Harkness and Stevens were arguing, that Stevens was noncommittal. That suited him. He was hoping that Stevens would not decide to take another look at the fancy gadget he had termed a Jones-Schneider-deKalb. Stevens must not learn too much about it - yet. He had been careful to say nothing but the truth about it, but perhaps he had not said all of the truth; he had not mentioned that all Schneider-treated deKalbs were sources of free power.

Rather embarrassing if Stevens should discover that!

The meter-and-destruction device Waldo had purposely made mysterious and complex, but it was not useless. Later he would be able to point out, quite correctly, that without such a device NAPA simply could not remain in business.

Waldo was not easy. The whole business was a risky gamble; he would have much preferred to know more about the phenomena

he was trying to peddle, but - he shrugged mentally while preserving a smile of smug confidence - the business had dragged on several months already, and the power situation really was critical. This solution would do - if he could get their names on the dotted line quickly enough.

For he had no intention of trying to compete with NAPA.

Gleason pulled himself away from Stevens and Harkness, came to Waldo. 'Mr Jones, can't we arrange this amicably?'

'What have you to suggest?'

It was quite an hour later that Waldo, with a sigh of relief, watched his guests' ship depart from the threshold flat.

A fine caper, he thought, and it had worked; he had got away with it. He had magnanimously allowed himself to be persuaded to consolidate, provided - he had allowed himself to be quite temperamental about this - the contract was concluded at once, no fussing around and fencing between lawyers. Now or never - put up or shut up. The proposed contract, he had pointed out virtuously, gave him nothing at all unless his allegations about the Jones-chneider-deKalb were correct.

Gleason considered this point and had decided to sign, had signed.

Even then Harkness had attempted to claim that Waldo had been an employee of NAPA. Waldo had written that first contract himself - a specific commission for a contingent fee. Harkness did not have a leg to stand on; even Gleason had agreed to that.

In exchange for all rights to the Jones-Schneider-deKalb, for which he agreed to supply drawings - wait till Stevens saw, and understood, those sketches! - for that he had received the promise of senior stock in NAPA, non-voting, but fully paid up and non-assessable. The lack of active participation in the company had been his own idea. There were going to be more headaches in the power business, headaches aplenty. He could see them coming - bootleg designs, means of outwitting the metering, lots of things. Free power had come, and efforts to stop it would in the long run, he believed, be fruitless.

Waldo laughed so hard that he frightened Baldur, who set up an excited barking.

He could afford to forget Hathaway now. His revenge on NAPA contained one potential flaw; he had assured Gleason that the Schneider-treated deKalbs would continue to operate, would not come unstuck. He believed that to be true simply because he had faith in Gramps Schneider. But he was not prepared to prove it.

He knew himself that he did not know enough about the phenomena associated with the Other World to be sure that something would, or would not, happen. It was still going to be necessary to do some hard, extensive research.

But the Other World was a devilishly difficult place to investigate!

Suppose, he speculated, that the human race were blind, had never developed eyes. No matter how civilized, enlightened, and scientific the race might have become, it is difficult to see how such a race could ever have developed the concepts of astronomy. They might know

of the Sun as a cyclic source of energy having a changing, directional character, for the Sun is so overpowering that it may be 'seen' with the skin. They would notice it and invent instruments to trap it and examine it.

But the pale stars, would they ever notice them? It seemed most unlikely. The very notion of the celestial universe, its silent depths and starlit grandeur, would be beyond them. Even if one of their scientists should have the concept forced on him in sueh a manner that he was obliged to accept the fantastic, incredible thesis as fact, how then would he go about investigating its details?

Waldo tried to imagine an astronomical phototelescope, conceived and designed by a blind man, intended to he operated by a blind man, and capable of collecting data which could he interpreted by a blind man. He gave it up; There were too many hazards. It would take a subtlety of genius far beyond his own to deal with the inescapably tortuous concatenations of inferential reasoning necessary to the solution of such a problem. It would strain him to invent such instruments for a blind man; he did not see how a blind man could ever overcome the difficulties unassisted.

In a way that was what Schneider had done for him; alone, he would have bogged down.

But even with Schneider's hints the problem of investigating the Other World was still much like the dilemma of the blind astronomer. He could not see the Other World; only through the Schneider treatment had he been able to contact it.

Damnation! how could he design instruments to study it?

He suspected that he would eventually have to go back to Schneider for further instruction, but that was an expedient so distasteful that he refused to think much about it. Furthermore, Gramps Schneider might not be able to teach him much; they did not speak the same language.

This much he did know: the Other Space was there and it could be reached sometimes by proper orientation of the mind, deliberately as Schneider had taught him, or subconsciously as had happened to McLeod and others.

He found the idea distasteful. That thought and thought alone should be able to influence physical phenomena was contrary to the whole materialistic philosophy in which he had grown up. He had a prejudice in favour of order and invariable natural laws. His cultural predecessors, the experimental philosophers who had built up the world of science and its concomitant technology, Galileo, Newton, Edison, Einstein, Steinmetz, Jeans, and their myriad colleagues - these men had thought of the physical universe as a mechanism proceeding by inexorable necessity. Any apparent failure to proceed thus was regarded as an error in observation, an insufficient formulation of hypothesis, or an insufficiency of datum.

Even the short reign of the Heisenberg uncertainty principle had not changed the fundamental orientation towards Order and Cosmos; the Heisenbcrg uncertainty was one they were certain of! It could be formulated, expressed, and a rigorous statistical mechanics could be built from it.

In 1958 Horowitz's reformulation of wave mechanics had eliminated the concept. Order and causation were restored.

But this damned business! One might as well pray for rain, wish on the Moon, go to faith healers, surrender whole hog to Bishop Berkeley's sweetly cereb-al world-in-your-head. '-the tree's not a tree, when there's no one about on the quad!'

Waldo was not emotionally wedded to Absolute Order as Rambeau had been; he was in no danger of becoming mentally unbalanced through a failure of his basic conceptions; nevertheless, consarn it, it was convenient for things to work the way one expected them to.

On order and natural law was based predictability; without predictability it was impossible to live. Clocks should run evenly; water should boil when heat is applied to it; food should nourish, not poison; deKalb receptors should work, work the way they were designed to; Chaos was insupportable - it could not be lived with.

Suppose Chaos were king and the order we thought we detected in the world about us a mere phantasm of the imagination; where would that lead us? In that case, Waldo decided, it was entirely possible that a ten-pound weight did fall ten times as fast as a one-pound weight until the day the audacious Galileo decided in his mind that it was not so.

Perhaps the whole meticulous science of ballistics derived from the convictions of a few firm-minded individuals who had sold the notion to the world. Perhaps the very stars were held firm in their courses

by the unvarying faith of the astronomers. Orderly Cosmos, created out of Chaos - by Mind!

The world was flat before geographers decided to think of it otherwise. The world was flat, and the Sun, tub size, rose in the east and set in the west. The stars were little lights, studding a pellucid dome which barely cleared the tallest mountains. Storms were the wrath of gods and had nothing to do with the calculus of air masses. A Mind-created animism dominated the world then.

More recently it had been different. A prevalent convention of materialistic and invariable causation had ruled the world; on it was based the whole involved technology of a machine-served civilization. The machines worked, the way they were designed to work, because everybody believed in them. Until a few pilots, somewhat debilitated by overmuch exposure to radiation, had lost their confidence and infected their machines with uncertainty - and thereby let magic loose in the world.

He was beginning, he thought, to understand what had happened to magic. Magic was the erratic law of an animistic world; it had been steadily pushed back by the advancing philosophy of invariant causation. It was gone now - until this new outbreak - and its world with it, except for backwaters of 'superstition'. Naturally an experimental scientist reported failure when investigating haunted houses, apportations, and the like; his convictions prevented the phenomena from happening.

The deep jungles of Africa might be very different places -when there was no white man around to see! The strangely slippery laws of magic might still obtain.

Perhaps these speculations were too extreme; nevertheless, they had one advantage which orthodox concepts had not: they included Gramps Schncider's hexing of the

deKalbs. Any working hypothesis which failed to account for Schneider's -and his own - ability to think a set of deKalbs into operation was not worth a continental. This one did, and it conformed to Gramps's own statements: 'All matters are doubtful' and 'A thing can both be, not be, and he anything. There are many true ways of looking at the same thing. Some ways are good, some are bad.'

Very well. Accept it. Act on it. The world varied according to the way one looked at it. In that case, thought Waldo, he knew how he wanted to look at it.

He cast his vote for order and predictability!

He would set the style. He would impress his own concept of the Other World on the cosmos!

It had been a good start to assure Gleason that the Schneider-treated deKalbs were foolproof. Good. So let it be. They were foolproof. They would never get out of order.

He proceeded to formulate and clarify his own concept of the Other World in his mind. He would think of it as orderly and basically similar to this space.

The connexion between the two spaces lay in the neurological system; the cortex, the thalamus, the spinal cord, and the appended nerve system were closely connected with both spaces. Such a picture was consistent with what Schneider had told him and did not conflict with phenomena as he knew it.

Wait. If the neurological system lay in both spaces, then that might account for the relatively slow propagation of nerve impulses as compared with electromagnetic progression. Yes! If the other space had a c constant relatively smaller than that of this space, such would follow.

He began to feel a calm assurance that it was so.

Was he merely speculating - or creating a universe?

Perhaps he would have to abandon his mental picture of the Other Space, as being the size and shape of an ostrich egg, since a space with a slower propagation of light is not smaller, but larger, than the space he was used to.

No . . . no, wait a second, the size of a space did not depend on its c constant, but on its radius of curvature in terms of its c constant. Since c was a velocity, size was dependent on the notion of time - in this case time as entropy rate. Therein lay a characteristic which could be compared between the two spaces: they exchanged energy; they affected each other's entropy. The one which degenerated the more rapidly towards a state of level entropy was the 'smaller'.

He need not abandon his picture of the ostrich egg-good old egg! The Other World was a closed space, with a slow c, a high entropy rate, a short radius, and an entropy state near level - a perfect reservoir of power at every point, ready to spill over into this space wherever he might close the interval.

To its inhabitants, if any. it might seem to be hundreds of millions of light years around; to him it was an ostrich egg, turgid to bursting with power.

He was already beginning to think of ways of checking his hypothesis. If, using a Schneider-deKalb, he were to draw energy at the highest rate he could manage, would he affect the local potential? Would it establish an entropy gradient? Could he reverse the process by finding a way to pump power into the Other World? Could he establish different levels at different points and thereby check for degeneration towards level, maximum entropy?

Did the speed of nerve impulse propagation furnish a clue to the c of the Other Space? Could such a clue be combined with the entropy and potential investigations to give a mathematical picture of the Other Space, in terms of its constants and its age?

He set about it. His untrammeled, wild speculations had produced some definite

good: he'd tied down at least one line of attack on that Other Space; he'd devised a working principle for his blind man's telescope mechanism.

Whatever the truth of the thing was, it was more than a truth; it was a complete series of new truths. It was the very complexity of that series of new truths - the truths, the characteristic laws, that were inherent properties of the Other Space, plus the new truth laws resultant from the interaction of the characteristics of the Other Space with Normal Space.

No wonder Rambeau had said anything could happen! Almost anything could, in all probability, by a proper application and combination of the three sets of laws: the laws of Our Space, the laws of Other Space, and the coordinate laws of Both Spaces.

But before theoreticians could begin work, new data were most desperately needed. Waldo was no theoretician, a fact he admitted left-handedly in thinking of theory as unpractical and unnecessary, time waste for him as a consulting engineer. Let the smooth apes work it out.

But the consulting engineer had to find out one thing: would the Schneider-deKalbs continue to function uninterruptedly as guaranteed? If not, what must be done to assure continuous function?

The most difficult and the most interesting aspect of the investigation had to do with the neurological system in relation to Other Space.

Neither electromagnetic instruments nor neural surgery was refined enough to do accurate work on the levels he wished to investigate.

But he had waldoes.

The smallest waldoes he had used up to this time were approximately half an inch across their palms - with micro-scanners to match, of course.

They were much too gross for his purpose. He wished to manipulate living nerve tissue, examine its insulation and its performance in situ.

He used the tiny waldoes to create tinier ones.

The last stage was tiny metal blossoms hardly an eighth of an inch across. The helices in their stems, or forearms, which served them as pseudo muscles, could hardly be seen by the naked eye - but then, he used scanners.

His final team of waldoes used for nerve and brain surgery varied in succeeding stages from mechanical hands nearly lifesize down to these fairy digits which could manipulate things much too small for the eye to see. They were mounted in bank to work in the same locus. Waldo controlled them all from the same primaries; he could switch from one size to another without removing his gauntlets.

The same change in circuits which brought another size of waldoes under control automatically accomplished the change in sweep of scanning to increase or decrease the magnification so that Waldo always saw before him in his stereo receiver a 'life-size' image of his other hands.

Each level of waldoes had its own surgical instruments, its own electrical equipment.

Such surgery had never been seen before, but Waldo gave that aspect little thought; no one had told him that such surgery was unheard-of.

He established, to his own satisfaction, the mechanism whereby short-wave radiation had produced a deterioration in human physical performance. The synapses between dendrites acted as if they were points of leakage. Nerve impulses would sometimes fail to make the jump, would leak off - to where? To Other Space, he was sure. Such leakage

seemed to establish a preferred path, a canalization, whereby the condition of the victim became steadily worse. Motor action was not lost entirely, as both paths were still available, but efficiency was lost. It reminded him of a metallic electrical circuit with a partial ground.

An unfortunate cat, which had become dead undergoing the experimentation, had supplied him with much of his data. The kitten had been born and raised free from exposure to power radiation. He subjected it to heavy exposure and saw it acquire a myasthenia nearly as complete as his own - while studying in minute detail what actually went on in its nerve tissues. He felt quite sentimental about it when it died.

Yet, if Gramps Schneider were right, human beings need not be damaged by radiation. If they had the wit to look at it with the proper orientation, the radiation would not affect them; they might even draw power out of the Other World.

That was what Grarnps Schneider had told him to do.

That was what Gramps Schneider had told him to do!

Gramps Schneider had told him he need not be weak!

That he could be strong-Strong!

STRONG!

He had never thought of it. Schneider's friendly ministrations to him, his ] advice about overcoming the weakness, he had ignored, had thrown off as inconsequential. His own weakness, his own peculiarity which made him different from the smooth apes, he had regarded as a basic, implicit fact. He had accepted it as established when he was a small child, a final unquestioned factor.

Naturally he had paid no attention to Schneider's words in so far as they

referred to him.

To be strong!

To stand alone - to walk, to run!

Why, he ... he could, he could go down to Earth surface without fear. He wouldn't mind the field. They said they didn't mind it; they even carried things - great, heavy things. Everybody did. They threw things.

He made a sudden convulsive movement in his primary waldoes, quite unlike his normal, beautifully economical rhythm. The secondaries were oversize, as he was making a new setup. The guys tore loose, a brace plate banged against the wall.

Baldur was snoozing nearby; he pricked up his ears, looked around, then turned his face to Waldo, questioning him.

Waldo glared at him and the dog whined. 'Shut up!'

The dog quieted and apologized with his eyes.

Automatically he looked over the damage - not much, but he would have to fix it.

Strength. Why, if he were strong, he could do anything - anything! No 6 extension waldoes and some new guys- Strong! Absent-mindedly he shifted to the No 6 waldoes.

Strength!

He could even meet women - be stronger than they were!

He could swim. He could ride. He could fly a ship - run, jump. He could handle things with his bare hands. He could even learn to dance!

Strong!

He would have muscles! He could break things.

He could- He could- He switched to the great waldoes with hands the size of a man's body. Strong - they were strong! With one giant waldo he hauled from the stock pile a quarter-inch steel plate, held it up, and shook it. A booming rumble.

He shook it again. Strong'

He took it in both waldoes, bent it double. The metal buckled unevenly.

Convulsively he crumpled it like wastepaper between the two huge palms.

The grinding racket raised hackles on Baldur; he himself had not been aware of it. He relaxed for a moment, gasping. There was sweat on his forehead; blood throbbed in his ears. But he was not spent; he wanted something heavier~ stronger.

Cutting to the adjoining storeroom he selected an L-beam twelve feet long, shoved it through to where the giant hands could reach it, and cut back to them.

The beam was askew in the port; he wrenched it loose, knocking a big dent in the port frame. He did not notice it.

The beam made a fine club in the gross fist. He brandished it. Baldur backed away, placing the control ring between himself and the great hands.

Power! Strength! Smashing, unbeatable strength- With a spastic jerk he checked his swing just before the beam touched the wall. No- But he grabbed the other end of the club with the left waldo and tried to bend it. The big waldoes were built for heavy work, but the beam was built to resist. He strained inside the primaries, strove to force the great fists to do his will. A warning light flashed on his control board. Bliiidly he kicked in the emergency overload and persisted.

The hum of the waldoes and the rasp of his own breath were drowned out by the harsh scrape of metal on metal as the beam began to give way. Exulting, he bore down harder in the primaries. The beam was bending double when the waldobs blew out. The right-hand tractors let go first; the fist flung open. The left fist, relieved of the strain, threw the steel from it.

It tore its way through the thin bulkhead, making a ragged hole, crashed and clanged in the room beyond.

But the giant waldoes were inanimate junk.

He drew his soft pink hands from the waldoes and looked at them. His shoulders heaved, and racking sobs pushed up out of him. He covered his face with his hands; the tears leaked out between his fingers. Baldur whimpered and edged in closer.

On the control board a bell rang persistently.

The wreckage had been cleared away and an adequate, neat patch covered the place where the L-beam had made its own exit. But the giant waldoes had not yet been replaced; their frame was uninhabited. Waldo was busy rigging a strength tester.

It had been years since he had paid any attention to the exact strength of his body. He had had so little use for strength; he had concentrated on dexterity, particularly on the exact and discriminating control of his namesakes. In the selective, efficient, and accurate use of his muscles he was second to none; he had control - he had to have. But he had had no need for strength.

With the mechanical equipment at hand it was not difficult to jury-rig a device which would register strength of grip as pounds-force on a dial.

A spring-loaded scale and a yoke to act on it sufficed. He paused and looked at the contrivance.

He need only take off the primary waldoes, place his bare hand on the grip, bear down - and he would know. Still he hesitated.

It felt strange to handle anything so large with his bare hand. Now. Reach into the Other World for power. He closed his eyes and pressed. He opened them.

Fourteen pounds - less than he used to have.

But he had not really tried yet. He tried to imagine Gramps Schneider's hands on his arm, that warm tingle. Power. Reach Out and claim it.

Fourteen pounds, fifteen - seventeen, eighteen, twenty, twenty-one! He was

winning! He was winning!

Both his strength and his courage failed him, in what order he could not say.

The needle spun back to zero; he had to rest.

Had he really shown exceptional strength - or was twenty

one pounds of grip simply normal for him at his present age and weight? A

normally strong and active man, he knew, should have a grip of the order of

one hundred and fifty pounds.

Nevertheless, twenty-one pounds of grip was six pounds higher than he had ever

before managed on test.

Try, again. Ten, eleven - twelve. Thirteen. The needle hesitated. Why, he had

just started - this was ridiculous. Fourteen.

There it stopped. No matter how he strained and concentrated his driving will

he could not pass that point. Slowly, he dropped back from it.

Sixteen pounds was the highest he managed in the following days. Twenty-one

pounds seemed to have been merely a fluke, a good first effort. He ate bitterness.

But he had not reached his present position of wealth and prominence by easy

surrender. He persisted, recalling carefully just what Schneider had said to

him, and trying to feel the touch of Schneider's hands. He told himself now

that he really had been strong under Schneider's touch, but that he had failed

to realize it because of the Earth's heavy field. He continued to try.

In the back of his mind he knew that he must eventually seek out Gramps Schneider

and ask his help, if he did not find the trick alone. But he was extremely

reluctant to do so, not because of the terrible trip it entailed - though that

would ordinarily have been more than enough reason - but because if he did so

and Schneider was not able to help him, then there would be no hope, no hope

at all.

It was better to live with disappointment and frustration than to live without hope. He continued to postpone it.

Waldo paid little attention to Earth time; he ate and slept when he pleased. He might catch a cat nap at any time; however, at fairly regular intervals he slept for longer periods. Not in a bed, of course. A man who floats in air has no need for a bed. But he did make it a habit to guy himself into place before undertaking eight hours of solid sleep, as it prevented him from casual drifting in random air currents which might carry him, unconscious, against controls or switches.

Since the obsession to become strong had possessed him he had frequently found it necessary to resort to soporifics to ensure sleep.

Dr Rambeau had returned and was looking for him. Rambeau - crazy and filled with hate. Rambeau, blaming his troubles on Waldo. He was not safe, even in Freehold, as the crazy physicist had found out how to pass from one space to another. There he was now! Just his head, poked through from the Other World. 'I'm going to get you, Waldo!' He was gone - no, there he was behind him! Reaching, reaching out with hands that were writhing antennae. 'You, Waldo!' But Waldo's own hands were the giant waldoes; he snatched at Rambeau.

The big waldoes went limp.

Rambeau was at him, was on him; he had him around the throat.

Gramps Schneider said in his ear, in a voice that was calm and strong, 'Reach out for the power, my son. Feel it in your fingers.' Waldo grabbed at the throttling fingers, strained, tried.

They were coming loose. He was winning. He would stuff Rambeau back into

the Other World and keep him there. There! He had one hand free. Baldur was barking frantically; he tried to tell him to shut up, to bite Rambeau, to help- The dog continued to bark.

He was in his own home, in his own great room. Baldur let out one more yipe.

'Quiet!' He looked himself over.

When he had gone to sleep he had been held in place by four light guys, opposed like the axes of a tetrahedron. Two of them were still fastened to his belt; he swung loosely against the control ring. Of the other two, one had snapped off at his belt; its end floated a few feet away. The fourth had been broken in two places, near his belt and again several feet out; the severed piece was looped loosely around his neck.

He looked the situation over. Study as he might, he could conceive no way in which the guys could have been broken save by his own struggles in the nightmare. The dog could not have done it; he had no way to get a purchase. He had done it himself.

The lines were light, being intended merely as stays. Still- It took him a few minutes to rig a testing apparatus which would test pull instead of grip; the yoke had to be reversed. When it was done, he cut in a medium waldo pair, fastened the severed piece of line to the tester, and, using the waldo, pulled.

The line parted at two hundred and twelve pounds.

Hastily, but losing time because of nervous clumsiness, he re-rigged the tester for grip. He paused, whispered softly, 'Now is the time, Gramps!' and bore down on the grip.

Twenty pounds - twenty-one. Twenty-five!

Up past thirty. He was not even sweating! Thirty-five -forty, -one,

-two, -three. Forty-five! And -six! And a half. Forty-seven pounds!

With a great sigh he let his hand relax. He was strong. Strong.

When he had somewhat regained his composure, he considered what to

do next. His first impulse was to call Grimes, but he suppressed it.

Soon enough when he was sure of himself.

He went back to the tester and tried his left hand. Not as strong as

his right, but almost - nearly forty-five pounds. Funny thing, he

didn't feel any different. Just normal, healthy. No sensation.

He wanted to try all of his muscles. It would take too long to rig

testers for kick, and shove, and back lift, and, oh, a dozen others.

He needed a field, that was it, a one-g field. Well, there was the

reception room; it could be centrifuged.

But its controls were in the ring and it was long corridors away.

There was a nearer one, the centrifuge for the cuckoo clock. He had

rigged the wheel with a speed control as an easy way to regulate the

clock. He moved back to the control ring and stopped the turning of

the big wheel; the clockwork was disturbed by the sudden change;

the little red bird popped out, said, 'TIz-wu th-woo' once, hopefully,

and subsided.

Carrying in his hand a small control panel radio hooked to the motor

which inipelled the centrifuge wheel, he propelled himself to the

wheel and placed himself inside, planting his feet on the inner surface

of the rim and grasping one of the spokes, so that he would be in a

standing position with respect to the centrifugal force, once it

was impressed. He started the wheel slowly.

Its first motion surprised him and he almost fell off. But he

recovered himself and gave it a littlc more power. All right so far.

He speeded it up gradually, triumph spreading through him as he felt

the pull of the pseudo gravitational field, felt his legs grow heavy,

but still strong!

He let it out, one full g. He could take it. He could, indeed! To be

sure, the force did not affect the upper part of his body so strongly

as the lower, as his head was only a foot or so from the point of

rotation. He could fix that; he squatted down slowly, hanging on

tight to the spoke. It was all right.

But the wheel swayed and the motor complained. His unbalanced weight,

that far out from the centre of rotation, was putting too much of

a strain on a framework intended to support a cuckoo clock and its

counterweight only. He straightened up with equal caution, feeling

the fine shove of his thigh muscles and calves. He stopped the wheel.

Baldur had been much perturbed by the whole business. He had almost

twisted his neck off trying to follow the motions of Waldo.

He still postponed calling Grimes. He wanted to arrange for some

selective local controls on the centrifuging of the reception room,

in order to have a proper place in which to practice standing up.

Then he had to get the hang of this walking business; it looked

easy, but he didn't know. Might be quite a trick to learn it.

Thereafter he planned to teach Baldur to walk. He tried to get Baldur

into the cuckoo-clock wheel, but the dog objected. He wiggled free

and retreated to the farthest part of the room. No matter - when he had the beast in the reception room he would damn well have to learn to walk. Should have seen to it long ago. A big brute like that, and couldn't walk!

He visualized a framework into which the dog could be placed which would force him to stand erect. It was roughly equivalent to a baby's toddler, but Waldo did not know that. He had never seen a baby's toddler.

'Uncle Gus-'

'Oh, hello, Waldo. How you been?'

'Fine. Look, Uncle Gus, could you come up to Freehold -right away?'

Grimes shook his head. 'Sorry. My bus is in the shop.'

'Your bus is too slow anyhow. Take a taxi, or get somebody to drive you.'

'And have you insult 'em when we get there? Huh-uh.'

'I'll be sweet as sugar.'

'Well, Jimmie Stevens said something yesterday about wanting to see you.'

Waldo grinned. 'Get him. I'd like to see him.'

'I'll try.'

'Call me back. Make it soon.'

Waldo met them in the reception room, which he had left uncentrifuged. As soon as they came in he started his act. 'My, I'm glad you're here. Dr Stevens - could you fly me down to Earth rightaway? Something's comeup.'

'Why - I suppose so.'

'Let's go.'

'Wait a minute, Waldo. Jimmie's not prepared to handle you the way you have to be handled.'

'I'll have to chance it, Uncle Gus. This is urgent.'

'But-'

'No "buts". Let's leave at once.'

They bustled Baldur into the ship and tied him down. Grimes saw to it that Waldo's chair was tilted back in the best approximation of a deceleration rig. Waldo settled himself into it and closed his eyes to discourage questions. He sneaked a look and found Grimes grimly silent.

Stevens made very nearly a record trip, but set them down quite gently on the parking flat ovcr Grimes's home. Grimes touched Waldo's arm.

'How do you feel? I'll get someone and we'll get you inside. I want to get you to bed.'

'Can't do that, Uncle Gus. Things to do. Give me your arm, will you?'

'Huh?' But Waldo reached for the support requested and drew himself up.

'I'll be all right now, I guess.' He let go the physician's arm and started for the door. 'Will you untie Baldur?'

'Waldo!'

He turned around, grinning happily. 'Yes, Uncle Gus, it's true. I'm not weak any more. I can walk.'

Grimes took hold of the back of one of the seats and said shakily,

'Waldo, I'm an old man. You ought not to do things like this to me.'

He wiped at his eyes.

'Yes,' agreed Stevens, 'it's a damn dirty trick.'

Waldo looked blankly from one face to the other. 'I'm sorry,' he said humbly. 'I just wanted to surprise you.'

'It's all right. Let's go downside and have a drink. You can tell us about it then.'

'All right. Come on, Baldur.' The dog got up and followed after his master. He had a very curious gait; Waldo's trainer gadget had taught him to pace instead of trot.

Waldo stayed with Grimes for days, gaining strength, gaining new reflex patterns, building up his flabby muscles. He had no setbacks; the myasthenia was gone. All he required was conditioning.

Grimes had forgiven him at once for his unnecessarily abrupt and spectacular revelation of his cure, but Grimes had insisted that he take it easy and become fully readjusted before he undertook to venture out unescorted. It was a wise precaution. Even simple things were hazards to him. Stairs, for example. He could walk on the level, but going downstairs had to be learned. Going up was not so difficult.

Stevens showed up one day, let himself in, and found Waldo alone in the living room, listening to a stereo show. 'Hello, Mr Jones.'

'Oh - hello, Dr Stevens.' Waldo reached down hastily, fumbled for his shoes, zipped them on. 'Uncle Gus says I should wear them all the time,' he explained. 'Everybody does. But you caught me unawares.'

'Oh, that's no matter. You don't have to wear them in the house. Where's Doc?'

'Gone for the day. Don't you, really? Seems to me my nurses always wore shoes.'

'Oh yes, everybody does - but there's no law to make you.'

'Then I'll wear them. But I can't say that I like them. They feel dead,

like a pair of disconnected waldoes. But I want to learn how.'

'How to wear shoes?'

'How to act like people act. It's really quite difficult,' he said seriously.

Stevens felt a sudden insight, a welling of sympathy for this man with no background and no friends. It must be odd and strange to him. He felt an impulse to confess something which had been on his mind with respect to Waldo. 'You really are strong now, aren't you?'

Waldo grinned happily. 'Getting stronger every day. I gripped two hundred pounds this morning. And see how much fat I've worked off.'

'You're looking fit, all right. Here's a funny thing. Ever since I first met you I've wished to high heaven that you were as strong as an ordinary man.'

'You really did? Why?'

'Well . .. I think you will admit that you used some pretty poisonous language to me, one time and another. You had me riled up all the time. I wanted you to get strong so that I could just beat the hell out of you.'

Waldo had been walking up and down, getting used to his shoes. He stopped and faced Stevens. He seemed considerably startled. 'You mean you wanted to fist-fight me?'

'Exactly. You used language to me that a man ought not to use unless he is prepared to back it up with his fists. If you had not been an invalid I would have pasted you one, oh, any number of times.'

Waldo seemed to be struggling with a new concept. 'I think I see,' he said slowly. 'Well - all right.' On the last word he delivered a roundhouse swipe with plenty of power behind it. Stevens was not in the least expecting it; it happened to catch him on the button. He went down. out cold.

When he came to he found himself in a chair. Waldo was shaking him. 'Wasn't that right?' he said anxiously.

'What did you hit me with?'

'My hand. Wasn't that right? Wasn't that what you wanted?'

'Wasn't that what I-' He still had little bright lights floating in front of his eyes, but the situation began to tickle him.

'Look here - is that your idea of the proper way to start a fight?'

'Isn't it?'

Stevens tried to explain to him the etiquette of fisticuffs, contemporary American. Waldo seemed puzzled, but finally he nodded. 'I get it. You have to give the other man warning. All right - get up, and we'll do it over.'

'Easy, easy! Wait a minute. You never did give me a chance to finish what I was saying. I was sore at you, but I'm not any more. That is what I was trying to tell you. Oh, you were utterly poisonous; there is no doubt about that. But you couldn't help being.'

'I don't mean to be poisonous,' Waldo said seriously.

'I know you don't, and you're not. I rather like you now -now that you're strong.'

'Do you really?'

'Yes, I do. But don't practise any more of those punches on me.'

'I won't. But I didn't understand. But, do you know, Dr Stevens,

it's-'

'Call inc Jim.'

'Jim. It's a very hard thing to know just what people do expect.

There is so little pattern to it. Take belching; I didn't know

it was forbidden to burp when other people are around. It seems

obviously necessary to me. But Uncle Gus says not.'

Stevens tried to clear up the matter for him - not too well, as he

found that Waldo was almost totally lacking in any notion, even

theoretical, of social conduct. Not even from fiction had he

derived a concept of the intricacies of mores, as he bad read

almost no fiction. He had ceased reading stories in his early

boyhood, because he lacked the background of experience necessary

to appreciate fiction.

He was rich, powerful, and a mechanical genius, but he still needed

to go to kindergarten.

Waldo had a proposition to make. 'Jim, you've been very helpful.

You explain these things better than Uncle Gus does. I'll hire you

to teach me.'

Stevens suppressed a slight feeling of pique. 'Sorry. I've got a

job that keeps me busy.'

'Oh, that's all right. I'll pay you better than they do. You can

name your own salary. It's a deal.'

Stevens took a deep breath and sighed. 'You don't understand. I'm

an engineer and I don't hire out for personal service. You can't hire me. Oh, I'll help you all I can, but I won't take money for it.

'What's wrong with taking money?'

The question, Stevens thought, was stated wrongly. As it stood it could not be answered. He launched into a long, involved discussion of professional and business conduct. He was really not fitted for it; Waldo soon bogged down.

'I'm afraid I don't get it. But see here - could you teach me how to behave with girls ~ Uncle Gus says he doesn't dare take me out in company.

'Well, I'll try. I'll certainly try. But, Waldo, I came over to see you about some of the problems we're running into at the plant. About this theory of the two spaces that you were telling me about-'

'It's not theory; it's fact.'

'All right. What I want to know is this: When do you expect to go back to Freehold and resume research? We need some help.'

'Go back to Freehold? I haven't any idea. I don't intend to resume research.'

'You don't? But, my heavens, you haven't finished half the investigations you outlined to me.'

'You fellows can do 'em. I'll help out with suggestions, of course.'

'Well - maybe we could interest Gramps Schneider,' Stevens said doubtfully.

'I would not advise it,' Waldo answered. 'Let me show you a letter he sent me.' He left and fetched it back. 'Here.'

Stevens glanced through it. '-your generous offer of your share in the new power project I appreciate, but, truthfully, I have no interest in such things and would find the responsibility a burden. As for the news of your new strength I am happy, but not surprised. The power of the Other World is his who would claim it-'

There was more to it. It was written in a precise Spencerian hand, a trifle shaky; the rhetoric showed none of the colloquialisms with which Schneider spoke.

'Hm-m-m - I think I see what you mean.'

'I believe,' Waldo said seriously, 'that he regards our manipulations with gadgets as rather childish.'

'I suppose. Tell me, what do you intend to do with your-self?'

'Me? I don't know, exactly. But I can tell you this: I'm going to have fun. I'm going to have lots of fun. I'm just beginning to find out bow much fun it is to be a man!'

His dresser tackled the other slipper. 'To tell you just why I took up dancing would be a long story,' he continued.

'I want details.'

'Hospital calling,' someone in the dressing room said.

'Tell 'em I'll be right there, fast. Suppose you come in tomorrow afternoon?' he added to the woman reporter. 'Can you?'

'Right.'

A man was shouldering his way through the little knot around him.

Waldo caught his eye. 'Hello, Stanley. Glad to see you.'

'Hello, Waldo.' Gleason pulled some papers out from under his cape and dropped them in the dancer's lap. 'Brought these over myself as I wanted to see your act again.'

'Like it?'

'Swell!'

Waldo grinned and picked up the papers. 'Where is the dotted line?'

'Better read them first,' Gleason cautioned him.

'Oh shucks, no. If it suits you, it suits me. Can I borrow your stylus?'

A worried little man worked his way up to them. 'About that recording, Waldo-'

'We've discussed that,' Waldo said flatly. 'I only perform before audiences.'

'We've combined it with the Warm Springs benefit.'

'That's different. OK.'

'While you're about it, take a look at this layout.' It was a reduction, for a twenty-four sheet:

THE GREAT WALDO

AND HIS TROUPE

with the opening date and theatre left blank, but with a picture of Waldo, as Harlequin, poised high in the air.

'Fine, Sam, fine!' Waldo nodded happily.

'Hospital calling again!'

'I'm ready now,' Waldo answered, and stood up. His dresser draped his street cape over his lean shoulders. Waldo whistled sharply.

'Here, Baldur! Come along.' At the door he stopped an instant,

and waved. 'Goodnight, fellows!'

'Goodnight, Waldo.'

They were all such grand guys.